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Asiamah, Nestor and Khan, Hafiz T.A. ORCID: <https://orcid.org/0000-0002-1817-3730> (2022)  
Mobility in old age: the potential role of the ability to use information technologies. In: X. International symposium of social and applied gerontology, 21-23 Nov 2022, Akdeniz University, Antalya, Turkey. (Unpublished)

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# Mobility in Old Age: *The potential role of the ability to use information technologies*

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## Background to the Study

- Mobility has been evidenced to play a role in health behaviours (e.g., physical activity, social participation, healthcare utilisation) by which older adults maintain health (Roecke et al., 2018).
- Immobility, on the other hand, is a risk factor for physical inactivity and mental health declines in the ageing process (Roecke et al., 2018).
- Maintaining mobility is, therefore, necessary for maintaining optimal health into late life.
- Studies have shown that information technologies (e.g., social media) can benefit physical activity and social participation among older adults (King et al., 2015), but this benefit depends on whether older adults have the requisite information technology ability.
- There is no evidence on the relationship between mobility and information technology ability, though this evidence can encourage future research and interventions enabling older adults to use technologies.

# Aim & Hypotheses

## ➤ Aim

- This study, for the first time, assessed whether information technology ability and its three domains (i.e., internet use assessment; packaged software use assessment, and innovativeness attitude) are associated with mobility in old age.

## ➤ Hypotheses

- H1: Mobility among older adults is higher at higher information technology ability.
- H1 a: Mobility among older adults is higher at higher internet use assessment.
- H1 b: Mobility among older adults is higher at higher packed software use assessment.
- H1 c: Mobility among older adults is higher at a higher innovativeness attitude.



## Methods & Materials

- *Design* – A cross-sectional design with measures against confounding was adopted.
- *Population and sample* – the study population was older adults aged 60 years or higher in Accra, Ghana. A total of 890 older adults participated in the study after the G\*Power software was used to calculate the minimum sample required.
- *Measurement* – previously validated scales were used to measure information technology ability and mobility. These scales produced a satisfactory internal consistency at Cronbach's alpha  $\geq 0.7$ . The confounding variables (e.g., age, self-reported health, physical function) were measured as detailed in the paper.

# Findings, Conclusions & Implications

## *Findings*

- Information technology is positively associated with mobility in old age, which means that mobility is higher among older adults with higher information technology ability.
- Only packaged software use assessment was not associated with mobility in old age; internet use assessment and innovativeness attitude were positively associated with mobility. Thus, H1, H1a and H1c were supported by our data.

## *Conclusions and implications for practice*

- Being able to use information technologies benefits mobility in old age, which suggests that information technologies are more likely to encourage mobility in old age if individuals can use them.
- Training older adults to use information technologies can enhance their mobility.
- The use of randomised controlled trials in the future to assess the effect of information technology ability on mobility is encouraged.



## References

- King, A.C., Glanz, K. & Patrick, K. (2015). Technologies to Measure and Modify Physical Activity and Eating Environments. *American Journal of Preventive Medicine*, 48(5), 630-638.
- Roecke, C., Katana, M., Fillekes, M., Martin, M. & Weibel, R. (2018). Mobility, Physical Activity and Social Interactions in The Daily Lives of Healthy Older Adults: The Moasis Project. *Innovation in Aging*, 2(1), 274.