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Falling across the life course

*What is the Evidence of the Experience of Having a Fall across the Life Course? A Qualitative Synthesis

Catherine Bailey, Ph.D.

Diana Jones, Ph.D.

Deborah Goodall, Ph.D.

Faculty of Health and Life Sciences

Northumbria University

Newcastle upon Tyne

Corresponding author:

Dr Catherine Bailey, Senior Research Fellow, International Ageing

Northumbria University, Faculty of Health and Life Sciences

Coach Lane, Newcastle upon Tyne, NE7 7XA, UK

+ (44) 191 215 6224

e-mail – catherine.bailey@northumbria.ac.uk

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Title: What is the Evidence of the Experience of Having a Fall across the Life Course? A Qualitative Synthesis

Abstract

Background: Alleviating the economic and human impacts of falls and fear of falling are critical health and social care issues. Despite some proven effectiveness of a number of falls prevention intervention programmes, uptake remains low and attrition high. There is a need for greater understanding of social, cultural and individual, life course positioning of falling, actual or perceived.

Objective: To address the question: what is the evidence of the experience of having a fall across the life course?

Method: A qualitative evidence synthesis with key electronic databases searched from 1990-2011 using terms related to the experience of falls and falling. Selected papers presented data from the perspective of the person who had fallen. Synthesis included collaborative coding of 'incidents' related to falling, theoretical sampling of studies to challenge emerging theories, and constant comparison of categories to generate explanations.

Results: The initial focus was to access and assess the evidence for the experiences of a fall across the life course but the authors' systematic search revealed that the vast majority of the published literature focuses on the experience of a fall in later life. Only 2 of the 16 studies included, provided perspectives of falling from a life stage other than that of older adults. However older adults' perceptions of their falls experiences are likely to be influenced by lifelong attitudes and beliefs about falling and older age. Synthesis identified that a falls incident or fear of falling induces explicit or implicit '**Fear**'. Consequences are related to notions of '**Control**' and

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'Social standing'. Recovery work involves **'Adaptation'**, **'Implications'** **'Social standing'** and **'Control'**. **'Explanation'** is sought.

Conclusions: How and why people make sense of falling across the life course should have positive impacts on developing falls intervention programmes that people will want to engage with and adhere to.

INTRODUCTION

Against the backdrop of demographic ageing in Europe [1] and beyond [2, 3], alleviating the economic and human impacts of falls and fear of falling are critical health and social care issues [4, 5]. In response, there is an extensive bio-medical and health related, global literature on falls [6-12] and fear of falling [13-15] among older people. Amongst other findings, this literature indicates that despite some proven effectiveness of a number of falls prevention intervention programmes, uptake remains low, from 10-50% [16], and attrition high.

Older adults' perceptions of barriers and facilitators to engaging in falls prevention strategies have been explored [17]. This literature highlights how strategies such as tackling underlying health problems, initiating strength and balance training, offering home modifications and checking footwear [9, 12] cannot be treated as having simple cause and effect impact. Qualitative studies, drawing on psychological, phenomenological and sociological theories, offer individual and societal insights into the meaning of falling and fear of falling [18-22]. Such insights may contribute to the understanding of falling as an unwanted identity [23] or as a negative stereotype of ageing [18, 20]. Connotations around terms such as 'falls prevention' and 'falls' can lead to a fear of being stigmatized as "old" and "at risk" [24]. Falls prevention information might also be perceived as relevant to those who are older and more vulnerable to falls [25-27]. Negative stereotypes of falling and ageing may mean that older adults reject falls information and advice [17, 28, 29].

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This paper presents a qualitative evidence synthesis that sets out to address the question: what is the evidence for the experience of having a fall across the life course? It builds on the related work of one of the authors who has recently carried out pilot, qualitative studies into socially derived understandings of falling amongst community dwelling older people [18, 30, 31]. Synthesising and presenting the qualitative evidence on falling across the life course may add a socially and culturally nuanced layer of understanding to the considerable bio-medical and health related literature on falls.

METHOD

Qualitative evidence synthesis brings together individual qualitative research reports that have a shared focus with the aim of generating fresh insights and conceptual developments in relation to the phenomenon under study [32, 33]. We used an interpretive approach to evidence synthesis [34] in relation to falls across the life course, employing an inductive process based on grounded theory [35, 36] and as detailed below.

Search strategy, screening and selection

The review question was focused using the acronym ProPheT [37]: Problem – falls and fear of falling; Phenomenon of interest – Lived experience; Time – Life course. A search of key electronic databases (i.e. ASSIA, CINAHL, IBSS, Medline, Proquest Nursing & Allied Health Source, Science Direct, Web of Science, PsycARTICLES, Social Services Abstracts and Web of Knowledge) covering the period 1990-2011

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was undertaken by an Information Specialist (DG) working in partnership with CB and DJ to identify English-language articles in press or published in a peer-reviewed academic journal. No attempt was made to retrieve grey or unpublished literature in the field.

