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# **The meaning of confidence for older people living with frailty: a qualitative systematic review**

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## Background

Worldwide, the number of people aged 65 or older is projected to nearly triple, from an estimated 524 million in 2010 to nearly 1.5 billion in 2050, with most of the increase occurring in developing countries.<sup>1</sup> In many countries, the oldest old (those aged 85 years and older) are now the fastest growing part of the total population. In the UK, over the next 50 years, the number of people aged 65 and over is expected to double. Those 85 years and over are set to increase at least four-fold.<sup>2</sup> Population aging will determine future healthcare spending in both developed and developing countries in the decades to come.<sup>3</sup> The impact of this on healthcare delivery is of great concern to policy makers as well as healthcare providers,<sup>2, 4-6</sup> as this oldest population will increasingly be living with the clinical condition of frailty. Currently one in four people aged 85 years and over live with frailty.<sup>7</sup> Frailty is a word growing in our lexis as it is a phenomenon growing in the evidence base for clinical practice and healthcare policy relating to older people over the last 20 years.<sup>8</sup> Clegg et al. describes two differing academic opinions of this phenomena<sup>9</sup>. Frailty can be seen as either a very physical attribute – a phenotype model, described by five measures (weight loss, self-reported exhaustion, low energy expenditure, slow gait speed and weak grip strength). An alternative view of frailty propositions the integration of non-physical susceptibility factors, such as emotional, psychological and social factors alongside the physical impact of aging - a cumulative-effect framework. The complex nature and presentation of frailty has generated research interest to develop and validate identification strategies to enable future evaluation of effective interventions. One cumulative-effect scale that has gained recent favor because of its ease of practical application is the Clinical Frailty Scale.<sup>10</sup> This scale differentiates nine sub categories of frailty from fit and well to being terminally ill, and gives each a defining high level name, for example: Level 4 – Vulnerable (a pre-frail category), Level 5 - Mild Frailty, Level 6 - Moderate Frailty, Level 7 - Sever Frailty. Frailty progresses over a five to 15 year period, a person's susceptibility to frailty syndromes, such as falls, immobility, delirium, incontinence and susceptibility to medication side effects grows over this time.<sup>11</sup> This resonates with Clegg et al.'s definition of frailty:

“an evolving clinical condition due to a consequence of age-related decline in multiple body systems, which results in vulnerability to sudden health status

changes triggered by minor stress or events such as an infection or a fall at home, this in turn increases the risk of adverse outcome including delirium and disability.”<sup>9(p725)</sup>

It is not surprising that these frailty syndromes are the leading causes of acute hospitalization for this patient cohort. Falls presenting to the UK’s National Health Service are estimated to cost £1.7 billion per year in hip fracture care alone, as over 60,000 older people fall and fracture their hip each year, that in turn contributes to 14,000 deaths.<sup>12</sup> Whereas the financial healthcare costs of a hospitalized patient with delirium are equally high and are associated with poor outcomes<sup>13</sup>, one US study reported a two and a half times greater per day cost than an older patient without delirium.<sup>14</sup> With one in eight older patients presenting at emergency departments with delirium and up to half of all hospitalized older patients experiencing delirium, this has a high personal and economic impact.<sup>15</sup>

Overall, hospitalization has a negative effect on older people with frailty. Especially as a result of immobility, sub optimal continence care and nutritional support, the latter specifically impacting in the four weeks following discharge.<sup>16, 17</sup> It is suggested that half of all such harms are preventable.<sup>18</sup> In a small study, ten days of bedrest for an older person with frailty led to the equivalent of a decade of muscle aging, researchers conclude that deconditioning and immobility in hospital is dangerous.<sup>19</sup>

The effect of physical well-being is more clearly understood than that of mental well-being at this time. Understanding the concept of confidence, in relation to this population of older people living with frailty and in the context of acute hospitalization and post-acute care, becomes a high priority for service providers and policy makers. However, within the healthcare literature the concept of confidence, in this context, is hard to unearth and seems ambiguous and mostly researcher/author-centric in description when found. An initial search (MEDLINE and CINAHL) of the literature to find clarity on what confidence means and is understood by older people living with frailty; and how individuals and practitioners are conceptualizing and using such knowledge was undertaken. No systematic reviews exploring confidence, frailty and mental well-being or physical health were identified. An individual’s confidence is observed in the healthcare literature in one of only a few ways: relating to a concrete or conceptual loss; in the falls literature linked to a person’s fear of falling; or

connected to one or two mental health and wellbeing concerns. These themes are expanded on here:

Nicholson, et al.,<sup>20</sup> exploring the experiences of older people living with frailty, identified 'loss of confidence' as a recurrent phase being used in the context of an individual's dealings with the impact of their physical health deterioration over time and on their psychological and social well-being. By far the greater literary content relating to confidence and loss sits outside qualitative research paradigms, but may give contextual insight to aid future search strategies, these included: Viljanen. et al's.<sup>21</sup> report on the impact of sensory loss and how the fear of falling jeopardizes an individual's confidence; whilst loss of social contact/social isolation/loneliness are reported by a number of researchers.<sup>22-27</sup> Furthermore, loss of skills such as driving skills have also been identified.<sup>28</sup> However, this is discussed predominantly in the literature about skill development, promoting confidence.<sup>29-31</sup> Technology's influence in boosting confidence are reported.<sup>22, 32-34</sup> Connections to older people are strong, for those living with identifiable frailty is variable. What comes over strongly is the impact of an individual losing their confidence resulting in additional healthcare staff contact time and resources to meet a deficit between a person's loss and their actual or perceived need. This loss of confidence is also a term prominent within the falls literature and is found alongside loss of independence. It is connected to fear of falling and loss of balance confidence.<sup>35-37</sup> Such psychological and social consequences of a fall are seen as the start of a vicious cycle that leads to reduced activity, physical functioning and further increased risk of falling.<sup>38</sup> It is recognized that periods spent on the floor, when the person is unable to get up following a fall or waiting for help, are particularly undermining to an individual's confidence.<sup>39</sup> Yardley and Smith called for a better understanding of falling-related beliefs,<sup>37</sup> but to date, this remains an area that is largely unexplored despite the impact on older people being significant.<sup>12</sup> Psychological and mental well-being aspects of confidence are reflected in other academic work, often connected to fall's studies<sup>40-44</sup> These articulate connections to a concept of confidence, that is either un-explored or used interchangeably with the established concept of self-efficacy<sup>45</sup>. For example: anxiety and depression relating to balance confidence<sup>40</sup> or perceived behavior control being referred to as confidence, when looking at psychosocial factors that could be developed to support older peoples participation in physical activity programmes.<sup>44</sup>

Finally, it cannot be over emphasized that, the preliminary searches that informed the systematic review's protocol development,<sup>46</sup> found no narrative to inform the meaning of confidence from the perspective of an older person living with frailty. The nature of the research found identified that the term confidence is referenced more often in quantitative literature, relating to assessment of falls confidence for example, than it is in qualitatively grounded research. It therefore appears that confidence, as a term that is commonly used in clinical practice, has minimal evidenced understanding. The need to understand an individual's belief in their physical and mental abilities when living with frailty becomes important when starting to transfer knowledge from the evidence based literature into practice. It helps if we have clues on how to interpret what confidence really means to an individual and what specifically can be done by healthcare teams and communities to maintain and grow this confidence, especially as we see significant growth in the number of older people living with frailty and dependency across the world.

This meta-synthesis set out to explore the experiences of older people's reference to confidence from interpretive studies. The intention was to produce a valuable systematic review to better understand the meaning of confidence to an older person living with frailty. To ensure the widest scope in capturing qualitative studies describing the meaning of confidence a lower age limit of 60 years or greater was deployed in the search criteria. This meta-synthesis is timely given the growing numbers of the oldest old world-wide. This review is required to inform evidence-based guidance, which can be used to develop clinical practice interventions with older people who have lost confidence, or for who it is recognized, that the maintenance of their confidence, is crucial to their well-being and healthy living. The objectives, inclusion criteria and methods of analysis for this review were specified in advance and documented in a protocol.<sup>46</sup> This systematic review complies with the recommendations for reporting of systematic reviews detailed in the PRISMA guidelines.<sup>47</sup>

### **Review objective and question**

The objective of this review was to explore, from the older person's perspective, the meaning of confidence through synthesis of the qualitative evidence relevant to older

people living with frailty with a hope to inform healthcare research and practice, service delivery and policy.

The review question was: What is the meaning of the term confidence from the perspective of older people living with frailty?

### **Inclusion criteria**

#### **Types of participants**

The review considered studies that included frail adults aged 60 years and over who were currently receiving or had experienced acute hospital and or post-acute care in the last 12 months.

Frailty was recognized using either a pheno-type model (bio-medical criteria such as weight loss or timed walking) or the cumulative effect model (recognized in the aging population as a mental and/or physical health vulnerability and its particular sensitivity to minor stressors, such as an acute infection).<sup>9</sup>

#### **Types of phenomena of interest**

This review sought to understand the concept of confidence and how this impacts on the physical health and mental well-being of older people living with frailty.

