Age and Ageing 2024; **53:** afae194
https://doi.org/10.1093/ageing/afae194

SYSTEMATIC REVIEW

Hip fracture has profound psychosocial impacts: a systematic review of qualitative studies

Nicholas F. Taylor[1,2], Made U. Rimayanti[1,3], Casey L. Peiris[1,4], David A. Snowdon[1,5], Katherine E. Harding[1,2], Adam I. Semciw[1,6], Paul D. O'Halloran[3,7], Elizabeth Wintle[1], Scott Williams[1], Nora Shields[8]

[1]Academic and Research Collaborative in Health, La Trobe University, Bundoora, Victoria 3086, Australia
[2]Allied Health Clinical Research Office, Eastern Health, 2/5 Arnold Street, Box Hill, Victoria 3128, Australia
[3]School of Psychology and Public Health, La Trobe University, Melbourne, Victoria 3086, Australia
[4]Royal Melbourne Hospital, Parkville, Melbourne 3052, Victoria Australia
[5]Academic Unit, Peninsula Health, Frankston, Victoria 3133, Australia
[6]Allied Health, Northern Health, Epping, Victoria 3076, Australia
[7]Centre for Sport and Social Impact, La Trobe University, Melbourne, Victoria 3086, Australia
[8]Olga Tennison Autism Research Centre, La Trobe University, Melbourne, Victoria 3086, Australia

Address correspondence to: Nicholas F Taylor, La Trobe University, Room 516 HS3, Kingsbury Drive, Bundoora 3086, Australia. Email: n.taylor@latrobe.edu.au

Abstract

Background: Hip fracture is a common and serious traumatic injury for older adults characterised by poor outcomes.
Objective: This systematic review aimed to synthesise qualitative evidence about the psychosocial impact of hip fracture on the people who sustain these injuries.
Methods: Five databases were searched for qualitative studies reporting on the psychosocial impact of hip fracture, supplemented by reference list checking and citation tracking. Data were synthesised inductively and confidence in findings reported using the Confidence in the Evidence from Reviews of Qualitative research approach, taking account of methodological quality, coherence, relevance and adequacy.
Results: Fifty-seven studies were included. Data were collected during the peri-operative period to >12 months post fracture from 919 participants with hip fracture (median age > 70 years in all but 3 studies), 130 carers and 297 clinicians. Hip fracture is a life altering event characterised by a sense of loss, prolonged negative emotions and fear of the future, exacerbated by negative attitudes of family, friends and clinicians. For some people after hip fracture there is, with time, acceptance of a new reality of not being able to do all the things they used to do. There was moderate to high confidence in these findings.
Conclusions: Hip fracture is a life altering event. Many people experience profound and prolonged psychosocial distress following a hip fracture, within a context of negative societal attitudes. Assessment and management of psychosocial distress during rehabilitation may improve outcomes for people after hip fracture.

Keywords: hip fracture; trauma; systematic review; qualitative analysis; psychosocial; older people

Key Points

- There is a large body of evidence reporting coherent and relevant evidence on the psychosocial impact of hip fracture.
- Hip fracture is a life altering event characterised by a sense of loss, negative emotions and fear of the future. These reactions can be exacerbated by negative attitudes by carers and clinicians.
- Psychosocial management may be a component of optimal care to improve outcomes after hip fracture.

Background

Hip fracture is a common and serious injury for older adults. Approximately 1 in 4 people die within the first 12 months after hip fracture [1, 2], only 2 in 3 people who previously lived independently in the community return home, [3] and only about 1 in 3 regain pre-fracture mobility within 6 months after hip fracture [4]. Although these statistics are compelling, they do not consider the additional psychosocial impact that a significant injury, such as hip fracture, can have on a person. Psychosocial factors after injury comprise cognitive, affective and behavioural factors [5]. These factors, including stress perceptions, anxiety and social connections, have been shown to affect return to community engagement in other populations [5], and it is possible these factors are even more pronounced in people after hip fracture when coupled with the increased rates of social isolation and loneliness common among older people [6].

Major trauma, defined as a serious injury with potentially life-changing consequences, is associated with high levels of psychosocial impact, including psychological distress and post-traumatic stress symptoms [7]. Given the associated morbidity and mortality, hip fracture can be a major trauma for which high levels of psychosocial impact may be expected. Understanding the psychosocial impact of hip fracture could inform assessments and interventions to improve outcomes. For example, there is potential to address loss of confidence in mobility after hip fracture through interventions such as motivational interviewing, with subsequent improvements in functional mobility [8]. However, recommended rehabilitation interventions [9] and hip fracture guidelines pay little attention to the assessment or management of the significant psychosocial impact of these injuries [10, 11].

A recent systematic review reported quantitative measures of psychological outcomes after hip fracture in 55 studies [12]. The main psychological factors identified were depression and anxiety with evidence of a negative association between these factors and functional outcome. In another quantitative review of 19 studies, social factors, including social support and living arrangements, were found to be associated with functional recovery and mortality [13]. These findings demonstrate how psychosocial factors can influence outcomes after hip fracture, but the findings are limited to the measurement tools chosen by researchers.

Another source of insights into the psychosocial impacts of hip fracture is the lived experience of people, obtained through qualitative research. Qualitative methods can provide in-depth details about phenomena that are difficult to convey with quantitative methods [14]. In this way, the evaluation of the impact of hip fracture is not limited to outcomes chosen by researchers but gives voice to people who have experienced a hip fracture and those who care for them. One review of 14 qualitative studies explored perspectives of recovery after hip fracture in relation to the end point of care [15] but there has been no synthesis of qualitative literature investigating the psychosocial impact of hip fracture. Therefore, we aimed to systematically review qualitative studies to describe the psychosocial impact of hip fracture on the people who sustain them.

Methods

This study is reported consistent with the Enhancing Transparency in Reporting the Synthesis of Qualitative Research (ENTREQ) [16] and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines [17] (Appendices 1 and 2). A protocol was registered prospectively on the PROSPERO platform (CRD42023457564).

Search strategy and selection criteria

We included studies reporting experiences of people with hip fracture, as well as those involving carers and clinicians involved in the treatment of these patients (Table 1). We were interested in primary qualitative studies that explored psychosocial experiences after hip fracture.

Five databases were searched to identify relevant studies (MEDLINE, The Cochrane Central Register of Controlled Trials (CENTRAL), EMBASE, PsycINFO and CINAHL) from inception until 25 August 2023. Further studies were identified through checking the reference lists of included studies and citation tracking using Google Scholar.

A pre-planned search strategy was developed to identify all available studies, using the search terms 'hip fracture', 'qualitative' and synonyms for these terms. The search was limited to studies published in English. Search strategies can be viewed in Appendix 3.

Articles were imported into Covidence software with duplicates removed. Two of a team of three reviewers (MR, SW and NT) independently screened the title and abstract of each article against inclusion criteria. The full text of any articles that remained after title and abstract screening were also screened by two of three reviewers (MR, SW and NT) independently. Disagreements were resolved by discussion between the two reviewers, and if disagreement persisted, a third reviewer decided if the article was included or not.

Two reviewers independently extracted data on study characteristics and design from each study (MR and SW) and the accuracy of extraction was checked by a third reviewer (AS or DS). These data included sample size, setting, data collection method (e.g. interview or focus group), qualitative framework, and research questions informing the analysis; these data were collated using Microsoft Excel software. Prior to data extraction, the form was pilot tested on five studies.

The quality of included studies was assessed by two reviewers (MR and SW) using the Critical Appraisal Skills Programme (CASP) checklist for qualitative research [18]. This checklist contains 10 questions on three aspects: what the results are; whether the results are valid; and whether the results are helpful locally. Quality appraisal was conducted by two reviewers independently, and any conflict was resolved through consensus.

Table 1. Inclusion and exclusion criteria.