The following search terms and variants were applied: falls, falling, consequence, perception, implication, experience, view, meaning, identity, qualitative, focus group, interview, narrative. Searches were undertaken during September 2011 and re-run in January 2012. No additional relevant references were identified in the updated searches so the figures given in the charts and tables refer to the results retrieved in September 2011. Details of search strategies and results are given in Table 1.

INSERT TABLE 1 NEAR HERE

References that referred to papers that were not in press or published as a journal article or did not report original research were excluded by DG. The remaining titles and abstracts were screened by CB and DJ using the following questions to guide selection: Is study from 1990 onwards?; Is the problem of falling or falls, occurring at any stage of life, addressed?; Does the paper focus on experience/perceptions/attitudes to falls and falling from the perspective of the person who is falling? Are the data in the form of verbatim quotes or are authors' statements clearly based on data?

Twenty-one abstracts met the selection criteria and full text articles were obtained. . Fourteen full-text articles satisfied the criteria and were included in the review [19,

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25, 38-49]; 7 full-text articles were excluded at this stage [50-56]. Reasons for exclusion included abstract only available [50]; lack of textual data from participants [51]; quantitative analysis of a questionnaire [52]; and lack of correspondence with the main focus of the evidence synthesis e.g. falls prevention [53,54], physical activity [55] and illness trajectory [56]. The cited references of all of the 21 full-text articles were hand-checked and identified a further 2 references that satisfied screening and selection criteria [26, 30]. Thus sixteen full text articles were included in the review. Details of the literature flow showing the identification, screening and selection of studies [57] is given in Figure 1.

INSERT FIGURE 1 NEAR HERE

Quality appraisal

We acknowledge the extensive literature on the conceptual and methodological challenges of creating useful quality criteria for the appraisal of qualitative research [58-65]. Carroll, Booth and Lloyd-Jones [64] carried out an evaluation of sensitivity analyses in two case study reviews, to explore whether quality assessment of qualitative research studies can or should be used to exclude studies. They concluded that exclusion of reported studies had no meaningful effect on the synthesis.

The quality assessment used in the qualitative synthesis reported here was not designed to exclude but rather describe included studies. An approach which prompts researchers to pay attention to important dimensions of qualitative research design and writing up was employed [61]. Critical appraisal of the qualitative studies

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was undertaken to make an assessment of methodological quality (e.g. is the question suited to a qualitative approach, are findings supported by adequate and appropriate evidence?); reporting quality (e.g. are steps like sampling, data collection and analysis well described?); and conceptual quality (e.g. does the paper make a useful contribution?) [58]. DJ extracted data on the basis of the prompts and met with CB to discuss and agree an overall position on the dimensions in relation to each included study. Across the included studies there was variation in the degree to which qualitative research dimensions were achieved, and this and wider issues concerning qualitative quality appraisal are reflected upon in the Discussion.

Data extraction and synthesis

The emphasis of data extraction was on participant (person with falls' history) data as presented by authors. Two reviewers (CB and DJ) independently extracted data on the study (e.g. setting, objectives); participants (e.g. population, age, sampling); intervention (if appropriate); methodology and methods used for data collection and analysis; findings, including themes (supported with illustrative data from participants themselves); author conclusions. Reviewers made notes for joint discussion.

Data synthesis included collaborative coding of 'incidents' related to falling across the life course, theoretical sampling of studies to develop and test emerging theories, and constant comparison of 'incident' categories to generate explanations [66,67]. Constant comparison, a hallmark of grounded theory [36, 66, 68] begins by identifying and labelling phenomena from within the data (open coding). In this case preliminary open coding included naming phenomena identified within each of the

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papers (codes). Whilst we stored participant quotations under the themes identified by the authors, we focused on participant quotations as we wished to access as far as possible the 'voice' of the participant. Similar open codes were then grouped and described under a category.

Our qualitative synthesis was developed from four cycles of constant comparative coding. Successive cycles involved sampling papers from 8 different foci, including a round that brought in a paper with a more 'stand alone' focus, in order to challenge and question the categories emerging from the papers that had more commonalities. Within grounded theory, this is known as searching for negative cases. A study of 12 adults' past experiences of physical awkwardness, including falls and falling [41], was the only paper that had a specific life course approach to falling. Each paper was considered in relation to the following questions: did identified codes add to existing categories?; challenge existing categories?; bring together more than one of the categories?; produce new category/ies?; suggest relationships (properties and their dimensions) across the categories?

Relationships across categories were identified by considering whether some of the existing categories may be properties of other categories (axial coding). Categories and their properties were compared, challenged and/or extended within and across each of the identified papers. In this way we were able to build meta-themes and capture the wide variations and complexities of the data presented in the included papers.

