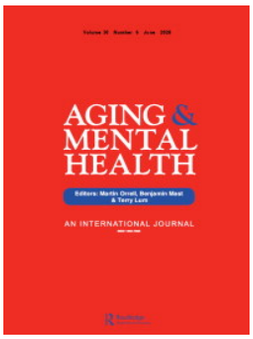

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Negative perceptions of ageing are associated with fall-related concerns in community-dwelling older adults

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ABSTRACT

Objectives:: Concerns about falling (CaF) are associated with poorer quality of life. Emerging evidence suggests perceptions of ageing may shape such concerns by influencing perceptions of control, vulnerability, and physical decline. This study examined whether negative perceptions of ageing are associated with greater CaF and heightened perceptions of fall-related consequences.

Methods:: A cross-sectional study included 622 older adults (73.9 ± 6.96 years; 73.5% female). CaF were assessed using the Short Falls Efficacy Scale-International, and perceived consequences of falling using the Consequences of Falling Questionnaire. Perceptions of ageing were assessed through attitudes, self-perceptions, and optimism about ageing. Hierarchical linear regression analyses assessed associations while controlling for demographic, health, and psychological covariates.

Results:: More positive perceptions of ageing were significantly associated with lower CaF ($b = -0.129$ to -0.486; $p < .003$) and fewer perceived negative consequences of falling ($b = -0.989$ to 0.226; $p < .017$). These associations remained significant after controlling for established predictors of CaF, including age, health status, and falls history.

Conclusion:: Older adults with more positive perceptions of ageing reported lower CaF and fewer perceived negative consequences of falls. As perceptions of ageing are modifiable, interventions that promote more positive perceptions may help address these concerns.

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Fear; concerns; falls; perceptions of ageing; ageing

Introduction

Concerns about falling (CaF) are common in older adults, with a prevalence ranging from 21 to 85% (Asai et al., 2022; Mendes da Costa et al., 2012; Scheffer et al., 2008; Xiong et al., 2024). CaF often lead to maladaptive outcomes, including undue activity avoidance (Deshpande et al., 2008; Liu et al., 2021; Zijlstra et al., 2007), physical deconditioning (Delbaere et al., 2004; Schoene et al., 2019), and behaviour changes (e.g. activity restriction and more cautious movement patterns) (Young & Williams, 2015) that may compromise safety, all of which can contribute to an increased risk of future falls (Ellmers et al., 2025). Accordingly, the 2022 *World Falls Guidelines* recommend that clinicians regularly screen for CaF and then implement targeted multicomponent (e.g. physical and psychological therapy) interventions when high levels of concerns are identified (Montero-Odasso et al., 2022). However, existing interventions yield only modest benefits (Nicklen et al., 2025), likely because little is known about underlying psychological factors driving these concerns, including both established psychosocial correlates (e.g. depressive symptoms and anxiety (Hull et al., 2013)) and age-related cognitive factors.

Although physical risk factors, such as previous falls, reduced strength and impaired balance, are associated with increased CaF, many older adults report high concern despite never falling and/or having low physiological fall risk (Andresen et al., 2006; Delbaere et al., 2010; Jaatinen et al., 2022; Lavedán et al., 2018; Mendes da Costa et al., 2012; Soleimani et al., 2020). Such mismatches between perceived and actual risk are argued to reflect 'maladaptive' forms of CaF. Here, concern is disproportionate to physical vulnerability for a fall (Delbaere et al., 2010; Ellmers et al., 2023), leading to overly cautious behaviours that increase the risk of falling (Ellmers et al., 2023). These mismatches underscore the need to consider psychological as well as physical factors when understanding why such maladaptive concerns develop and persist.

One psychological factor that may be particularly relevant in this context is subjective age, defined as how old or young individuals feel relative to their

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chronological age (Kotter-Grühn et al., 2015). Emerging longitudinal evidence suggests that an older subjective age predicts increased CaF over time, even after accounting for prior falls, demographic factors, and physical functioning (Fundenberger et al., 2022). In addition, CaF has been shown to predict a subsequently older subjective age, suggesting a bidirectional relationship between these constructs (Li et al., 2020). While subjective age reflects a personal age identity, it is a distinct construct from broader perceptions of ageing, which capture evaluative beliefs about ageing and may offer a more comprehensive account of CaF.

