

## Psychological Distress Experience in Older Adult Patients with Hip Fracture: A Qualitative Study

**Authors:** Wang Songyu, Cao Hongshi, Wang Haiyan, Yang Jingshu, Duan Xiaotian, Quantong Zhao, Wang Ran, Cao Hongshi

**Date:** 2024-07-02T00:00:00+00:00

### Abstract

**Objective:** To describe the psychological distress experiences of elderly patients with hip fracture and provide a basis for identifying psychological distress in this population in China. **Methods:** Using purposive sampling, elderly patients with hip fracture who were hospitalized or discharged from the orthopedics department of a tertiary Grade A hospital in Jilin Province were selected for semi-structured interviews from February 20 to April 30, 2024. Colaizzi's 7-step analysis method was used to organize and analyze the interview content. **Results:** This study extracted three themes: related emotional experiences of psychological distress in elderly patients with hip fracture, secondary physiological experiences of psychological distress in elderly patients with hip fracture, and socio-humanistic experiences of psychological distress in elderly patients with hip fracture. **Conclusion:** Due to their age-related characteristics and environmental factors, psychological distress in elderly patients with hip fracture is more difficult to detect than in younger individuals, yet it often affects their disease prognosis and quality of life, requiring more attention in clinical practice and daily life. This study provides a preliminary exploration of the psychological distress experiences of elderly patients with hip fracture, offering a basis for developing specialized assessment tools for psychological distress in this population.

### Full Text

#### A Qualitative Study on the Experiences of Psychological Distress in Elderly Hip Fracture Patients

**Authors:** Wang Songyu<sup>1</sup>, Cao Hongshi<sup>2</sup>, Wang Haiyan<sup>2</sup>, Yang Jingshu<sup>3</sup>, Duan Xiaotian<sup>1</sup>, Zhao Quantong<sup>1</sup>, Wang Ran<sup>1</sup>

<sup>1</sup>School of Norman Bethune First Clinical Medical College, Jilin University, Changchun 130012, China

<sup>2</sup>Department of Nursing, The First Hospital of Jilin University, Changchun 130012, China

<sup>3</sup>Department of Oncology Center, The First Hospital of Jilin University, Changchun 130012, China

**Corresponding Author:** Cao Hongshi, Email: chshi1977@163.com

## Abstract

**Objective:** To describe the experiences of psychological distress among elderly hip fracture patients and provide a foundation for identifying psychological distress in this population within China.

**Methods:** A descriptive phenomenological approach was adopted for this qualitative study. Purposeful sampling was used to conduct semi-structured interviews with elderly hip fracture patients who were either hospitalized or had been discharged from the Department of Orthopedics at a tertiary-level Grade A hospital in Jilin Province between February 20 and April 30, 2024. Interview data were analyzed using Colaizzi's seven-step method to extract themes.

**Results:** Three major themes were identified: (1) emotional experiences associated with psychological distress in elderly hip fracture patients, (2) secondary physiological experiences of psychological distress, and (3) social and humanistic experiences of psychological distress.

**Conclusions:** Due to their age-related characteristics and environmental circumstances, psychological distress in elderly hip fracture patients is less easily detected compared to younger individuals, yet it frequently affects disease prognosis and quality of life, warranting greater attention in both clinical and daily settings. This preliminary exploration of psychological distress experiences provides a basis for developing specialized assessment tools for psychological distress in elderly hip fracture patients.