Criteria	Inclusion	Exclusion
Population	• People recovering from hip fracture. For mixed samples (e.g. lower limb fractures), the experiences of those recovering from hip fracture needed to be reported separately • Carers of people recovering from hip fracture • Clinicians of people recovering from hip fracture	
Context	• Studies set in hospital and in the community, including residential aged care setting	
Study design	• Studies with qualitative methods • Studies with mixed-method designs (only the qualitative component of included studies will be analysed) • Surveys with open-ended component containing patient/clinician/carer experiences	• Secondary analysis of qualitative data (e.g. a systematic review)
Outcomes/ Experiences	• Psychosocial experiences of patients following hip fracture including factors such as: • ***Cognitive*** : e.g. confidence, beliefs, perceptions, goal adjustment, meanings • ***Affective*** : e.g. fear of reinjury, depression, anxiety, frustration, boredom • ***Behaviour*** : e.g. social connections (or disconnections), help-seeking, rehabilitation compliance • ***Outcomes*** related to community engagement such as return to pre-injury social activities, and relationships with families and carers	• Studies exploring patients' experiences after participating in interventions e.g. satisfaction with treatment, a service or clinician rather than the psychosocial impact of hip fracture • Quantitative data relating to psychosocial outcomes as measured by scales or checklists
Other		• Studies not published in the English language • Abstracts/Conference proceedings

Synthesis

A qualitative meta-synthesis approach was used to analyse the data using methods described by Lachal et al [19]. First, two reviewers from a team of four (MR, CP, NS, NT) read and re-read the results sections of each included study to familiarise themselves with the data. Next, data from the results sections and relevant sections of the discussion were extracted from each study and codes were assigned using an inductive process. The identified codes were reviewed and grouped according to similarity in meaning. Lastly, the four reviewers (MR, CP, MS, NT) met and organised the grouped codes into themes and subthemes. Final synthesis involved four reviewers looking for potential relationships across the themes and subthemes. Microsoft Word and NVivo software were used to help with data management and analysis.

The Confidence in the Evidence from Reviews of Qualitative research (GRADE-CERQual) approach was applied to determine confidence in the identified themes considering methodological limitations, coherence, adequacy of data and relevance, with findings summarised in a qualitative evidence table [20]. Methodological limitations were categorised based on the number of unclear or unreported items on the CASP checklist. For individual studies, 'no or very minor concerns' category was awarded for 0 or 1 missing items on the CASP checklist; 'minor concerns' for 2 missing items; 'moderate concerns' for 3 or 4 missing items; and 'serious concerns' for more than 4 missing items. The degree of confidence was determined based on the number of serious/moderate/minor methodological limitations compared to the overall number of studies supporting each finding. Coherence refers to how cogent the fit is between the data from primary studies and a review finding that synthesises that data [20]. As such, coherence was categorised based on the degree to which the data from the included studies was transformed to create synthesised findings in our review. For example, synthesised findings that directly described results reported in the source papers were categorised as 'no or very minor concerns', while synthesised findings that were considered to be interpretive or explanatory were categorised as 'minor concerns' or more [20]. Adequacy was categorised based on the degree of richness and quantity of data supporting a review finding. Relevance was categorised based on whether the data from the primary studies was applicable to the context (population, phenomenon of interest, setting) of the review. Confidence in each review finding was reported as either high, moderate, low or very low. Findings were downgraded from high to moderate if there were at least moderate concerns in one domain and could be downgraded two levels if there were moderate concerns in two domains or serious concerns in one domain.

Results

Study selection

The search strategy yielded 2798 studies, with 1951 records remaining after removal of duplicates (Figure 1). Following application of the inclusion criteria, the full text of 116 studies were screened and 54 studies were included in the

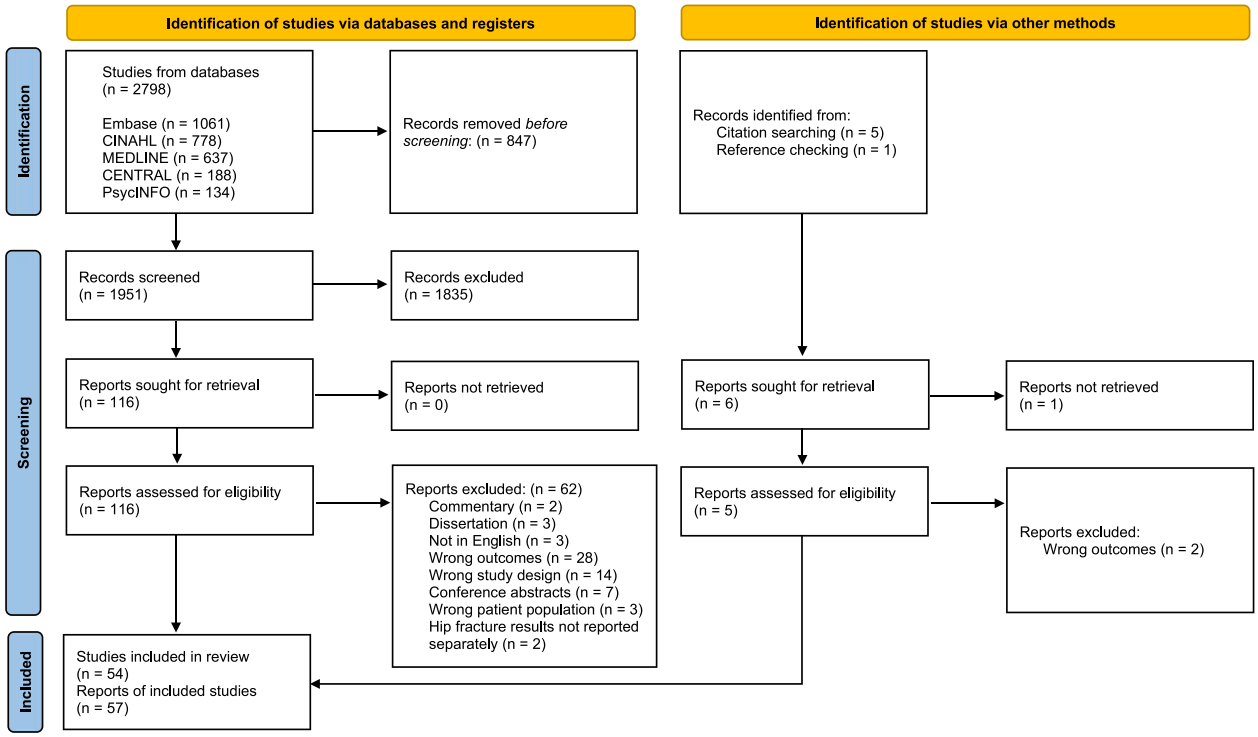

Figure 1. PRISMA 2020 flow of study selection [17].

review. Citation searching and reference checking yielded a further 3 studies, bringing the total number of included studies to 57 [21–77]. The most common reason for exclusion was that a study did not include data on psychosocial experiences (n = 30, 56%) (Appendix 4).

Methodological quality of included studies

All studies had a clear rationale for selecting qualitative methodology to address their research question and all but two studies [27, 55] had a clear statement of the study aims (Appendix 5). Only 18 (32%) studies had adequately considered the relationship between the researchers and the participants. While most studies had considered ethical issues, eight (14%) studies did not explicitly or adequately report on ethical review. Six studies (11%) had insufficiently rigorous data analysis, and 20 (35%) studies did not have a clear statement of findings.

Study participant characteristics

The participants in the included studies were 919 adults after hip fracture from 54 studies, 297 clinicians from 11 studies and 130 carers from 12 studies. Most participants with hip fracture were female (73%, 631 of 860 where reported) and median or mean ages, where reported, were at least 70 years for all but three studies [42, 55, 66]. Median or mean age was at least 80 years in 19 studies (Table 2). Participants were receiving acute care in hospital in 18 studies, completing sub-acute rehabilitation in 11 studies, and living in the community in 32 studies, with 16 studies exploring perspectives across the different periods. All except five studies used semi-structured interviews as the data collection method.

Thematic synthesis

The overarching theme identified was that hip fracture was viewed as a life-altering event. After hip fracture, people experienced a profound sense of loss, expressed pervasive and ongoing negative emotions and were very worried about the future (sub-themes). Affecting these negative experiences was a negative societal attitude (theme). For some people, with time, there was a sense of acceptance of their new reality (theme) (Figure 2) (Appendix 6).

Life-altering event

Hip fracture was regarded as a life-altering event that encompassed major disruptions. Many people who were previously active and able to participate in the community were forced to adapt to a new reality, where they could no longer do things they wanted to do, the way they wanted to do them.

> "It's altered my whole life, believe me." (Participant with hip fracture) [67]

> "I do not think I will return to my former life." (Participant with hip fracture) [30]

This life-altering event typically began as a traumatic fall, followed by a negative hospital experience. People talked about feeling vulnerable, helpless, scared, and not being valued as a person during the perioperative phase. Some people experienced existential questions after this traumatic event and questioned the change in their identity.

