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Getting help quickly: Older people and community worker perspectives of contingency planning for falls management

Abstract:

Purpose: Older people living in the community need to plan for getting help quickly should they fall. In this paper planning for falls is referred to as contingency planning and is not a falls prevention strategy but rather a falls management strategy. This research explored the perspectives of older people and community workers about contingency planning for a fall.

Method: Using a qualitative descriptive approach, participants were recruited through a community agency that supports older people. In-depth interviews were conducted with seven older people (67-89 years of age) and a focus group was held with seven workers of mixed disciplines from the same agency. Older people who hadn't fallen were included but were assumed to be at risk of falls because they were in receipt of services. Thematic analysis and concept mapping combined the data from the two participant groups.

Results: Four themes including preconceptions about planning ahead for falling, a fall changes perception, giving and receiving advice about contingency plans and what to do about falling.

Conclusion: Both community workers and older people agree contingency planning requires understanding of individual identity and circumstances. Community workers have limited knowledge about contingency planning and may be directive, informative or conservative.

Key words: aging, choice and control, contingency planning, falls, health, preferences

Introduction

There is a plethora of information and evidence about how to prevent older people from falling, which is appropriate and necessary to avoid falls and the associated problems. However, falls still occur and older people living in the community need a plan for how to quickly get help should they fall. Planning for how to get help following a fall is referred to in this paper as contingency planning. Contingency planning is not a falls prevention strategy but rather a falls management strategy. One reason that falls are dire for people over 65 is because they may result in a long lie on the floor which is defined as more than one hour [1, 2]. A long lie following a fall is associated with fear of another fall and reduced community mobility and quality of life [2, 3].

Contingency planning for falls is largely neglected in the literature and is an issue that is particularly pertinent for older people who live alone in the community. The authors were unable to locate any guidelines for use by community workers for conducting falls contingency planning when delivering health services. Options presented in Australian best practice guidelines for getting help quickly after a fall were limited to response systems and accessing sitter programs but the guidelines acknowledged that these interventions are expensive and lack evidence for their efficacy [4].

There are two response systems for contingency planning that have some research underpinning their use, including personal emergency response systems (PERS) [5, 6] and automatic fall detectors (AFD) [7]. AFDs instigate immediate assistance when the wearer shows signs of a position close to the ground [7, 8]. Monitored PERS are activated by pressing a pendant or wrist band that calls an emergency response centre via the telephone line. The non-monitored PERS call through to pre-programmed contacts in the users' phone.

Research about older people's perspectives on response systems found that they were accepting of wearing AFDs because they didn't need to press anything in an emergency [3, 9]. But AFDs can also trigger heightened fear about falling [3] and older people worried about their cost, appearance, maintenance and were dubious about the accuracy of the system [9]. Some older people did not see the need for a PERS and worried they would accidently activate [5, 6]. According to an epidemiological analysis, only 10.8% of PERS wearers activated it to call for help when they fell [10]. Reasons for non-use of a PERS included not knowing how to operate it, not wanting to bother anyone and not being sure that they needed help [5, 11].

Based on the limited research available about older peoples perspectives about falls management, it appears that they prefer to have choice and control over what they do for contingency planning [12, 13]. Older people are influenced by the advice of community workers but consciousness raising techniques, such as telling stories about other people who have fallen, have little influence over their decisions [14]. Despite their influence, there is also evidence that community workers don't know enough about contingency planning options for older people in the community [3, 15]. In their literature review, Ward et al. [16] proposed the need for more evidence about the utility and efficacy of response systems and falls management practices.

The purpose of this research was to inform practice about falls management by gaining greater understanding of the perspectives of older people who live in the community and community workers about contingency planning for getting help quickly following a fall. Combining the perspectives of both older people and community workers provides opportunity to compare and contrast their views. Therefore, this research was driven by the

research question: What are the perspectives of the community dwelling older people and community workers in relation to contingency planning for a fall?

Methods

Study Design

A qualitative descriptive approach offers a summary of an event or experience in everyday terms. This approach assists in uncovering insights and keeps interpretation of findings close to the data [17].

