

Commentary

About Falls Efficacy: A commentary on “World guidelines for falls prevention and management for older adults: a global initiative”

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Keywords: Agency, Falls Efficacy, Fear of Falling, Older Adults, Psychological Constructs

This is a commentary on the published article: Montero-Odasso M, Van Der Velde N, Martin FC, Petrovic M, Tan MP, Ryg J, et al. World guidelines for falls prevention and management for older adults: a global initiative. *Age Ageing* 2022; 51(9): afac205¹.

“Understanding older adults’ beliefs, attitudes and priorities about falls and their management is crucial to successfully intervening.”¹

Despite considerable research, falls and fall-related injuries remain common among older adults². The World Guidelines for Falls Prevention and Management have made key recommendations for the clinical implementation of fall prevention services and strategies¹. One recommendation is to incorporate the perspectives of older adults into assessments and interventions. These perspectives could include beliefs about falls, causes, future risks, and perceived capabilities to deal with the potential threat of falls. Learning about the varied beliefs expressed by older adults with their lived experience can help practitioners with their clinical decision-making process when addressing the agency of older adults to overcome the potential threat of falls. The belief that one can produce certain actions to avoid and manage falls is referred to as falls efficacy³. Falls efficacy, underpinned by Bandura’s concept of self-efficacy⁴, is an important factor in a person’s agency to overcome falls. The perceived skills needed to perform activities steadily and those to deal with the consequences of losing balance can be

better understood. For example, older adults could identify that better balance control helps prevent falls, whereas proficient safe-falling skills and being able to get up from the ground are different skill sets helpful in managing falls. Learning about the falls efficacy of older adults provides practitioners with some understanding of older adults’ judgement of executing given types of performance. If older adults believe they have some capability to avoid falls and even be able to cope with a fall, if one occurs, they may engage in more physical activity. In comparison, those with low falls efficacy may be more likely to exhibit resignation and apathy.

Falls efficacy among individuals with lived experience of falls has been explored in research but comprehending falls efficacy of older adults has been complicated due to the ambiguous nature of the concept. The term ‘falls

The authors have no conflict of interest.

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Edited by: George Lyritis

Accepted 24 April 2024

Construct	Definition	Examples of measurement instruments
Balance confidence	The perceived self-efficacy to perform various activities without losing balance or falling.	Activities-specific Balance Confidence (ABC) Scale ¹⁴ and Confidence in Balance (CONFBal) Scale ¹⁵
Balance recovery confidence	The perceived self-efficacy to stop a fall upon losing balance caused by various perturbations, e.g., a slip, a trip or volitional movements.	Balance Recovery Confidence (BRC) Scale ¹⁶
Safe-falling confidence	The perceived self-efficacy to protect oneself upon falling to the ground.	One item in the Perceived Ability to Manage Risk of Falls or Actual Falls Scale (PAMF) ¹³ : "Protecting themselves if they do fall"
Post-fall recovery confidence	The perceived self-efficacy to get up or get help from the ground.	One item in the PAMF ¹³ : "Finding a way to get up if they fell", and one item in Perceived Ability to Prevent and Manage Fall Risks (PAPMFR) ¹⁷ : "Ability to find a way to get up if they fall"
Falls efficacy	The perceived self-efficacy to prevent and manage falls.	Perceived Ability to Prevent and Manage Fall Risks (PAPMFR) ¹⁷ , and the Perceived Ability to Manage Risk of Falls or Actual Falls (PAMF) ¹³
Concerns about falling	A response that is "less intense and emotional" than the fear of falling.	The Falls Efficacy Scale – International (FES-I) ¹⁸ , the 7-item Short FES-I ¹⁹ , the 30-item Iconographical FES (Icon FES) ²⁰ , and the 10-item short Icon FES ²⁰
Fear of falling	An emotional response to a perceived threat of a fall which would result in an individual avoiding activities	A single question relates to being fearful or afraid of falling ²¹ .
Fear of falling-related avoidance behaviour	Curtailement of activities due to the fear of falling.	The Survey of Activities and Fear of Falling in the Elderly (SAFFE) ²² , Falls Efficacy Scale-International Activities Avoidance Behaviour (FES-IAB) ²³ , and the Single Question on FOF and Activity Restriction (SQ-FAR) ²⁴

Table 1. Domains of falls efficacy and related measurement instruments.