FINDINGS

Foci and characteristics of included papers

Table 2 presents an overview of the 16 included papers in relation to focus, research design and sample characteristics (size, age, gender, location). Location was international in scope; sample size ranged from 5 to 80 participants; research design included ethnography, phenomenology, social constructivism, grounded theory and, more broadly, exploratory and descriptive approaches. The 8 foci captured the experiences, perceptions and attitudes to falls and falling from the perspective of the person who is falling: **older persons' perceptions of falls and fear of falling; the intentions of fallers to reduce their risk of falling again; risk; the impacts on the lives of older people of recent falls; older people and falls in relation to hip fractures and on fractures more widely; consequences of post stroke falls; and a life course approach to past experiences of physical awkwardness including falls and falling.** Whilst our research question included a lens across the life course, only 2 of the 16 papers provided participants' perspectives of falling and fear of falling from within a different life stage to that of older adults. Some of the papers had more than one focus.

INSERT TABLE 2 NEAR HERE

Synthesis of lived experiences of falling across the life course

Constant Comparison Round One

Six papers were identified for preliminary, open coding, these illustrating three of our foci: **older persons' perceptions of falls and fear of falling**; the **intentions of fallers to reduce their risk of falling again**, and **older people and falls in relation to hip fractures**. Rationale for this selection was that perceptions capture older persons' understanding and expectations of how and why a fall occurred. Intentions describe a person's sense of whether or not they can plan, carry out and manage intended actions to reduce the possibility of a fall or further falls, and a hip fracture is a particular lens on a common consequence of falls in older people and often viewed as archetypal within this life stage.

An emerging theme was '**Explaining the fall**'. Only 1 paper explicitly presented this: *"I just slipped and I hit the floor, [and] that was it ... I broke my hip"* [38, p.951]. A paper on gendered risk of falling described a theme 'Acknowledging risk of falling' wherein explanations for falling were also offered: *"... I have low blood pressure and I suffer from giddy spells, especially if I get up too soon"* [44, p.72]. One paper drew out explanations for falls by focusing on how the participant intended to reduce a risk of further falls *"Pull[ing] my garment over my head while sitting down instead of standing"* [48, p.104].

Another emerging theme was '**Fear**'. Within a study of the perspectives of older Hong Kong Chinese who had experienced falls there were fearful future consequences: *"if I cannot walk nobody will have time to take care of me"* [40, p.239]. In a study of the intentions of older homebound women to reduce their risk of

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falling again there was a sense of post-falling, of being more vulnerable to further falls: *"I have a fear of falling and more so since I fell"* [48, p.103]. An earlier study of injury narratives of older people who had experienced hip fractures concurred [38]. The authors described 'Perception of disability' as a recurrent theme. When broken down, such perception related to 'fearing vulnerability', *"... I'm getting so I'm afraid to walk"*, and also 'dependency', *"nobody can take in a cripple and you can't tell me I'm not gonna be one"* [38, p.952]. Within these 6 papers, fear, particularly following a fall seemed to be expressed through feelings of vulnerability and dependency. There were counter claims. One study [38] presented thematic findings from within a continuum of expressed participant perceptions. 'Perception of disability' ranged from *"I'm afraid of everything now"* to *"[t]here's nothing to worry about in terms of future injuries ... I think I'm sturdy"* [38, p.952].

The category '**Adaptation**' also emerged. Data from the study focusing on intentions to reduce risk of falling again: *"Giving up on making the bed in the morning like I did before I fell there"* [48, p.104], was corroborated by work on the influence of gender on older people's perceptions of their risk of falling and their actions to prevent future falls: *"If you're a sensible person it's no good taking risk, I mean I don't even go to the dustbin."* [44, p.72].

Constant Comparison Round Two

Three further foci were included: the **consequences of post stroke falls; risk; and fractures more widely** (older people and fragility fractures). These we suggest extended literature coded so far, without introducing the less common foci. For

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example, a study exploring the perceived consequences of post stroke falls [46] found that falling at the time of a stroke was a common experience. This led to 'developing a fear of falling' coupled with a fear of having another stroke, with related fears, such as being left lying on the floor for hours. This raised questions about control, in this case, not having control over the likelihood of having another stroke and subsequent fall. Returning to previously coded papers, '**Control**' was retrospectively further identified: "*falls are not preventable ...*" [40, p.237] (a lack of personal control), and from the sense that falling again might not be avoidable [48].

