

An exploration of housebound patients' experiences of a service provided by a team of
community physiotherapists for people who have fallen

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Introduction

In 2015 forty percent of hospital admissions were people aged 65 and over (Age UK, 2016) and falls are the largest cause of emergency hospital admissions for older people (Age UK, 2016). Age UK reported in 2016 that falls in people over 65, accounted for 40 % of ambulance call outs, costing £115 per callout (Age UK, 2016). Thus in the context of a rapidly growing elderly population, one could suppose that in time there will be a significant increase in the number of falls, with an associated increase in costs to the NHS. It is therefore clear that 'falls and fractures are issues that cannot be ignored and not taking action is unaffordable' (NHS Confederation, 2012: 1). However there is evidence that some falls can be prevented (Gillespie et al, 2012) and it is even suggested that a falls prevention strategy could reduce the number of falls by 15-30% as well as improve the health and wellbeing of the elderly and reduce costs to health and social care services (Age UK, 2016).

Interventions for falls prevention can be single component interventions, multifactorial interventions with 2 or more components adapted to the individual, or multiple component interventions with 2 or more standard components. There is strong evidence for the effectiveness in preventing falls for some interventions, such as exercise and no evidence of effect for others, such as continence management (Gillespie et al, 2012).

Sixty percent of falls in older adults who live in the community result from the interaction of multiple fall risk factors (Campbell and Robertson, 2006). Consequently combining evidence based single interventions in order to address all the risk factors presented by an individual would appear to be a reasonable approach, however Goodwin et al (2014) suggest the evidence of combined interventions is not clear, reporting that they have been shown to reduce the rate of falls but not the number of those that fall.

The multifactorial interventions, recommended by NICE (2013), assess an individual's risk factors and tailor interventions to the individual. They combine single interventions that are aimed at eliminating or managing identified risk factors (Rose, 2008). Gillespie et al (2012) also report that the evidence shows that this type of intervention reduces the number of falls in older people living in the community but not the number of people

falling. However, despite not reducing the number of fallers these interventions still have clinical, public health, and economic relevance (Gillespie, 2012) as the actual number of falls is reduced.

Gillespie et al's (2012) systematic review of randomised control trials comparing single component interventions, multiple component interventions (with 2 or more standard components) and multifactorial interventions, showed little evidence that multiple component interventions were effective. On the other hand Goodwin et al's (2014) systematic review and meta-analysis comparing multiple component interventions with no intervention, placebo or usual care, concluded that multiple component interventions appear to be effective at reducing both the number of older people who fall and the number of falls. Goodwin et al (2014) advocate offering multicomponent interventions observing that in comparison, multifactorial interventions are resource intensive requiring an assessment of each individual, which is not necessary for multicomponent interventions. A limitation of Goodwin et al's (2014) study may be that multiple component interventions were not compared with multifactorial interventions.

Although comparing trials of multifactorial interventions is difficult as the combinations of the interventions vary, Rose (2008), considers the multifactorial approach to be the most effective for older adults who are at high risk of falls, because they present with two or more risk factors for falls and have comorbid conditions.

A randomised control trial of falls prevention programmes for people over 75 with severe visual impairment also concluded that different elderly individuals require specifically selected programmes and that for prevention of falls 'one size does not fit all' (Campbell, 2005: 4). Ageing is a heterogeneous process and the use of the generic term 'elderly' may act as a pointer, but the evidence indicates the need for assessments and treatments to be tailored to the individual (Singh and Bajorek, 2014).

The major component of the multifactorial intervention is exercise and this is the most highly researched intervention (Sherrington, 2015). Balance impairment and muscle weakness (sarcopenia) caused by physiological ageing and lack of use are the most prevalent modifiable risk factors for falls (NICE, 2013). The benefits of exercise and the consequences of inactivity are well known. Regular physical activity maintains good health and functional independence in older adulthood (Rikli and Jones, 1999). Conversely physical inactivity

doubles the risk of developing disability that will adversely affect mobility and the ability to perform even the most basic activities of daily life (Rose, 2008).

However despite the apparent relationship between impaired balance and increased likelihood of falls among elderly individuals, studies examining the effects of exercise on balance have mixed results (Schumway-Cook et al, 1997). Inconsistency in the evidence may be due to the fact that there is variation in the exercises prescribed. It can also be difficult to draw universal conclusions because exercise can address one or more components such as strength, balance, coordination and flexibility and moreover in the reported trials the frequency, intensity and duration of the exercise varies and the target group can also vary (from relatively fit elderly people to frail elderly people).

Comparing the effectiveness of different exercise interventions is further complicated, because there is inconsistency in which fall-related outcomes are monitored and reported (Rose, 2008). Reported outcomes vary and may or may not include number of people falling, fall rates (per person falls), risk of falling and fall-related injuries. The length of time over which falls are monitored and reported and post intervention follow-up periods also vary ranging from 2 months to 2 years (Rose, 2008).