**Keywords:** elderly; hip fracture; psychological distress; qualitative study; nursing care

---

Psychological distress refers to an unpleasant emotional experience influenced by multiple factors, encompassing psychological (cognitive, behavioral, emotional), social, and/or spiritual discomfort that may interfere with patients' ability to effectively cope with cancer, physical symptoms, and treatment [1]. Geriatric hip fracture refers to fractures occurring in individuals aged  $\geq 65$  years within the region between the hip joint and a point 5 cm below the lesser trochanter, including femoral neck fractures, intertrochanteric fractures, acetabular fractures, and subtrochanteric fractures [2]. This condition represents one of the most common diseases among older adults, typically occurring in elderly populations with osteoporosis, with falls being the primary cause. By 2050, the global number of elderly hip fracture patients is projected to reach 6.3 million cases, with over 50% occurring in Asia [3]. As the aging population peaks, the incidence of osteoporosis continues to rise annually, with prevalence exceeding

60% among Chinese individuals over 65 years of age [4]. According to national surveys, China experiences over 1 million new hip fracture cases each year, with numbers increasing annually [5]. Geriatric hip fracture carries a poor prognosis and has been termed “the last fracture of one’s life” due to its high rates of disability and mortality, with approximately 35% of patients unable to regain independent ambulation and 25% requiring long-term home care. Research indicates that psychological distress is common among older adults, with prevalence rates between 1.2% and 15%, and represents a frequently unrecognized cause of disability and even death [6]. Therefore, this study aims to understand the experiences of psychological distress in elderly hip fracture patients and provide a basis for its identification in this population.

## Methods

### Participants

Purposeful sampling was employed to select elderly hip fracture patients from the Department of Orthopedics at a tertiary-level Grade A hospital in Jilin Province between February 20 and April 30, 2024. Inclusion criteria were: (1) meeting the target population criteria for geriatric hip fracture as defined in the *Guidelines for Diagnosis, Treatment, and Management of Geriatric Hip Fracture* (2022 edition) [7]; (2) age  $\geq$  65 years; (3) stable vital signs and normal cognitive function; and (4) informed consent with willingness and ability to express inner feelings. Exclusion criteria included: (1) cognitive dysfunction, psychiatric illness, or inability to communicate verbally; and (2) presence of other severe conditions (such as malignant tumors, heart failure, renal failure, or respiratory failure). Sampling continued until data saturation was reached, with no new themes emerging. Ultimately, 10 patients were included, with demographic characteristics presented in .

### Research Methods

This study employed a phenomenological approach within qualitative research methodology [8], utilizing semi-structured interviews. The research team developed the interview guide through extensive review of domestic and international literature [7, 9-13] and consultation with relevant experts. The team comprised one clinical psychologist, one chief nurse, two nurse practitioners, one nursing theory expert, and four graduate students. Pilot interviews with two patients were conducted, and the guide was further revised based on these results to produce the final version. The interview questions included: (1) What difficulties and setbacks have you encountered since the fracture? (2) What were your feelings or thoughts at that time? (3) How has fracture treatment affected your life, work, and social interactions? (4) Have these changes caused you distress? (5) How have you coped with these difficulties and setbacks?

Prior to each interview, researchers explained their identity, the purpose and significance of the study, and obtained informed consent. Participants were assured

of strict confidentiality. During interviews, appropriate techniques were employed, such as beginning with casual conversation to create a comfortable atmosphere, flexibly exploring topics while maintaining focus, and avoiding leading questions. Interviews were recorded and transcribed verbatim, with researchers noting participants' expressions and tone. Each interview lasted 30-40 minutes, with timing and location determined by participant preference, avoiding morning treatment periods and mealtimes. Results are presented anonymously using numerical codes.

Within 24 hours of each interview, recordings were transcribed verbatim, including non-verbal expressions. Researchers repeatedly reviewed raw data to deepen understanding and ensure authenticity and completeness. Colaizzi's seven-step phenomenological analysis method [14] was applied: (1) thoroughly reading and reviewing interview materials and notes; (2) extracting relevant information; (3) recording frequently occurring viewpoints; (4) clustering significant perspectives; (5) describing interview content comprehensively; (6) identifying similar viewpoints; and (7) verifying with participants. Using Nvivo software, data were coded according to the definition of psychological distress to precisely identify participants' responses, culminating in the final themes.