A study focusing on the meaning and interpretation of a fall leading to a hip fracture [25] related to 'disability', but there was also a sense of positioning oneself *before* the injury: "*... I do my own shopping, washing, mm I drive ... and I take people shopping ... and um up 'til now as I say I've never had any problems ...*" [25, p.576]. This raised questions about the implication of an injurious fall for identity. A paper providing accounts of older women's experiences of living with a falls risk in a fragile body [19] included the theme 'Changing body': "*When I fell for the first time, it wasn't that serious, it was OK, but then came this ... (broke her leg) Now, I do not dare to walk ... at least not outdoors...*" [19, p.382]. The authors suggest that a fall may lead to "a sudden change of the elderly woman's life" [19, p.382]. In a study of the consequences of post stroke falls [46] the theme of 'Fear of falling and future injuries' focuses on 'life changing implications': "*it's falling all the time that's your worst fear; ... you might hurt or break a leg or... a hip you could never come home from that*" [46, p.314]. The theme '**Implication**' emerged at this point. The post stroke fall study [46] also presented a related theme of 'Constant worry'. As well as fear of permanent and negative implications of falling, there is also the socially derived fear

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of the implications of a public fall - "What worries me is that I had the experience that I fell down on a street ..." [46, p.314] – causing feelings of 'embarrassment' and 'stigma'.

The study focusing on the construction of the risk of falling among and by older people [26] broadened '**Control**' to consider how others may induce feelings of lack of control. In this case it was health professionals in a day care setting, taking 'control' of administering analgesia: "*..... and half the time they didn't bring them round or anything or ask you if you want it*" [26, p.315].

Within the second round, '**Adaptation**' was further consolidated by a theme in the study of older women's experiences of living with a falls risk in a fragile body [19] 'living with precaution': "*I feel more alert if I go out for a while. ... I go up to the road crossing there ... But, when it gets slippery I don't go there, then I only walk on this here little path to that little gate.*" [19, p.382]. This related to the study focusing on intentions to reduce risk of falling again [48] and to the work on the influence of gender on older people's perceptions of their risk of falling and their actions to prevent future falls [44]: "*I don't deliberately put myself at risk, you know. Certainly not at my age*" [44, p.73], this spoken by an older man and illustrative of what the author suggests was a male 'rational' approach to risk. '**Adaptation**' to a fear of falling seemed to encompass intentions, gendered perceptions and living with precaution.

Constant Comparison Third Round

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At this point our most 'outlying paper', taking a life course approach to 12 adults' past experiences of physical awkwardness including falls and falling [41], was included..

The paper presented a retrospective, phenomenological study of physically awkward adults that provided insight into the emotional challenges and coping strategies that they used as children. Not being able to perform motor skill in the same way as other children seemed to set them apart. Feelings of embarrassment, "*lost a lot of interest in sports because I felt that I was so uncoordinated ... and embarrassed*" [41, p.289]; hurt and humiliation, "*I was ... not just humiliated but also feeling guilty too, because I was ... the burden on the team, right?*" [41, p.288]; failure, "*I would try out for things ... and then never make the cuts*" [41, p.286]; and seeking sometimes drastic ways to avoid being labelled physically awkward, "*I lucked out because I developed a bone disease in my knees.*" [41, p.290]; all suggested feelings of social inadequacies, of losing face, of a negative impact on social positioning. Whilst some participants challenged this - "*I really was awkward on the skis ... and I fell so many times... I just got so used to it. I wasn't scared of falling anymore ...*" [41, p.286] - issues to do with social positioning or '**Social standing**' were evident.

Retrospectively implications of a public fall expressed as 'embarrassment' and 'stigma' [46], mirrored '**Social standing**'. A study of the perspectives of older Hong Kong Chinese who had experienced falls [40] suggested that 'Powerlessness' was a strong theme despite participants' attempts to cope with their fall experiences, and pointed to an external locus of control as part of the Chinese culture. Whilst this needs further exploration, it may add a cultural context to the theme '**Social standing**'. '**Social standing**' also seemed to present aspects or dimensions of '**Implications**', in this case situating the impact of the fall, or fear of falling or

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physical awkwardness, within both life course and socio-cultural expectations and experiences of events that may socially position a person (their social standing).

The physical awkwardness study [41] also challenged earlier development of the theme '**Control**', this so far including behavioural (e.g. locus of control) and emotional (e.g. feeling in or out of control) aspects. Revisiting earlier coded papers, motor control (e.g. embodied movement), a strong theme within the physical awkwardness paper [41], was raised elsewhere, for example: *"legs just bow, buckle underneath me . . . the feeling that any time now, the hip and leg are gonna give out and I'm gonna fall"* [46, p.313]

Constant Comparison Fourth (Final) Round

Of the remaining 6 papers, 2 included a focus not yet coded, **the impacts on the lives of older people of recent falls**. The explicitly expressed 'Fear of falling' in the Faes et al [47] study, *"I stay at home more often and don't visit my friends anymore. I am afraid to fall when I go out"* [47, p.837], strengthened an existing theme, '**Fear**'. Implicitly, other participant quotes added to our emerging themes: *"I always hope no one saw me; falling is embarrassing"* [47, p.837] ('**Social standing**'); *"Because I can't travel anymore, I started to read more papers and magazines to keep myself informed"* [47, p.838] ('**Adaptation**'); *"In my opinion, falling is a vicious disease; I am overwhelmed by it"* [47, p.837] ('**Explaining the fall**'), and this included continuum or dimensions of categories such as perceived positive or negative adaptations. Data in the Roe et al [45] study also added to '**Social standing**': *"They see you fall on the floor and "oh he's bloody drunk" you know and that's it"* [45, p.2265].