Comparison of evidence is also difficult because the definition of falls varies and older peoples' concept of a fall may differ from that of researchers or health care professionals (Zecevic et al, 2006). Although it is difficult to compare different studies, Gillespie et al (2012) reported positive benefits in a systematic review of 43 trials, which tested the effect of exercise on falls. Individually prescribed exercise carried out at home reduced the rate of falls and the risk of falling, but there was no evidence to support this intervention in people with severe visual impairment or mobility problems after a stroke, Parkinson's or after a hip fracture (Gillespie et al, 2012).

Rose (2008) recognises the individuality of each person and advocates that a 'no one size fits all' exercise intervention strategy exists, and assessing the older adults' level of falls risk is the first step in deciding which intervention is best.

This study aims to understand the effectiveness of a service provided by a community physiotherapy team to elderly, housebound people who have fallen. There is very little research that has specifically focussed on housebound elderly people who have fallen and this research which targets this clearly defined group aims to address this omission. Much of the

research for falls prevention programmes is for 'community dwelling older people'. This term 'community dwelling' is used by NICE (2013) for people living in their own homes or in extended care (nursing home or supported accommodation), however this definition does not specify how mobile these people are, and their level of mobility may range from being able to independently access the community to being confined to their home.

The community physiotherapy team received referrals from various sources/ services (GPs, social workers, district nurses, hospital nurses etc.) to see people in their own homes due to the fact that they had become housebound as a result of their falls. During the first visit the community physiotherapists complete an assessment which comprises of an appraisal of balance, strength and mobility. The following visits consist of individually adapted exercises for the varying health and physical function of the patients. The aim of the exercises is that they are progressive in order to improve the fitness and functional ability of the patients.

There is no predetermined number of times for the physiotherapists to visit as it depends on the patients' needs and can vary from 1-6 visits depending on the outcome of their assessments. There is no fixed time frame but normally this is for a maximum of three months. At the time of the study there were four to five physiotherapists in the team.

Methods

A qualitative descriptive approach was chosen to evaluate the falls service provided by the community physiotherapy team to provide a rich and detailed account that would encapsulate the thoughts beliefs and feelings of the recipients of this service.

Ethics

Ethical Approval was obtained on the 25th February 2016 from the Clinical Effectiveness Department of the relevant NHS Healthcare Trust.

Participants

The participants who were invited to take part in the study were drawn from referrals sent by their GPs to the community physiotherapy team. Purposeful sampling was applied, which allows for a selection of individuals who are able to purposefully inform an

understanding of the research question (Cresswell, 2007). Each patient received a letter of invitation describing the study and what it would entail. They were also advised that participation in the study was voluntary and that they could withdraw at any time without stating a reason and without affecting potential future treatment. Six participants who were housebound agreed to take part (see table 1).

Data collection

Following signing an informed consent form the participants were interviewed for approximately 45 minutes in their own homes. They were asked to read and sign an 'informed consent form'. The principle of informed consent is 'that individuals should not be coerced, or persuaded, or induced into research 'against their will', and that participation should be based on voluntarism, and on a full understanding of the implications of participation' (Green and Thorogood, 2014: 70).

The interviews were audio recorded on a digital voice recorder (Olympus WS-110) and on the researchers' voice recorder on her computer. The recordings were then saved and password protected.

Open questions were used and where necessary they were followed up by a process of probing further by reflecting, rephrasing and summarising for understanding (see appendix A). The patients were informed that their identity would be protected and they could withdraw at any time. Transcripts of the interviews were returned to the participants for them to agree that they were an accurate representation of what took place. They were also told they could omit any words and add further thoughts if they wished to.

Data Analysis

The analysis was data driven following an inductive process, identifying the semantic, surface meaning of the data, not looking for anything beyond what the participants has said in the focus group and progressing from description to interpretation of the data (Braun and Clarke, 2006). This provides a detailed and nuanced account of the data (Braun & Clarke 2006). The process for analysing the data followed a process described in detail by Braun and Clarke (2006). Initially codes were generated across the whole transcribed data set in a systematic fashion collating data relevant to each code. These were then collated into potential themes, gathering all data relevant to each potential theme. The themes were then checked to ascertain how they worked in relation to the

coded extracts and the entire data set and an initial thematic map was produced. Ongoing analysis occurred to refine the specifics of each theme, and the overall story the analysis tells; generating clear definitions and names for each theme. This culminated in a final theme map (figure 1) which represents the data from the six interviews.

RESULTS

Four main themes emerged from the interviews and these are, the falls, the physiotherapy service, exercise and the outcome of the service. Each main theme has a number of sub-themes.

The falls

The sub-themes that contributed to the participants' understanding of their falls were:

- Understanding the cause of the falls
- The consequences of the falls
- Fear of falling

Understanding the cause of the falls

Generally the participants had an appreciation of their various health conditions and two participants recognised the connection between their health problems and their falls.