#### **Context**

The review concentrated on studies that presented or reported the older person's descriptions, understandings and meanings of confidence. Confidence as it impacts on their health and well-being as they live with their frailty and any connection to recently experienced acute hospital and or post-acute healthcare services.

A PICo<sup>48</sup> was developed to organize this inclusion criteria information (Table1).

Table 1 The Systematic Review's PICo<sup>48</sup>

<b>PICo</b>	
<b>Population</b>	Older people living with frailty – aged 60 years and older and have recently experienced acute hospital and or post-acute care services.
<b>Phenomena of Interest</b>	The concept of confidence and how this impacts on their physical health and mental well-being
<b>Context</b>	Studies that describe and explore the older person's descriptions, understandings and meanings of confidence and its impact on their health and well-being as they live with their frailty

## **Types of studies**

This review considered studies that focused on qualitative data including, but not limited to, designs such as phenomenology, grounded theory, ethnography, action research and feminist research. Methods of data collection such as interviews and focus group discussions were considered. Mixed method studies were included if the qualitative findings were presented separately within the publication.

## **Search strategy**

The search strategy aimed to find published and grey literature studies. Joanna Briggs Institute's three-step search strategy was utilized in this review<sup>49</sup>. An initial limited search of MEDLINE (OVID) and CINAHL was undertaken using the key words: confidence; (excluding "confidence interval(s)"); old(er) people; frailty. Analysis of the text words contained in the search results' titles, abstracts, and index terms informed the second search. The second search strategy (conducted July and August 2015) used all extracted keywords and index terms and applied them across all identified databases. Thirdly, the reference list of all identified reports and articles were searched for additional studies. A specialist healthcare librarian (RG) implemented the search strategy (Appendix I illustrate a sample of the database searches). Structured search strategies were constructed, using search terms appropriate for each database, for example the standardized database subject headings MeSH were used in MEDLINE and Emtree in EMBASE. Other standardized headings (controlled vocabulary) were used across the other databases.

Databases included in the search:

AMED; British Nursing Index (BNI); CINAHL; Cochrane Database of Systematic Reviews; EMBASE; JBI Database of Systematic Reviews and Implementation Reports; MEDLINE (OVID); PROSPERO; PsycINFO; SocINDEX.

Databases and web platforms searched for sources of grey literature included:

Dissertation Abstracts International (DAIWorldCat); Google; Google Scholar; Networked Digital Library of Theses and Dissertations (NDLTD); OAlster; OpenGrey; ProQuest Dissertations & Theses Database (PQDTOpen); SIGLE; Social Care Online.

### **Limitations of the scope of searching**

Studies only published in English were considered for inclusion in this review, limited by the review groups language skills, time and resources. Studies published from 1994 to 2015 were considered for inclusion, reflecting the period of recent literature growth in the concept of frailty related studies mentioned above. Finding the voices of older people quoted in studies where title, abstract and subject headings terms are reviewed in the second stage review may have missed data relevant to this systematic review. Comment on this is presented in the results section.

### **Assessment of methodological quality**

Studies selected for retrieval were assessed by two independent reviewers (FU and LB) for methodological strength prior to inclusion in the review using the standardized critical appraisal instrument from the Joanna Briggs Institute Qualitative Assessment and Review Instrument (JBI-QARI) (Appendix III), after which the reviewers met to discuss the results of the appraisal. Any disagreements between the reviewers were discussed and resolved. There was no need to refer to the third reviewer (BK).

### **Data extraction**

Data were extracted from studies included in the review using the standardized data extraction tool from JBI-QARI (Appendix IV) by the first two reviewers independently. The data extracted included specific details about the phenomena of interest, populations, context, study methods and outcomes of significance to the review question and specific objectives. Reviewers independently inputted data into the online JBI-QARI, results were then verified by the first reviewer. Where discrepancies existed, a discussion was undertaken to seek consensus. The opportunity to contact authors of primary studies for any missing information or to clarify unclear data was available, but not required. In addition, the third reviewer's opinion was sought to qualify the final decisions.

Reviewers (FU and LB) read each paper several times to gain a comprehensive understanding of the key findings and to set them in context. One reviewer (FU) then extracted the findings from included studies. Where possible, each extracted finding was supported by a verbatim quote from a research participant to illustrate its meaning. Where this was not possible, the study author's narrative was extracted. All findings were assigned a level of credibility (unequivocal, credible and unsupported)

in line with JBI guidelines.<sup>50</sup> Levels were assigned depending on the extent to which supporting quotes, detail and relevant context were available and lent weight to the finding's credibility. Both reviewers evaluated the extracted findings and the assigned levels of credibility and reached agreement that they were appropriate for each paper.

### **Data synthesis**

Qualitative research findings were pooled using the JBI-QARI online platform.<sup>49</sup> This involved the aggregation of all unequivocal graded findings from the final four studies included in the synthesis. One reviewer (FU) led the meta-synthesis to generate a set of statements that represented the aggregation, through assembling the findings based on similarity in meaning (explored in the results section below). Review and re-examination of the original studies, alongside prospective disclosure with co-reviewers (LB and BK) built consensus on interpretation. In the same process these categories were then subjected to meta-synthesis in order to produce a single synthesized finding.

### **Results**

The first phase of the search of MEDLINE (OVID) and CINAHL databases was undertaken using the key words: confidence; (excluding "confidence interval(s)"); old(er) people; frailty. This elicited 57 and 31 studies respectively that met the PICO (Table 1). After removal of duplicates, a final 63 studies underwent a review of title, abstract and subject heading terms. Seven studies cited 'confidence' in their abstract, directly attributable to an expressed older person's viewpoint.<sup>34, 51-56</sup> Seven additional studies were assessed to have a high probability of documenting an older person's voice expressing a meaningful description of confidence as they deployed methodological approaches where quotes of research participants would be expected to be expressed.<sup>57-63</sup> The subject heading terms of these 14 studies had their term relationships assessed to conclude the final search strategies to be used in the comprehensive second phase search strategy.

Following the second phase comprehensive literature search of databases and web platforms, 11,395 records were identified (Figure 1). An additional article referenced in the systematic review's protocol<sup>46</sup> had not been identified in any of the detailed literature reviews - Nicholson et al.,<sup>20</sup> this was included alongside a further study by

the same authors.<sup>64</sup> A third article was included, found by the author (FU) reviewing research papers relating to his earlier exploration of what confidence may mean – Wallin et al.<sup>65</sup> In total, a final 11,398 studies were included. After removing duplicates, 8,960 records had their title, abstract and subject headings reviewed to identify qualitative research studies that met the PICO criteria.<sup>48</sup> This evaluation phase excluded a further 8,670 records. Twenty studies were found eligible for full-text article inclusion in the review (Appendix II).

The third phase of the search criteria required the reference lists of all identified articles to be searched for any additional studies for inclusion at this stage. Guided by comprehensive reading of the studies, this elicited no further records to be included.

All 20 studies underwent critical appraisal for methodological quality using the Joanna Briggs Institute's Critical Appraisal Checklist for Interpretive Research (Appendix IV) by the two reviewers. All reviewers were satisfied with the outcome of the critical appraisal stage. At this point 16 studies were excluded. The overarching reason for the 16 studies being rejected at the critical appraisal stage was not necessarily due to research rigor but because no quoted voices of older people were found. The studies mostly contained narrative voices talking of confidence i.e. third-person opinion and researcher interpretation of the participants' experiences. Because none contained documented voices of the older people talking explicitly of their confidence at this stage of the review, they were rejected as they would not contribute to the main aim of the review. Appendix V sets out individual rationale for study exclusion. This becomes an emerging significant and a limiting factor of this systematic review: as the fewer studies appear to hold the voices of older people talking directly of their confidence the quieter this review can resonate. Four studies were finally included in the qualitative synthesis stage.<sup>31, 65-67</sup>