Table 2. Study characteristics.

Study	Title	Setting	Sample size (n)	Data collection method	Qualitative framework	Median patient age (range)	Female patients (n, %)	Community-dwelling (n, %)	Living alone (n, %)
Abrahamsen [21]	Patients' perspectives on everyday life after hip fracture: A longitudinal interview study	Acute-Post-hip fracture	12 PwHF	Semi-structured interviews, Individual, Face-to-face/telephone	Abductive reasoning	83 (65–103) 89 (82–97) 89 (82–97)	10 (83) 6 (100) 4 (100)	11 (92) 5 (83) 3 (75)	7 (58)
Ansah [22]	Systems modelling as an approach for eliciting the mechanisms for hip fracture recovery among older adults in a participatory stakeholder engagement setting	NR	20 (11 Clinicians, 8 PwHF, 1 Carer)	Participatory workshop, Group, Face-to-face	Group Model Building	NR	NR	NR	NR
Archibald [23]	Patients' experiences of hip fracture	Subacute-Community	5 PwHF	Semi-structured interviews, Individual, Face-to-face	Phenomenological methodology	(>65)a	4 (80)	NA	NR
Asplin [24]	See me, teach me, guide me, but it's up to me! Patients' experiences of recovery during the acute phase after hip fracture	Acute-Subacute	19 PwHF	Semi-structured interviews, Individual, Face-to-face	Content analysis	81 (66–94)	13 (68)	NA	14 (74)
Ballinger [25]	Falling from grace or into expert hands? Alternative accounts about falling in older people	Acute-Subacute	28 (8 PwHF, 20 Clinicians)	Semi-structured interviews, Individual, Face-to-face	Discourse analysis	*m* = 81 (70–89)	7 (88)	NA	NR
Bergh [26]	Ways of talking about experiences of pain among older patients following orthopaedic surgery	Acute	22 PwHF	Semi-structured interviews, Individual, Face-to-face	Descriptive qualitative content analysis	*m* = 81 (65+)a	NR	NA	22 (37)
Bishop [27]	From boundary object to boundary subject; the role of the patient in coordination across complex systems of care during hospital discharge	Acute-Community	86 (17 PwHF, 69 Clinicians)	Semi-structured interviews, Individual, Face-to-face	Ethnographic approach, interpretative qualitative data analysis	NR	NR	NR	NR
Borkan [28]	Expectations and outcomes after hip fracture among the elderly	Acute-Community	80 PwHF	Interviews, Individual, Face-to-face/telephone	Ethnographic approach, Content analysis	*m* = 80 (65+)a	65 (81) NR	NA NR	NR
Borkan [29]	Finding meaning after the fall: injury narratives from elderly hip fracture patients	Acute-Community	80 PwHF	Questionnaire; Semi-structured interviews	Explanatory model	*m* = 80 (>65)a NR	65 (81) NR	NA NR	NR
Bruun-Olsen [30]	'I struggle to count my blessings': Recovery after hip fracture from patients' perspective	Community	8 PwHF	Semi-structured interviews, Individual, Face-to-face	Phenomenological methodology	(69–91)	6 (75)	8 (100)	NR
Furstenberg [31]	Expectations about outcome following hip fracture among older people	Acute-Subacute	20 (11 PwHF, 9 Non-patients (community-dwelling elderly))	Semi-structured interviews, Individual, Face-to-face	Content analysis	(59–85)	7 (63)	NA	NR
Gesar [32]	Hip fracture: an interruption that has consequences four month later. A qualitative study	Community	25 PwHF	Semi-structured interviews, Individual, Face-to-face	Inductive content analysis	(65+)a	22 (88)	22 (88)	NR
Gesar [33]	Older patients' perception of their own capacity to regain pre-fracture function after hip fracture surgery—an explorative qualitative study	Acute	30 PwHF	Semi-structured interviews, Individual, Face-to-face	Inductive content analysis	*m* = 83 (65–97)	27 (90)	NA	NR

(*Continued*)

Table 2. Continued

Study	Title	Setting	Sample size (n)	Data collection method	Qualitative framework	Median patient age (range)	Female patients (n, %)	Community-dwelling (n, %)	Living alone (n, %)
Gorman [34]	Exploring older adults' patterns and perceptions of exercise after hip fracture	Community	32 PwHF	Interviews (open-ended), Individual, Telephone	Unspecified thematic analysis	*m* = 83 (62–97)	22 (69)	29 (100)	NR
Griffiths [35]	Evaluating recovery following hip fracture: a qualitative interview study of what is important to patients	Subacute-Community	53 (31 PwHF, 22 Carers)	Interview, Individual/dyad, Face-to-face	Inductive, thematic analysis and cross case analysis	*m* = 82 (*SD* = 9)	20 (65)	NR	NR
Guilcher [36]	A qualitative study exploring the lived experiences of deconditioning in hospital in Ontario, Canada	Acute-Community	53 (15 PwHF, 10 Carers, 17 Clinicians, 11 Managers)	Interview, Individual, Face-to face/telephone	Constant comparison	(50+)a	NR	NR	NR
Gunnarsson [37]	Hip-fracture patients' experience of involvement in their care: A qualitative study	Subacute	16 PwHF	Semi-structured interviews, Individual, Face-to-face	Systematic text condensation	*m* = 78 (65–72)	13 (81)	NA	NR
Haslam-Larmer [38]	Early mobility after fragility hip fracture: A mixed methods embedded case study	Acute	28 (17 PwHF, 10 Clinicians, 5 Carers)	Semi-structured interviews, Individual/dyad, Face-to-face	Thematic analysis	86 (66–100)	14 (78)	NA	NA
Hommel [39]	The patient's view of nursing care after hip fracture	Acute	10 PwHF	Semi-structured interviews, Individual, Face-to-face	Content analysis	*m* = 78	9 (90)	NA	NA
Huang [40]	Ageism perceived by the elderly in Taiwan following hip fracture	Community-Post-hip fracture	11 PwHF	Semi-structured interviews, Individual, Face-to-face	Directed content analysis	*m* = 75 (64–84)	6 (55)	11 (100)	0 (0)
Ivarsson [41]	The experiences of pre- and in-hospital care in patients with hip fractures: A study based on Critical incidents	Acute	14 PwHF	Semi-structured interviews, Individual, Face-to-face	Critical incident technique	*m* = 74 (18+)a	8 (57)	NA	8 (57)
Janes [42]	Fragility hip fracture in the under 60s: A qualitative study of recovery experiences and the implications for nursing	Post-hip fracture	30 PwHF	Semi-structured interviews, Individual, Face-to-face/telephone	The Silences Framework	(29–60)a	20 (67)	NR	11 (37)
Jellesmark [43]	Fear of falling and changed functional ability following hip fracture among community-dwelling elderly people: An explanatory sequential mixed method study	Community	4 PwHF	Semi-structured interviews, Individual, Face-to-face	Systematic text condensation	81 (65–92)	3 (75)	4 (100)	4 (100)
Jensen [44]	Empowerment of whom? The gap between what the system provides and patient needs in hip fracture management: A healthcare professionals' lifeworld perspective	NA	16 Clinicians	3 Focus Groups, Face-to-face	Content analysis	NA	NA	NA	NA
Jensen [45]	'If only had I known': A qualitative study investigating a treatment of patients with a hip fracture with short time stay in hospital	Community	29 (10 PwHF, 15 Clinicians, 4 Carers)	Field observation Semi-structured interviews, Individual Face-to-face	Phenomenological Reflective Lifeworld Research	80 (67–92)	8 (80)	10 (100)	4 (40)
Karlsson [46]	Older adults' perspectives on rehabilitation and recovery one year after a hip fracture—A qualitative study	Post-hip fracture	20 PwHF	Semi-structured interviews, Individual, Face-to-face	Content analysis	81 (70–91)	16 (80)	20 (100)	12 (60)

(*Continued*)

