

A functional-related fatigue in older people: Is there a comprehensive model for health care provision?

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One of the consequences of a normal physiological changes accompanying ageing is the feeling of fatigue, especially while or after performing daily activities. Fatigue can be defined as an overwhelming sense of tiredness at rest, exhaustion with activity, lack of energy that precludes daily tasks, inertia or lack of endurance, and loss of vigor [1]. Manty et al. [2] suggested that fatigue in advanced later life should not merely be considered as an unpleasant symptom but rather an indicator of physical impairment, and consequently declined physiological reserve.

The ability to perform functional daily activities without undue fatigue is the main determinant of good quality of life. However, recent studies reported increased prevalence of exhaustion or fatigue among the older population. One study revealed that up to 70% of elderly aged 65 years old and above reported fatigue occasionally while another 43% reported feeling tired most of the time [3]. Fatigue is a health concern because it affects psychological and physiological well-being. Fatigue had been negatively associated with health [4], work performance, family life, and social relationships [5]. Traditionally, fatigue has been categorized into general or local fatigue. Generalized fatigue is described as a failure to complete physical tasks or reduce capacity to maintain the activity (physical fatigue) and failure to initiate and sustain attentional tasks like concentration, memory, and emotional stability (mental fatigue), whereas, localized fatigue is the inability to initiate specific activity and involves specific muscle [6].

The mechanism of fatigue and its consequences on functional performance is a complicated subject and is not completely understood and this remains an obstacle in the healthcare provisions. The current theory of fatigue is rather general that covers all stages of human's life, and postulates that fatigue occurs from various domains such as physiological and psychological factors. However, the current theory failed to explain how fatigue arising from daily function affect other important indicators such as dynamic movement. Previous studies on fatigue were based on self-reported that may differ in individuals due to different level of functional fitness and motivation.

Obviously, the occurrence of fatigue in older people is multidimensional in nature that may require further exploration. According to Avlund [7], factors such as the neurobiological changes, psychological factors, central command and other peripheral factors contribute to the sensation of fatigue. More recently, Hunter et al. [8]

have shown that physiological changes such as the artery elasticity is independently related to the perception of fatigue. Therefore, an extensive literature review is required to discuss the changes in the musculoskeletal, respiratory, cardiovascular, and nervous systems potential contribution to the occurrence of fatigue in older people.

There is also no agreement on what constitutes the “functional-related fatigue” arising from normal daily activities. The extensive survey of literature indicated that very little work has been done on fatigue related activities and its consequences on functional performance and fatigue indicators. I am suggesting that the fatigue concept in the older people should explain the role of functional fitness and its consequences. From the associations on the functional performance indicators such as balance, mobility and muscle strength, fatigue level and energy cost following fatigue, some insights on the control mechanisms can be derived. Hence, more studies are indicated to reveal a further understanding on the mechanism of functional-related fatigue accompanying ageing processes in relation to various activities of daily living.

References

1. Davis M, Walsh D (2010) Mechanisms of fatigue. *J Support Oncol* 8: 164-174 [Crossref]
2. Manty M, Ekman A, Thinggaard M, Christensen, K, Avlund K (2014) Indoor mobility-related fatigue and muscle strength in non-agenarians: a prospective longitudinal study. *Aging Clin Exp Res* 26: 39-46. [Crossref]
3. Hardy S, Studenski S (2010) Qualities of fatigue and associated chronic conditions among older adults. *J Pain Symptom Manage* 39: 1033-1042. [Crossref]
4. Vestergaard S, Nayfi SG, Patel KV, Eldadah B, Cesari M, et al. (2009) Fatigue in a representative population of older persons and its association with functional impairment, functional limitation, and disability. *J Gerontol A Biol Sci Med Sci* 64: 76-82. [Crossref]
5. Rosenthal TC, Majeroni B, Pretorius R, Malik, K (2008) Fatigue: an overview. *American Family Physician* 78: 1173-1179. [Crossref]
6. Chaudhuri A, Behan PO (2000) Fatigue and basal ganglia. *J Neurol Sci* 179: 34-42. [Crossref]
7. Avlund K (2010) Fatigue in older adults: an early indicator of the aging process? *Aging Clin Exp Res* 22: 100-115. [Crossref]
8. Hunter G.R, Neumeier WH, Bickel CS, McCarthy JP, Fisher G, et al. (2014) Arterial elasticity, strength, fatigue and endurance in older women. *Biomed Research International*.

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