This broader literature on perceptions of ageing (i.e. beliefs that ageing inevitably involves decline and loss) highlights that many older adults view falling as an 'inevitable' part of ageing (Hudak et al., 2023). Initial qualitative work suggests that such negative perceptions of ageing may play an important role in the development of CaF (Ellmers et al., 2022). This perspective aligns with Stereotype Embodiment Theory (Levy 2009), which proposes that internalised negative age stereotypes reduce perceived control and self-efficacy – perhaps serving to simultaneously increase CaF. However, beyond subjective age, formal quantitative associations between broader perceptions of ageing and CaF have not yet been explored. Instead, prior work has focused on associations between perceptions of ageing and *physical* (rather than psychological) fall-related outcomes, such as physical recovery following a fall (Hill et al., 2025; Zhang et al., 2023).

The primary aim of this study was to therefore examine whether negative perceptions of ageing are associated with both CaF and beliefs surrounding the feared consequences of falling in community-dwelling older adults. We hypothesised that more negative perceptions of ageing would be independently associated with higher CaF and greater concern about the consequences of a potential fall. Understanding these relationships is critical for identifying the psychological factors that contribute to maladaptive CaF and for developing targeted psychological interventions for maladaptive CaF.

Methods

Sample size estimation

Power analyses (G*Power, v3.1.9.2) indicated that for multiple linear regression analyses (fixed model and single regression coefficient), for 15 predictors, a minimum of 395 participants would be required to detect a significant relationship of small effect size (assuming $1-\beta = 80\%$, $\alpha = 0.05$, Cohen's $f = 0.02$ [standardised small effect size]). This conservative estimate was selected given the limited prior research directly examining the relationships between perceptions of ageing, fall-related concerns, ensuring adequate sensitivity to detect effects that may be modest in magnitude but nonetheless of practical and theoretical importance.

Study design, sample, and population

An observational online cross-sectional study was completed by 622 community-dwelling adults between November 2024 and September 2025. Participants were recruited through UK-based social support groups, with the survey disseminated *via* social media posts and newsletters distributed to locally run ageing interest groups. No incentives or rewards were provided for participation. Eligibility criteria included adults aged 60–90 years who could read written English. To maximise inclusivity, we had no exclusion criteria; however, neurological conditions (e.g. Alzheimer's, multiple sclerosis, Parkinson's, and stroke) were recorded and controlled for in the final analyses. All participants completed an online survey hosted on the Jisc Online Surveys platform, but a paper version was available as an alternative. Ethical approval was obtained from Coventry University's ethical committee (P180140), and the research was carried out in accordance with the Declaration of Helsinki (1964). Written informed consent was obtained from all participants, who had the right to withdraw from the study up to the point where their data were analysed.

Survey development

The survey was developed by including a number of validated self-reported outcome measures. The survey was piloted in 15 older adults prior to formal data collection. This ensured that (i) participant instructions were clearly understood, (ii) the online survey tool (including response options) itself was user-friendly and easy to navigate, and (iii) the survey did not reflect an undue burden on participants.

Primary outcomes

Concerns about falling

CaF reflect a lasting feeling of dread and apprehension about situations that are believed to threaten or challenge balance (Ellmers et al., 2023). The Short Falls Efficacy Scale-International (Short FES-I) is a widely used and validated seven-item self-report questionnaire that assesses and individual's CaF during daily activities (Kempen et al., 2008). It has demonstrated excellent internal consistency ($\alpha = 0.92$) and good test–retest reliability (intraclass correlation coefficient [ICC] = 0.83) (Kempen et al.,

2008). Participants rated their level of concern for each activity (e.g. getting dressed or undressed) on a scale from 1 (*not at all concerned*) to 4 (*very concerned*). Total scores range from 7 to 28, with scores from 7 to 10 indicating low concern, and scores from 11 to 28 reflecting high CaF (Delbaere et al., 2010).

Concerns about consequences of falling

Perceived consequences of falling reflect individuals' beliefs about the potential outcomes that might occur if they were to fall, encompassing physical (e.g. sustaining an injury and difficulty getting up), social (e.g. embarrassment and others viewing them as helpless or frail), psychological (e.g. losing confidence or self-assurance), and functional (e.g. being unable to live independently or becoming a burden to others) consequences. The *Consequences of Falling Questionnaire* (CFQ) (Yardley & Smith, 2002) assesses these perceptions using 12 items rated on a 4-point Likert scale from 1 (*strongly disagree*) to 4 (*strongly agree*). Example items include 'If I fall over, I will have difficulty getting up' and 'If I fall, people will think I am a helpless old person'. Total scores range from 12 to 48, with higher scores indicating greater concern about the potential negative consequences of falling. Consistent with the original validation of the CFQ, internal consistency has been reported separately for the two six-item components, demonstrating excellent reliability for both the first half of the scale (α = 0.94) and the second half (α = 0.87; Yardley & Smith, 2002).