Table 2. Continued

Study	Title	Setting	Sample size (n)	Data collection method	Qualitative framework	Median patient age (range)	Female patients (n, %)	Community-dwelling (n, %)	Living alone (n, %)
Killington [47]	The chaotic journey: Recovering from hip fracture in a nursing home	Subacute	NR (Clinicians, 25 Carers)	28 Focus Groups, Face-to-face 25 Semi-structured interviews, Individual/dyad, Face-to-face	Thematic analysis	88 (70–97)	24 (86)	NA	0 (0)
Ko [48]	Discharge transition experienced by older Korean women after hip fracture surgery: a qualitative study	Acute-Community	12 PwHF	Semi-structured interviews, Individual, Face-to-face	Content analysis	78 (65–87)	12 (100)	NA 2 (22)	NR
Langford [49]	'life goes on.' Everyday tasks, coping self-efficacy, and independence: Exploring older adults' recovery from hip fracture	Community	27 (23 PwHF, 4 Clinicians)	Semi-structured interviews, Individual, Telephone	Interpretive description	*m* = 82 (*SD* = *9*)	12 (52)	NR	9 (39)
Li [50]	Coping processes of Taiwanese families during the post-discharge period for an elderly family member with hip fracture	Community	20 (8 PwHF, 12 Carers)	Semi-structured interviews, Individual, Face-to-face	Grounded Theory	*m* = 70 (*SD* = 3.1)	4 (50)	NR	0 (0)
McMillan [51]	Balancing risk' after fall-induced hip fracture: The older person's need for information	Community	19 PwHF	Semi-structured interviews, Individual, Face-to-face	Grounded Theory	80 (67–89)	15 (79)	19 (100)	10 (53)
McMillan [52]	A grounded theory of taking control after fall-induced hip fracture	Community	19 PwHF	Semi-structured interviews, Individual, Face-to-face	Grounded Theory	80 (67–87)	15 (79)	19 (100)	10 (53)
Moraes [77]	Sedentary behaviour: barriers and facilitators among older adults after hip fracture surgery. A qualitative study	Community-Post-hip fracture	11 PwHF	Semi-structured interviews, Individual, Face-to-face	Phenomenology	(60+)^	8 (73)	NR	4 (36)
Patel [53]	A qualitative study exploring the lived experiences of patients living with mild, moderate and severe frailty, following hip fracture surgery and hospitalisation	Community	16 PwHF	Semi-structured interviews, Individual, Face-to-face	Interpretative phenomenological analysis	77 (65–88)	11 (69)	16 (100)	6 (38)
Pol [54]	Everyday life after a hip fracture: what community-living older adults perceive as most beneficial for their recovery	Community	19 PwHF	Semi-structured interviews, Individual, Face-to-face	Grounded Theory	84 (65–94)	12 (63)	16 (84)	16 (84)
Pownall [55]	Using a patient narrative to influence orthopaedic nursing care in fractured hips	Acute	1 PwHF	Semi-structured interview, Individual, Face-to-face	Patient narrative	60 (60)	1 (100)	NA	1 (100)
Rasmussen [56]	Enduring life in between a sense of renewal and loss of courage: lifeworld perspectives one year after hip fracture	Post-hip fracture	9 PwHF	Semi-structured interviews, Individual, Face-to-face	Phenomenological hermeneutic methodology	80 (71–93)	7 (78)	9 (100)	7 (78)
Rasmussen [57]	Being active 1.5 years after hip fracture: a qualitative interview study of aged adults' experiences of meaningfulness	Post-hip fracture	9 PwHF	Semi-structured interviews, Individual, Face-to-face	Phenomenological hermeneutic methodology	(72–94)	7 (78)	8 (89)	NR
Rasmussen [58]	Being active after hip fracture; older people's lived experiences of facilitators and barriers	Subacute-Community	13 PwHF	Semi-structured interviews, Individual, Face-to-face	Phenomenological hermeneutic methodology	80 (70–92)	11 (85) 9 (82)	9 (69) 10 (90)	9 (69) 8 (73)
Roberts [59]	Development of an evidence-based complex intervention for community rehabilitation of patients with hip fracture using realist review, survey and focus groups	Acute-Community	30 (13 PwHF, 13 Clinicians, 4 Carers)	3 Focus Groups for clinicians 4 Focus Groups for patients and carers	Thematic analysis	(65+)a	NR	NR	NR
Robinson [60]	Transitions in the lives of elderly women who have sustained hip fractures	Community	15 PwHF	3 Focus Groups, Face-to-face	Grounded Theory	*m* = 77 (72–82)	15 (100)	15 (100)	15 (100)

(*Continued*)

Table 2. Continued

Study	Title	Setting	Sample size (n)	Data collection method	Qualitative framework	Median patient age (range)	Female patients (n, %)	Community-dwelling (n, %)	Living alone (n, %)
Sandberg [61]	Experiences of patients with hip fractures after discharge from hospital	Community	14 PwHF	Semi-structured interview, Individual, Face-to-face	Content analysis	75 (65–85)	8 (57)	14 (100)	8 (57)
Schiller [62]	Words of wisdom—patient perspectives to guide recovery for older adults after hip fracture: a qualitative study	Community-Post-hip fracture	19 (11 PwHF, 8 Carers)	Semi-structured interview, Individual, Face-to-face/telephone	Inductive topic coding	(60–90)a	10 (91)	NR	NR
Segevall [63]	The journey toward taking the day for granted again: The experiences of rural older people's recovery from hip fracture surgery	Community	13 PwHF	Semi-structured interviews, Individual, Face-to-face	Content analysis	74 (66–98)	7 (54)	13 (100)	8 (62)
Sims-Gould [64]	Patient perspectives on engagement in recovery after hip fracture: A qualitative study	Community	50 PwHF	Semi-structured interviews, Individual, Telephone	Unspecified thematic analysis	(65–85+)a	32 (64)	50 (100)	21 (42)
Southwell [65]	Older adults' perceptions of early rehabilitation and recovery after hip fracture surgery: A UK qualitative study	Acute	15 PwHF	Semi-structured interview, Individual, Face-to-face	Thematic analysis, interpretation informed by Bury's biographical disruption theoretical framework	(65–85+)a	7 (47)	NA	NR
Strom Ronnquist, [66]	"Lingering challenges in everyday life for adults under age 60 with hip fractures – A qualitative study of the lived experience during the first three years"	Community-Post-hip fracture	19 PwHF	Semi-structured interview, Individual, Face-to-face/telephone	Phenomenological hermeneutics	56 (32–59)	13 (68)	19 (100)	5 (26)
Taylor [67]	Community ambulation before and after hip fracture: A qualitative analysis	Subacute-Community	24 PwHF	Semi-structured interviews, Individual, Face-to-face	Phenomenological theoretical framework and Grounded Theory	76 (67–86) 82 (63–89)	8 (67) 9 (75)	NA 12 (100)	NA 1 (8)
Taylor [68]	Discharge planning for patients receiving rehabilitation after hip fracture: A qualitative analysis of physiotherapists' perceptions	Subacute-Community	12 Clinicians	Semi-structured interviews, Individual, Face-to-face	Grounded Theory	NA	NA	NA	NA
Turner [69]	Development of a questionnaire to assess patient priorities in hip fracture care	Community	18 (13 PwHF, 5 Carers)	Semi-structured interviews, Individual, Telephone; Survey	Unspecified thematic	*m* = 78	9 (69)	NR	NR
Tutton [70]	Patient and informal carer experience of hip fracture: A qualitative study using interviews and observation in acute orthopaedic trauma	Acute	50 (25 PwHF, 25 Carers)	Semi-structured interviews, Individual, Face-to-face Ward observation	Phenomenological approach	83 (63–91)	15 (60)	NA	NR
Vestol [71]	The journey of recovery after hip-facture surgery: Older people's experiences of recovery through rehabilitation services involving physical activity	Community	21 PwHF	Semi-structured interviews, Individual, Face-to-face	Phenomenological-hermeneutic approach, Systematic text condensation	*m* = 77 (67–84)	16 (76)	21 (100)	17 (81)

(*Continued*)