## Results

Through interview coding and based on the definition and content of psychological distress, three major themes emerged: emotional experiences, secondary physiological experiences, and social-humanistic experiences, comprising 13 sub-themes total.

### Theme 1: Emotional Experiences

For elderly hip fracture patients, most fractures result from falls, creating substantial emotional impact. This theme encompasses five sub-themes:

**(1) Anxiety:** Elderly patients requiring at least three days of bed rest experience anxiety due to environmental changes, altered routines, and decreased self-care abilities. Participant N1 stated: "I'm so worried, I can feel it. My mouth is so dry, and I'm so upset inside." N3 expressed: "This IV needle, it's uncomfortable. I don't think I need it. It's annoying—I've already pulled out two." N9 shared: "My family farms, and this is harvest season. Lying here, I can't do anything. What will happen at home? I'm constantly worried."

**(2) Fear and Tension:** Most elderly patients experience fear of falling due to osteoporosis, and also feel nervous about surgery—the "gold standard" treatment for geriatric hip fracture [15]. N2 reported: "The night before, I was so nervous I couldn't sleep all night." N4 said: "I can't move, I'm too scared to move."

**(3) Homesickness:** Due to hospitalization, elderly patients develop stronger attachment to home and eagerly anticipate discharge. N2 noted: "It's been 9

days, I miss home, especially the night after surgery.” N4 shared: “They told us I can go home next week if everything’s okay. That definitely changes your mood—gives you hope.”

**(4) Decreased Self-Identity:** Declining physical function often makes elderly patients feel incompetent. Falls further reinforce feelings of being “useless,” reducing self-identity and even diminishing desire for life. N3 stated: “I’m old and useless.” N5 expressed: “I’m not good anywhere, and I feel terrible. I keep telling them, if you want to be filial, just buy me some medicine and let me go.”

**(5) Perceived Physical Decline:** Many patients feel their bodily functions deteriorating with age, gradually losing confidence in their health, enthusiasm for life, and amplifying their perception of illness. N1 shared: “It wasn’t that painful originally, but after surgery I caught a cold, and with the cold I feel it’s even more painful—unbearable. Another night of hardly any sleep.” N5 noted: “I used to enjoy watching TV, but not anymore. My eyesight is getting worse, and watching TV makes it even blurrier. Just listening to the sound isn’t the same.”

## Theme 2: Secondary Physiological Experiences

Interviews revealed that psychological issues trigger various physiological phenomena, causing physical discomfort that affects surgery and recovery. Four sub-themes emerged:

**(1) Sleep Insufficiency:** Anxiety and tension frequently cause insomnia, even amplifying pain perception. N1 stated: “The night before, I was so nervous I couldn’t sleep all night.” N4 reported: “Now I stay here night after night without sleeping. Sometimes I can nap during the day when tired, but I still feel the pain.” N6 simply noted: “I can’t sleep at night.”

**(2) Appetite Loss:** Prolonged bed rest, psychological pressure, and disease effects commonly cause poor appetite. N4 shared: “I can’t eat much now, no appetite. Not moving every day, I’m not hungry.” N6 stated: “I had a fever two days ago and couldn’t eat anything—just a bun and some porridge a day.”

**(3) Blood Pressure Fluctuation:** Some patients with normal admission blood pressure experienced hypertension near surgery time due to tension and anxiety. N2 reported: “The anesthesiologist said my blood pressure was high—my son said it reached 240.”

**(4) Digestive System Disturbance:** Early-stage bed rest, combined with poor appetite and other factors, leads to digestive issues like diarrhea or constipation due to reduced activity, unfamiliar toileting positions, psychological stress about using bedpans, and decreased intestinal motility. N3 explained: “In the first couple of days, I don’t know if it was the food or stopping aspirin, I had some diarrhea, and then I couldn’t go at all.” N4 stated: “Bowel movements are difficult. Lying in bed makes using the bathroom even harder.”