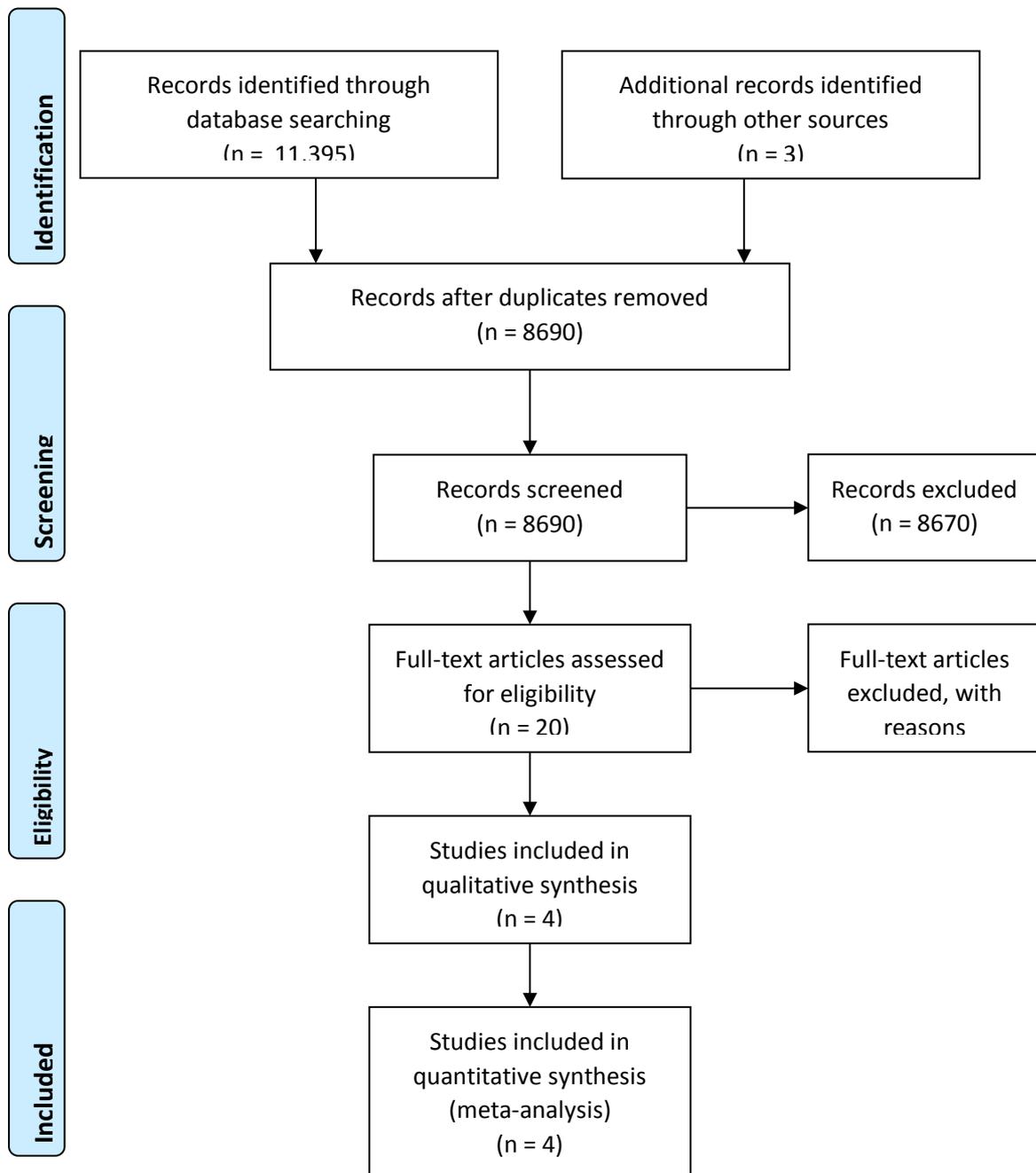


Figure 1: Flow chart of the search and study selection process<sup>47</sup>

### Description of included studies

Data extraction details of the four included studies are set out in Table 2. One hundred and thirty participants were included across the four included studies (range 11 to 77). Overall, elements of the PICO were strong across all four studies.

Table 2: Included studies

<p><b>Beesley K, White JH, Alston MK, Sweetapple AL, Pollack M. Art after stroke: The qualitative experience of community dwelling stroke survivors in a group art programme. Disabil Rehabil. 2011; 33(23-24): 2346-55.</b></p>	
<p>Methodology Method Phenomena of interest Setting Geographical Cultural Participants</p>	<p>Qualitative - Grounded Theory Individual interviews and focus groups Exploration of the possible health and well-being benefits of a community arts health program for stroke survivors. Community arts health program Newcastle, New South Wales, Australia Community dwelling stroke survivors Eleven individual interviews. Nine participants additionally took part in two separate focus groups. All stroke survivors recruited through a stroke service mailing list. Age range 42-81 years. Constant comparison method</p>
<p>Data Analysis Author's Conclusions</p>	<p>Despite the difficulty assessing participants level of frailty, three participants (aged 72, 53 and 58) describe low confidence levels following stroke. Although the voice of one participant directly quoted (aged 53) is outside the PICo age range of 60 years it seems appropriate to include as their frailty in this cohort of stroke survivors can be recognized. The authors make connections between confidence and several other factors e.g. self-esteem, self-efficacy and quality of life. Time since stroke for these the participants ranges 8 months to 7 years, the cohort of participants (n.11) had two more recently hospitalized participants e.g. 12 months and less</p>
<p><b>Resnick B. Geriatric rehabilitation: The influence of efficacy beliefs and motivation. Rehabil Nurs. 2002; 27(4): 152-61.</b></p>	
<p>Methodology Method Phenomena of interest Setting Geographical Cultural Participants</p>	<p>Qualitative - Naturalistic Inquiry Individual semi-structured interviews Factors that influence the efficacy beliefs that motivate older adults in a rehabilitation program. Geriatric rehabilitation unit of an orthopedic hospital East Coast, USA (no further context mentioned) Older people; post orthopedic surgery rehabilitation Seventy-seven over 65-year-olds. Exclusion if significantly cognitively impaired, anxious or aphasic. 18% of participants were African Americans. 18% were admitted non-electively. Content analysis</p>
<p>Data Analysis Author's Conclusions</p>	<p>Difficultly to fully assess frailty of participants in the study (n.77). One participant mentions their confidence in relation to the therapy they were receiving. The study is set in the context of self-efficacy theory.</p>
<p><b>Tung Y-C, Cooke M, Moyle W. Sources older people draw on to nurture, strengthen and improve self-efficacy in managing home rehabilitation following orthopaedic surgery. J Clin Nurs. 2013; 22(9/10): 1217-26.</b></p>	
<p>Methodology Method Phenomena of interest Setting Geographical Cultural Participants</p>	<p>Qualitative (described as a 'pragmatic, exploratory' approach) Individual semi-structured interviews Sources older people draw on to improve or maintain self-efficacy during post elective orthopedic surgery rehabilitation. At home Australia (no further context mentioned) Older people; post-orthopedic surgery rehabilitation Fifteen over 65-year-olds admitted to hospital for elective orthopedic surgery (three participants were transferred with fractured neck of femur) Thematic analysis</p>
<p>Data Analysis Author's Conclusions</p>	<p>The study offers limited ability to assess the participants level of frailty (n.15). Interviews were conducted 6-23 weeks' post-surgery. The study presents one direct quote from a participant where a new piece of mobility equipment gave her confidence. The author refers to confidence</p>

	throughout the paper interchanging the concept with that of self-efficacy.
<b>Wallin M, Talvitie U, Cattan M, Karppi S. The meaning older people give to their rehabilitation experience. Ageing Society. 2007; 27: 147-64.</b>	
Methodology	Qualitative (no philosophical framework mentioned)
Method	Individual semi-structured interviews
Phenomena of interest	The meaning older adults attribute to their geriatric rehabilitation experience.
Setting	Inpatient geriatric rehabilitation unit and at home
Geographical	Finland (no further context mentioned)
Cultural	Older people; post-acute rehabilitation
Participants	Twenty-seven participants over 65-year-olds were interviewed twice and included. Excluded if significantly cognitively impaired.
Data Analysis	Thematic analysis described
Author's Conclusions	Limited ability to assess the participants level of frailty (study states that recruitment may have been biased towards moderately fit individuals and frail people may have declined). However, two participants (n.27) directly mention confidence in relation to the theme 'sense of confidence with everyday life'.

However, one element was consistently weaker – the ability for the reviewers to assess fully the participants' levels of frailty. Beesley, et al.'s post-ischemic stroke cohort, a morbidity connected to the frailty condition<sup>11</sup>, reported experience of role-loss and lifestyle change.<sup>66</sup> Tung, et al's study notes that participants were living with limited functional status after orthopedic surgery that impacted on their everyday lives which led to life style changes and restrictions.<sup>31</sup> Whereas in Resnick's study, frailty was recognized in the reference to coding data – the term fatigue (interpreted as "being slowed up") was noted as a problem associated with physical function.<sup>67(p154)</sup> Finally, in Wallin et al.'s study they record their sample as being "...aged 65 or more years who were coping at home, but threatened by progressively decreasing functional ability. ... All but one man reported one to four chronic diseases that caused functional limitations. ...functional limitations forced all participants to rely at some level on assistance to live at home. The assistance varied from help with transport to assistance with personal care."<sup>65(p149)</sup>

The reviewers considered this against the context of two key categories of the Clinical Frailty Scale – Vulnerable and Mildly Frail, two that importantly differentiate between frailty and its pre-frail state:

**4 Vulnerable** – *While not dependent on others for daily help, often symptoms limit activities. A common complaint is being "slowed up", and/or being tired during the day.*

**5 Mildly Frail** – *These people often have more evident slowing, and need help in high order IADLs (finances, transportation, heavy housework,*

*medications). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework.*<sup>10(p490), 68</sup>

The reviewers felt that most research participants would have been placed towards the less-frail end of a frailty continuum, around these two statements. The four studies were included in the review balanced on the conviction that frailty was implicit within each of them. However, this clearly illustrates how difficult the judgments were. There were recognized benefits by the reviewers that their contribution could support the overall aim of the review given the paucity of literature available. Equally this was recognized as a significant limitation too.