Recruitment

This research was conducted with the support of an agency that provides services to older people living in the community in urban Adelaide, Australia. This research had two participant groups; older people living in the community and community workers (CWs). The process of recruitment for both participant groups is outlined in Figure 1. A regional team leader at the community agency acted as the point of contact for the research team. The team leader distributed information to staff within the region. Staff then identified older people who met the criteria. An administrator who did not know the older people sent invitations to them by mail. The number of letters that were sent was capped at 20, with an anticipated response rate of 50%. Included with the invitation was a stamped envelope for returning the consent forms directly to the researchers. Recruitment of CWs also occurred through a regional team leader who emailed eligible staff about the research and asked them to contact the researchers if they were interested. Interested participants were contacted when consent forms were received.

Insert Figure 1 here

Sampling

Older people were defined as those over 65 years because they have been shown to be at increased risk of falls compared to younger people [18]. Purposive criterion sampling [19] was used to identify participants with the inclusion criteria of;

- living in the community,
- having no communication or cognitive impairment,
- having English as their first language,
- being able to offer an opinion,
- not being acutely unwell, and
- not known to be aggressive.

Because the research was about planning ahead for the event of a fall, older people did not need to have fallen previously. Gathering opinions from older people with variable experience of falls contributes to the richness and diversity of data. Furthermore, it was assumed that participants were at risk of falling because they were recipients of services from a community agency due to health issues and disability. Purposive maximum variation sampling [19] was used to identify CWs with a range of disciplines that could contribute to diversity and richness of the data.

Data Collection

Semi-structured interviews were conducted by first author (KC) with the older people in their homes. An interview guide (Table 1) ensured all topics were discussed and maintained consistency between interviews. The interview guide was piloted with an older person who was living in the community and was known to the researchers. Questions were open ended to allow for freedom of expression and elaboration [20]. Demographic data that were collected included age, gender, living situation, history of falls and primary medical conditions. The interviews were recorded and transcribed verbatim.

A focus group was held by KC with the CWs in a meeting room using a flexible guide (see Table 1). A focus group was chosen for data collection to stimulate sharing of stories through listening to other experiences [20]. Demographic data included the profession of the CWs and the number of years they had been practising.

Insert Table 1 here

Data Analysis

Consistent with a qualitative descriptive approach, thematic analysis was used to identify, analyse and report themes [20]. The authors used an adapted version of the six phases of thematic analysis developed by Braun and Clarke [21]. Analysis began with transcribing the interviews and focus group. Initial coding of one transcript was completed by two authors independently (KC and CM). Comparisons between initial codes were then discussed to arrive at a consensus and to guide coding for subsequent transcripts. The themes from CWs and older people were integrated through concept mapping [22]. Concept mapping involved visualising initial themes of community workers and older people and making connections to organise and form new themes. This process is explained in Figure 2. The concept mapping of themes gave opportunity for rich data with varying viewpoints and resulted in development of four themes which enabled a combined understanding of perspectives. Following data analysis, a letter was sent to participants summarising the findings. This was followed up with a phone call to give opportunity to validate the findings with participants and for them to provide any further information [19].

Insert Figure 2 here

Rigour

Having two participant groups assists to triangulate and enhance richness and utility of the data. During the focus group, the need for respecting other people's opinions and confidentiality was emphasised [20]. A journal to document prior assumptions held by the

researchers was used to enhance reflexivity [23]. None of the older people were known to the researchers. Rigour during data analysis occurred by having regular debriefs amongst authors, having two data analysts and keeping an audit trail of decisions [23]. Member checking with the older people and use of quotes in reporting of the findings provided support for the themes [24]. Prior to study commencement, ethics approval was obtained from both the HREC of the community agency supporting the project and the HREC of the university.

Results

Research participants

Seven older people and seven community workers participated. Interviews lasted an average of 48 minutes and the focus group lasted 63 minutes. The age range for the older people was 67 to 89 years (mean 76.4 years SD 7.95) and consisted of two male and five females. Four participants lived alone and three lived with a spouse. Five participants owned a PERS and one lived with a spouse who owned a PERS. All older people had one or more chronic conditions, six had previously had multiple falls and one had not previously fallen. The older people were assigned a pseudonym which is used in reporting the findings. The details of the older people are provided in Table 2. CWs years of experience ranged from .5 years to 22 years (mean 7.92 SD 7.51). Of the seven CW participants there were three occupational therapists and one of each of physiotherapist, social worker, podiatrist and support carer. To avoid their identification, quotes from CWs are identified in the findings using a generic label.