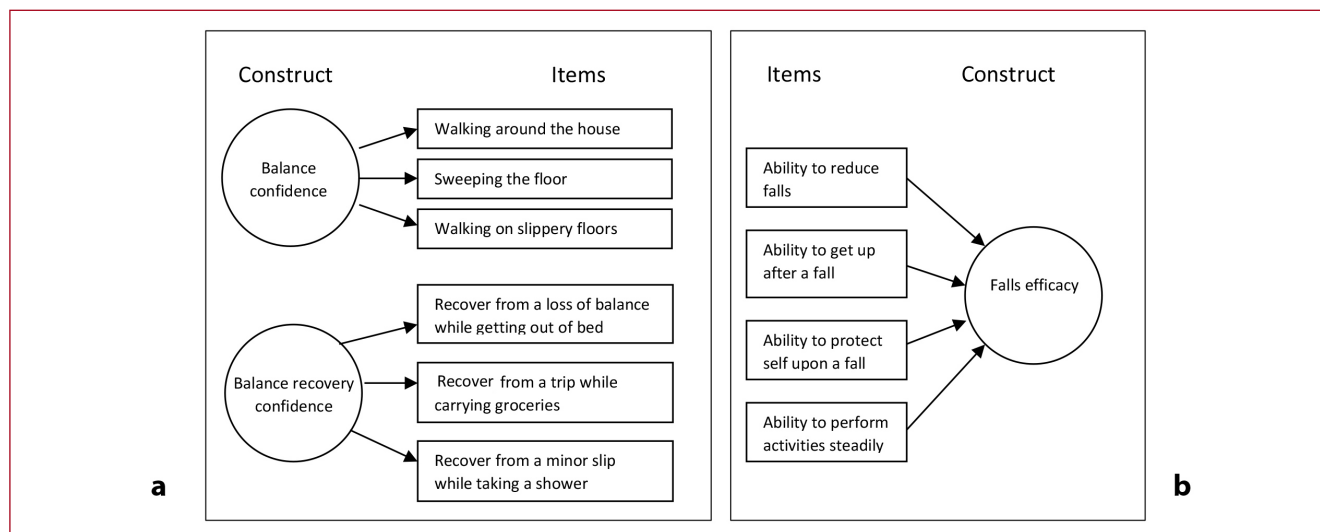


Figure 1. Graphical representation of a (a) reflective model and (b) formative model.

efficacy' has often been interchangeably used with fall-related psychological terms, such as 'concerns about falling', 'fear of falling', 'fall-related anxiety', 'space phobia', 'agoraphobia', 'acrophobia', 'fear-related activity avoidance'

'balance-related confidence' and 'fall-related self-efficacy'⁵. Consequentially, falls efficacy has often been measured using measurement instruments developed to measure cognitive constructs, such as balance confidence and

perceived ability of falls prevention and management, and emotional constructs, such as fear of falling and concerns about falling⁶. While these psychological constructs are closely related, they are distinct and should be distinguished using the most appropriate measurement instruments to measure the intended construct of interest⁷.

In order to effectively explore the construct of falls efficacy and to engage persons with lived experience in research and policy, collective efforts to make the term “falls efficacy” explicit are required. The measurement instruments currently used to measure falls efficacy may need to be revisited to successfully capture any changes following interventions. Existing evidence often addresses concerns about falling, fall-related avoidance behaviours, risk-taking behaviours, and fall incidences rather than falls efficacy specifically. Further attention to falls efficacy, which is used interchangeably with fall-related self-efficacy within this commentary, will advance fall-related research and practice.