‘Well I have this arthritis in back of me neck’ (P1, p7, line 178)

‘I kicked my walking things accidentally and it just threw me into a wobble and I couldn’t catch it and it threw me back’ (P2,p1,line 6)

But other participants had no understanding of the possible connection between their underlying health conditions and their falls.

‘I have no idea, must be some medical reason why I do it, but it just happens. I’ll be doing something and suddenly over I go, but I’ve got no answers to why it happens’
(P6, p12, line 358)

Two participants referred to past and current urinary tract infections (UTIs), however they were unaware of a possible connection of this with their fall. UTIs have been identified as a possible factor for falls risk (Manian, 2015), and Blair et al (2015) found that although infections were often not considered a contributory factor to the fall, they reported that 44% of people in their study who were admitted to hospital for a fall, had a UTI.

Despite repeated falls and consequent consultations with general practitioners, hospital doctors, physiotherapists and attending falls clinics, the participants showed little understanding of underlying reasons for their falls and consequently were unaware of potential preventative behaviours.

‘No I haven’t thought about that (*to ask*) to be honest’ (P3, p17, line 467)

In summary there seems to be a recognition of circumstances immediately preceding and leading to the fall. Participants also showed an understanding of various health problems but 4 of the participants did not connect these problems with the falls. **Of possible concern** the participants didn’t feel they had been given any explanation about underlying reasons for their falls but they also did not think of asking.

Consequences of falls

The impact of the falls varied, some were unable to access the community (walking to the shops and getting to the leisure centre for exercise) or go out into garden, others struggled getting out of a chair, reaching up to a shelf or found it difficult to get to the bathroom since they had experienced a fall.

‘Well I haven’t been going out lately’ (P1, p9, line 218)

The inability to leave the home limited social interactions.

‘....coming in to see you every so often, which is a help, although they haven’t done recently....so I just have to rely on the radio or television or something like that to keep me occupied’ (P6, p6, line 165-168)

Limited ability to stand was given by 3 participants as a reason for not being able to complete daily tasks such as washing, dressing and cooking.

‘Can’t stand in kitchen and cook on me own’ (P5, p7, line 204)

The participants were limited in what they could do for themselves and reliant on others to manage daily life. They experienced a reduction in social interactions, which had an impact on their psychological wellbeing.

Fear of Falling

The level of concern about falling among the participants did not consistently match their apparent level of function. One participant who is housebound, was not really worried about falling, whereas another participant who is also housebound, was very worried about falling.

‘oh yes very much so (worried about falling) because I know what would happen if I do (fall)...’ (P6, p4, line 112) It is recognised that falls can result in loss of confidence and a loss of independence (NICE, 2013). **All participants, with the exception of one, were worried, concerned or even fearful of falling.**

‘oh yes very much so (*worried about falling*) because I know what would happen if I do (*fall*)...’ (P6, p4, line 112)

The level of concern about falling affected the participants’ level of activity.

‘I have the perfect strategy, don’t get up any more than I have to (*to*) do things’ (P2, p14, line 458)

This reflects James’ findings that fear causes safety seeking behaviours and avoidance (James, 2010). Recurrent falls increase the risk of developing a fear of falling (Hadjistavropoulos et al, 2011) and all participants had experienced 2 or more falls.

Physiotherapy Service

The sub-themes that contributed to the participants’ understanding of the physiotherapy service were:

Referral pathway

Expectations of the service

The therapists’ approach

Referral Pathway

The participants were asked if they had been aware of the referral, if they knew why they had been referred and who had referred them to the community physiotherapy service.

‘I can’t remember, all of it blurs into one, there are so many sessions of everything’ (P2, p11, line 351)

‘To be honest I can’t remember, sorry about that... there was so much going on’ (P3, p2, line 34)

Three of the participants seemed to understand that the reason for the referral was because they had had a fall.

‘because I fell down the stairs at SK’ (P2, p1, line 3)

The participants did not appear to remember if they had been involved in the decision making process or who had made the referral. They seemed to understand that the physiotherapist had visited because they had fallen over or collapsed. Most participants were involved with various services, which could have also led to some confusion.

It is recommended that older people should be given adequate information for them to be able to make informed choices about their care in order to increase autonomy (Lothian and Philp, 2001), however it seems that the participants in this study had limited understanding about the process and reasons for the referral to the service.

Expectations of the service

The participants were asked if they had any expectations of the service.

Two participants did not have any expectations and two of the participants expected exercises.

‘well basically it was to give me exercises and all that sort of thing’ (P3, p3, line 83)

Two of the participants were hopeful that the service would improve their movement and their walking.