Insert Table 2 here

Themes

Four themes were developed which include the combined perspectives of older people and CWs

Theme 1: Preconceptions about planning ahead for falling. CWs believed that older people should have a planned response for a fall and that planning should occur in collaboration with them. However, two older people did not want to think about falling or planning a response for a fall with Eadie stating that "*it frightens the hell out of me.*" The other five older people agreed that planning for a fall was a good idea, including Alex, who had not previously had a fall.

Both older people and CWs believed that decisions about contingency planning for falls should be made according to individuals, and that falls in different circumstances may require different responses. The older people explained that they would make a judgement at the time of the fall about whether they would try and get help. Two older people hypothesised that they would know if they had broken any bones and if they hadn't, they would attempt to get up independently. Danny gave some rationale for attempting to self-manage falls.

> *"I would try and get up myself first. Yes because I am bloody independent and stubborn. I have spent so many years looking after someone else…..so I tend to think I looked after all these people, I can look after myself. I don't need any help"* (Danny)

Conversely, if older people had a fall resulting in severe injury, they would either use their PERS to call an ambulance, get to a phone to call someone, or hope that someone visited or phoned to check on them.

> *"If it was a bad fall I would press my alarm straight away and if it wasn't such a bad fall, I would see how I went. If I was on the floor and couldn't get up I would definitely use my call bell."* (Alex)

Eadie lived in a retirement village where all residents were provided with a PERS, but she knew people who did not wear it because they were embarrassed or didn't think they needed it.

> *"I suppose it is you know, some people are ohh I can't be seen with it …or I don't want to be seen dead push one of them. You know, Pride or whatever you call it."* (Eadie)

Cameron also believed that his pride was a barrier for making contingency plans. He did not like using items (such as his four wheeled walker) which he believed would stigmatise him as someone who needs help. CWs agreed that many older people were embarrassed by wearing a PERS and would attempt to hide it or not wear it. They suggested that older people felt that PERS were associated with getting old, which impacted negatively upon their self-identity.

> *"Some people get embarrassed by it. They put them in their walker so that people can't see it or hide it under clothing."* (CW)

Some older people were concerned about bothering family or the ambulance service and worried about being a burden. Georgia explained that she was embarrassed to call her family if she fell. Similarly, CWs had observed that family of older people did not always want to be contacted or were unavailable. Four older people were reluctant to include family in contingency planning because they did not live close enough, were working full time, were looking after children or were unlikely to respond.

> *"My son and daughter work full time so it would be no good calling them and I have a grand daughter who works only part time but she has the children and lives about 30 minutes away so it would be no good calling her either."* (Frieda)

Betty and Eadie stated they would not call the ambulance and preferred to call family or a friend. Georgia was afraid calling the ambulance would result in her admittance to hospital because that was what had happened previously.

> *"They didn't want me to go home once I was there. They wanted me to go to a home you know to recover for a couple of months. But I didn't want to. I am worried that if I go again they will keep me."* (Georgia)

> *"I dragged the telephone off the hook and rang my girlfriend, she came over. I don't know why I called her, I guess to see if we could figure how to get me up without getting the ambulance involved."* (Eadie)

CWs stated that many older people did not use their PERS because they worried about going to hospital and paying for an ambulance. Whilst CWs seemed to have empathy for the different circumstances and responses to falling, some older people did not want to inform CWs about their falls. CWs represented a health service and older people had preconceptions that CWs may question their ability to cope at home which made them feel vulnerable. Betty feared that frequent falls from her or her husband may be used as leverage to seek supported accommodation. As a result she chose to try and manage falls amongst family members, rather than involving the ambulance or CWs.

> *"It doesn't look good having so many falls. Because the doctor has said to me before do you think that [husband] needs to go into a nursing home and I just think if they don't know…"* (Betty)

Theme 2: A fall changes perceptions about falling. CWs believed that older people who had not experienced a fall, had difficulties understanding how serious they were. CWs were concerned about the significant affect that falls can have on quality of life for older

people including generating fear of falling again which results in the older people restricting their home activities and community mobility.