Three of the four studies studied older people in the context of rehabilitation programmes<sup>31, 65, 67</sup> following acute care and the fourth is described as being in the arts health paradigm, promoting well-being through art therapy.<sup>66</sup> Although not a traditionally funded health or social care acute or post-acute care program, it was for their research study and connected to the grounding of the other studies - post-acute care services, therapeutic, restorative and within a rehabilitative paradigm. Two of the studies were undertaken initially within inpatient rehabilitation facilities with follow-up in the community,<sup>31, 65</sup> one undertook interviews within 48 hours of discharge from a rehabilitation facility<sup>67</sup> and one was undertaken solely in the community.<sup>66</sup>

### **Methodological quality**

The results of the critical appraisal, assessing methodological quality, for the four included studies<sup>31, 65-67</sup> are presented in Table 3. The ten questions relate to the questions in the JBI-QARI critical appraisal checklist (Appendix IV).

Table 3: Quality appraisal for included studies (Refer to Appendix III for details of the ten questions)

Studies	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Total Score
Beesley, et al. <sup>62</sup>	U	Y	Y	Y	Y	N	N	Y	Y	Y	7
Resnick <sup>63</sup>	Y	Y	Y	Y	Y	U	N	Y	Y	Y	8
Tung, et al. <sup>22</sup>	Y	Y	Y	Y	Y	U	N	Y	Y	Y	8
Wallin, et al. <sup>63</sup>	Y	Y	Y	Y	Y	U	N	Y	U	Y	7
%	75	100	100	100	100	0	0	100	75	100	-

Criteria: Y - Yes, N - No, U – Unclear

Considering the limited number of studies identified the reviewers decided not to exclude any study based on methodological quality in order capture the few voices of older people available, the four studies scored to a similar standard (Table 3). When judged collectively all scored 0% for Q6 – *There is a statement locating the researcher culturally or theoretically* and Q7 – *The influence of the researcher on the research, and visa-versa, is addressed*. This illustrates a consistently poor attainment of expectations in reporting high quality research study in relations to these criteria.<sup>50</sup> In critically evaluating research, the impact of the researcher on the study should be explicitly described. Understanding their beliefs and values are important,<sup>50</sup> this goes beyond presuming their study’s introduction sets this context. In addition, there is a need for a robust and explicit self-critique by the qualitative researcher. Walin, et al.<sup>65</sup> and Beesley, et al.<sup>66</sup> mention data triangulation and describe rigorous approaches to limiting researcher bias in the data interpretation phase, as do Tung. et al.<sup>31</sup> and Resnick.<sup>67</sup> However, all four fail to describe methodological considerations related to their research, such as: in research question development; on how adjustment was made for sensory impairment for an older aged research population; in any consequence occurring during the data collection phase (interviews); or on how their relationships regarding perceived power and their societal position with their research participants were minimized or how this may have impacted on their results.

As for methodological aspects of the studies, two make specific commitments to a theoretical construct: Naturalistic/constructivist inquiry<sup>67</sup> and grounded theory.<sup>66</sup> The other two committed to a qualitative methodology against no philosophical framework. Each used individual semi-structured interview methods to collect data, one complemented this with focus group data.<sup>66</sup>

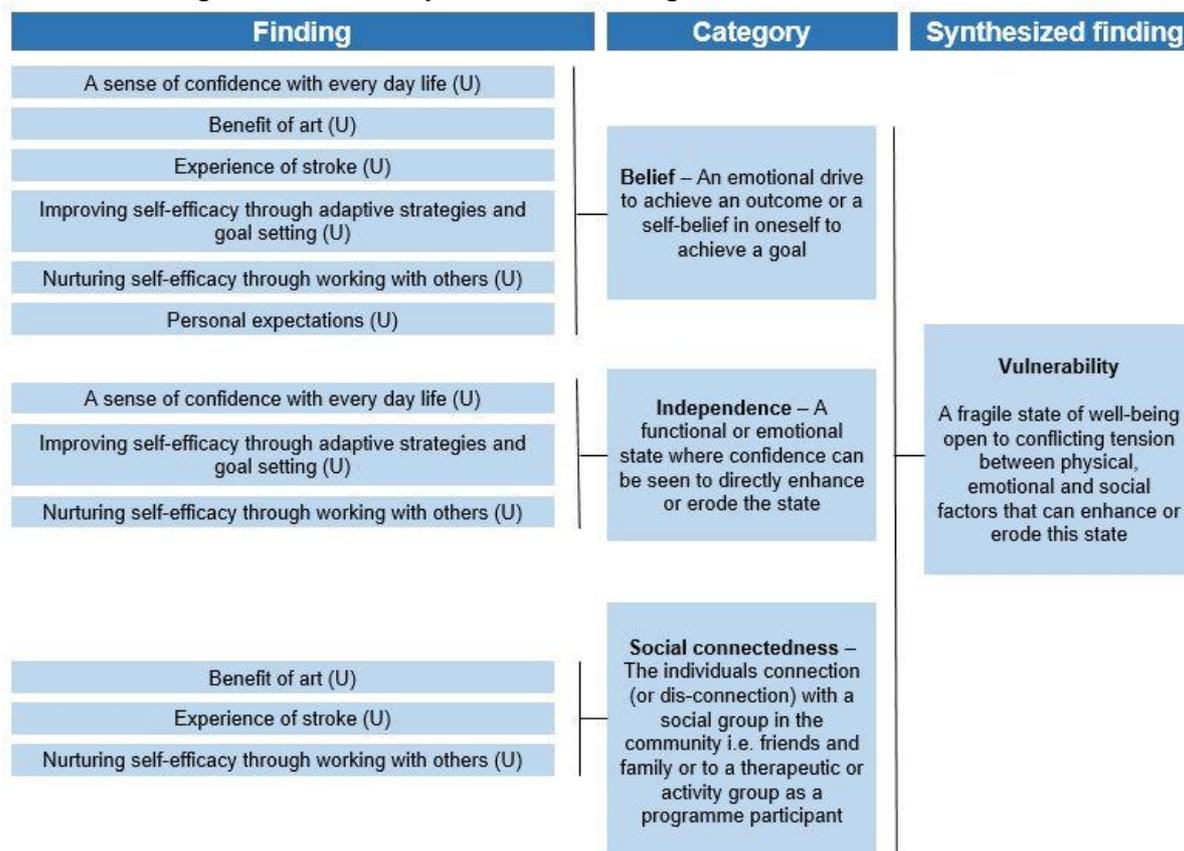
In total, only eight direct quotes from older people were found across the four studies.<sup>31, 65-67</sup> The most important aspect these four studies bring to this systematic review is, until now, the hidden voices this review set out to hear.

### **Results of the metasynthesis**

Twelve findings were extracted from the four included studies (Appendix VI).<sup>31, 65-67</sup> The Resnick<sup>67</sup> study cited 11 themes, presented under two high-level categories. Only these two high-level study categories were used in data aggregation. The first named category was also the first theme – Personal experiences, this encompassed the quoted voice from the older research participant talking of confidence. The other 10 themes were classified broadly under the second category – Information that influenced efficacy beliefs. It was agreed by the reviewers that individually these ten themes added nothing more to the overall review's aim. Therefore, this study's second high-level category was dealt with as a single finding in this review.

Of the 12 findings, half were evidence graded as Unequivocal [U]: described as: 'evidence beyond reasonable doubt that may include findings that are matter of fact, directly reported/observed and not open to challenge'.<sup>50(p156)</sup> This sub-group of six findings all had an attributable research participants' quote that had a direct contextual inference to the finding. In total, there were eight quotes (Appendix VI). Table 4 presents the summary of findings table that include the results of category aggregation. Three categories with contextual statements emerged from the process of repeated review of the studies' findings and analysis of the written quotes from research participants: Belief, Independence and Social connectedness. The development and interpretation of these categories was drawn from the studies' findings by describing and revising a contextual definition for each category. This was valuable in affirming the categories were accurate. These contextual definitions were read back into the studies text until no further amendments could be made. A level of saturation was reached with these descriptions.

Table 4: Categories and the synthesized finding



To give a level of additional validity, Table 5 presents the contextual definition of these categories against a dictionary definition.

Table 5: Categories with contextual and dictionary definitions

Categories	Contextual definition	Dictionary definition <sup>66</sup>
Belief	An emotional drive to achieve an outcome or a self-belief in oneself to achieve a goal	The feeling of being certain that something exists or is true
Independence	A functional or emotional state where “confidence” can be seen to directly enhance or erode the state	The ability to live your life without being helped or influenced by other people
Social connectedness	The individual’s connection [or disconnection] with a social group in the community, e.g. friends and family, or to a therapeutic/activity group as a program participant	Connectedness – the state of being connected and having a close relationship with other things or people

These three categories were meta-aggregated and a single finding emerged – Vulnerability: a fragile state of well-being that is exposed to the conflicting tensions between physical, emotional and social factors capable of enhancing or eroding this state (Table 4).