Table 2. Continued

Study	Title	Setting	Sample size (n)	Data collection method	Qualitative framework	Median patient age (range)	Female patients (n, %)	Community-dwelling (n, %)	Living alone (n, %)
Wong [72]	Clinicians' perspectives of patient engagement in post-acute care: A social ecological approach	Community	99 Clinicians	13 Focus Group, Face-to-face	Grounded Theory	NA	NA	NA	NA
Wykes [73]	The concerns of older women during inpatient rehabilitation after fractured neck of femur	Subacute	5 PwHF	Semi-structured interviews, Individual, Face-to-face	Thematic analysis	74 (60–79)	5 (100)	NA	NR
Young [74]	Don't worry, be positive: Improving functional recovery 1 year after hip fracture	Post-hip fracture	62 PwHF	Thematic survey, Individual	Basic content analysis	*m* = 78 (65–91)	40 (76)	62 (100)	28 (45)
Ziden [75]	The break remains—elderly people's experiences of a hip fracture 1 year after discharge	Post-hip fracture	15 PwHF	Semi-structured interviews, Individual, Face-to-face	Phenomenographic	79 (66–94)	13 (87)	15 (100)	10 (67)
Ziden [76]	A life-breaking event: Early experiences of the consequences of a hip fracture for elderly people	Community	18 PwHF	Semi-structured interviews, Individual, Face-to-face	Phenomenographic	80 (65–99)	16 (89)	18 (100)	14 (78)

Note: NA = Not applicable NR = Not reported a = Estimated age range based on reported age groups or inclusion criteria, actual range not reported *m* = mean SD = standard deviation # = hip fracture, dc = discharge, wk = week, m = month, PwHF -Participants with hip fracture Acute = up to 2 weeks after hip fracture; Subacute = greater than 2 weeks post-hip fracture and before community; Community = after sub-acute until 12 months post-hip fracture; Post-hip fracture = after 12 months post-hip fracture

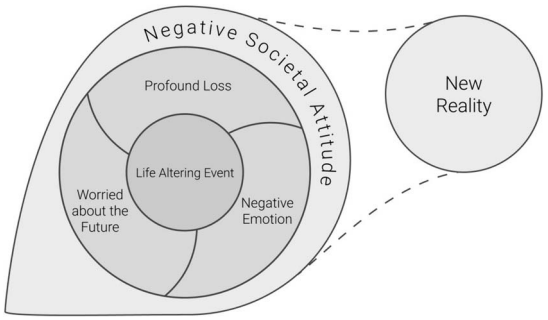

Figure 2. Thematic synthesis of psychosocial experiences after a hip fracture.

> "I will never be the person I was before the fracture. I used to be in good shape, despite my age. Now I ask myself: What is there really to look forward to when you are ninety?" (Participant with hip fracture) [30]

The inability to resume their life after a hip fracture forced people to adapt to a restricted life.

> "Right after the hospital, I had a psychological adjustment to the whole thing. After 70 years of walking and having freedom, being confined and the mobility issue . . . " (Participant with hip fracture) [49]

> "They said I am old and had better retire. They didn't let me keep managing my factory. At first I felt really angry, but now I don't want to argue with them. I know my vitality is worse than before; I have no other choice but to accept my present physical condition." (Participant with hip fracture) [40]

A sense of loss

A profound sense of loss was voiced by many participants throughout hip fracture recovery. People said they had to grapple with the psychological and social implications of hip fracture, including the loss of autonomy, physical ability and for some, the loss of their home, work, and vibrant social life.

> "I'm not as capable as everybody else . . . like I let the side down . . . feel like I've aged fifteen years . . . " (Participant with hip fracture) [42]

> "I'm more house-bound. So I've become more of a recluse, I suppose.... It's my social life that suffers." (Participant with hip fracture) [75]

Negative emotions

After a hip fracture, there was an overwhelming negative emotion ranging from feelings of gloominess to frustration and loss of confidence especially as they progressed from the acute to the community setting.

> "I have nothing to look forward to and I'll lay here till I die." (Participant with hip fracture) [29]

> "After the hip fracture I have felt depressed for the first time in my life. I feel totally empty. And the gloominess persists even now (four months after the fracture). It is like having fallen into a black hole and being unable to get up again" (Participant with hip fracture) [30]

> . . . if I'm going to be like this for the rest of my life I don't want to live." (Participant with hip fracture) [67]

Further, some people felt frustrated with the pace of their recovery, which led to disappointment, dashed expectations, loss of confidence and feelings of resignation.

> "My expectations for my own recovery were much higher than reality, and that have made me frustrated and impatient". (Participant with hip fracture) [30]

> "I would say I had more disappointments than surprises. It seems that it's taking a very long time to me" (Participant with hip fracture) [49]

Worried about the future

The predominant emotion people talked about after hip fracture was feeling worried—about the operation, fear of falling, dependency, and fear of the future.

> "Will I ever be able to walk again?", "Will I ever be in control of the fracture?", or "Will I ever be able to control my everyday life again?" (Participants with hip fracture) [21]

People feared being alone and socially isolated, and they worried about being dependent on their friends and a burden to their family.

> "I don't want to be an invalid . . . I'm too much on my own. I'd rather for the Lord to close my eyes tonight and let me go to rest." (Participant with hip fracture) [31]

> "[my daughter is] ... taking care of me. I feel like that's a big burden... she bathes me. She gives me a shower, sets my hair. That's a lot. Cause she's got a baby to take care of." (Participant with hip fracture) [31]

For some people, the fear of being a burden on others meant they masked their psychosocial distress so as not to worry others.

> "When you have visitors you don't . . . you don't sort of say what your feeling . . . you try to keep a brave face . . . and the other ladies in the ward, you don't say anything to them because they've got their own problems." (Participant with hip fracture) [73].

Negative societal attitude

People after hip fracture perceived a pervasive negative attitude or stigma toward them, from the healthcare staff to family and friends in the community. People said they often felt neglected and ignored, humiliated, and stigmatised because they had a hip fracture. This left them feeling dehumanised and dejected, and lowered their expectations of recovery.

> "I said oh I want to go to the toilet. Argh and they said, well we're very sorry but we can't do anything [laughter]. So you had to hold it? No, I just had to do it... Oh it was awful. I couldn't believe it" (Participant with hip fracture) [48]

> "My neighbour saw me moving slowly with the walker. She came to me, stood there watching me, shook her head and said, 'Oh! Now you use this [walker]. You look so old, really like an ugly old grandma'." (Participant with hip fracture) [40]

Acceptance over time

Some, but not all, participants described a transition over many months from negative emotions to acceptance. This group said they managed to gain a sense of acceptance through gratitude, optimism, resilience and the support of family and friends.

> "Yes, because then I'll just make changes to some of the things I CAN do. For example [. . .] these entertainments nights; I can't dance and jump around, but I can BE there [. . .] see the joy of life other people have. And what they are able to do, even if I'm not able to the same, it's kind of comforting." (Participant with hip fracture) [56]

> "I don't get hung up on small things...I've gotten a perspective on life. I've learned to be grateful. ...I think you learn things all your life. Because, in spite of everything, I'm healthy." (Participant with hip fracture) [76]

For others, the new reality of life after hip fracture remained negative even several years after the fall.

> "I feel that I've aged too quickly [. . .], all of a sudden now you can't drive anymore, boom! . . . you don't have the strength to go and rake in your garden; boom! You can't make your own food; ... little by little, you can't do it anymore." (Participant with hip fracture) [58]

GRADE-CERQual assessment of findings

There was moderate to high confidence in the themes and sub-themes identified (Table 3) (see Appendix 7 for detailed CerQual findings).

Discussion

We found moderate to high confidence evidence from a synthesis of 57 qualitative studies that hip fracture is a life altering event with profound psychosocial impacts. For some people, there is a slow acceptance of a new reality. These findings add to the literature by highlighting the depth and extent of impaired psychosocial functioning after hip fracture and suggest a high likelihood that this could negatively impact recovery after hip fracture. Current hip fracture clinical practice guidelines provide no recommendations on the assessment and management of psychosocial functioning nor list it as a recommended area of research [10, 11]. This appears to be a notable omission.

The psychosocial impact of hip fracture is consistent with the affective, cognitive and behavioural reactions associated with trauma [78, 79]. Cognitive reactions in response to trauma can result in a triad of traumatic stress, with negative views about self, the future and the world, including other people and the environment [78]. The identified themes in our review could be regarded as reactions of traumatic stress. When formally assessed against diagnostic criteria, previous studies have reported that post-traumatic stress disorder is rare after hip fracture [80]. However, despite the lack of clinical diagnosis, the current study demonstrates that the negative psychosocial impacts after hip fracture are widespread, profound, prolonged and indicative of traumatic stress.