‘I mean I’m hoping that I am going to get better with me walking and that I would really like to do, want to happen, cause I would like to visit my friend’ (P3, p7, line 197)

Although some were aware that the physiotherapist was visiting because they had fallen over, nobody mentioned that one purpose was to improve their balance.

The Therapists' Approach

Some of the participants said they had been told what to do and others said they had been involved in the decision making process.

One of the participants said he was glad that he was told what to do.

‘I was glad you come in and showed me what to do you know...cause I had no idea of what exercises was best for me’ (P5, p12, line 330)

One participant said, he felt the physiotherapists were the experts and although they were trying to involve him, he was unable to engage because he was in too much pain.

‘you have a fair amount of expertise, you’re highly trained and you know what you are doing and I don’t...’ (P2, p15, line 500)

Conversely a participant who was also experiencing pain, appreciated being involved in the decision making regarding the progression of the exercises and the amount of pain she should be experiencing.

‘what I appreciated with her, we are not doing that one, find another one which is more easy to do....’ (P4, p13, line 419)

Exercise

The sub-themes that contributed to the participants’ understanding of exercise were:

Adapting the exercises

The perceived benefit of exercise

Motivation to exercise

Adapting the exercises

It was apparent from the interviews that the exercises were adapted to the person’s ability and pain.

‘I had to do them sitting down, I don’t do anything very much standing at the moment because of the balance situation’ (P6, p2, line 54-55)

‘just sort of breaking me in gradually and then they get, you know bit more difficult later on, this is what I feel anyway’ (P3, p13, line 378)

Exercises included leg strengthening exercises and balance exercises which accords with NICE (2013) guidelines.

The participants said that the exercises had been written down and some were able to demonstrate the exercises without referring to the written exercise programme.

‘I just remember them. I don’t need to look at them’ (P5, p14, line 407)

One participant had been advised to only do the exercises when supervised.

‘they don’t advise me to have them done without somebody supervising’ (P6, p2, line 81-82)

The participants said they had been advised how frequently to do the exercises. All the participants said the number of exercises was sufficient.

‘not too many’ (P1, p11, line 268)

The amount of exercise needed to achieve optimum results is not clear. Schumway-Cook et al’s study (1997), reported that there was not a significant difference in the reduction of falls risk between the fully adherent and the partially adherent exercise group participants, this study did not define ‘partially adherent’.

The participants in this study had received between 2 and 6 visits from the therapist and 2 stated they had had telephone follow ups which they appreciated.

The timing of the visits was negotiated in all cases and adapted to the participants’ circumstances.

In summary it appeared that the participants were involved in varying degrees in the decisions about the therapy sessions and the exercise intervention. Being involved was appreciated by some but not others and some appreciated being told what to do.

The perceived benefit of the exercise

All the participants believed that exercising was beneficial and can help with movement and reduce pain. One of the participants believed that exercise had to be done regularly for it to be beneficial.

‘but they have to be done regularly to obtain the privileges that it gives you’ (P6, p12, line 334-335)

Exercise was seen to help with mental condition and confidence.

‘your mental condition as well’ (P6, p8, line 237) *and* ‘well confidence mainly, I think, be confident to keep myself upright basically, that’s it’ (P6, p9, line 245)

All participants believed that exercise is beneficial although it is not clear whether they connect exercising with reducing the risk of falls. A recognition of the benefits of exercise has been found to increase adherence to exercise (Forkan, 2006).

However the participants did not seem to have been told or have clarified what the various exercises were for.

‘well I didn’t really clarify that, I just assumed that they were to keep my mobility in hand’ (P6, p2, line 57)

Adherence to Exercise

The participants were asked if they were doing the exercise prescribed by the therapists.

Four of the participants said they were doing the exercises regularly and three of the participants said they did their exercises every day.

‘I try to do them every day’ (P4, p8, line 258)

The participant who needed supervision was only able to exercise when he was supervised, which was not every day.

Motivation to exercise

All the participants described their motivation for exercise was to be able to go out and to have social contacts in the future.

‘I don’t want to be stuck indoors all the time’ (P1, p9, line 231)

‘and then I can meet people sitting on the seat and have a nice chat’ (P4, p7, line 224)

Most of the participants said they had a positive outcome from the visits from the physiotherapist. They appreciated the support, the company and some achieved improved movement.

One participant who had been bedbound was able to walk around his flat.

‘well I think they must have strengthened them a bit, because me daughter said you’re walking more upright now, that was soon after doing them’ (P5, p13, line 368-369)

Another, who was confined to his flat on the second floor, said that he would not be able to do anything without the service.

‘oh sure, yes. Otherwise I wouldn’t get round doing anything basically’ (P6, p3, line 90)

The outcome of the service

They participants said they appreciated the support that the service offered and some achieved improved movement.

One participant who had been bedbound was able to walk in his flat and another said his walking had improved.