In line with the development of aggregated categories, the meta-synthesis drew on the emergent categories and their contextual meaning along with reexamination of the original voices of the older research participants. A fragile state of well-being was heard in the text of Research Participant 1 in Beesley's study<sup>66(p2350)</sup> "...your confidence has been knocked around a fair bit..." and Research Participant 5<sup>66(p2351)</sup> "...[stroke] knocks your confidence for six..."

These two direct quotes have a negative preposition of what confidence means. Overall, an enhancing as well as eroding element of the finding came through, more positive factors are mentioned. Talking about practicing getting up from the floor, anticipating a future fall, a research participant in Wallin et al.'s study states: "...we tried it, several times, and every day it went better and better. It really helped build up your confidence (to the point that I) can get up."<sup>65(p154)</sup> This can clearly be seen to relate back to the categories - independence and belief as it informs the synthesized finding of vulnerability.

The final interplay of these elements is how they are interconnected to a person's physical, psychological and social situation. This is best seen through Jessica's words, a research participant from Tung et al's study<sup>31</sup>. Describing her transition back home: "I had my daughter come and do the work for the first week, look after me, stay with me ... she did everything. She was a great help. ... you know that was what I needed to have someone here with me for the first week and then I said you can go home because I was more confident and you didn't need to be here."<sup>31(p1220)</sup> An initial vulnerability, where confidence is low was overcome through physical and practical assistance given by her daughter. A growth of physical and psychological well-being brought about a confidence to no longer ask for such help. The social connectedness finding is obvious.

Exploring additional validity a comparison of the contextual definition, as illustrated above is useful to be considered against a dictionary definition: 'Vulnerability - able to be easily physically, emotionally, or mentally hurt, influenced, or attacked'.<sup>69</sup> This reflects a negative impact and does not mention any social paradigm. Noticeably from the four studies, two very directly identified wider social associations linked to confidence.<sup>31, 66</sup>

All authors were satisfied with the findings from the final data aggregation, which were then additionally shared with and affirmed by a patient and public involvement group formed to develop this review and other frailty related research ideas. They acknowledge that these aggregated finding comes from a limited number of studies. They reported these data start to tell a story that will resonate with older people and will hopefully support practitioners exploring this concept further both academically and in practice.

## **Discussion**

The aggregated finding of this review is drawn from just four research studies that met the inclusion criteria.<sup>31, 65-67</sup> Therefore, no claims of new knowledge can be made to inform older people, practitioners, researchers, service providers or policy makers this systematic review set out to do. However, an important question arises from these very limited data - what to do now with the reviews findings reported here?

The word Vulnerable is found to affirm the meaning of frailty, illustrated in a further definition of the term by Walston and Bandeen-Roche: "... a nonspecific age-associated vulnerability, reflected in an accumulation of medical, social, and functional deficits." <sup>70(p1)</sup>

A biopsychosocial<sup>71</sup> connections to health and wellbeing are reflected in the review's three emergent categories from study findings that aggregated the final finding – Vulnerability (Table 4). The category Belief recognizes the emotional / psychological desire to achieve a goal; in the category Independence, confidences connection to (bio)physical/ functional as well as emotional construct were evident in participants' narratives, these were often referred to as self-efficacy; and finally the category Social connectedness acknowledges how the social domain interplayed on confidence and the other categories.

This review recognizes that the topic of confidence is referred to across a wide range of literature connected to older people, many living with frailty. However, meaning and understanding of confidence remains contextually unexplored in the literature. Without truly knowing what the concept means, much goes misinterpreted and misunderstood. This opens an opportunity for an integrative research program to answer questions this review highlights, including: As a concept of confidence is

missing from the literature, one drawn from older people living with frailty. This concept needs developing as it would allow detailed exploration of the relationship between confidence and frailty. Understanding this, insight into new frailty prevention and intervention strategies would evolve. Furthermore, the question - could a restoration of lost confidence reverse frailty or halt its progress? – presents an area for further academic enquiry, as developing measures of confidence in this frail population could lead to reviewing professionals and service impact on interventional work across frailty pathways of care. Opportunities arise for new and innovative interventional approaches formed from the research and further evaluated. It becomes necessary for older people, practitioners, service providers and policy makers, that research exploring meaning and understanding of confidence is undertaken.

### **Limitation of the review**

Discussed earlier, the review did not find the voices of the frailest older people to find meaning and understanding of the concept of confidence. The synthesized findings of this review are drawn from just four research studies that met the inclusion criteria. Assertions that an understanding of the concept confidence has been reached cannot be made. The reviews data offers limited insight into the concept of confidence as described by the cohort of older people living with frailty. Identifying frailty amongst research participants was more difficult to determine than expected, even with very clear definitions. The healthcare setting for these voices all came from a rehabilitative (post-acute), not from the acute care centered context. Only studies in English were reviewed and these reviewed were from developed countries. However, despite this, an important starting point has been generated from this literature and one that that has some synergy with interest of academics and healthcare practitioners today.

### **Conclusions**

This systematic review set out to explore, from the older person's perspective, the meaning of confidence through synthesis of the qualitative evidence relevant to those living with frailty. It had ambition to inform healthcare practices, future research, service delivery and policy. This comprehensive review unearthed a true unknown – the literature reviewed held no voices from the frailest older population to give meaning to confidence in relation to living with frailty. A very small subgroup of

research participants hinted to some understanding of what confidence means to them. They described confidence in relation to an aggregated finding of Vulnerability, interdependent on their physical, psychological and social status. There remain unanswered questions which should be of interest to professionals, academics, providers and policy makers.

### **Recommendations**

Using the Joanna Briggs Institute guidance for recommendation development<sup>72</sup> implications for practice and research have been identified and recommendations made. Grade A recommendations are strong and Grade B are weaker recommendations.

### **Implications for practice**

Voices of older people living with established frailty were not found and as a result there is insufficient evidence to offer an understanding of the meaning of confidence. Therefore, practitioners should consider how they are identifying frailty in practice and how they capture and report older people describing their confidence in practice and its personal impact on them. Specific recommendations are listed in Table 6.

### **Implications for research**

The systematic review convincingly calls for more research into understanding the meaning of confidence from the frailest in our communities. Considering the review's PICO (Table 1) the following research questions arise:

- How is confidence recognized and understood in acute hospital and post-acute care services for older people living with frailty?
- What are older peoples experience of these services on how they understand and respond to their confidence?
- What are the implications for practice and service development based on older peoples' experiences of how confidence is understood and responded to in acute hospital and post-acute care services?
- What is this concept of confidence? – construct the concept of confidence for this frail population.

- How does the concept of confidence connect to and influence frailty experienced by older people with respect to their physical health and mental well-being?
- Can a concept of confidence be developed that translates to developing countries, who equally facing significant population growth of the oldest old in the coming decades, as it will developed countries.

It is therefore timely and appropriate to pursue a program of research to explore, develop and evaluate the concept of confidence in this vulnerable population. These research questions have been transposed to research recommendations in Table 7.

Table 6: Recommendations for practice

Recommendation	Grade
1. Practitioners in acute and post-acute services should consider how they identify and respond to frailty in practice, based on the growing evidence available.	B
2. Practitioners should review and evaluate their response to the needs of older people living with frailty who identify confidence as a factor in their care and recovery from an acute event.	B

Table 7: Recommendations for research

Recommendation	Grade
It is timely and appropriate to pursue a program of research to explore the meaning and understanding of confidence, and how clinical practice interventions can enhance outcomes for older people living with frailty, particularly:	
1. The discovery and development of a concept of confidence relevant to older people living with frailty.	A
2. The development and evaluation of interventions that draw on the concept of confidence and its impact on frailty.	A
3. The evaluation of confidence enhancing interventions and their impact on the physical health and mental well-being of older people living with frailty.	A
4. The development and implementation of international standards on how confidence can benefit health outcomes for older people living with frailty.	A

### Conflicts of interest

There are no conflicts of interest to declare.