Given the extent of the psychosocial impacts of hip fracture identified in this review, there may be a case for health service providers to place greater emphasis on providing targeted interventions to address these needs, consistent with the management of other conditions involving traumatic stress. This is important given the associations established between psychosocial functioning and recovery after hip fracture [12, 13, 15]. Tools are already available for clinicians to assess and monitor people at risk of psychosocial distress [12, 80]. For example, higher subscale scores on the Hospital Anxiety Depression Scale are associated with psychological distress [81] and perceived functional support, as measured by the Medical Outcome Study-Social Support Survey, has been associated with recovery after hip fracture [82]. This review suggests there may be a place for routine use of such tools to identify psychosocial risk factors during hip fracture rehabilitation in order to deliver appropriate interventions.

Specialist psychosocial care may not be warranted for everyone who experiences a hip fracture. There is a subgroup of people who have a relatively rapid and full functional recovery after hip fracture, who may not experience high degrees of impaired psychological functioning [83]. For those at low risk, expert clinicians providing empathic, person-centred and collaborative care, who listen to their patients and understand the context of their lives, may provide sufficient psychosocial support for people after hip fracture to find their way to the 'new normal' described in this review [84]. Also, some of the psychosocial impact of hip fracture may be reduced by addressing the broader societal context, experienced as uncaring attitudes and ageism from clinicians and families, that can be particularly damaging for people at a time of vulnerability [85, 86].

For those people who are identified as being in need of psychological interventions after hip fracture, current research does not provide any certainty about the best way to provide this support [87]. There is limited evidence from two trials with small sample sizes on the effect of psychological interventions following hip fracture; one study reported non-significant findings on the effect of cognitive behaviour therapy on fear of falling and mobility outcomes [88] and another reported increased physical activity and self-efficacy after an 8-week motivational interviewing intervention [8]. There is a need for large trials using stepped approaches to care or comparing different interventions to determine the best ways to provide support and improve outcomes for this vulnerable group.

Strength of this review is that it is based on a large body of evidence with moderate to high confidence in the findings. Our review was prospectively registered and reported consistent with PRISMA and ENTREQ [17]. Limitations were that the review did not include publications in the grey literature, which may have led to some evidence being missed. Papers published in languages other than English were also excluded, although no papers excluded for this reason appeared likely to meet other inclusion criteria. In addition, none of the included studies were from low-income

Table 3. Confidence in the evidence from reviews of qualitative research (CERQual) summary of qualitative findings.

Summary of review finding	Studies contributing to the review finding	CERQual assessment of confidence in the evidence	Explanation of CERQual assessment
1. Life-altering event: Hip fracture was seen as a major disruption that altered the course of participants' lives, which required major physical and psychosocial adjustment. Many people had to reconfigure their environment, relationships, and perception of their identity and broader aspects of life.	[21, 23–25, 28–33, 35–40, 42, 43, 45, 46, 48–56, 59, 61, 63, 65–67, 70, 71, 73, 75–77]	Moderate confidence	41 studies with moderate concerns regarding methodological limitations. No or very minor concerns regarding coherence, adequacy, and relevance.
2. Profound loss: Many people mourned the loss of their prior lives after a hip fracture. They spoke of 'social death' (where they no longer had a vibrant social life), loss of independence, and the ability to fully participate and take control of their own lives.	[21–23, 25, 29–32, 35, 36, 38, 40, 42–54, 56–63, 66–68, 70, 72, 73, 75–77]	High confidence	42 studies with minor concerns regarding methodological limitations. No or very minor concerns regarding coherence, adequacy, and relevance.
3. Negative emotion: After a hip fracture, a pervasive cloud of negative emotions permeated every aspect of people's lives. People reported feeling vulnerable, hopeless, helpless, losing courage and purpose, and a general sense of gloominess. The lack of visible progress in their recovery further reinforced these negative emotions, leading to the next theme.	[21–33, 35–37, 39, 40, 42–68, 70–73, 75–77]	Moderate confidence	52 studies with moderate concerns regarding methodological limitations. Minor concerns regarding relevance (findings may differ based on temporal context (acute, subacute, community or post-hip fracture)). No or very minor concerns regarding coherence and adequacy.
4. Worried about the future: People reported feeling worried about their future. Uncertainty about who they are now, where and how they will live the rest of their lives, and the unwillingness to be a burden to their families and friends became a constant thought process.	[21–24, 26, 27, 30–39, 41–59, 61, 62, 65–73, 75, 76]	Moderate confidence	48 studies with moderate concerns regarding methodological limitations. Minor concerns regarding relevance (findings may differ based on temporal context (acute, subacute, community or post-hip fracture)). No or very minor concerns regarding coherence and adequacy.
5. Negative societal attitude: People were perceived differently after a hip fracture; most of these new perceptions were negative and disempowering. Many people reported experiencing ageism, including people who had a hip fracture before 60 years of age. These perceptions, coming from friends, family, and even healthcare professionals, further compounded people's negative emotions and worry about their ability to recover.	[22–25, 27, 30, 35–37, 39–48, 50–58, 60–63, 65, 66, 70, 73, 76]	Moderate confidence	37 studies with minor concern regarding coherence (some concerns about the fit between the data from primary studies and the review findings). Minor concerns regarding relevance (findings may differ based on cultural context). Studies included were mostly of developed nations, although diverse cultures were explored (Asian, European, American, and Australian). No or very minor concerns regarding adequacy.
6. New reality: Over time, some people managed to rebuild their lives by accepting and making sense of their new reality. However, not everyone successfully made this transition.	[21–24, 26, 28, 29, 31–34, 37, 38, 42, 46, 48, 49, 51, 54, 56–60, 64–66, 70, 71, 73–77]	Moderate confidence	34 studies with moderate concerns regarding methodological limitations. Minor concern regarding coherence (some concerns about the fit between the data from primary studies and the review findings). Minor concerns about relevance (findings may differ based on temporal context (acute, subacute, community or post-hip fracture)). No or very minor concerns regarding adequacy.

countries so it is uncertain to what extent our findings can be generalised to these settings. However, the review did include studies from countries with different cultures. Finally, this review of qualitative data does not attempt to quantify the proportion of people who have different experiences of recovery, or to identify specific risk factors for psychological distress in people after hip fracture. These are important questions and opportunities for further research.

In conclusion, hip fracture is a life altering event characterised by a profound sense of loss, negative emotions and worry about the future. The assessment and management of psychosocial functioning after hip fracture has received little attention in clinical practice guidelines. Assessing and treating psychosocial functioning may be an important component in providing optimal care to improve outcomes after hip fracture.

Supplementary Data Supplementary data is available at *Age and Ageing* online.

Declaration of Conflicts of Interest: None.

Declaration of Sources of Funding: The study was supported by a small internal grant from La Trobe University.