‘well I think they must have strengthened them a bit, because me daughter said you’re walking more upright now, that was soon after doing them’ (P5, p13, line 368-369)

Another, who was confined to his flat on the second floor, said that he would not be able to do anything without the service. He had also enjoyed the company.

‘oh sure, yes. Otherwise I wouldn’t get round doing anything basically’ (P6, p3, line 90)

One said the physiotherapists were the only people, who asked after his wellbeing.

‘no one has ever really asked me, you know, no one’s ever come round and asked are you alright...you know you were the first to be honest...they say look after old people, but not one’s ever come round, you live on your own, can you manage and all this lark, no one has ever bothered’ (P5, p9, line 238-241)

All of the participants said they could have declined the service. All said that they were very happy with the service and the exercise was appreciated.

DISCUSSION

This study aimed to evaluate a service offered by community physiotherapists for patients who had been referred to the service because they had fallen. It explored the participants' understanding of their falls, opinions of the service, their perceptions of exercise and how they saw the outcome of the service. The study also highlighted possible inadequacies of the service and areas for development.

The participants presented with two or more of the recognised risk factors for falls (NICE, 2013), including age, recurrent falls, comorbidities, polypharmacy, frailty, urinary incontinence and for one participant depression. Consequently the participants in the study are at high risk of falls.

Only one participant was aware of the interventions that had been offered other than exercise, and none of the participants reported that the physiotherapist had referred them to other services to address other risk factors. It may be important to recognise that other risk factors may have been discussed and advice may have been offered but forgotten, participants said they had a lot going on and/ or did not remember.

The participants were all positive about the exercises they were given and saw exercise as something they could do to increase their activity levels. Their willingness to engage with exercise rather than other interventions may be explained by Yardley et al (2006) who stated that exercise appears to be more readily accepted by older people, as the benefits are perceived as positive and life enhancing.

Despite recommendations for multifactorial interventions, which address a combination of risk factors with tailored interventions Campbell and Robertson (in Rose, 2008) argue that single interventions may be more acceptable and are cost-effective, because they cause less confusion and require older adults to make fewer changes in their lives. In the interviews participants said that they had hospital visits and other appointments and were showing signs of confusion about who the physiotherapists were. Therefore, the single intervention approach may be appropriate to this group of participants who readily accepted the exercise intervention and were not aware of other interventions relating to their falls.

It would seem that the exercises were well considered and in line with the evidence based recommendations for people with a high level of risk. Exercises were individually tailored to their needs and incorporated strengthening and balance exercises (Rose, 2008) and perhaps as a consequence improvements in mobility and activity were reported.

Participants were offered home exercise which is recognised as well suited for this group of people with low level functional ability, who would have found it difficult to travel to a group exercise class (Sjoesten et al, 2007). The participants appreciated this approach and it might have helped adherence.

With the exception of one, participants did not connect the exercises instructed by the physiotherapists with improving their balance or preventing further falls. Exercise was understood to help them move better or strengthen their legs. This lack of understanding of the connection between improving balance with exercise might be expected as it correlates with Yardley et al's (2008) study findings, where only 1 of the 66 participants in their study, which aimed to understand older peoples' perceptions of falls prevention advice, recognised that fall risk could be reduced by carrying out exercises to improve strength and balance. This suggests that patients might benefit from a clearer explanation of the purpose of the intervention.

With the exception of one, all the participants expressed a fear of falling, which has been recognised as a barrier for adherence to exercise (Forkan et al, 2006). **The fear of falling affected their activity levels but did not seem to affect their adherence to the exercise programmes.** Fear of falling does not seem to have been addressed by the physiotherapists despite one participant only getting out of the chair when absolutely necessary, because he was so fearful of falling.

The exercise programme only included strength and balance exercises and exercises to improve flexibility were not included which may have been a flaw. However Simek et al's (2012) study found that programmes with these characteristics promoted adherence, perhaps confirming that the characteristics of the exercise programme were appropriate for this group.

The study has highlighted that the aims for each participant were determined by the referrer rather than the service providers. The aims stated on the referrals can be to prevent falls, to reduce the number of falls, to reduce the risk of falling, to improve balance and mobility and

increase activity levels. In terms of outcome for some participants function was restored, activity levels increased and some were able to leave the house again. According to Rose et al (2008), exercise for people, with high level risk and low level functioning, like the participants in this study, aids to restore function to a level that restores autonomy in the performance of daily activities (Rose et al, 2008).

The participants did not appear to have been part of the process of making decisions about their own health needs. Healthcare seems to be 'being done' to these people (Health Foundation, 2014), which may have implications longer term in terms of their ability to manage their health problems, and consequently be more of a burden to the health service.

However despite a lack of involvement in the decision making process regarding the referral to the physiotherapy service and part of the process of the intervention, the participants did demonstrate a level of autonomy in managing their situations. They recognised the circumstances preceding the falls and developed their own strategies and coping mechanisms to increase their activity levels, as far as possible. Being able to go out and socialise was a very powerful motivator. Participants also demonstrated a level of autonomy by saying that they could have declined the service.