### Acknowledgements

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## Appendices

### Appendix I : Search strategy examples

#### Database: Medline

Date of search 17/07/15

Platform: OVID via University of Plymouth

mp = title, abstract, original title, name of substance word, subject heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier

1	elder*	mp	200600
2	old*	mp	1061159
3	exp aged/	MeSH	2478965
4	aging/	MeSH	195881
5	1 OR 2 OR 3 OR 4		3394361
6	frail*	mp	14033
7	health status/	MeSH	63382
8	geriatric assessment/	MeSH	19779
9	(geriatric or gerontol*) adj2 assess*	mp	20925
10	quality of life/	MeSH	128885
11	quality adj2 life	mp	220787
12	age factors/	MeSH	390030
13	risk factors/	MeSH	611322
14	sickness impact profile/	MeSH	6410
15	6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14		1218311
16	confiden*	mp	358869
17	exp self concept/	MeSH	76865
18	trust/	MeSH	6391
19	body image/	MeSH	13700
20	emotional intelligence/	MeSH	1046
21	adaptation, psychological	MeSH	77954
22	interpersonal relations/	MeSH	58169
23	self psychology/	MeSH	439
24	behavior/	MeSH	27077
25	health behavior/	MeSH	36776
26	motivation/	MeSH	52194
27	social behavior/	MeSH	38046
28	social desirability/	MeSH	4019
29	social isolation/	MeSH	11383
30	16 OR 17 OR 18 OR 19 OR 20 OR 21 OR 22 OR 23 OR 24 OR 25 OR 26 OR 27 OR 28 OR 29		690653
31	5 AND 15 AND 30		72978
32	age distribution/	MeSH	55647
33	health education/	MeSH	53737
34	health services for the aged/	MeSH	15499
35	"health services needs and demand"/	MeSH	44257
36	social support/	MeSH	54536
37	32 OR 33 OR 34 OR 35 OR 36		216044
38	31 AND 37		6471
39	confidence interval*	mp	273857
40	38 NOT 39		3857
41	limit 40 to (English language and yr="1994 - Current"		<b>3338</b>

**Database: CINAHL**

Date of search 22/07/15

Platform: EBSCO via University of Plymouth

MH = exact subject heading

N2 = finds the words if they are within two words of each other regardless of order

TX = text word

S1	TX elder*	all text	145982
S2	TX old*	all text	450895
S3	MH Aged+	exploded	533699
S4	MH Aging		32703
S5	S1 OR S2 OR S3 OR S4		880015
S6	TX frail*	all text	21439
S7	MH Frailty syndrome		182
S8	MH Health status		35889
S9	MH Geriatric assessment+	exploded	11933
S10	TX (geriatric or gerontol*) N2 assess*	all text	14625
S11	MH Quality of life		63314
S12	TX quality N2 life	all text	157175
S13	MH Age factors		81569
S14	MH Risk factors		109743
S15	MH Sickness impact profile		1915
S16	S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15		375693
S17	TX confiden*	all text	316501
S18	MH Confidence		4609
S19	MH Self concept+	exploded	41022
S20	MH Trust		5886
S21	MH Body image+	exploded	8987
S22	MH Emotional intelligence		1154
S23	MH Adaptation, psychological		21439
S24	MH Interpersonal relations		30614
S25	MH Behavior		13208
S26	MH Health behavior		30764

S27	MH Motivation		22933
S28	MH Social behavior		12410
S29	MH Social isolation		4989
S30	S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29		457598
S31	S5 AND S16 AND S30		55206
S32	MH Health education		18799
S33	MH Health services for the aged		5164
S34	MH "Health services needs and demand"		16220
S35	S32 OR S33 OR S34		39495
S36	S31 AND S35		1152
S37	TX confidence interval*	all text	183950
S38	S36 NOT S37		799
S39	limit to 1994-2015, English		<b>753</b>

**Database: EMBASE**

Date of search: 17/08/15

Platform: OVID via University of Plymouth

mp = Title, Original Title, Abstract, Subject Heading, Name of Substance, and Registry Word fields

1	elder*	mp	346505
2	old*	mp	1411870
3	exp aged/		2316311
4	aging/		206326
5	1 or 2 or 3 or 4		3570328
6	frail	mp	13328
7	exp health status/		159071
8	geriatric assessment/		10456
9	(geriatric or gerontol*) adj2 assess*	mp	12624
10	quality of life		291689
11	quality adj2 life	mp	359349
12	age/		412170
13	risk factor/		167977
14	sickness impact profile/		1946

15	6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14		1537001
16	confiden*	mp	419562
17	exp self concept/		144335
18	trust/		7986
19	body image/		16438
20	emotional intelligence/		1388
21	adaptive behavior/		50262
22	human relation/		80025
23	psychoanalytic theory/		12287
24	behavior/		132798
25	health behavior/		48472
26	motivation/		77013
27	social behavior/		67667
28	social desirability/		4067
29	social isolation/		17637
30	16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29		959981
31	5 and 15 and 30		62311
32	age distribution/		107370
33	health education/		83142
34	exp elderly care/		68513
35	health care need/		21035
36	social support/		63877
37	32 or 33 or 34 or 35 or 36		334410
38	31 and 37		7655
39	confidence interval*		313364
40	38 not 39		4873
41	limit 40 to (english language and yr="1994 - Current"		<b>4219</b>

**Database: PsychINFO**

Date of search: 17/08/15

Platform: Proquest via University of Plymouth

anywhere = searches for terms in all fields

SU = subject

S1	elder*	anywhere	65568
S2	old*	anywhere	1643833
	<i>line S3 deleted due to error</i>		
S4	SU.EXACT ("Aging")		40712
S5	1 or 2 or 4		1656446
S6	frail*	anywhere	3469
S7	SU.EXACT ("Geriatric Assessment")		819
S8	geriatric near/2 assessment*	anywhere	1792
S9	SU.EXACT ("Quality of life")		30593
S10	quality near/2 life	anywhere	57632
S11	SU.EXACT ("Risk Factors")		56654
S12	6 or 7 or 8 or 9 or 10 or 11		117295
S13	SU.EXACT.EXPLODE ("Self concept")		62504
S14	confiden*	anywhere	64193
S15	SU.EXACT ("Trust (Social Behavior)")		7261
S16	SU.EXACT.EXPLODE ("Body Image")		10469
S17	SU.EXACT ("Emotional Intelligence")		3974
S18	SU.EXACT ("Adjustment")		15781
S19	SU.EXACT ("Emotional Adjustment")		14943
S20	SU.EXACT ("Interpersonal Relationships")		14135
S21	SU.EXACT ("Self Psychology")		2448
S22	SU.EXACT ("Behavior")		24941
S23	SU.EXACT ("Health Behavior")		19387
S24	SU.EXACT ("Motivation")		43008
S25	SU.EXACT ("Social Behavior")		17138
S26	SU.EXACT ("Social Desirability")		2631
S27	SU.EXACT.EXPLODE ("Social Isolation")		6397
S28	13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27		287392
S29	5 and 12 and 28		9341
S30	SU.EXACT ("Health Education")		10781
S31	SU.EXACT ("Social Support")		29512

S32	30 or 31	40162
S33	28 and 32	315
S34	32 NOT "Confidence interval*"	<b>278</b>

**Database: SocIndex**

Date of search: 09/09/15

Platform: Ebsco via University of Plymouth

DE = Subject term

TX = text word

S1	TX elder*	all text	34944
S2	TX old*		103987
S3	DE "older people"		14032
S4	TX aged		41121
S5	DE "aging" or DE "active aging" or DE "successful aging"		10564
S6	S1 or S2 or S3 or S4 or S5		135592
S7	TX frail*		1967
S8	DE "health status indicators"		2637
S9	TX (geriatric or gerontol*) N2 assessment*		481
S10	TX quality N2 life		17715
S11	DE "quality of life"		9748
S12	S6 or S7 or S8 or S9 or S10 or S11		22229
S13	TX confiden*		26554
S14	DE "confidence"		787
S15	DE "Self-confidence" or DE "self-esteem"		5606
S16	DE "self-perception" or DE "looking glass self (psychology)" or DE "self-congruence" or DE "self-discrepancy"		8020
S17	TX "self concept"		7159
S18	DE "trust"		2804
S19	DE "body image"		1551
S20	TX emotional N2 intelligence		606
S21	DE "adaptability (psychology)" or DE "adjustment (psychology)"		8044
S22	DE "interpersonal relations"		31344

S23	DE "self psychology"	239
S24	DE "behavior"	12426
S25	DE "health behavior"	4140
S26	DE "social desirability"	1031
S27	TX social N2 behavior or TX social N2 behaviour	15622
S28	DE "social isolation" or DE "disengagement (psychology)" or DE "loneliness" or DE "social marginality"	5359
S29	DE "geropsychology" or DE "optimism in older people" or DE "positivity effect (psychology)"	459
S30	S13 or S14 or S15 or S16 or S17 or S18 or S19 or S20 or S21 or S22 or S23 or S24 or S25 or S26 or S27 or S28 or S29	112478
S31	S6 and S12 and S30	1230
S32	DE "age distribution(demography)"	2021
S33	DE "health education"	3957
S34	DE "older people & the environment" or DE "older people - economic conditions" or DE "older people - hospital care" or DE "older people - social conditions" or DE "older people social networks"	965
S35	DE "services for the aged" or DE "social health mainteneance organizations"	1009
S36	DE "senior housing" or DE "congregate housing" or DE "nursing care facilities" or DE "retirement communities"	2684
S37	DE "social support"	8301
S38	S32 or S33 or S34 or S35 or S36 or S37	18510
S39	S31 and S38	216
S40	TX "confidence interval*"	9152
S41	S39 not S40	121
S42	Limit by publication date 1994-2015	111
S43	Narrow by English language	<b>108</b>

**Database: OpenGrey**

Date of search: 17-18/9/15

Platform: [www.opengrey.eu](http://www.opengrey.eu)

Frail elder* [no limits]	50	31 selected
older AND people AND frail*	30	14 selected
elder* AND people AND frail*	24	0 selected
(ageing OR aging) AND frail*	17	1 selected
(ageing OR aging) AND confiden*	21	2 selected
(ageing OR aging ) AND wellbeing	5	0 selected
elder* AND people AND wellbeing	0	
elder* AND people AND confiden*	6	0 selected
older AND people AND confiden*	14	0 selected
older AND people AND wellbeing	<b>6</b>	<b>1 selected</b>

## Appendix II: Studies selected for retrieval

Abad-Corpa E, Gonzalez-Gil T, Martínez-Hernández A, Barderas-Manchado M, De IC, Monistrol-Ruano O, et al. Caring to achieve the maximum independence possible: a synthesis of qualitative evidence on older adults adaptation to dependency, *Journal of Clinical Nursing*. 2012; 21(21): 3153-69.