Predictors

Perceptions of ageing are a multidimensional construct that can be operationalised through distinct but related indicators capturing evaluative, self-perceptual, and experiential aspects of ageing (Diehl et al., 2014). In this study, we captured these facets using measures of attitudes to ageing, self-perceptions/optimism about ageing, and subjective age.

Attitudes to ageing

The Short Attitudes to Ageing Questionnaire (AAQ; Laidlaw et al., 2018) is a validated 12-item self-report measure assessing beliefs and evaluations about the experience of growing older, encompassing psychological, social, and physical dimensions. Participants rate statements such as 'It is a privilege to grow old' on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire comprises three subscales. The psychosocial loss subscale (four items) assesses negative perceptions of ageing related to social and psychological challenges, such as feeling excluded from social experiences or having difficulty forming new friendships (Lucas-Carrasco et al., 2013). The psychological growth subscale (four items) captures positive appraisals of ageing, including attitudes towards passing on life experience and setting a good example for others (Shenkin et al., 2014). The physical change subscale (four items) measures perceptions of age-related changes in health, energy, exercise, and the overall physical experience of ageing (Lucas-Carrasco et al., 2013). Items are scored so that higher values reflect more positive attitudes towards ageing, with the psychosocial loss subscale reverse-coded accordingly. Each subscale ranges from 4 to 20, and scores were summed and analysed separately. The AAQ demonstrates acceptable internal consistency at the full-scale level (α = 0.72; Laidlaw et al., 2018), with previously reported subscale reliabilities of α = 0.72 (psychosocial loss), α = 0.62 (psychological growth), and α = 0.72 (physical change). The AAQ demonstrates acceptable internal consistency (α = 0.72; Laidlaw et al., 2018).

Self-perceptions/optimism about ageing

In accordance with previous literature (Chilcot & Hackett, 2024; Hill et al., 2025), self-perceptions of ageing were assessed using two items from the CASP-19 questionnaire (Hyde et al., 2003): (1) 'My age prevents me from doing the things I would like to do' and (2) 'My health stops me from doing the things I want to do'. Optimism about ageing was also assessed using two additional CASP-19 items as an of index positive evaluative outlooks in later life: (1) 'I feel that life is full of opportunities' and (2) 'I feel that the future looks good for me'. Participants rated each statement on a 4-point Likert scale: ([1] 'often', [2] 'sometimes', [3] 'not often', and [4] 'never'), indicating how well each statement described their feelings about life. Items related to optimism were reverse coded so that higher scores reflected more positive views of ageing. Summed scores for both constructs ranged from 2 to 8, with higher values indicating more positive self-perceptions or optimism. These two measures capture complementary aspects of ageing: self-perceptions of ageing reflect the extent to which individuals feel ageing limits their autonomy and control, whereas optimism about ageing reflects one's attitude towards the future. Inter-item correlations for each two-item construct were also examined; the self-perceptions of ageing items showed a moderate association (r = 0.50), indicating sufficient shared variance to justify their combination into a single mini-scale without evidence of redundancy.

Subjective age

Subjective age was assessed using a single item: 'How old do you feel in years?'. In line with prior

work (Stephan et al., 2015), proportional discrepancy scores were then calculated for each participant by subtracting the subjective age from their chronological age and then dividing this difference by their chronological age. Positive scores indicate that the participant felt younger than their chronological age (e.g. a score of 0.10 indicates feeling 10% younger).