> *"I have a client who refuses to go out on her own and is frightened to get up and do much around the home because of a past fall; it really traumatised her being on the floor for 2 days"*. (CW)

According to CWs, people who had experienced a fall were more open to discussing contingency plans and were more likely to enact them because they had some understanding of the consequences of falls. They had observed older people who had never fallen deliberating between the risks of falling with the difficulties and effort involved in setting up a contingency plan which would often result in no plan. In contrast to this opinion, Alex who had not fallen was open to contingency planning and had a PERS.

Besides Alex, the other six participants had all previously fallen, with three experiencing falls often. Those older people who had fallen described a range of physical consequences including pain and bruising, headaches, abrasions, breakage of limbs and development of borderline hypothermia. Social consequences also included embarrassment and loss of pride. Two older people had spent considerable time in hospital, and had to accept help when they were discharged. Awareness of the consequences of falling led Cameron to join a local exercise group for improving balance. He also intended to join a hydrotherapy group. Other older people used equipment and had rails installed to increase their safety.

> *"I am going to a class held at the rehabilitation centre …and it is for a falls and balance…..I enjoy going I really do. I also go along to …the pool and I enjoy that. There is always a physiotherapist in attendance and she normally comes in the pool as well and they are very good."* (Cameron).

Theme 3: Giving and receiving advice about contingency plans. CWs debated whether education about the implications of falls was successful in changing the attitudes of older people about contingency planning. CWs found that the process of older people contemplating their risk of falling and realising the need for a contingency plan was often difficult and required them to have time and patience. To heighten arousal about contingency planning and encourage contemplation about falls risk some CWs told stories about people being on the floor overnight and getting cold.

> *"I think it scares people when they think about being on the floor overnight frozen, and helpless. That is a story I tell people… They do get freaked out by it, if you sort of give them an example of what can happen then they sometimes think oh yeah and they maybe contemplate options a bit more."* (CW).

Difficulties making decisions about contingency plans were compounded by CWs and older people lacking awareness of different options. Three of the six older people who subscribed to PERS had initiated the purchase based on recommendations and advice from CWs. Provision of information about contingency planning was helpful but there was conflicting opinion about the best approach. Betty preferred that CWs told her what they believed was best for her (being directive), whereas Frieda and Cameron wanted CWs to give them all the options (being informative) and then they would make an informed decision. Alex believed he was denied opportunity to make an informed choice because a CW was directive in recommending a non-monitored PERS for him to purchase, only to later find another system that he preferred which could be activated in the community.

> *"I had a lady who came and talked to me about the pendant so they had all sort of gotten their heads together … and when the pendant people came I assumed that they*

were working for her or something like that but anyway I went with them. There are probably better people around." (Alex).

Only one CW in the focus group was confident to give advice about the most appropriate PERS with other CWs conceding that they did not feel they had the expertise or knowledge to appropriately give advice. The majority of CWs recognised the need for more knowledge of PERS and to have a structured and consistent approach to contingency planning for falls. The need for an individualised approach to contingency planning was highlighted by Eadie who discussed her experience of not being heard by a directive CW visiting her from a falls clinic.

"She said this, that and the other, and off she went. So you know what use is that?" (Eadie)

It was evident that family and friends played a role in influencing decisions about contingency planning. Three older people who subscribed to PERS said that family or friends had influenced their decision to purchase a non-monitored system. Two of these older people had appropriate people who could be on the list for the PERS to contact, making this a good option for them. However, Betty didn't have five appropriate people who could be contacted if she fell and so direct contact with the ambulance was her preference. CWs found that sometimes family would buy a PERS without consulting their relative, meaning it may not be appropriate. Frieda's family had organised an application form, and she proceeded with getting the PERS, but she rarely wore it because she preferred alerting her husband, having monitoring from people in the village and using her mobile and cordless phones. Talking through and listening to advice from other older people who had experience with different contingency plans was also valuable.

Theme 4: What to do about falling. Older people contemplated what they would do in the event of a fall but did not appear to have a definitive plan in place. One older person and all CWs recommended avoiding falls all-together through concentrating on home safety. Having a contingency plan seemed to be particularly relevant for vulnerable older people who lived on their own with limited family support.

> "*When my wife was living, you didn't have to worry so much about having a plan because you would rely on one another. But now that I am living on my own and I am getting older, well that is a different story."* (Alex).