It does seem however that the participants had a limited understanding of the referral process, the causes of their falls, the relationship between exercise and balance or other interventions that may reduce their risk of falling, consequently they had limited expectations of the service and did not make suggestions for service improvement. On the other hand they did express satisfaction with the service and enjoyed the company of the therapists.

Relevance to Practice

The evidence from these interviews shows that there may appear to be a lack of understanding among both patients and staff of the multifactorial nature of causes of falls and the multifactorial approach to interventions to reduce the number of falls and the risk of falling. Fear of falling not only acts as a barrier a barrier for adherence to exercise but also can create a context for further falls (Forkan et al, 2006). Therefore it is important for therapists' to discuss and clarify the aims of the service with the recipients of the service. It also appears important for the therapists' to take ownership of the service as currently the aims seem to be defined by the people referring the patients for falls prevention.

In these days of incorporating the patient's perspective into the intervention and the shift towards self-management initiatives which emphasize partnership and empowerment (Jones et al 2013) it is surprising that most of the impact participants did not appear to have been part of the process of the intervention. This may be because they did not wish to be part or they have never had an invitation to enter into a collaborative relationship. Collectively this may have implications longer term in terms of their ability to manage their health problems, and consequently be more of a burden to the health service.

Additionally the service could be improved by documenting objective outcome measures for balance and falls which could be used to assess the patients' progress and monitor the effectiveness of the service from the service provider's perspective. Only one participant was aware of the interventions that had been offered other than exercise, and none of the participants reported that the physiotherapist had referred them to other services to address other risk factors.

The participants were confused about the service, who had referred them to the service and who the physiotherapists were. Making therapists aware of this and making sure that they clarify who they are to the patients, which service they are part of and what the aims of the service are may be important for a collaborative, educational approach, enabling patients to be involved in decisions about their treatment.

The author's Reflexivity

I approached the interviews with a level of confidence, as I am familiar with going into peoples' homes and asking questions. Although the participants were not 'my' patients it was challenging to differentiate between my role as a researcher openly exploring a question and my usual role as a physiotherapist, where I narrow down responses in order to obtain data useful for a diagnosis (Green and Thorogood, 2014) and treatment planning. Although the relationship within the interview setting is a partnership (Rubin and Rubin, 2012), the interviewer determines the questions and the interviewee provides the answers, which will shape the next question, it is not completely balanced. Being invited into the participants' home may have provided a level of rebalancing of the relationship, as they were 'hosting' the interview. The interviewees appeared relaxed and comfortable and the interviews may have been less

formal. The inclusion of the verbatim quotations from the participants, demonstrates rigour and reminds myself and the reader of the humanity, frailty and vulnerability of these real people.

Limitations

All that can really be hoped for is that this study will create discussion and debate and this, in itself will impact on practice. In the end, it might be that outcomes of research into practice will always produce different perspectives, but there may be a commonality in the process which will be of interest to clinicians. The aim of qualitative research is for the readers to find resonance in the interpretations (Roper and Shapira, 2000) rather than looking for representation and generalisability. This study relied on participants' self-reporting their levels of adherence to the intervention and it is recognised that self-reporting may be unreliable (Saks and Allsop, 2007).

The physiotherapy led exercise intervention was limited to six visits over a period of 2 months, which may have impacted the effectiveness of the programme for the participants. Longer duration exercise programmes are recommended for people with higher levels of falls risk (Rose, 2008), although longer duration is not clearly defined, perhaps because the length of time over which falls are monitored in studies varies significantly (Rose, 2008).

Conclusion

The physiotherapists are providing a good service regarding improving function and increasing activity levels with appropriate exercise instruction in line **with the evidence based recommendations**, and some improvement in patient outcomes was demonstrated. However care is fragmented, other risk factors were not addressed, or if they were, this was not communicated to therapists by other health care professionals who may have been involved with the patients.

A multidisciplinary falls team may improve outcomes for this client group. Established and recognised as a central point of referral for the care of people who have fallen, with specialist knowledge and understanding of the multifactorial nature of falls and appropriate interventions, the team would coordinate and monitor the assessments and interventions

needed with the relevant professionals and services. People who have fallen should also be able to refer or re-refer themselves, which may enhance collaboration between service users and service providers with the potential to increase autonomy, possibly resulting in better clinical outcomes and reduced pressure on emergency services (Health Foundation, 2014).