Characteristics and covariates

Covariates included in the analyses were age (in years), gender (coded as male = 1, female = 2), self-reported general health (dichotomised as excellent/good versus fair/poor), self-reported mobility (dichotomised as able to walk ¼ mile = 0, and unable to walk ¼ mile = 1), and falls history (in the last 12 months; non-faller = 0, and faller = 1). Physical activity was assessed by asking participants how frequently they engaged in vigorous, moderate, and mild intensity physical activity (Hamer et al., 2014). For each level of physical activity, the response options were: (1) *more than once per week*, (2) *once per week*, (3) *1–3 times per month*, and (4) *hardly ever or never*. Responses were categorised as Insufficiently Active (physical activity once a week or less undertaking mild activities only = 0) or Active (moderate or vigorous activity more than once a week = 1), based on physical activity guidelines (Hamer et al., 2014). The presence of neurological conditions (Alzheimer's, multiple sclerosis, Parkinson's, and/or stroke) was coded as a binary variable (no disease = 0, disease = 1). Anxiety was assessed using the general anxiety disorder questionnaire (GAD-7), which measures the frequency of anxiety symptoms over the past two weeks (Spitzer et al., 2006), with scores ranging from 0 to 21 and interpreted as minimal (0–4), mild (5–9), moderate (10–14), or severe (15–21). The GAD-7 has demonstrated excellent internal consistency (α = 0.92; Spitzer et al., 2006) and good test–retest reliability (ICC = 0.83). Depression was measured with the patient health questionnaire (PHQ-2), which assesses depressive symptoms over the past two weeks (Kroenke et al., 2003), with scores ranging from 0 to 6, and scores >3 indicative of clinically relevant depressive symptoms. The PHQ-2 demonstrates good internal consistency (α = 0.83; Löwe et al., 2005; Staples et al., 2019) and acceptable test–retest reliability (ICC = 0.79).

Statistical analyses

Two hierarchical linear regression analyses were conducted using SPSS (version 28.0) to examine whether ageing-related variables predicted CaF and/or perceived consequences of falling. In both analyses, predictors were entered in two sequential steps. In Step 1, the main variables of interest were included (i.e. perceptions of ageing): the three subscales of the Short AAQ, two items assessing self-perceptions and optimism about ageing from the CASP-19, and subjective age. In Step 2, control variables were added to the model. These included age, gender, physical activity, self-reported general health, self-reported mobility, falls history, neurological disease, anxiety, and depression. Model fit was evaluated by using adjusted R^2 and change in R^2 between steps. For each predictor, unstandardised beta coefficients (b) and significance values (p) were reported. No multicollinearity concerns were identified (bivariate correlations [$r \leq 0.418$], variance inflation factors [VIF ≤ 1.6], and tolerance values [≥0.6]). Assumptions of linearity, independence of errors, homoscedasticity, and normality of residuals were checked and met. Significance was set a $\alpha = 0.05$ for all analyses.

Results

Table 1 summarises the descriptive statistics for the main variables examined. Overall, 191 individuals (31.57%) were classified as having 'high' CaF (≥11/28; Delbaere et al., 2010), with an overall mean Short FES-I score of 9.99 (±3.40). Mean anxiety (GAD-7) and depressive symptom (PHQ-2) scores were low overall (M = 3.10, SD = 3.73; M = 0.56, SD = 1.00, respectively).

Correlation analyses are presented in Figure 1. As expected, depressive symptoms (PHQ-2) and anxiety

Table 1. Characteristics for participant group (N = 622).

Variable	Mean ± SD (range)
Demographics	
Age (years)	74 ± 6.96 (60–90)
Gender (females; *N* (%))	457 (73.47%)
Physically active (*N* (%))	478 (76.85%)
Neurological disease (*N* (%))	64 (10.29%)
Excellent – good self-reported health (*N* (%))	508 (81.67%)
Able to walk ¼ mile (*N* (%))	532 (85.53%)
Falls history (non-fallers; *N* (%))	386 (62.06%)
GAD-7 (0–21; higher scores = higher anxiety)	3.10 ± 3.73 (0–19)
PHQ-2 (0–6; higher scores = more depressive symptoms)	0.56 ± 1.00 (0–6)
Primary outcomes	
Short FES-I (7–28; higher scores = higher concerns)	9.99 ± 3.40 (7–27)
CFQ (12–48; higher scores = higher concerns)	27.28 ± 6.84 (12–48)
Predictors	
Attitudes to ageing	
Psychosocial loss (4–20; higher scores = more positive attitude)	14.23 ± 3.09 (5–20)
Psychological growth (4–20; higher scores = more positive attitude)	15.18 ± 2.55 (6–20)
Physical change (4–20; higher scores = more positive attitude)	14.48 ± 2.98 (5–20)
Ageing perceptions (2–8; higher scores = more positive attitude)	5.53 ± 1.61 (2–8)
Ageing optimism (2–8; higher scores = more positive attitude)	6.45 ± 1.45 (2–8)
Subjective age (higher scores = feeling younger)	0.17 ± 0.16 (−0.21–0.71)

SD: standard deviation; GAD-7: general anxiety disorder questionnaire; PHQ-2: patient health questionnaire; FES-I: falls efficacy scale international; CFQ: consequences of falling questionnaire.