Barnes M, Bennett G. Frail bodies, courageous voices: older people influencing community care, *Health & Social Care in the Community*. 1998; 6(2): 102-12.

Beesley K, White JH, Alston MK, Sweetapple AL, Pollack M. Art after stroke: the qualitative experience of community dwelling stroke survivors in a group art programme, *Disability and rehabilitation*. 2011; 33(23-24): 2346-55.

Behm L, Ivanoff SD, Zidén L. Preventive home visits and health - experiences among very old people, *BMC Public Health*. 2013; 13(378): 10.

Brannstrom M, Ekman I, Norberg A, Boman K, Strandberg G. Living with severe chronic heart failure in palliative advanced home care, *European journal of cardiovascular nursing: journal of the Working Group on Cardiovascular Nursing of the European Society of Cardiology*. 2006; 5(4): 295-302.

Casey D, Murphy K, Cooney A, O'Shea E. Patient perceptions having suffered a stroke in Galway, *British Journal of Community Nursing*. 2008; 13(8): 384-90.

Chang S. Beliefs about self-care among nursing home staff and residents in Taiwan, *Geriatric Nursing*. 2009; 30(2): 90.

Elias T, Lowton K. Do those over 80 years of age seek more or less medical help? A qualitative study of health and illness beliefs and behavior of the oldest old, *Sociology of Health & Illness*. 2014; 36(7): 970-85.

Ekwall A, Hallberg IR, Kristensson J. Compensating, controlling, resigning and accepting-older person's perception of physical decline, *Current Aging Science*. 2012; 5(1): 13-18.

Eloranta S, Routasalo P, Arve S. Personal resources supporting living at home as described by older home care clients, *International Journal of Nursing Practice*. 2008; 14(4): 308.

Greysen SR, Hoi-Cheung D, Garcia V, Kessell E, Sarkar U, Goldman L, et al. 'Missing Pieces' - Functional, Social, and Environmental Barriers to Recovery for Vulnerable Older Adults Transitioning from Hospital to Home. *Journal of the American Geriatrics Society*. 2014; 62(8): 1556.

Kristensson J, Hallberg IR, Ekwall AK. Frail older adult's experiences of receiving health care and social services, *Journal of Gerontological Nursing*. 2010; 36(10): 20-31.

Lee VS, Simpson J, Froggatt K. A narrative exploration of older people's transitions into residential care, *Aging & Mental Health*. 2013; 17(1): 48-56.

Nicholson C, Mayer J, Flatley M, Holdman C. The experience of living at home with frailty in old age: A psychosocial qualitative study, *International Journal of Nursing Studies*. 2012; DOI 10.1016/j.ijnurstu.2012.01.006.

Nicholson C, Meyer J, Flatley M, Holman C, Lowton K. Living on the margin: Understanding the experience of living and dying with frailty in old age, *Social Science & Medicine*. 2012; 75(8): 1426-32.

Resnick B. Geriatric rehabilitation: the influence of efficacy beliefs and motivation, *Rehabilitation Nursing*. 2002; 27(4): 152-61.

Sandberg M, Jakobsson U, Midlov P, Kristensson J. Case management for frail older people - a qualitative study of receivers' and providers' experiences of a complex intervention, *BMC Health Services Research*. 2014; 14.

Tung Y-C, Cooke M, Moyle W. Sources older people draw on to nurture, strengthen and improve self-efficacy in managing home rehabilitation following orthopaedic surgery, *Journal of Clinical Nursing*. 2013; 22(9/10): 1217-26.

Walker R, Johns J, Halliday D. How older people cope with frailty within the context of transition care in Australia: implications for improving service delivery, *Health and Social Care in the Community* (Print edition). 2015; 23(2): 216.

Wallin M, Talvitie U, Cattan M, Karppi S. The meaning older people give to their rehabilitation experience, *Ageing & Society*. 2007; 27: 147-64.

**Appendix III: Appraisal instruments**

**QARI Appraisal instrument**

**JBI QARI Critical Appraisal Checklist for Interpretive & Critical Research**

Reviewer ..... Date .....

Author ..... Year ..... Record Number .....

	Yes	No	Unclear	Not Applicable
1. Is there congruity between the stated philosophical perspective and the research methodology?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Is there congruity between the research methodology and the research question or objectives?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Is there congruity between the research methodology and the methods used to collect data?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Is there congruity between the research methodology and the representation and analysis of data?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Is there congruity between the research methodology and the interpretation of results?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Is there a statement locating the researcher culturally or theoretically?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Is the influence of the researcher on the research, and vice-versa, addressed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Are participants, and their voices, adequately represented?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Overall appraisal:  Include  Exclude  Seek further info.

Comments (Including reason for exclusion)

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Appendix IV: QARI data extraction instrument

**JBI QARI Data Extraction Form for Interpretive & Critical Research**

Reviewer ..... Date .....

Author ..... Year .....

Journal ..... Record Number .....

**Study Description**

Methodology

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Method

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Phenomena of interest

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Setting

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Geographical

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Cultural

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Participants

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Data analysis

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Authors Conclusions

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Comments

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Complete

Yes

No



## Appendix V: Excluded studies

Abad-Corpa E, Gonzalez-Gil T, Martínez-Hernández A, Barderas-Manchado M, De IC, Monistrol-Ruano O, et al. Caring to achieve the maximum independence possible: a synthesis of qualitative evidence on older adults adaptation to dependency.

Reason for exclusion: Did not meet PICo criteria – no descriptive meaning of confidence from the older person's perspective indicated in this systematic synthesis exploring older adult's adaption to dependency.

Barnes M, Bennett G. Frail bodies, courageous voices: older people influencing community care, Health & Social Care in the Community.

Reason for exclusion: Did not meet PICo criteria – no descriptive meaning of confidence from the older person's perspective

Behm L, Ivanoff SD, Zidén L. Preventive home visits and health - experiences among very old people.

Reason for exclusion: Did not meet PICo criteria – no descriptive meaning of confidence from the older person's perspective. Authors perspective given, linked to self-efficacy.

Brannstrom M, Ekman I, Norberg A, Boman K, Strandberg G. Living with severe chronic heart failure in palliative advanced home care.

Reason for exclusion: Did not meet PICo criteria – no descriptive meaning of confidence from narrative interviews with four older people living with severe chronic heart failure.

Casey D, Murphy K, Cooney A, O'Shea E. Patient perceptions having suffered a stroke in Galway.

Reason for exclusion: Did not meet PICo criteria – no descriptive meaning of confidence from the older person's perspective. Authors perspective links loss of confidence to a negative effect on quality of life for stroke survivors.

Chang S. Beliefs about self-care among nursing home staff and residents in Taiwan, Geriatric Nursing.

Reason for exclusion: Did not meet PICo criteria – no descriptive meaning of confidence from the older person's perspective. The author connects the narrative of care home staff to increased self-confidence through promoting self-care activities.

Ekwall A, Hallberg IR, Kristensson J. Compensating, controlling, resigning and accepting-older person's perception of physical decline.

Reason for exclusion: Did not meet PICo criteria – no descriptive meaning of confidence from the older person's perspective.

Elias T, Lowton K. Do those over 80 years of age seek more or less medical help? A qualitative study of health and illness beliefs and behavior of the oldest old.

Reason for exclusion: Did not meet PICO criteria – no descriptive meaning of confidence from the older person's perspective in this study exploring health and illness beliefs and behaviours.

Eloranta S, Routasalo P, Arve S. Personal resources supporting living at home as described by older home care clients.

Reason for exclusion: Did not meet PICO criteria – no descriptive meaning of confidence from the older person's perspective.

Greysen SR, Hoi-Cheung D, Garcia V, Kessell E, Sarkar U, Goldman L, et al. 'Missing Pieces' - Functional, Social, and Environmental Barriers to Recovery for Vulnerable Older Adults Transitioning from Hospital to Home.

Reason for exclusion: Did not meet PICO criteria – no descriptive meaning of confidence from the older person's perspective in their transitions from hospital to home.

Kristensson J, Hallberg IR, Ekwall AK. Frail older adult's experiences of receiving health care and social services.

Reason for exclusion: Did not meet PICO criteria – no descriptive meaning of confidence from the older person's perspective.

Lee VS, Simpson J, Froggatt K. A narrative exploration of older people's transitions into residential care.

Reason for exclusion: Did not meet PICO criteria – no descriptive meaning of confidence from the older person's perspective despite mention of participant's discussion of not feeling confident in the abstract

Nicholson C, Mayer J, Flatley M, Holdman C. The experience of living at home with frailty in old age: A psychosocial qualitative study.

