ABSTRACT

Background
Full and injury are a significant issue for older adults. A variety of instruments and tools methods have been used to study risk and impact of falls, but few have been accepted by other scholars (Catalano et al. 2005). This study, therefore, measured fall-related injuries using the SmartCells Dual-Stiffness Floor system, a device designed to measure the impact force and fall-related injuries. The current study assessed the SmartCells Dual-Stiffness Floor system using a randomized controlled trial (RCT) design. The goal of this study was to evaluate the impact force and fall-related injuries using the SmartCells Dual-Stiffness Floor system.

Methods
SmartCells Dual-Stiffness Floor system was used in a randomized controlled trial (RCT) design. The study included 100 participants (50 participants in each group) who were divided into two groups: the intervention group and the control group. The intervention group received falls prevention training, while the control group received standard care. The impact force and fall-related injuries were measured using the SmartCells Dual-Stiffness Floor system.

Results and Discussion
The results showed that the intervention group had a significantly lower impact force compared to the control group. The intervention group also had a lower rate of fall-related injuries. These findings suggest that falls prevention training using the SmartCells Dual-Stiffness Floor system is an effective intervention for reducing impact force and fall-related injuries in older adults.