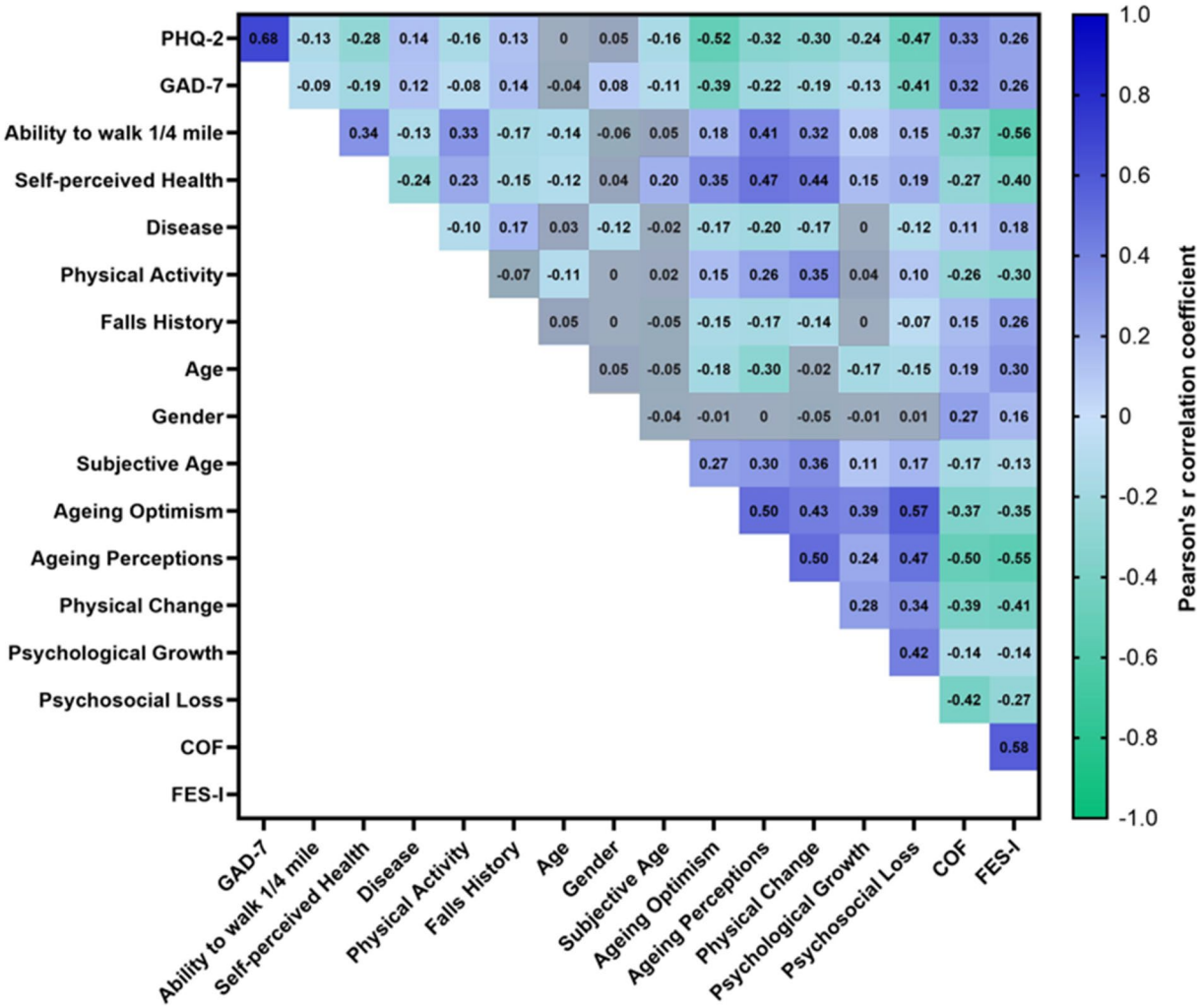

Figure 1. Correlation matrix heatmap depicting Pearson's correlation coefficients among all study variables. Cell shading indicates the direction and magnitude of correlations, with the scale bar providing the corresponding Pearson correlation coefficients. Correlation coefficients are displayed within each cell. Grey boxes indicate non-significant associations ($p \geq .05$); all other correlations were statistically significant ($p < .05$). COF: consequences of falling; FES-I: falls efficacy scale-international; PHQ-2: patient health questionnaire-2; GAD-7: generalized anxiety disorder-7.