Four of the six older people who had a PERS said that they would strongly recommend this as part of a contingency plan to keep connected to others. Three older people maintained links with family and friends so there were always people to check on them. For those without family close-by, Georgia recommended linking into community agencies and setting up regular phoning or visiting schedules with neighbours and Alex suggested meals on wheels as this provided him a daily check. CWs agreed that involving neighbours, including putting the blind up every day to signal they were okay, was often a very successful contingency plan.

Being opportunistic, resourceful and practical, including using household objects or mobility aids to help get off the floor was a contingency strategy for some older people. For example, Betty found opportunistic help such as calling to a passer-by or using objects nearby to push up on.

> *"There was nobody home and I kept calling out for help and the lawn mower man down the road heard me and came"*. (Betty)

Some older people wanted a contingency plan to use in the community as well as home, such as mobile phones. Some found a PERS impractical, such as; when in bed (due to cord around the neck being a choking hazard), when in the shower (due to water) and when doing household activities (due to accidently activating it). Older people were startled by accidental activations and did not seem aware of the option to have a wrist band. CWs found that because cost was an inhibiting factor in PERS use, they would often explore less costly options. Betty found the ongoing monitoring fees for her PERS was too much and she had therefore opted for the non-monitored device, which only required one upfront payment. Additionally, Georgia a non-PERS user explained that she would definitely get a PERS if she did not have to pay for it.

Functional limitations often made plans difficult to implement. Two older people had learned to safely get up from the floor; however others had difficulty due to a "*bad knee*" an "*artificial knee"* or because of having "*both hips done*." Some CWs preferred not to teach people to get up off the floor due to the high prevalence of previous knee or hip surgeries and the possibility of not having the cognitive capacity to learn. Although alarms and phones with large keys or SOS type emergency buttons were available to counteract low vision, not all CWs were aware them.

Both CWs and older people were concerned about the need to learn use of technology as part of a contingency plan. Older people agreed that difficulties with operating technology could be overcome and less daunting through trying the technology before they obtained it and through completing practise sessions. Betty said she learned about the signal range for PERS from a demonstration. However, CWs noticed that older people often didn't get opportunity to practise using technology.

> *"I had a client who one of the barriers was not actually knowing how to use the phone because his daughter did not spend the time with him showing him how to use it"*. (CW)

CWs stressed the need to remain unbiased, making it difficult to recommend a specific product. CWs would therefore refer older people to visit an impartial centre to try different options.

> *"I will often tell people to go to the … because they tend to have new products on display there and people are actually able to …see what products they like and if they are user friendly"*. (CW)

Some CWs provided handouts of information and then left the older people to investigate these further (being informative). However, they admitted that brochures with lots of information could be overwhelming and they needed some explanation. CWs workers discussed their responsibility to avert risk which sometimes made their approach conservative.

> *" I don't know if we are putting people at risk if we are telling them to pull up on something because we don't know if the item is going to actually fall on top of them"*. (CW)

Discussion

More information has been gathered about older people and CWs perspectives of contingency planning for falls through presentation of the four themes of preconceptions about planning ahead for falling, a fall changes perception, giving and receiving advice about contingency plans and what to do about falling. This research has highlighted how older people can be embarrassed about wearing visible falls detection technology, that CWs lack knowledge

about contingency planning options, that older people like to have choice and control about their contingency planning options and that CWs might use a directive, an informative or a conservative approach to giving contingency planning advice.

This research found that some falls management strategies (such as wearing PERS) affect the identity of older people meaning that they don't use contingency planning options even when they are available to them. This finding was also present in other studies conducted in the United Kingdom [25] and in the United States [26] which suggests that consideration of the identity of older people in negotiating contingency planning occurs in different countries and is important for successful outcomes. Older people also contemplate what to do about falling for some time before deciding about a contingency plan [27], they may be deterred by cost [28], they may worry about being admitted to hospital [25] and they may fear that contingency planning decisions will undermine independence [6, 29, 30].