References

1. Australian and New Zealand Hip Fracture Registry. *ANZHFR Annual Report of Hip Fracture Care*. Sydney: Australian and New Zealand Hip Fracture Registry, 2023. Available: https://anzhfr.org/registry-reports/ (09 April 2024, date last accessed).
2. Leung MT, Marquina C, Turner JP *et al.* Hip fracture incidence and post-fracture mortality in Victoria, Australia: a state-wide cohort study. *Arch Osteoporos*. 2023;**18**:56.
3. Hawley S, Inman D, Gregson CL *et al.* Predictors of returning home after hip fracture: a prospective cohort study using the UK national hip fracture database (NHFD). *Age Ageing*. 2022;**51**:131.
4. Tang VL, Sudore R, Cenzer IS *et al.* Rates of recovery to pre-fracture function in older persons with hip fracture: an observational study. *J Gen Int Med*. 2017;**32**:153–8.
5. Wiese-Bjornstal DM. Psychology and socioculture affect injury risk, response, and recovery in high-intensity athletes: a consensus statement. *Scand J Med Sci Sports*. 2010; **20**:103–11.
6. Freedman A, Nicolle J. Social isolation and loneliness: the new geriatric giants: approach for primary care. *Can Fam Physician*. 2020;**66**:176–82.
7. Olive P, Hives L, Wilson N *et al.* Psychological and psychosocial aspects of major trauma care in the United Kingdom: a scoping review of primary research. *Dent Traumatol*. 2023;**25**:338–47.
8. O'Halloran PD, Shields N, Blackstock F *et al.* Motivational interviewing increases physical activity and self-efficacy in people living in the community after hip fracture: a randomized controlled trial. *Clin Rehabil*. 2016;**30**:1108–19.
9. World Health Organization. *Package of Interventions for Rehabilitation: Module 2: Musculoskeletal Conditions*. Geneva: World Health Organization, 2023. Available: https://www.who.int/publications/i/item/9789240071100 (09 April 2024, date last accessed).
10. National Clinical Guideline Centre (UK). *The Management of Hip Fracture in Adults [Internet]*. London: Royal College of Physicians (UK), 2011, PMID: 22420011.
11. McDonough CM, Harris-Hayes M, Kristensen MT *et al.* Physical therapy management of older adults with hip fracture: clinical practice guidelines linked to the international classification of functioning, disability and health from the academy of Orthopaedic physical therapy and the academy of geriatric physical therapy of the American Physical Therapy Association. *J Orthop Sports Phys Ther*. 2021;**51**:1–81.
12. Auais M, Sousa TAC, Feng C *et al.* Understanding the relationship between psychological factors and important health outcomes in older adults with hip fracture: a structured scoping review. *Arch Gerontol Geriatr*. 2022;**101**:104666.
13. Auais M, Al-Zoubi F, Matheson A *et al.* Understanding the role of social factors in recovery after hip fractures: a structured scoping review. *Health Soc Care Community*. 2019;**27**:1375–87.
14. Liamputtong P, Rice ZS. Qualitative Research in Global Health Research. In: Haring R, Kickbusch I, Ganten D, Moeti M (eds.), *Handbook of Global Health*. Singapore: Springer, 2021, 213–38.
15. Beer N, Riffat A, Volkmer B *et al.* Patient perspectives of recovery after hip fracture: a systematic review and qualitative synthesis. *Disabil Rehabil*. 2022;**44**:6194–209.
16. Tong A, Flemming K, McInnes E *et al.* Enhancing transparency in reporting the synthesis of qualitative research: ENTREQ. *BMC Med Res Methodol*. 2012;**12**:181.
17. Page MJ, McKenzie JE, Bossuyt PM *et al.* The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*. 2021;**372**:71.
18. Critical Appraisal Skills Programme. *CASP Checklist: 10 Questions to Help you Make Sense of a Qualitative Research*. Oxford: CASP UK - OAP, 2018. Available: https://casp-uk.net/casp-tools-checklists/ (09 april 2024, date last accessed).
19. Lachal J, Revah-Levy A, Orri M *et al.* Metasynthesis: an original method to synthesize qualitative literature in psychiatry. *Front Psych*. 2017;**8**:269.
20. Lewin S, Booth A, Glenton C *et al.* Applying GRADE-CERQual to qualitative evidence synthesis findings: introduction to the series. *Implement Sci*. 2018;**13**:2.
21. Abrahamsen C, Viberg B, Nørgaard B. Patients' perspectives on everyday life after hip fracture: a longitudinal interview study. *Int J Orthop Trauma Nurs*. 2022;**44**:100918.
22. Ansah JP, Chia AW-Y, Koh VJW *et al.* Systems modelling as an approach for eliciting the mechanisms for hip fracture recovery among older adults in a participatory stakeholder engagement setting. *Front Rehabil Sci*. 2023;**4**:1184484.
23. Archibald G. Patients' experiences of hip fracture. *J Adv Nurs*. 2003;**44**:385–92.
24. Asplin G, Carlsson G, Fagevik Olsén M *et al.* See me, teach me, guide me, but it's up to me! Patients' experiences of recovery during the acute phase after hip fracture. *Eur J Physiother*. 2021;**23**:135–43.
25. Ballinger C, Payne S. Falling from grace or into expert hands? Alternative accounts about falling in older people. *Brit J Occ Ther*. 2000;**63**:573–9.
26. Bergh I, Jakobsson E, Sjöström B *et al.* Ways of talking about experiences of pain among older patients following orthopaedic surgery. *J Adv Nurs*. 2005;**52**:351–9.

27. Bishop S, Waring J. From boundary object to boundary subject; the role of the patient in coordination across complex systems of care during hospital discharge. *Soc Sci Med*. 2019;**235**:112370.
28. Borkan JM, Quirk M. Expectations and outcomes after hip fracture among the elderly. *Int J Aging Hum Dev*. 1992; **34**:339–50.
29. Borkan JM, Quirk M, Sullivan M. Finding meaning after the fall: injury narratives from elderly hip fracture patients. *Soc Sci Med*. 1991;**33**:947–57.
30. Bruun-Olsen V, Bergland A, Heiberg KE. "I struggle to count my blessings": recovery after hip fracture from the patients' perspective. *BMC Geriatr*. 2018;**18**:1–9.
31. Furstenberg A-L. Expectations about outcome following hip fracture among older people. *Soc Work Health Care*. 1986; **11**:33–47.
32. Gesar B, Baath C, Hedin H *et al.* Hip fracture; an interruption that has consequences four months later. A qualitative study. *Int J Orthop Trauma Nurs*. 2017;**26**:43–8.
33. Gesar B, Hommel A, Hedin H *et al.* Older patients' perception of their own capacity to regain pre-fracture function after hip fracture surgery–an explorative qualitative study. *Int J Orthop Trauma Nurs*. 2017;**24**:50–8.
34. Gorman E, Chudyk AM, Hoppmann CA *et al.* Exploring older adults' patterns and perceptions of exercise after hip fracture. *Physiother Can*. 2013;**65**:86–93.
35. Griffiths F, Mason V, Boardman F *et al.* Evaluating recovery following hip fracture: a qualitative interview study of what is important to patients. *BMJ Open*. 2015;**5**:e005406.
36. Guilcher SJ, Everall AC, Cadel L *et al.* A qualitative study exploring the lived experiences of deconditioning in hospital in Ontario, Canada. *BMC Geriatr*. 2021;**21**:1–9.
37. Gunnarsson A-K, Larsson J, Gunningberg L. Hip-fracture patients' experience of involvement in their care: a qualitative study. *Int J Person Cent Med*. 2014;**4**:106–14.
38. Haslam-Larmer L, Donnelly C, Auais M *et al.* Early mobility after fragility hip fracture: a mixed methods embedded case study. *BMC Geriatr*. 2021;**21**:1–14.
39. Hommel A, Kock M-L, Persson J *et al.* The patient's view of nursing care after hip fracture. *ISRN Nurs*. 2012; **2012**:863291.
40. Huang Y-F, Liang J, Shyu Y-IL. Ageism perceived by the elderly in Taiwan following hip fracture. *Arch Gerontol Geriatr*. 2014;**58**:30–6.
41. Ivarsson B, Hommel A, Sandberg M *et al.* The experiences of pre-and in-hospital care in patients with hip fractures: a study based on critical incidents. *Int J Orthop Trauma Nurs*. 2018;**30**:8–13.
42. Janes G, Serrant L, Sque M. Fragility hip fracture in the under 60s: a qualitative study of recovery experiences and the implications for nursing. *J Trauma Orthop Nurs*. 2018;**2**:3.
43. Jellesmark A, Herling SF, Egerod I *et al.* Fear of falling and changed functional ability following hip fracture among community-dwelling elderly people: an explanatory sequential mixed method study. *Disabil Rehabil*. 2012;**34**:2124–31.
44. Jensen CM, Santy-Tomlinson J, Overgaard S *et al.* Empowerment of whom? The gap between what the system provides and patient needs in hip fracture management: a healthcare professionals' lifeworld perspective. *Int J Orthop Trauma Nurs*. 2020;**38**:100778.
45. Jensen CM, Smith AC, Overgaard S *et al.* "If only had I known": a qualitative study investigating a treatment of patients with a hip fracture with short time stay in hospital. *Int J Qual Stud Health Well-Being*. 2017;**12**:1307061.
46. Karlsson Å, Olofsson B, Stenvall M *et al.* Older adults' perspectives on rehabilitation and recovery one year after a hip fracture–a qualitative study. *BMC Geriatr*. 2022;**22**:423.
47. Killington M, Walker R, Crotty M. The chaotic journey: recovering from hip fracture in a nursing home. *Arch Gerontol Geriatr*. 2016;**67**:106–12.
48. Ko YJ, Lee JH, Baek S-H. Discharge transition experienced by older Korean women after hip fracture surgery: a qualitative study. *BMC Nurs*. 2021;**20**:112.
49. Langford D, Edwards N, Gray SM *et al.* "Life goes on." everyday tasks, coping self-efficacy, and independence: exploring older adults' recovery from hip fracture. *Qual Health Res*. 2018;**28**:1255–66.
50. Li H-J, Shyu Y-IL. Coping processes of Taiwanese families during the postdischarge period for an elderly family member with hip fracture. *Nurs Sci Quart*. 2007;**20**:273–9.
51. McMillan L, Booth J, Currie K *et al.* A grounded theory of taking control after fall-induced hip fracture. *Disabil Rehabil*. 2012;**34**:2234–41.
52. McMillan L, Booth J, Currie K *et al.* 'Balancing risk'after fall-induced hip fracture: the older person's need for information. *Int J Older People Nurs*. 2014;**9**:249–57.
53. Patel V, Lindenmeyer A, Gao F *et al.* A qualitative study exploring the lived experiences of patients living with mild, moderate and severe frailty, following hip fracture surgery and hospitalisation. *PloS One*. 2023;**18**:e0285980.
54. Pol M, Peek S, van Nes F *et al.* Everyday life after a hip fracture: what community-living older adults perceive as most beneficial for their recovery. *Age Ageing*. 2019;**48**:440–7.
55. Pownall E. Using a patient narrative to influence orthopaedic nursing care in fractured hips. *J Orthop Nurs*. 2004;**8**: 151–9.
56. Rasmussen B, Nielsen CV, Uhrenfeldt L. Being active after hip fracture; older people's lived experiences of facilitators and barriers. *Int J Qual Stud Health Well-Being*. 2018;**13**:1554024.
57. Rasmussen B, Nielsen CV, Uhrenfeldt L. Being active $1^1/_2$ years after hip fracture: a qualitative interview study of aged adults' experiences of meaningfulness. *BMC Geriatr*. 2020; **20**:1–12.
58. Rasmussen B, Nielsen CV, Uhrenfeldt L. Enduring life in between a sense of renewal and loss of courage: lifeworld perspectives one year after hip fracture. *Int J Qual Stud Health Well-Being*. 2021;**16**:1934996.
59. Roberts JL, Din NU, Williams M *et al.* Development of an evidence-based complex intervention for community rehabilitation of patients with hip fracture using realist review, survey and focus groups. *BMJ Open*. 2017;**7**:e014362.
60. Robinson SB. Transitions in the lives of elderly women who have sustained hip fractures. *J Adv Nurs*. 1999;**30**:1341–8.
61. Sandberg M, Ivarsson B, Johansson A *et al.* Experiences of patients with hip fractures after discharge from hospital. *Int J Orthop Trauma Nurs*. 2022;**46**:100941.
62. Schiller C, Franke T, Belle J *et al.* Words of wisdom–patient perspectives to guide recovery for older adults after hip fracture: a qualitative study. *Patient Prefer Adherence*. 2015; **9**:57–64.
63. Segevall C, Söderberg S, Randström KB. The journey toward taking the day for granted again: the experiences of rural older people's recovery from hip fracture surgery. *Orthop Nurs*. 2019;**38**:359–66.