### Theme 3: Social-Humanistic Experiences

Social support is recognized as a crucial predictor of psychological adjustment following traumatic events [16], influencing disease progression and recovery. Four sub-themes emerged:

**(1) Insufficient Social Support:** Some participants lacked adequate social support due to various reasons, resulting in weak rehabilitation motivation and confidence, and generally low psychological states. N6 shared: “Usually they don’t let me go out, they lock me at home.” N7 stated: “Just let me go home quickly. No one can care for me at home—my son has to earn money. Just send me to a nursing home and don’t delay them.”

**(2) Social Alienation:** With aging, familiar friends and relatives pass away, and adult children become busy with their own lives, creating social alienation that intensifies with illness. N2 expressed: “I had five sisters, only two left. So many people around me have passed away. I have to trouble my son to bring me food—what a bother in old age.” N10 noted: “My daughter and son take turns caring for me, causing them so much trouble.”

**(3) Knowledge Deficits:** Elderly patients absorb information slowly and have limited disease understanding, often lacking knowledge about fracture recovery and treatment. This deficiency undermines recovery confidence and contributes to psychological distress. N1 stated: “I don’t know what the future will be like—just living day by day.” N3 shared: “Dr. Zhao wants me to sit by the bed and lightly touch my foot to the ground, but it hurts. I can’t endure it, I really don’t want to sit.” N10 expressed: “I don’t dare get out of bed now. When they get off work, they come home and move my legs for me; otherwise, my spouse doesn’t dare move me. Now I deliberately sleep on my other side, afraid of pressing on this leg. Hearing about deformities and atrophy is scary. I want to be able to stand up again someday, so I’m very careful with this leg and don’t dare get out of bed.”

**(4) Family Economic Burden:** Some patients, particularly those from rural areas, face heavy economic or family burdens, unable to fulfill family roles or afford medical expenses due to the fracture. N1 shared: “No one is watching the two children going to and from school—I’m very worried.” N5 stated: “Spending this money and suffering like this—why bother treating it?” N9 expressed: “No one is harvesting the fields at home, I’m so distressed. It’s harvest season now, and if the fields aren’t harvested and sold, there’s no money. Moving causes pain, no one cares for me at home, and I’m suffering here.”

## Discussion

### Emotional Experiences of Psychological Distress in Elderly Hip Fracture Patients

International scholar Andreescu’s research indicates that due to age-related neuropathology and experiences of loneliness and loss in later life, the psychological

response mechanisms in older adults differ from those of younger and middle-aged individuals, often making early detection difficult [6]. Previous studies have found that elderly hip fracture patients commonly experience anxiety, depression, fear, and other negative emotions, which can severely trigger posttraumatic stress disorder (PTSD) and significantly impact recovery [19]. Therefore, early identification of emotional changes and alleviation of psychological distress facilitates disease recovery and improves quality of life. Beyond the commonly recognized emotions of tension, anxiety, and fear, interviews frequently captured expressions like “I’m old and useless” and “everything’s wrong with me,” reflecting decreased self-identity and perceived physical decline. Research demonstrates that self-identity mediates the pathway from loneliness to depression in older adults [25]. Hospitalization or home recovery restricts activity and reduces social contact, contributing to loneliness and diminished self-identity. Furthermore, studies show that nutritional intake, home rehabilitation programs, and psychological counseling positively impact quality of life after hip fracture surgery [26]. Thus, appropriate psychological support during recovery and follow-up visits can facilitate recovery and mitigate adverse psychological experiences.

### **Secondary Physiological Experiences of Psychological Distress**

International research indicates that psychological problems can cause numerous functional disorders and reduce quality of life [27], consistent with our findings. While domestic research has primarily focused on how physical problems generate adverse psychological emotions, fewer studies have examined physiological manifestations resulting from psychological issues. Our study demonstrates that psychological concerns lead to rumination and, due to high psychological pressure, cause insufficient rest and subsequent physiological changes. The most frequently mentioned physiological experience was sleep insufficiency. Previous research confirms that sleep quality in older adults is a contributing factor to metabolic cardiovascular disease [28]. Due to environmental changes and disease effects, participants also commonly experienced blood pressure fluctuations, appetite loss, and stress responses like diarrhea and constipation. Therefore, when these physiological changes occur, clinicians should consider psychological state changes alongside disease-related causes.