REFERENCES

- Age UK (2016) Later Life in the United Kingdom, available at:
https://www.ageuk.org.uk/Documents/EN-GB/.../Later_Life_UK_factsheet.pdf?dtrk...
 [accessed 26/10/16]
- Blair, A. and Manian F.A. (2015) 'Coexisting Systemic Infections (CSIs) in Patients Presenting With a Fall: Tripped by Objects or Pathogens?', *Oxford Journals*, vol 2(1) Oxford University Press.
- Braun, V. and Clarke, V. (2006) 'Using thematic analysis in psychology', *Qualitative Research in Psychology*, vol 3 (2), pp 77-101
- Campbell, A.J., Robertson M.C. (2006) 'Implementation of multifactorial interventions for fall and fracture prevention', *Age Ageing*, vol 35, pp60-64
- Campbell, J.A., Robertson, M.C., La Grow, S.J., Kerse, N.M., Sanderson, G.F., Jacombs, R.J., Sharp, D.M., Hale, L.A. (2005) 'Randomised controlled trial of prevention of falls in people aged >75 with severe visual impairment: the VIP trial', *BMJ*, 331 (7520), pp 1-8
- Cresswell, J. (2013) *Qualitative Enquiry and Research Design*, 3rd edition, London: SAGE publications Ltd.
- Forkan, R., Pumper, B., Smyth, N., Wirkkala, H., Ciol, M.A., Shumway-Cook, A. (2006) 'Exercise adherence following physical therapy Intervention in Older Adults With Impaired Balance', *Physical Therapy*, vol 86, pp 401-410.
- 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 Syst Rev*, 9(11).
- Goodwin, V.A., Abbott, R.A., Whear, R., Bethel, A., Ukoumunne, O.C., Thompson-Coon, J., Stein, K. (2014) 'Multicomponent Interventions for preventing falls and fall- related injuries among older people: a systematic review and meta-analysis', *BMJ Geriatrics*, vol 14 (15), pp 1-8

Green, J. and Thorogood, N. (2014) *Qualitative Methods for Health Research*, 3rd edition, London: SAGE publications Ltd.

Hadjistavropoulos, T., Delbaere, K., Dever, T. (2011) 'Reconceptualising the Role of Fear of Falling and Balance Confidence in Fall Risk', *Journal of Ageing and Health*, February, vol 23 (1), pp 3-23

Health Foundation (2014) *Person Centred Care made simple*, available online: www.health.org.uk/sites/health/files/PersonCentredCareMadeSimple.pdf, [accessed 1/11/2016]

James, I (2010) *Cognitive Behavioural Therapy with Older People*, London: Jessica Kingsley Publishers.

Jones, F., Livingstone, E., & Hawkes, L. (2013). 'Getting the Balance between Encouragement and Taking Over'—Reflections on Using a New Stroke Self-Management Programme. *Physiotherapy Research International*, 18(2), 91-99.

Manian, F.A. (2015) *Subtle infections may cause falls in elderly*, available at: <https://medicalresearch.com/infections/subtle-infections-may-cause-falls-in-elderly/18321/>, [accessed 20/11/2016]

NHS Confederation (2012) *Falls Prevention: New approaches to falls prevention services*, available at: www.nhsconfed.org/.../2012/.../falls-prevention-new-approaches-to-integrated-falls-p..., [Accessed: 26/10/16]

National Institute for Clinical Excellence (NICE) (2013) *Falls in older people: assessing risk and prevention*, available at: <https://www.nice.org.uk/guidance/cg161/chapter/1-recommendations>, [accessed 07/10/16]

Rikli, R.E. and Jones, C.J. (1999) 'Functional fitness normative scores for community-residing adults, ages 60-94', *Journal of Aging and Physical Activity*, vol 6, pp 160-79

Roper, J. M., & Shapira, J. (2000). *Ethnography in nursing research* (Vol. 1). Sage.

Rose, D.J. (2008) 'Preventing falls among older adults: No 'one size suits all' intervention strategy', *Journal of Rehabilitation Research & Development*, vol. 45 (8), pp1153-1166

Rubin, H.J. and Rubin, I.S. (2012) *Qualitative Interviewing*, 3rd edition, London: SAGE publications

Saks, M., & Allsop, J. (2007). *Researching health. Qualitative, Quantitative and Mixed Methods*.

Schumway-Cook, A., Gruber, W., Baldwin, M., Liao, Shiquan (1997) 'The effect of Multidimensional Exercises on Balance, Mobility, and Fall Risk in Community-Dwelling Older Adults', *Physical Therapy*, vol 77, pp 46-57

Sherrington, C. and Tiedemann, A. (2015) 'Physiotherapy in the prevention of falls in older people', *Journal of Physiotherapy*, vol 61, pp 54-60

Simek, E., McPhate, L., Haines, T.P. (2012) 'Adherence to and efficacy of home exercise programs to prevent falls: A systematic review and meta-analysis of the impact of exercise program characteristics', *Preventative Medicine*, vol 55 (4), pp 262-275

Singh, S. and Bajorek. B. (2014) 'Defining 'elderly' in clinical practice guidelines for pharmacotherapy', *Pharmacy Practice*, v 12(4), pp 489-498

