

Title: Selected Psychological and Health-related Factors Assessing and Predicting Fall Risk in the Older Adult Population in Luxembourg

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Objectives

This study examined whether fall history, psychological, and health-related factors assessed during the FLUX project's initial workshop (WS1) predicted fall risk at follow-up (FU). It also investigates longitudinal changes in fall-related outcomes—fall occurrence, concern about falling, and self-reported health—among older adults in Luxembourg.

Methods

A longitudinal design was used, with data collection at WS1 and FU 12 months later. Participants (N = 161 at WS1; N = 62 at FU) completed standardized measures including the Falls Efficacy Scale-International (FES-I), Geriatric Depression Scale (GDS-15), and Short Form Health Surv (SF-12v1). Logistic regression identified fall predictors; paired t-tests assessed changes over time.

Results

Fall frequency and injury rates decreased significantly from WS1 to FU. However, Concerns about falling (FES-I) slightly increased, and mental health (SF12v1; MCS12) decreased. Regression analyses identified age, number of medical conditions, fall history, and, in particular, FES-I scores as consistent predictors of future falls.

Discussion

Findings suggest that physical and psychological factors contribute to future fall risk, with concern about falling (FES-I) emerging as a key predictor. The observed reduction in fall rates may indicate potential intervention effects of the FLUX project. However, the decline in mental well-being underscores the need for psychological factors in fall prevention strategies. Future studies should use larger samples to improve predictive accuracy and explore differentiated fall outcomes.

Keywords: fall risk assessment, prediction model, psychological factors, fear of falling logistic regression, longitudinal change

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Presentation of the above described master thesis on the FLUX Project® at the European Psychology Conference (EPC25) in Paphos, Cyprus.

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