This research uncovered that even though older people want to continue living at home, they worry about having pressure placed on them to move into supported care. These concerns mean they may not disclose that they have fallen to CWs or the ambulance. The CWs in this research were aware of these concerns and suggested acknowledging and discussing them collaboratively with older people. Giving older people choice and control when supporting them with contingency planning for a fall will keep them engaged in decision-making and empowered [31]. Based on these findings, a person centred approach, which involves collaborative conversations and joint decision making, may be a successful approach and this is recommended by the falls prevention guidelines in the United Kingdom [32]. A person centred approach involves being responsive to individual preferences and respectful of needs and values [33]. In recent years, the person centred approach has become

recognised as a contributor to quality healthcare, as it regards health care consumers as active participants in decision making [34].

Implications for practice

The findings suggest there is scope for improvement in how CWs approach contingency planning for falls with older people. In particular, this research has found that whilst CWs have empathy for the circumstances of older people, they may not be aware of the extent to which their fears and worries influence their decision making. It is recommended that the CWs have opportunity to strengthen knowledge about options for contingency planning. Opinions from older people were mixed about whether they preferred a directive or an informative approach from CWs when discussing contingency planning options. It is recommend that CW discuss these preferences with the older people they are working with and collaboratively decide the approach to use. In addition CWs need to consider whether their concerns about risk are limiting the options for contingency planning provided to older people.

Given that some older people are not aware of their risk of falling, it is suggested that a falls risk assessment be completed to raise self-awareness and heighten their engagement in the contingency planning process [26, 27]. It is also recommended that CWs have a good understanding of the physical, cognitive and affective abilities of the older people they are supporting [26, 35]. This includes eye sight, sensation, orthopaedic history and learning capacity. An appreciation of the older person's support network, set up of the home, financial situation [36], daily activities and the person-environment fit [37] are also necessary. After a comprehensive assessment, CWs can then discuss their findings and validate any concerns older people have. Focusing on rapport-building may enable CWs to provide individualised and acceptable advice to older people that aligns with their values and beliefs [31].

CWs may be required to support older people to change their attitudes about contingency planning. Theories for promoting change in attitudes and behaviours of people for their health are well documented in the literature [38]. One approach that has been applied to attitudes about falls is the transtheoretical model of change [14, 27, 39]. A more recent technique for promoting attitudinal change is that of motivational interviewing which involves understanding of people's values, motivations and concerns and empowering people to be able to make positive changes [40]. It is recommended that CWs have education and training about these or similar approaches, because this may assist them when discussing contingency plans for a fall. Once a contingency plan has been decided, older people need support to become familiar and confident with the plan and implement it. Review is required to check the plan is accepted and successful.

Limitations and recommendations for future research

There was an existing relationship between some of the CWs and the first author (KC) which could be regarded as a limitation because this may have led to some participants feeling reluctant to provide their opinions in the focus group. The data gathered from the CWs was limited to one focus group from one community agency. It is recommended that future research gather data more widely and from different community service providers. It also recommended that future research include the perspectives of people who are not fluent in English and have a cognitive impairment. It is possible that any changes in practice could be evaluated through action research that involves the consumers of the service.

Conclusion

This research has enhanced understanding of the perspectives of CWs and older people about contingency planning for a fall. Data analysis resulted in four themes to represent their perspectives and how they influence decisions made by older people about contingency plans. To make contingency planning more person centred, it is recommended that CWs

increase their knowledge of contingency planning options, consider the preferences of older people, their identity and their values thus affording them choice and control in their decision making. It is also recommended that CWs be aware of whether they are approaching practice in an informed, a directive or a conservative manner and decide which approach is most appropriate for the older people they are working with.