64. Sims-Gould J, Stott-Eveneshen S, Fleig L *et al.* Patient perspectives on engagement in recovery after hip fracture: a qualitative study. *J Aging Res*. 2017;**2017**:217865.
65. Southwell J, Potter C, Wyatt D *et al.* Older adults' perceptions of early rehabilitation and recovery after hip fracture surgery: a UK qualitative study. *Disabil Rehabil*. 2022;**44**:939–46.
66. Strøm Rönnquist S, Svensson HK, Jensen CM *et al.* Lingering challenges in everyday life for adults under age 60 with hip fractures–a qualitative study of the lived experience during the first three years. *Int J Qual Stud Health Well-Being*. 2023;**18**:2191426.
67. Taylor NF, Barelli C, Harding KE. Community ambulation before and after hip fracture: a qualitative analysis. *Disabil Rehabil*. 2010;**32**:1281–90.
68. Taylor NF, Harding KE, Dowling J *et al.* Discharge planning for patients receiving rehabilitation after hip fracture: a qualitative analysis of physiotherapists' perceptions. *Disabil Rehabil*. 2010;**32**:492–9.
69. Turner N, Dinh JM, Durham J *et al.* Development of a questionnaire to assess patient priorities in hip fracture care. *Geriatr Orthop Surg Rehabil*. 2020;**11**:2151459320946009.
70. Tutton E, Saletti-Cuesta L, Langstaff D *et al.* Patient and informal carer experience of hip fracture: a qualitative study using interviews and observation in acute orthopaedic trauma. *BMJ Open*. 2021;**11**:e042040.
71. Vestøl I, Debesay J, Bergland A. The journey of recovery after hip-facture surgery: older people's experiences of recovery through rehabilitation services involving physical activity. *Disabil Rehabil*. 2022;**44**:5468–78.
72. Wong C, Leland NE. Clinicians' perspectives of patient engagement in post-acute care: a social ecological approach. *Phys Occup Ther Geriatr*. 2018;**36**:29–42.
73. Wykes C, Pryor J, Jeeawody B. The concerns of older women during inpatient rehabilitation after fractured neck of femur. *Int J Ther Rehabil*. 2009;**16**:261–70.
74. Young Y, Resnick B. Don't worry, be positive: improving functional recovery 1 year after hip fracture. *Rehabil Nurs*. 2009;**34**:110–7.
75. Zidén L, Scherman MH, Wenestam CG. The break remains – elderly people's experiences of a hip fracture 1 year after discharge. *Disabil Rehabil*. 2010;**32**:103–13.
76. Zidén L, Wenestam CG, Hansson-Scherman M. A life-breaking event: early experiences of the consequences of a hip fracture for elderly people. *Clin Rehabil*. 2008;**22**:801–11.
77. Moraes SA, Furlanetto EC, Ricci NA *et al.* Sedentary behavior: barriers and facilitators among older adults after hip fracture surgery. A qualitative study. Braz. *J Phys Ther*. 2020;**24**:407–14.
78. Center for Substance Abuse Treatment (US). *Trauma-Informed Care in Behavioral Health Services*. Rockville (MD): Substance Abuse and Mental Health Services Administration (US), 2014. (Treatment Improvement Protocol (TIP) Series, No. 57). Available: https://www.ncbi.nlm.nih.gov/books/NBK207201/ (09 april 2024, date last accessed).
79. Pozzato I, Tran Y, Gopinath B *et al.* The role of stress reactivity and pre-injury psychosocial vulnerability to psychological and physical health immediately after traumatic injury. *Psychoneuroendocrinology*. 2021;**127**:105190.
80. Kornfield SL, Lenze EJ, Rawson KS. Predictors of posttraumatic stress symptoms and association with fear of falling after hip fracture. *J Am Geriatr Soc*. 2017;**65**:1251–7.
81. Bjelland I, Dahl AA, Haug TT *et al.* The validity of the hospital anxiety and depression scale: an updated literature review. *J Psychosom Res*. 2002;**52**:69–77.
82. Zhu Y, Xu BY, Low SG *et al.* Association of social support with rehabilitation outcome among older adults with hip fracture surgery: a prospective cohort study at post-acute care facility in Asia. *J Am Med Direct Assoc*. 2023;**24**:1490–6.
83. Noeske KE, Snowdon DA, Ekegren CL *et al.* Walking self-confidence and lower levels of anxiety are associated with meeting recommended thresholds of physical activity after hip fracture: a cross-sectional study. *Disabil Rehabil*. 2024;**Apr 18**:1–7. (accepted 28 March 2024).
84. Jensen GM, Gwyer J, Shepard KF *et al.* Expert practice in physical therapy. *Phys Ther*. 2000;**80**:28–43.
85. Hill TE. How clinicians make (or avoid) moral judgments of patients: implications of the evidence for relationships and research. *Philos Ethics Humanit Med*. 2010;**5**:1–14.
86. Jeyasingam N, McLean L, Mitchell L *et al.* Attitudes to ageing amongst health care professionals: a qualitative systematic review. *Euro Geriatr Med*. 2023;**14**:889–908.
87. Crotty M, Unroe K, Cameron ID *et al.* Rehabilitation interventions for improving physical and psychosocial functioning after hip fracture in older people. *Cochrane Database Syst Rev*. 2010;**1**:CD007624.
88. Scheffers-Barnhoorn MN, van Eijk M, van Haastregt JC *et al.* Effects of the FIT-HIP intervention for fear of falling after HIP fracture: a cluster-randomized controlled trial in geriatric rehabilitation. *J Am Med Dir Assoc*. 2019;**20**:857–865.e2.

Received 12 April 2024; editorial decision 25 July 2024