(GAD-7) were positively associated with perceived consequences of falling and CaF (FES-I) and negatively associated with physical functioning indicators. Within the age-related self-perception variables, subjective age, ageing optimism, and perceptions of ageing were moderately interrelated, while associations among AAQ subscales reflected expected conceptual overlap.

Predictors of CaF

The hierarchical linear regression analyses showed that for the unadjusted model, physical change ($b = -0.228$; $p < 0.001$), ageing perceptions ($b = -0.961$; $p < 0.001$), ageing optimism ($b = -0.226$; $p = 0.028$), and subjective age ($b = 1.896$; $p = .011$) were all significant predictors of lower CaF (FES-I scores), as shown in Table 2. However, in the adjusted model, only physical change ($b = -0.130$; $p = 0.003$) and ageing perceptions ($b = -0.490$; $p < .001$) were significant predictors. This suggest that individuals who view age-related physical changes more positively, and those with more positive perceptions of ageing overall, report lower levels of CaF. Specifically, higher scores on the AAQ physical change subscale were associated with lower FES-I scores ($b = -0.130$), while higher overall ageing perceptions (CASP-19) were also associated with lower FES-I scores ($b = -0.490$). The final model accounted for 53.00% of the variance in CaF ($R^2 = 0.530$, adjusted $R^2 = 0.518$), indicating a strong overall fit. Step 1 of the model (perceptions of ageing predictors) explained 33.9% of the variance ($R^2 = 0.339$, adjusted $R^2 = 0.333$), while the inclusion of covariates in Step 2 accounted for an additional 19.0% of variance ($\Delta R^2 = 0.190$), leading to the final model R^2 of 0.530.

Predictors of consequences about falling

The hierarchical linear regression showed that for the unadjusted model, psychosocial loss ($b = -0.491$;

Table 2. Table showing the results from the hierarchical linear regression analyses for the FES-I.

	Unadjusted			Adjusted		
Dependent variable: concerns about falling (FES-I)	Unstandardised *b* (95% CI)	Standardised *b*	*p*	Unstandardised *b* (95% CI)	Standardised *b*	*p*
Predictors Attitudes to ageing						
Psychosocial loss	0.039 (−0.053, 0.131)	0.035	.408	0.034 (−0.049, 0.117)	0.031	.470
Psychological growth	0.058 (−0.039, 0.156)	0.044	.240	0.040 (−0.044, 0.125)	0.030	.343
Physical change	−0.228 (−0.318, −0.138)	−0.200	**<.001**	−0.130 (−0.215, −0.046)	−0.114	**.003**
Ageing perceptions	−0.961 (−1.135, −0.786)	−0.456	**<.001**	−0.490 (−0.657, −0.323)	−0.232	**<.001**
Ageing optimism	−0.226 (−0.428, −0.025)	−0.097	**.028**	−0.099 (−0.281, 0.084)	−0.042	.300
Subjective age	1.896 (0.434, 3.359)	0.091	**.011**	0.835 (−0.432, 2.101)	0.040	.208
Control variables						
Age	–	–	–	0.081 (0.052, 0.111)	0.167	**<.001**
Gender (reference = male)	–	–	–	0.963 (0.536, 1.391)	0.126	**<.001**
Physical activity (reference = inactive)	–	–	–	−0.345 (−0.838, 0.148)	−0.043	.169
Self-perceived health (reference = poor)	–	–	–	−0.575 (−1.164, 0.014)	−0.066	.056
Walking ability (reference = unable)	–	–	–	−3.200 (−3.815, −2.585)	−0.332	**<.001**
Falls history (reference = non faller)	–	–	–	0.722 (0.323, 1.121)	0.103	**<.001**
Disease (reference = no disease)	–	–	–	0.301 (−0.347, 0.949)	0.027	.362
GAD-7	–	–	–	0.141 (0.071, 0.210)	0.154	**<.001**
PHQ-2	–	–	–	−0.130 (−0.410, 0.150)	−0.038	.362

FES-I: falls efficacy scale international; 95% CI: 95% confidence intervals; GAD-7: general anxiety disorder questionnaire; PHQ-2: patient health questionnaire.
Bold values indicate statistically significant regression results (p < .05)