Conflict of Interest

The authors report no conflict of interest

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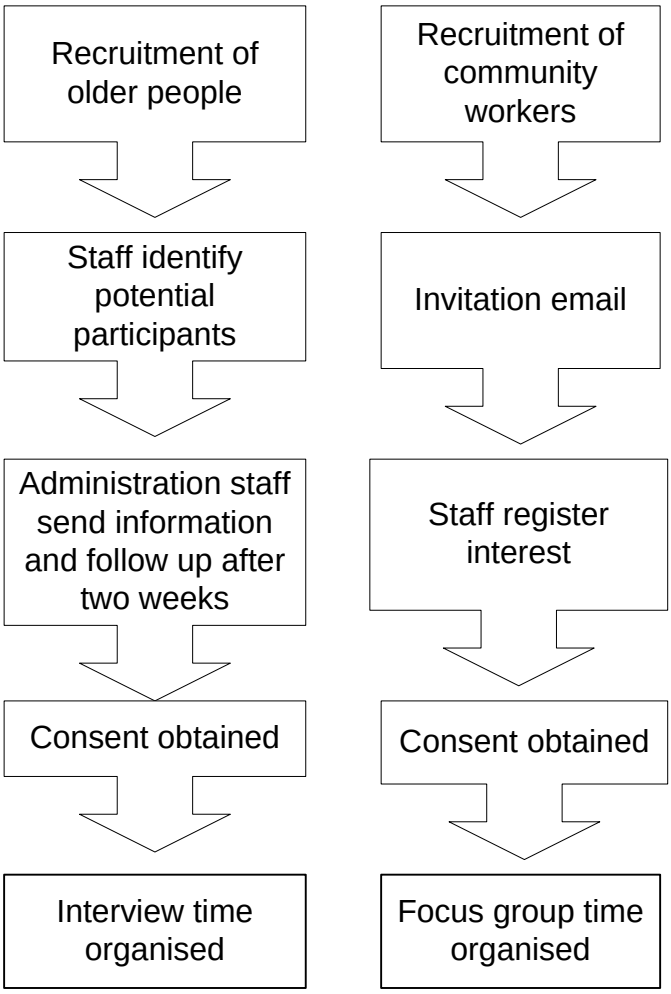


Figure 1. Recruitment Process.