Sjoesten, N.M., Salonoja, M., Piirtola, M., Vahlberg, T.J., Isoaho, R., Hyttine, H.K., Aarnio, P.T., Kivela, S-L. (2007) 'A multifactorial fall prevention programme in the community-dwelling aged: predictors of adherence', *European Journal of Public Health*, vol 17 (5), pp 464-470

Yardley, L., Donovan-Hall, M., Francis, K., Todd, C. (2006) 'Older peoples' views of advice about falls prevention: a qualitative study', *Health Education Research*, vol 21 (4), pp 508-517

Zecevic, A.A., Salmoni, A.W., Speechley, M., Vandervoort, A.A. (2006) 'Defining a fall and reasons for falling: comparisons among the views of seniors, health care providers, and the research literature', *Gerontologist*, vol 46 (3), pp 367-76

Appendix A-Semi-structured Guide for the interviews

- **How did you come to be part of the service?**
- **I wonder if you were aware of the referral and if so were you told what the referral was for and possibly how long you would have to wait until someone came to see you?**
- **What were your thoughts and feelings about having a referral ?**
- **How much say did you have about the timing of the visit ?**
- **Could you tell me your expectations of the service/ therapist?**
- **In your opinion were your expectations met ?**
- **I wonder if you could tell me exactly what you and your therapist did during the visit –for example did you have any exercise , advice about footwear, nutrition, eyesight, medication and possible equipment that could be supplied?**
- **Is there anything that you would have liked that was not given?**
- **Could you tell me if the visits have been helpful and if so are you able to say how?**
- **I wonder if you feel that there have been any problems with the visits?**

- **Had you not wanted the therapist to visit could you have said so? Do you feel you could have said 'no' after the first visit?**
- **I would be very interested if you could you think of a way that the service could be improved?**
- **I wonder if we could talk about the exercises and you could tell me if they were easy to do?**
- **Did you feel that you understood what the exercises were for? Were they written down? How often did you do them?**
- **Were there any times that you could not do the exercises and if so are you able to tell me why?**
- **In your opinion did the exercises help? (possible prompt -stronger, more mobile/doing more, better balance, less fear of falling)**
- **Do you believe that exercise can help improve your balance?**
- **Can you think of a way the giving of exercises could be improved? (writing down, support, understanding, ease of doing them, fitting in with everyday living, go to a group)**
- **Are you able to tell me if the therapist taught you other things to improve your balance?**
- **Have you exercised before? Are there things you do to reduce the risk of falling?**
- **Are you able to say why you fell over ?**
- **Do you believe there are things you can do to improve your health?**
- **Do you have any other suggestions to improve the service?**

Table 1. Characteristics of Participants

Participant	P1	P2	P3	P4	P5	P6
Date of referral	30.03.16	23.05.16	26.01.16	16.2.16	23.03.16	23.12.15
Gender	Male	Male	Female	Female	Male	Male
Age (years)	88	74	84	90	89	89
Ethnicity	White British	White British	White British	White European	White British	White British
Accommodation	Ground floor flat	2 storey house but living downstairs	2 nd floor flat, no lift	2 storey house	2 storey house	3 rd floor flat no lift
Cohabitants	Alone	With wife and sister In-law	Alone	With son and son's wife	Alone	Alone
Referrer	GP	Hospital PT	Falls Clinic	Hospital PT	Hospital PT	Nurse
Diagnoses	Arthritis, UTI, chest infection, hip replacement, OA, high BP	Stroke, heart attack, chronic back pain, arthritic shoulder & hip low BP, diabetes	Spinal stenosis, OA, UTIs, diabetes	Meningioma resulting in epilepsy, arthritis in shoulder, asthma	Heart problems, pacemaker, TIA, macular degeneration	Frailty
Reason referred	Reduced mobility	Falls	Falls	Reduced balance and mobility, risk of falls.	Collapse	Fall
No of falls	2	At least 3	5	Many	Many	Many
History of UTI	UTI	Unknown	UTI in the past	Unknown	Unknown	Unknown
No of visits	3 (to date)	2 (to date)	3-4 (final)	4 (final)	5 (final)	6 (final)
Attended falls clinic	Unknown	Yes	Yes	Unknown	Unknown	Yes
Aim of referrer	To regain previous mobility and reduce risk of chest infection	To be able to mobilise with walking stick, to increase confidence in maintaining balance	To target balance	Physiotherapy at home to improve mobility and balance aiming to reduce risk of falls	To reduce risk of falls in future	To improve mobility
Outcome Of service	Able to walk better, still not going out	No change	Able to go out to café and shops again	No change	Going out	No change
Key						
UTI : urinary tract infection OA: osteoarthritis BP: blood pressure TIA: transient ischaemic attack PT: physiotherapist GP: General Practitioner						

Figure 1 Final Theme Map