$p < .001$), physical change ($b = -0.399$; $p < .001$), and ageing perceptions ($b = -1.327$; $p < .001$) significantly associated with lower perceived consequences of falling. In contrast, psychological growth ($b = 0.272$; $p = .007$) was a significant predictor of higher perceived consequences of falling. These relationships remained significant in the adjusted model, with psychosocial loss ($b = -0.439$; $p < .001$), psychological growth ($b = 0.233$; $p = .014$), physical change ($b = -0.265$; $p = .006$), and ageing perceptions ($b = -1.008$; $p < .001$) remaining significantly associated with perceived consequences of falling. This pattern suggests that individuals who have more positive views towards physical and social age-related changes, and overall ageing perceptions, tend to report lower concerns about the perceived consequences of falling. Specifically, each one-point increase in physical change and overall ageing perceptions was associated with reductions of 0.265 and 1.008 in CFQ scores, respectively. Additionally, this also indicates that individuals with higher scores in the psychological growth subscale tend to report higher concerns towards perceived consequences of falling. This is shown by every one-point increase in psychological growth score was associated with increases of 0.233 in CFQ scores. The final model accounted for 43.7% of the variance in perceived consequences of falling ($R^2 = 0.437$, adjusted $R^2 = 0.423$), demonstrating a strong overall model fit. Step 1 of the model (perceptions of ageing predictors) explained 32.1% of the variance ($R^2 = 0.321$, adjusted $R^2 = 0.315$), while the inclusion of covariates in Step 2 accounted for an additional 11.6% of variance ($\Delta R^2 = 0.116$), resulting in the final model R^2 of 0.437 (Table 3).

Discussion

This study investigated whether perceptions of ageing were associated with CaF in older adults, as well as beliefs surrounding the feared consequences of falling. Consistent with our hypotheses, our findings provide novel empirical evidence that older adults who hold more negative perceptions of ageing (particularly beliefs regarding physical decline) report greater CaF and report perceiving more serious consequences if they were to fall. These associations remained significant even after controlling for several well-established risk factors for fall-related concerns, including age, gender, physical function, falls history, and symptoms of anxiety and depression.

Our findings extend previous work by demonstrating that perceptions of ageing relate not only to physical outcomes reported in earlier studies (Hill et al., 2025; Zhang et al., 2023) but also to how concerned older adults feel about falling. These findings can be interpreted through the lens of Stereotype Embodiment Theory (Levy, 2009). From this perspective, negative perceptions of ageing may become self-fulfilling, leading people to interpret normal physical changes as signs of decline and vulnerability. If individuals view physical decline as inevitable and uncontrollable, they may be less likely to engage in health-promoting or balance-related activities (Meredith et al., 2023), reinforcing physical deconditioning and further exacerbating CaF. This behavioural pathway offers a plausible mechanism through which negative perceptions of ageing could perpetuate the downward spiral of avoidance and deconditioning described in previous models of CaF (Delbaere et al., 2004;

Table 3. Table showing the results from the hierarchical regression analyses for the CFQ.

	Unadjusted			Adjusted		
Dependent variable: perceived consequences of falling (CFQ)	Unstandardised *b* (95% CI)	Standardised *b*	*p*	Unstandardised *b* (95% CI)	Standardised *b*	*p*
Predictors Attitudes to ageing						
Psychosocial loss	−0.491 (−0.680, −0.303)	−0.222	**<.001**	−0.439 (−0.622, −0.256)	−0.198	**<.001**
Psychological growth	0.272 (0.073, 0.471)	0.101	**.007**	0.233 (0.047, 0.419)	0.087	**.014**
Physical change	−0.399 (−0.583, −0.214)	−0.174	**<.001**	−0.265 (−0.452, −0.078)	−0.115	**.006**
Ageing perceptions	−1.327 (−1.683, −0.971)	−0.313	**<.001**	−1.008 (−1.377, −0.640)	−0.237	**<.001**
Ageing optimism	−0.292 (−0.703, 0.119)	−0.062	.164	−0.123 (−0.525, 0.279)	−0.026	.549
Subjective age	1.292 (−1.695, 4.279)	0.031	.396	0.312 (−2.480, 3.103)	0.007	.827
Control variables						
Age	–	–	–	0.057 (−0.008, 0.121)	0.058	.084
Gender (reference = male)	–	–	–	3.772 (2.831, 4.714)	0.245	**<.001**
Physical activity (reference = inactive)	–	–	–	−1.183 (−2.270, −0.097)	−0.073	**.033**
Self-perceived health (reference = poor)	–	–	–	0.354 (−0.945, 1.652)	0.020	.593
Walking ability (reference = unable)	–	–	–	−2.929 (−4.285, −1.573)	−0.151	**<.001**
Falls history (reference = non faller)	–	–	–	0.405 (−0.473, 1.284)	0.029	.365
Disease (reference = no disease)	–	–	–	−0.026 (−1.454, 1.402)	−0.001	.971
GAD-7	–	–	–	0.239 (0.085, 0.393)	0.130	**.002**
PHQ-2	–	–	–	0.024 (−0.592, 0.641)	0.004	.939

CFQ: consequences of falling questionnaire; 95% CI: 95% confidence intervals; GAD-7: general anxiety disorder questionnaire; PHQ-2: patient health questionnaire.