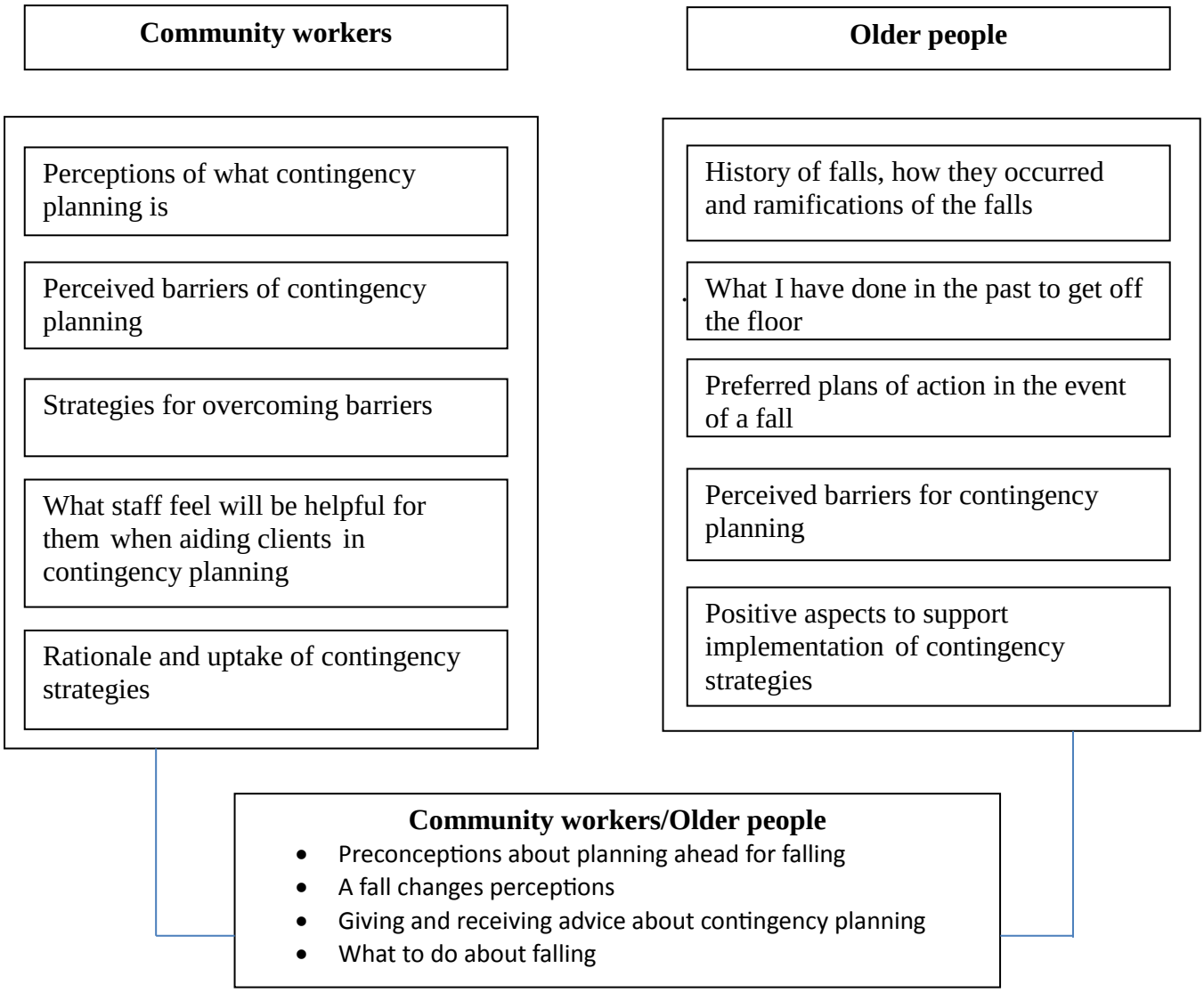


Figure 2. Concept mapping to combine data from community workers and older people

Table 1. Question Guides for Interviews and Focus Group.

Interview Guide	Focus group guide
1. Can you tell me about any falls or near misses that you have had? 2. What do you think about making plans for the possibility of falling? 3. Who has influenced your thinking about what you might do in the event of a fall? (ie: doctor, family, opinions, experience, neighbours, what has happened to a friend) 4. Have there been other influences about your thinking for what to do in the event of a fall? (i.e: media stories, promotion, personal opinion & experience) 5. Describe the things that stop you from making plans for a fall? 6. Describe the things that assist you with making plans for a fall? 7. What sort of advice would you give to other older people about what to do in the event of a fall? 8. Is there anything else that we have not discussed that you would like to tell me?	1. What is your understanding of contingency planning for falls? 2. What range of strategies for getting help in the event of a fall do you suggest to clients? 3. Can you explain the reasoning processes you follow when you realise that you will need to discuss strategies for the event of a fall? 4. What do you think about the utility of personal alarm systems? 5. What do you think about providing a list of options about what strategies are available? 6. What do you think about individualising strategies that you suggest? So for example looking at what kind of activities they do during the day, whether they go out a lot, the family support/social networks they have or their physical abilities. 7. Can you discuss any barriers that you have come across when trying to assist people in putting a falls plan in place? 8. What strategies have you used to overcome these? 9. How do you think people respond to contingency planning for falls?

Table 2. Characteristics of the older people

Participant pseudonym	Age	Health conditions	History of falls	Contingency strategies in place	Living situation	Supports	Length of interview
Alex (male)	82	Severe Chronic Obstructive Pulmonary Disease,	None	PERS with key safe Daily phone call from family, meals on wheels visit weekdays, carries mobile phone and cordless phone	Alone in own home	Adult children	38 minutes
Eadie	77	Asthma, arrhythmia, Chronic Obstructive Pulmonary Disease	Multiple- unable to recall number	PERS with key safe Daily contact with neighbours	Alone in unit	Supportive neighbours	54 minutes
Cameron (male)	89	Spinal stenosis, Osteoarthritis – multiple joint replacements, disturbed balance, deafness, Transient Ischaemic Attacks	Multiple- unable to recall number	PERS	Lives with wife in own home	1 adult child	47 minutes
Betty	67	Osteoarthritis, bilateral total hip replacement, spinal stenosis	Multiple- unable to recall number	Husband to call ambulance	Lives with husband in own home	Wife and adult children	65 minutes
Freida	82	Osteoarthritis, Atrial fibrillation congestive cardiac failure, total hip replacement, Angina,, Osteoporosis	3 or 4 falls	PERS, husband, friends checking in	Lives with husband in Unit	Husband and adult children	42 minutes
Danny	79	Psoriatic arthritis, lumber spine stenosis, Ischaemic Heart Disease, prone to urinary tract infections, leg cellulitis.	5	PERS and key safe	Lives alone in trust home	Adult children	45 minutes
Georgia	74	Parkinson's disease, Osteoarthritis, Osteoporosis, lacunar infarct, legally blind (3% vision), numbness in feet	Multiple- unable to recall number	Phone close to ground Family calling on a daily basis to check	Lives alone in trust home	Adult children	48 minutes