### **Social-Humanistic Experiences of Psychological Distress**

Research shows that patient recovery depends on both internal motivation and external support [29], aligning with our findings. According to social support theory, stronger social support networks enable better coping with environmental challenges [9]. For participants with adequate social support, the impact of hip fracture was less severe than for those lacking family care. For those without children nearby or available caregivers, loneliness and alienation intensified, with many perceiving themselves as a “burden” or “drag.” Some participants who previously cared for grandchildren or managed household labor experienced significant burden due to inability to fulfill these family roles. Those

lacking social support often demonstrated weaker rehabilitation confidence, believing they would never walk again and fearing future falls. Therefore, while family circumstances may be unchangeable, enhanced attention and support for these patients—through in-hospital care, discharge follow-up, rehabilitation education, and introduction of successful case examples—can strengthen social support, improve rehabilitation confidence, and reduce psychological distress.

This qualitative study provides preliminary exploration of psychological distress experiences in elderly hip fracture patients, supplementing existing research and laying groundwork for developing specialized assessment tools for psychological distress in this population, which holds profound significance for advancing clinical psychological care. As this study is based on subjective participant perspectives, results may be limited in scope. Future research will expand the sample size and range to further validate these findings.

- 
- References** [1] Gebhardt C, Gorba C, Oechsle K, et al. [Breaking Bad News to Cancer Patients: Content, Communication Preferences and Psychological Distress][J]. *Psychother Psychosom Med Psychol*, 2017,67(7):312-321.
- [2] Keene G S, Parker M J, Pryor G A. Mortality and morbidity after hip fractures[J]. *BMJ*, 1993,307(6914):1248-1250.
- [3] Cooper C, Campion G, Melton L R. Hip fractures in the elderly: a world-wide projection[J]. *Osteoporos Int*, 1992,2(6):285-289.
- [4] Cheung C L, Ang S B, Chadha M, et al. An updated hip fracture projection in Asia: The Asian Federation of Osteoporosis Societies study[J]. *Osteoporos Sarcopenia*, 2018,4(1):16-21.
- [5] Zhang C, Feng J, Wang S, et al. Incidence of and trends in hip fracture among adults in urban China: A nationwide retrospective cohort study[J]. *PLoS Med*, 2020,17(8):e1003180.
- [6] Andreescu C, Varon D. New research on anxiety disorders in the elderly and an update on evidence-based treatments[J]. *Curr Psychiatry Rep*, 2015,17(7):53.
- [7] Yang MH, Zhang WC, Liu G, et al. Guidelines for Diagnosis, Treatment, and Management of Geriatric Hip Fracture (2022 Edition)[J]. *China Practical Rural Doctor Magazine*, 2023,30(01):11-18.
- [8] Li F, Zhou YX. Analysis of Nursing Literature on Phenomenological Research in China[J]. *Chinese Journal of Nursing*, 2016,51(06):765-768.
- [9] Wang TQ. Evaluation of Rehabilitation Team Nursing in Joint Replacement Patients from the Perspective of Social Support Theory[J]. *Journal of Chronic Diseases*, 2024,25(03):403-406.
- [10] Rao JJ, Liu SQ, Lin Y, et al. Construction of a Postoperative Constipation Prediction Model for Hip Fracture Patients Based on SMOTE[J]. *Nursing Research*, 2023,37(02):207-211.
- [11] Ding XL, Zhang JH, Li YQ, et al. Study on the Correlation Between Psychological Status and Prognosis in Patients with Osteoporotic Hip Fracture[J]. *Hainan Medical Journal*, 2018,29(01):50-52.
- [12] Jiang QJ. *Nursing Psychology*[M]. Zhejiang University Press, 2006.