Schoene et al., 2019). Conversely, positive perceptions of ageing may foster a greater sense of perceived control (Luo & Li, 2020) and self-efficacy (Boehmer, 2007), psychological factors that may help buffer against excessive or maladaptive CaF (Ellmers et al., 2023).

An interesting and somewhat unexpected finding was the positive association between psychological growth (i.e. positive, forward-looking perspectives on ageing, including wisdom, self-acceptance, and continued learning) and perceived consequences of falling. This pattern suggests that older adults who endorse greater perceived psychological growth may simultaneously report heightened awareness of the potential physical, psychological, and social consequences of a fall. One possible explanation is that higher psychological growth reflects greater cognitive engagement with the ageing process. Such individuals may therefore be more attuned to the potential functional and social consequences of a fall, which could explain the observed positive association with perceived consequences of falling. Future studies should look to better understand these significant associations.

In line with these findings, perceptions of ageing were also associated with concerns regarding the potential consequences of falling. Specifically, we found that more positive views of physical and psychological age-related changes (all AAQ subitems), as well as more positive overall self-perceptions of ageing (CASP-19), were each independently associated with lower concerns about the perceived consequences of falling. Unlike general CaF, which primarily reflects worries and concerns about the possibility of falling during everyday activities, perceived consequences of falling capture expectations about the physical, social, and psychological outcomes if a fall were to occur (Delbaere et al., 2009; Yardley & Smith, 2002). These findings suggest that perceptions of ageing are an important psychological factor that is associated with both CaF and expectations about the severity and impact of falls.

Previous research (Fan et al., 2024; Fundenberger et al., 2022) has highlighted associations between subjective age and greater CaF. In this study, however, subjective age was not related to CaF or beliefs surrounding the feared consequences of falling. One important distinction between the present and previous work was that we did not examine these associations in isolation, but rather simultaneously explored the influence of subjective age and other aspects of perceptions of ageing. Notably, this pattern aligns with longitudinal evidence from Hill et al. (2025), who reported that negative perceptions of ageing independently predicted poorer physical recovery following a fall, whereas subjective age was not associated with recovery outcomes. Taken together, these findings suggest that although subjective age has been linked to CaF in prior studies examining it in isolation, its influence appears to diminish once broader perceptions of ageing are accounted for, highlighting the greater relevance of perceptions of ageing-based constructs.

Limitations and future directions

Several limitations of the study should also be acknowledged. First, the cross-sectional nature of this work means that we are unable to assess if

negative perceptions of ageing causally predict CaF or feared consequences of falling, or if they are a consequence of it. Second, although the sample was relatively large, it may not fully represent the broader older adult population, particularly in terms of ethnicity, socioeconomic status, and cultural attitudes towards ageing. In addition, some covariates were operationalised using dichotomised or simplified coding schemes for pragmatic and interpretability reasons, which may have reduced measurement granularity. The unexpected finding of a positive association between psychological growth and the potential physical, psychological, and social consequences of a fall warrants further investigation. One possible explanation is that older adults who perceive themselves as having grown or developed with age may also be more attuned to potential vulnerabilities. In this sense, greater perceived psychological growth may reflect heightened awareness rather than increased concern. Future experimental studies are needed to determine whether perceptions of ageing play a causal role in CaF and whether they represent viable targets for intervention. In addition, future work using longitudinal approaches may be particularly useful for disentangling directionality and modelling latent structure within age-related self-perceptions and fall-related concerns, for example using structural equation modelling approaches. Future research may also examine whether these associations are moderated by factors, such as age or functional status (rather than simply remaining significant after controlling for these factors), to better understand for whom perceptions of ageing are most strongly related to fall-related concerns.

Conclusion

Our findings uniquely suggest that how older adults think about ageing is closely tied to how they think about falling. Negative perceptions of ageing were robustly associated with both CaF and the perceived consequences of falls, independent of known risk-factors. These results highlight internalised age-related stereotypes as an overlooked psychological dimension that may, in part, help explain why some individuals experience more intense fall-related concerns than others.

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Data availability statement

Data will be made available by the corresponding author upon reasonable request.

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