Reason for exclusion: Did not meet PICO criteria – no descriptive meaning of confidence from the older person's perspective. 'Loss of Confidence' referred to within people's narrative accounts of living with frailty.

Nicholson C, Meyer J, Flatley M, Holman C, Lowton K. Living on the margin: Understanding the experience of living and dying with frailty in old age.

Reason for exclusion: Did not meet PICO criteria – no descriptive meaning of confidence from the older person's perspective despite the author highlighting the recurrent phase 'loss of confidence' in narratives of 17 participants.

Sandberg M, Jakobsson U, Midlov P, Kristensson J. Case management for frail older people - a qualitative study of receivers' and providers' experiences of a complex intervention.

Reason for exclusion: Did not meet PICO criteria – no descriptive meaning of confidence from

the older person's perspective.

Walker R, Johns J, Halliday D. How older people cope with frailty within the context of transition care in Australia: implications for improving service delivery.

Reason for exclusion: Did not meet PICO criteria – no descriptive meaning of confidence from the older person's perspective despite many contextual references to trust and mutual confidence in the case management arrangements between professional and the person.

## Appendix VI: List of study findings

<p><b>Beesley K, White JH, Alston MK, Sweetapple AL, Pollack M. Art after stroke: The qualitative experience of community dwelling stroke survivors in a group art programme. Disabil Rehabil. 2011; 33(23-24): 2346-55.</b></p>	
<p>Finding 1 [Unequivocal]</p>	<p>Experience of stroke</p>
<p>Illustration</p>	<p>“Accompanying feelings of isolation, participants experienced reduced confidence and altered mood following stroke ... Participants explained having difficulty with adjusting to life after stroke meant they were less confident to try new experiences or to engage in the community.” (p.2350)</p> <p>“I haven't got the confidence I used to have before I had the stroke ... It's [confidence to do things] a big challenge now. It never used to be but now it is. (Participant 3, female, age 72)” (p.2350)</p> <p>“[After a stroke] your confidence had been knocked around a fair bit ... there's a lot of things you can't achieve. (Participant 1, male, aged 53, FG)” (p.2350)</p>
<p>Finding 2 [Unequivocal]</p>	<p>Benefit of art</p>
<p>Illustration</p>	<p>“Creative outlet ... self-awareness ... increased confidence ...lifestyle benefits. Another key factor contributing to increased confidence was the opportunity for participants to interact socially with other group members. Socialising with other group members increased confidence and self-esteem.” (p.2350-2351)</p> <p>”I would encourage someone to do it ...[stroke] knocks your confidence for six, even if its minor ... suddenly you find you can't do things. But if you can come [to the group], with an open mind and allow what happens, the confidence grows in you, it's positive. (Participant 5, female, age 65, FG)” (p.2351)</p>
<p>Finding 3 [Credible]</p>	<p>Benefits of a group setting</p>
<p>Illustration</p>	<p>“Some participants indicated they were 'not arty' (Participant 2) or 'not very artistic' (Participant 5). Despite this, they reportedly 'enjoyed the group' (Participant 2) which helped them 'smile a lot more' (participant 5) by being with other stroke survivors. Enjoyment was still able to be identified when feeling challenged by the art process...” (p.3352)</p>

**Resnick B. Geriatric rehabilitation: The influence of efficacy beliefs and motivation. Rehabil Nurs. 2002; 27(4): 152-61.**

<p>Finding 1 [Unequivocal]</p>	<p>Personal expectations</p>
<p>Illustration</p>	<p>“Personal expectations were described as three types of belief - specific beliefs about ability (self-efficacy), specific beliefs about outcomes (outcome-expectations) and general beliefs about outcomes (general outcome expectations) ... Specific outcome expectations were described as a belief that performing a certain activity would result in an expected outcome (i.e. participation in rehabilitation will improve functional performance). This belief motivated individuals to participate in the rehabilitation programme.” (p.154)</p> <p>“I am confident the therapy is going to help. If I wasn't confident, I would not go to therapy, I would leave!” (p.154)</p>
<p>Finding 2 [Credible]</p>	<p>Information influenced efficacy beliefs</p>
<p>Illustration</p>	<p>“Participants indicated that their beliefs about their ability to perform specific activities and to participate in rehabilitation aimed at their overall recovery were, to varying degrees, influenced by role models, verbal encouragement, their own progress in rehabilitation, past experiences, spirituality and physical sensations.” (p.155)</p> <p>“what they are doing here is teaching me a lot that I didn't know and letting me practice. What it is doing for me is helping me, not you people, but helping me a whole lot. After I practice and progress here I believe that I can go home and do the same things.” (p.155)</p>

**Tung Y-C, Cooke M, Moyle W. Sources older people draw on to nurture, strengthen and improve self-efficacy in managing home rehabilitation following orthopaedic surgery. J Clin Nurs. 2013; 22(9/10): 1217-26.**

<p>Finding 1 [Unequivocal]</p>	<p>Nurturing self-efficacy through working with others</p>
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Illustration	<p>“all participants accepted nurturing support from their social network [Family and friends] or sought assistance from community services to gain more confidence in dealing with their situation.” (p.1220)</p> <p>“I had my daughter come and do the work for the first week, look after me, stay with me ... she did everything. She was a great help. ... you know that was what I needed to have someone here with me for the first week and then I said you can go home because I was more confident and you didn't need to be here. (Jessica)” (p.1220)</p>
Finding 2 [Credible]	Strengthening self-efficacy through accessing personal values and beliefs
Illustration	<p>“This theme presents the way participants accessed their personal values and belief following orthopaedic surgery as a source to strengthen their self-efficacy and become confident in continuing rehabilitation ... belief in the importance of exercise ...positive attitude.” (p.1220-1221)</p> <p>“So what I've got to do now is to force myself into doing a little bit of exercise every day ... going for a walk to the end of the road and back... (Ron)” (p.1221)</p>
Finding 3 [Unequivocal]	Improving self-efficacy through adaptive strategies and goal setting
Illustration	<p>“Participants were able to improve their self-efficacy in relation to the rehabilitation programme at home through adaptations and modifications made to daily activities and by setting goals to continue their normal lives and activities. These consequently increased their overall confidence in managing challenging situations within the rehabilitation process... Participants used various walking aids and facilities, depending on individual capability, to improve confidence with situations and environments. They though this allowed them to continue with their independent living...” (p.1222)</p> <p>“Well, when I first came home and i had a walker, you know and I walked around here and I hated it, but it gave me great confidence, It really did give me confidence...(Diana)” (p,1222)</p>

**Wallin M, Talvitie U, Cattan M, Karppi S. The meaning older people give to their rehabilitation experience. Ageing & Society. 2007; 27: 147-64.**

Finding 1	A sense of confidence with everyday life
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[Unequivocal]	
Illustration	<p>“This category 'sense of confidence with everyday life' includes ... the various benefits they perceived from the rehabilitation. Many of these were framed in a coherent story that described incidents in their lives that were challenging or had caused problems. ...benefits were interwoven with senses of being able to take care of oneself, of coping with everyday life, with improving physical ability and with experiencing encouraging interactions with the staff.” (p.152)</p> <p>“Q: If you consider the meaning of this spell in rehabilitation in terms of how you can manage at home, what in your opinion have been the benefits? A: Well it's been pretty good, it's given me a lot of confidence. You began to feel you can cope on your own ... without help. like these nurses no longer have to come round twice a day, not even once. So it's given (me) the confidence to cope without help at home.” (p.154)</p> <p>“Q: Whose idea was this that you practice these kinds of things? A: Well it was getting out of a chair, this was what they were teaching us. We used a higher chair to get up and then next a lower one ... and then I said that I'll fall over and I won't be able to get up. And then we started talking, and they asked me, 'Should we practice this?' and I said 'absolutely'. And then we tried it, several times, and every day it went better and better. It really helped build up your confidence (to the point that I) can get up.” (p.154)</p>
Finding 2 [Credible]	Sense of vacation
Illustration	<p>“This sense of vacation was manifest in the expression of carefree living, enjoyment and pleasant social interaction.” (p.154)</p> <p>”Yes it really is wonderful that a person like myself ... I mean, I spend a lot of time at home, I don't really go out very often ... I suppose, you could say, because I no longer have the energy or ability. I mean, you know, my age; so yes, this really is wonderful. I would certainly recommend this kind of holiday; I'd be delighted to come again.” (p.154-155)</p>
Finding 3 [Credible]	Sense of disappointment in the rehabilitation program

Illustration	<p>“The participants who tended to be among the more articulate and more proactive when at home in reaching their goals went to the rehabilitation programme, which appeared to them to have a pre-set format and to lack opportunities for participation in its planning or goal setting.”; (p.156)</p> <p>“Q: Did I get this right? You felt you didn't have enough say about what went on there? A: Well, no I didn't, I mean the programme was all set out in advance when we went there, we always had to go, whenever (laughs), when it was time to go, so there really wasn't very much negotiation or questions as to who wanted what.” (p.156)</p>
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