Understanding falls efficacy

“Falling as a part of life.”⁸

Falls efficacy has often been interpreted as concerns (or fears) about falling⁵. However, research has shown that highly ‘falls efficacious’ older adults can have significant concerns or fear of falling⁹. In other words, older adults could score highly on the Falls Efficacy Scale¹⁰ and be afraid of falling. Another common interpretation is that falls efficacy is synonymous with balance confidence¹¹. Yet, several perceived capabilities are needed for older adults to deal with falls given that falls result in an individual coming to rest inadvertently on the ground¹. Perceived capabilities could include balance and balance recovery, as well as abilities to protect oneself upon falling, and abilities to get up after a fall³. Given that self-efficacy is not a uniformly expressed trait, practitioners need to account for the different perceived capabilities expressed by older adults (i.e. to perform activities steadily, to avoid a fall in response to various perturbations, to protect oneself upon falling, and to get up from the ground after a fall) so that suitable interventions could be planned to improve targeted capabilities.

Literature has shown some practitioners interpret falls efficacy as a single-dimension construct, e.g., balance confidence¹¹, and others identify falls efficacy as a multi-dimensional construct that is ‘formed’ by several perceived capabilities, such as balance confidence, balance recovery confidence, safe-landing confidence, and post-fall recovery confidence^{12,13}. Proponents reasoned that falls efficacy and balance confidence are synonymous because of the strong congruence found between two measurement instruments – the Activities-specific Balance Confidence Scale¹⁴ and the Falls Efficacy Scale¹⁰. Those who viewed falls efficacy as a multi-dimensional construct posited that there are distinct capabilities to prevent and manage falls and that these perceived capabilities may have an orthogonal relationship¹³.

For example, an individual may believe that they can perform activities steadily (i.e., good balance confidence) but could perceive themselves as unable to arrest a fall upon a loss of balance (i.e., poor balance recovery confidence). In the same vein, those who view themselves with high balance confidence may not necessarily see themselves being able to get up from the floor upon falling (i.e., poor post-fall recovery confidence). Conversely, people who frequently fall may view themselves as not confident in their balance (i.e. poor balance confidence) but possess an ability to fall without harm and get up from the floor based on their personal experiences (i.e., high post-fall recovery confidence). It is, therefore, important for practitioners to be explicit about the targeted perceived capabilities to be measured and then apply the most appropriate measurement instrument. Table 1 details the domains of falls efficacy and distinguishes different measurement instruments designed to measure various falls-related constructs. Through the evaluation of the older adults’ falls efficacy, practitioners can provide an opportunity for older adults to examine their own perceived capabilities across activity domains and situations.

Measurement of falls efficacy

“Patient-reported outcome measures should be based on a coherent construct theory.”²⁵

The most appropriate measurement instrument/s should be used to assess falls efficacy or the targeted domain in which practitioners are interested. The choice of instrument could be made based on the reflective or formative conceptual framework of the measurement instruments (Figure 1). Measurement instruments that apply the reflective conceptual framework are those that the construct is ‘reflected’ in the items, and the items are called effect indicators²⁶. Measurement instruments that apply the formative conceptual framework interpret the construct as the result of the presented items. These items ‘form’ the construct and are called the causal indicators²⁶. Measurement instruments conceptualised using the reflective model are unidimensional, and the constructs are manifested in the items. For example, researchers who want to measure balance confidence can use the Activities-specific Balance Confidence (ABC) Scale¹⁴ which has items depicting different scenarios for individuals to express their abilities to perform them steadily. If individuals are highly confident in their balance ability, then all items in the ABC scale will be scored to a high degree of confidence. Clinicians and older adults have validated the content of the ABC scale to ensure suitability for measuring balance confidence¹⁴. Suppose practitioners are keen to investigate balance recovery confidence, then the Balance Recovery Confidence (BRC) Scale¹⁶ should be used. Reactive balance recovery abilities, such as executing change-in-support strategies like reach-to-grasp and compensatory stepping to arrest a fall are dissimilar to the ability to perform activities steadily^{27,28}. The BRC scale has been validated by clinicians and older

adults to ensure content suitability for measuring balance recovery confidence²⁹. The moderate correlation identified between the balance confidence and balance recovery confidence measures suggested that the two constructs are distinct¹⁶.