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The study of older people, falls and technology [30] emphasised the hard work involved when 'trying' to '**Adapt**', or stay 'positive' or be 'not just a faller': *"I'm still reaching up to that cupboard to get the delft. It's too high. We've been saying for ages we need to get the cupboards lowered."* [30, p.838].

One study [43] presented accounts from women aged 40 and over who had experienced low energy fractures, this potentially signalling poor bone health, not expected at this age. [43, p.55] For one woman in her mid-forties, her understanding of and reaction to a falls incident gradually changes. Initially there is an external, 'out of an individual's control' explanation for the fall: *"Well, mine's [the fall] because my husband was renovating ..."* [43, p.52]; followed by an awareness that there may also be an internal, 'can take control' explanation (mid life poor bone health), which long term, may lead to positive adaptation in terms of improving bone health *"I noticed everybody in the hospital that had broken ankles were all over the age of 40 and they were all women ... So okay well there's something I can control"* [43, p.55]. .

A study which used detailed retrospective activity recall with 15 community dwelling older people to try and understand the circumstances surrounding recent falls in public [42] added to the theme '**Control**' (embodied), in this case, an awareness of changes in mobility: *"You want to go but your body won't take you"* [42, p.111].

'**Social standing**' included socially constructed 'stigmatising aids': *"take an umbrella, which I have quite a high one, and be a lady and walk with an umbrella"* [rather than a stick in public] [42, p.112]. Like the study of the perspectives of older Hong Kong Chinese who had experienced falls [40], the exploration of the

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perceptions of falls and fear of falling of Chinese older people living in England [49] emphasised cultural positioning of '**Social standing**': "*No, we talk about the weather, about other friends, any topic [about something that] is going [on], really:...*" [49, p.61]. A cultural preference to focus on more positive topics in social intercourse meant that talking about a fall would not be deemed appropriate.

Final Synthesis

A falls incident or fear of falling induces explicit or implicit '**Fear**'. Consequences of the fall or fear of falling are physically, emotionally and socially related to notions of '**Control**' and social positioning or '**Social standing**'. There is recovery work that can be done in terms of '**Adaptation**'. '**Implications**' of a falls incident or fear of falling are also to do with '**Adaptation**', '**Social standing**' and '**Control**'. There is also the seeking of an '**Explanation**' or explanations. Within our synthesis '**Fear**' and '**Implications**' are the main categories. '**Adaptation**', '**Social standing**' and '**Control**' are properties or aspects of '**Fear**' and '**Implications**', each with its own continuum. For example '**Social standing**' has a temporal dimension. There is a sense of social positioning across the life course:

Past: "*I was never very confident about my physical abilities, so whenever I had failures ... it just reinforced this feeling in me that I wasn't as capable as other people*" [41, p.286].

Present: "*I'm not just a faller. I have a wicked sense of humour, did you know I was a great dancer and the piano there [in the living room], the neighbours would be in and we'd have a sing-song and a bit of craic [conversation]*" [30, p.838].

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Future: “There’s so many things for me to do ... there’s nothing that will stop me from walking” [38, p.953].

“There’s no chance to get better. I wish I could be put to sleep. Well, what is it worth living for?” [38, p.953].

‘Explanation’ is also a property of **‘Implications’** and this has two dimensions, one relating to self, “... *it’s icy and you don’t wear proper shoes and you fall, then it’s your own stupid fault*” [49, p.62]; and the other dimension relating to intrinsic, “... *no matter how careful I am, falls still cannot be prevented*” [40, p.237], and extrinsic factors, “*The road outside here is very bumpy, very uneven, and I am wary when I walk out of this house just in case I fall*” [44, p.72].

DISCUSSION

Our 16 included papers provide rich description of the individual and social interplay between falling, fear of falling, consequences, explanations and implications. Our synthesis, brought together by considering participants’ words within and across these included papers, offers conceptual explanation of this interplay. Our included papers only yielded two that considered falls or fear of falling across a different life stage to older age. Thus our discussion, although reflective of life course, is biased towards falls and fear of falling within older age. Further research is needed to address this gap. To our knowledge there is no published research that describes a relationship between falls through early life stage and falls in older age.

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We acknowledge that a 'falls across the life course' perspective needs to build on existing initiatives that recognise that, for all ages and across diverse needs, there needs to be a manageable built environment, so that extrinsic factors contributing to falls such as loose paving, poor lighting or heavy exit and entry doors to public buildings, are not tolerated. One such initiative is universal design, a global movement that at least since the 1960s [69] has sought to realise built environments and products that are inherently accessible to all.