- [13] Rainville P, Bao Q, Chretien P. Pain-related emotions modulate experimental pain perception and autonomic responses[J]. *Pain*, 2005,118(3):306-318.
- [14] Liu M. Application of Colaizzi's Seven Steps in the Analysis of Phenomenological Research Data[J]. *Journal of Nursing Science*, 2019,34(11):90-92.
- [15] National Health Commission of the People's Republic of China. Guidelines for Diagnosis, Treatment, and Management of Geriatric Hip Fracture (2022 Edition)[J]. *Journal of Clinical and Research Orthopedics*, 2023,8(02):77-83.
- [16] Duan XY, Tong YP, Du J, et al. Current Status of Vicarious Trauma in Clinical Nurses and Its Correlation with Empathy and Perceived Social Support[J]. *Nursing Research*, 2024,38(08):1499-1504.
- [17] Global, regional, and national burden of 12 mental disorders in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019[J]. *Lancet Psychiatry*, 2022,9(2):137-150.
- [18] Lofman O, Berglund K, Larsson L, et al. Changes in hip fracture epidemiology: redistribution between ages, genders and fracture types[J]. *Osteoporos Int*, 2002,13(1):18-25.
- [19] Jayasinghe N, Sparks M A, Kato K, et al. Exposure-Based CBT for Older Adults After Fall Injury: Description of a Manualized, Time-Limited Intervention for Anxiety[J]. *Cogn Behav Pract*, 2014,21(4):432-445.
- [20] Ko Y J, Lee J H, Baek S H. Discharge transition experienced by older Korean women after hip fracture surgery: a qualitative study[J]. *BMC Nurs*, 2021,20(1):112.
- [21] Burns A, Younger J, Morris J, et al. Outcomes following hip fracture surgery: a 2-year prospective study[J]. *Am J Geriatr Psychiatry*, 2014,22(8):838-844.
- [22] Alexiou K, Roushias A, Varitimidis S, et al. Quality of life and psychological consequences in elderly patients after a hip fracture: a review[J]. *Clin Interv Aging*, 2018,Volume 13:143-150.
- [23] Peeters C M, Visser E, Van de Ree C L, et al. Quality of life after hip fracture in the elderly: A systematic literature review[J]. *Injury*, 2016,47(7):1369-1382.
- [24] Sammut R, Azzopardi C, Camilleri L. Spiritual coping strategies and quality of life in older adults who have sustained a hip fracture: A cross-sectional survey[J]. *Nurs Open*, 2021,8(2):572-581.
- [25] Liu HR, Shang XH, Wang Y, et al. The Impact of Loneliness on Depression in Rural Elderly: The Mediating Role of Self-Identity[J]. *China Journal of Health Psychology*, 2022,30(11):1607-1611.
- [26] Peeters C M, Visser E, Van de Ree C L, et al. Quality of life after hip fracture in the elderly: A systematic literature review[J]. *Injury*, 2016,47(7):1369-1382.
- [27] Roy-Byrne P P, Craske M G, Stein M B. Panic disorder[J]. *Lancet*, 2006,368(9540):1023-1032.
- [28] Zhou W, Zhang Y, Gao JL, et al. The Impact of Sleep Quality on Metabolic Cardiovascular Disease in the Elderly[J]. *Zhejiang Medical Journal*, 2023,45(16):1709-1712.
- [29] Peng T, He KQ, Lei YP, et al. Meta-Synthesis of Experiences and Needs of Elderly Hip Fracture Patients During Rehabilitation[J]. *Chinese Journal of Nursing*, 2022,57(19):2406-2414.

*Note: Figure translations are in progress. See original paper for figures.*

*Source: ChinaXiv — Machine translation. Verify with original.*