Practitioners who are keen to obtain a general sense of individuals' personal efficacy in dealing with falls should use instruments that apply a formative conceptual framework for interpreting falls efficacy. These measurement instruments are multi-dimensional and will consist of items to 'form' the construct. For example, the five-item Perceived Ability to Manage Falls and Falling (PAMF) Scale¹³ was designed to measure individuals' beliefs regarding their certainty about managing falls (in terms of avoiding falls and handling falls if they occur). To measure the 'concerns about falling', practitioners could consider measurement instruments such as the Falls Efficacy Scale – International (FES-I)¹⁸, and the 7-item Short FES-I¹⁹. It will not be ideal for practitioners to use a concern about falling measure as a proxy for falls efficacy. Concerns about falling is an emotional construct which encapsulates feared consequences of falling, anxiety and avoidance^{7,30}. In contrast, falls efficacy is a cognitive construct reflecting a self-judgement of how well one can execute necessary skills in prospective situations. The use of falls efficacy measures allows practitioners to identify activities in which individuals articulate their beliefs in their capacity to perform despite their concerns. The findings allow practitioners to identify potential enactive strategies and customise the rehabilitation programme.

Advancing falls efficacy

*"Medical and healthcare professionals focused on clinical specificity, whereas the older adults expressed the need of building of their agency to prevent and manage falls."*²⁹

With rapid global population ageing, one in four people will be 60 years or older in 2050. 80% of them will reside in low-and middle-income countries³⁰. This demographic change is likely to see rising numbers of older adults with low falls efficacy, which could lead to activity curtailment resulting in physical frailty, greater risk of falls, and loss of independence³¹. The consideration of a multidimensional interpretation of falls efficacy would allow practitioners to consider tailoring suitable interventions using four influential sources of self-efficacy - performance accomplishments or enactive mastery, vicarious experience, social or verbal persuasion, and emotional and physiological states to encourage individuals to complete progressive graded activities successfully⁴. This approach will also address maladaptive concerns attributable to faulty self-appraisal with perceived capabilities exceeding actual performance.

The Falls Management Exercise (FaME) is one of the few effective community-based exercise programmes for improving fall avoidance and management ability³¹. It includes multimodal individualised strength and balance exercise, reactive stepping and floor rise skills, which

support building confidence in older adults getting up if a fall occurs³². Emerging interventions which build individuals' capability to avoid falls, such as perturbation-based balance training to improve reactive balance recovery, are gaining interest and evidence³³. Such interventions adopt the notion of task specificity in exercise-based fall prevention in alignment with the current commentary's proposal to take a similar situation-specific approach to falls efficacy³⁴. These interventions should apply suitable measurement instruments to measure changes in targeted falls efficacy. At a community level, falls efficacy could also be considered as a campaign for social change. Collective action is needed within society because people's lives are impacted by those around them and may not have complete control over major aspects of their lives. Collective action towards falls efficacy could refer to a process where the stakeholders, including older people, their care partners, medical and allied health professionals, researchers, academics, administrators, and policymakers, come together to provide coordinated implementation strategies through facilitative and interactive ways.

Understanding falls efficacy will be instrumental in building agency in individuals to deal with falls, and concomitantly have them be empowered to overcome one major complication of ageing. To achieve this, further study of measurement properties and the interpretation of existing falls efficacy-related measurement instruments is needed. Researchers and practitioners should be explicit about the intended domain of falls efficacy to be addressed and the mode of self-efficacy influence used within interventions.

Authors' contributions

Shawn Soh Leng Hsien: Conceived the presented idea and drafted the commentary. Christopher McCrum, Yoshi Okubo, Melanie Farlie, Sze-Ee Soh, Maw Pin Tan, Christopher Tsung Chien Lien, and Dawn A. Skelton: Provided critical feedback and helped shape the manuscript. All authors read and approved the final version of the manuscript.

Acknowledgement

Professor Chris Todd for helping Dr Shawn Soh in the early stages of his PhD studies to make sense of the (often confusing) concepts and various measurement instruments used to assess falls efficacy and concerns about falling.

Disclaimer

Prof. Dawn Skelton is co-Editor-in-Chief of the Journal of Frailty, Sarcopenia and Falls. The manuscript underwent peer review process by independent experts.

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