We did not give a common definition of a fall, partly and as reflected upon in the introductory section, because people's understanding of and approach to falling is likely to be embedded in wider social and cultural understanding of falling. They are unlikely to just consider a physical incident wherein a person hits the ground. Indeed falls are not always neatly labelled as 'falls', or even reflected upon. It has been suggested that older people may not need a standardised definition to understand 'what is a fall' but a standardised falls definition is nevertheless needed in order to build, compare, challenge and extend data that may then lead to effective, clinical guidelines on falls prevention intervention [70,71]. Hence there is an urge to adopt high quality, standardised definitions such as that proposed by the Prevention of Falls Network Europe [4], a collaborative endeavour to reduce the burden of falls injury in older people through excellence in research and promotion of best practice [72].

In relation to the role of quality appraisal in qualitative evidence synthesis, a common finding across the reported qualitative research studies, was that whilst there seemed to be inadequate reporting of some sections (e.g. strong 'top level' analysis

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but thin data trail {43}; thick paper trail audit but thin participant data {26, 42}), there was nevertheless rich conceptual description of findings. This concurs with Dixon-Woods et al's (2004) observation that journal presentation of qualitative research studies may reveal inadequate reporting but strong concepts. This may be more indicative of journal 'space' issues than that of poor quality. There were some minor omissions, for example Faes et al (47) gave a mean age of their included sample but not an age range. With some studies (38; 45) there was a lack of integration between data interpretations and conclusions whilst Porter et al (48) did not make explicit claims about the usefulness of their findings. Overall however, we suggest that whilst we needed to be mindful of the quality of each contribution, we needed also to assess the quality of the synthesis as a conceptual development of a collection of related studies that provides an understanding of falls across the life course. This understanding needs to be greater than the sum of its parts.

What our synthesis of lived experiences of falling or fear of falling across the life course adds is the complexity of falling beyond physical consequences. We contend that this understanding not only adds to the considerable bio-medical and health related research and literature on falls and may also help develop falls prevention intervention that recognizes the powerful interplay between individual and societal, lifelong positioning, understanding and expectation of falls and fear of falling across the life course.

Collaborative approaches to falls prevention intervention are and have been promoted. For example, current UK National Institute for Health and Clinical Excellence [73] practice guidelines for the assessment and prevention of falls in

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older persons acknowledge the need for multifactorial assessment, including “assessment of the older person’s perceived functional ability and fear relating to falling” [73, p.9]. Through discussion with the older person, there is also a focus on practitioners finding out about “potential barriers, such as low self-efficacy and fear of falling” [73, p.10].

‘Finding out’ could also include practitioners enabling older people to tell their story and describe their falls ‘plot’, as it makes sense, or meaning, from within the context of their lives. For example Montbriand’s Canadian, qualitative study [74] focused on possible connections between older people’s life and falls histories. Life plot scenarios from well known Euro-American archetypal stories were shared with the participants to decide which ‘plot’ most closely resembled their own life trajectory. For example, the author described ‘survival of the fittest’, as a well known story plot depicted in tales such as Jack and the Beanstalk and Dumas’s The Three Musketeers. For a Canadian cohort of older people who had ‘survived’ the Great Depression and World War II, such plots had resonance for their own life story.

Listening to and making sense of such ‘plots’ may provide some clues as to why falls prevention intervention is not always taken up or sustained. McInnes et al [75] undertook a meta-ethnography of qualitative studies of older peoples’ views on risk of falling and need for intervention. Common themes identified from the 11 included qualitative research articles encompassed: beyond personal control; taking control; rationalizing; life-change and identity; salience; and self-management. A conclusion was that healthcare professionals need to negotiate falls intervention choices from a stance of understanding the individual’s notion of risk and choice, with some people wishing to lead on decision making as part of preserving a sense of competence and

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independence. From within our own synthesis, '**Adaptation**', '**Social standing**' and '**Control**' seemed very much about 'regaining' a valued individual and social self from within a falls or fear of falling trajectory. Practitioners listening to people's 'meaning making' and, from this starting point, jointly negotiating falls prevention intervention programme may strengthen meaningful shared decision making.

Aspects of falls prevention intervention programmes with a life course perspective exist. For example, the promotion of early awareness of lifestyle choices to promote bone health is considered essential in reducing the incidence of osteoporosis. Within our included papers accounts from women aged 40 and over who had experienced low energy fractures [43], this potentially signalling poor bone health, illustrated how falls can compound poor bone health. Children as young as seven can learn about the positive relationship between food choices, regular physical exercise and bone health [76]. This could be expanded upon to include wide discussion across the generations about falls and falling across the life course and how falls are not just about frail, helpless, dependent older people. This may lessen a tendency for those who have fallen, particularly in older age, to feel inadequate or helpless. As the paper on the lived experiences of physical awkwardness [41] illustrates, such negative connotations with falls and fear of falling may be present at any age. As well as 'listening' and responding to people's meaning making of falls and fear of falling 'plots', we need also to open up and raise awareness of socially and culturally constructed positioning of falling, actual or perceived.

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Table 1 Search strategy and results

| Database | Search Strategy | Search Limits | Results |
|---|--|---|---------|
| Proquest Nursing & Allied Health Source, ASSIA, PsycARTICLES, Social Services Abstracts, Sociological Abstracts | ab(qualitative OR "focus group*" OR interview* OR narrative*) AND ti(fall*) AND ti(consequence* OR perception* OR implication* OR experience* OR view* OR meaning* OR identity*) | Peer reviewed articles Timespan=1990-2011 Search language=English | 73 |
| Web of Knowledge | Title=(fall*) AND Title=(qualitative OR "focus group*" OR interview* OR narrative*) AND Title=(consequence* OR perception* OR implication* OR experience* OR view* OR meaning* OR identity*) | Timespan=1990-2011 Search language=English | 11 |
| CINAHL | Abs=(fall*) AND Abs=(qualitative OR "focus group*" OR interview* OR narrative*) AND Abs=(consequence* OR perception* OR implication* OR experience* OR view* OR meaning* OR identity*) | Timespan=1990-2011 Search language=English Peer reviewed articles | 385 |

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Table 2 Characteristics of included studies

| Authors/date/ location | Focus | Sample size, population | Gender | Age (average, range) | Methodology, method of data collection and analysis |
|--|---|---|---------------|-------------------------------------|---|
| Borkan et al (1991) [38] Worcester, Massachusetts | Meanings in narratives of elderly hip fracture patients and whether they point to rehabilitation outcomes | N=80 Newly diagnosed hip fracture patients (over 65 years) | M=35 F=65 | 80 years | In depth interviews and standardised scales; qualitative narrative and quantitative analysis |
| Porter EJ (1999) [39] Central Missouri, Columbia | Experience of falling alone at home, intentions | N=25 Widows 80+ living alone with home care who had fallen at least once at home | F=25 | 83-96 years | Phenomenology; interviews |
| Ballinger & Payne (2000) [25] UK | Perspectives on falls and falling of [occupational therapists, physiotherapists] and older people with fractured hips, to identify influences on ways accounts constructed and possible functions of accounts | N=8 Older people (65 and above) admitted to orthopaedic trauma elderly care ward of large general hospital | M=1 F=7 | 81 years, 70-89 years | Social constructionism; semi-structured interviews; discourse analysis |
| Ballinger &Payne (2002) [26] UK | Ways in which risk realised and managed in a day hospital for older people | N=15 Day hospital attendees (65 and above) still living at home | M=5 F=10 | 77 years, 66-89 years | Ethnography; participant observation; semi-structured interviews; analysis of documentary sources |

Falling across the life course

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|---|--|---|-------------|--------------------------------|--|
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| Kong et al (2002) [40] Hong Kong, China | Psychosocial consequences of falling for group of older Chinese who had recently fallen | N=20 Older people (65 or above) with recent fall experiences in hospital, residential home or home setting | M=5 F=15 | 82 years, 68-90 years | Explorative qualitative approach; semi-structured interviews; content analysis |
| Fitzpatrick & Watkinson (2003) [41] Canada | Understanding of adults' lived/past experience of physical awkwardness to capture feelings and meanings attached to the phenomenon | N=12 People who recalled feeling least co-ordinated and skilled in physical education classes | M=2 F=10 | 45.5 years, mid-30s to mid-60s | Hermeneutic phenomenology; semi-structured interviews; thematic analysis |
| Clemson et al (2003) [42] Australia | To investigate behavioural factors contributing to a fall and older persons' perceptions of these behaviours | N=15 People who were 65 or over and had had a recent fall in a public place | F=15 | 78 years, 70-86 years | Activity recall; in depth interviews; re-enactment of the fall; thematic coding; reflective analysis |
| Meadows et al (2004) [43] Canada | Experiences and understanding of fractures in relation to bone health | N=24 Women aged 40 and older who experienced low energy fractures (e.g. from non-trauma sources and falls from no higher than standing | F=24 | 57 years | Descriptive, exploratory study; focus groups; thematic analysis |

Falling across the life course

| | | height) | | | |
|--|---|--|--------------|-------------|--|
| Horton K (2007) [44] SE England, UK | Influence of gender on older people's perceptions of their risk of falling and their actions to prevent future falls | N=40 Community dwelling older people (65 and above) | M=20 F=20 | 65-95 years | Social constructivism; in depth interviews; grounded theory |
| Hallrup et al (2009) [19] Sweden | The lived experience of fall risk for elderly women with previous fragility fractures | N=13 Community dwelling older women living in their own homes in rural areas attending a voluntary fracture prevention programme | F=13 | 76-86 years | Phenomenology; interviews; reflective lifeworld approach to analysis |
| Roe et al (2009) [45] UK | Older people's experiences of a recent fall, its impact on their health, lifestyle, quality of life, care networks, prevention and their views on service use | N=27 Older people (65 and above) who had had a fall within the last 10 days | M=5 F=22 | 65-98 years | Exploratory, qualitative design; semi-structured qualitative interviews at two time points; content analysis |
| Schmid & Rittman (2009) [46] US | The perceived consequences of post stroke falls during the first 6 months after discharge from the hospital. | N=42 (32% of N=132 males 1 and 6 months post stroke) Participants included in the secondary analysis because they described experiences related to post stroke falls during the first 6 months after discharge home | M=42 | 68 years | Qualitative design; in-depth, semi structured interviews; latent content analysis |

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|--|---|---|----------------------|--------------------------------|---|
| <p>Faes et al (2010) [47] Nijmegen, The Netherlands</p> | <p>Views, experiences, emotions and needs regarding falling in frail community-dwelling older persons with and without cognitive impairments who have experienced a recent fall [and their primary family caregivers]</p> | <p>N=10 Patients attending a geriatric outpatient fall clinic</p> | <p>M=4 F=6</p> | <p>78.5 years (SD 4.3)</p> | <p>Grounded theory; interviews</p> |
| <p>Porter et al (2010) [48] Midwestern State, USA</p> | <p>Intentions of older homebound women to prevent another fall</p> | <p>N=36 Women (85 years or older) living alone and unable to leave home without personal help, a walking aid or both and who had had a fall at home</p> | <p>F=36</p> | <p>89.4 years, 85-98 years</p> | <p>Longitudinal qualitative design; interviews interspersed with telephone contact; descriptive phenomenological analysis</p> |
| <p>Horton & Dickinson (2011) [49] Central London, UK</p> | <p>Perceptions of Chinese older people, living in England, on falls and fear of falling, and identified facilitators and barriers to fall prevention interventions</p> | <p>N= 30 Chinese older people, living in central London, England</p> | <p>M= 9 F=21</p> | <p>70 years</p> | <p>Grounded theory; focus groups and in depth interviews; constant comparative analysis with attention to deviant cases</p> |
| <p>Bailey et al (2011) [30] Ireland</p> | <p>Perceptions of older people living in Ireland in relation to how having fallen or living with a fear of fall impacts on their everyday lives</p> | <p>N= 5 participants who had fallen or lived with expressed fear of falling</p> | <p>F= 4 M=1</p> | <p>70-84 years</p> | <p>Mixed method: weekly life-space diaries, daily-activity logs, two-dimensional house plans and a pedometer; constant comparative analysis of qualitative data and member checking with team</p> |

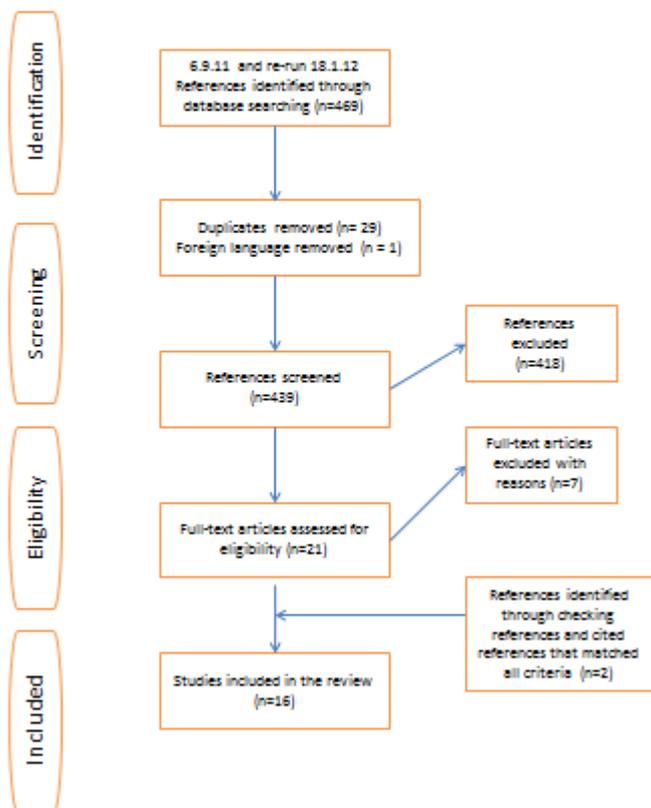
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| | | | | | members who had not collected the data |
|--|--|--|--|--|--|

Notes: N, sample size; M, male; F, female; SD, standard deviation

Falling across the life course

Fig 1 Literature search flowchart



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Fig 2. Category development

