

# DIFFERENCES WHILE NAVIGATING STAIRS BETWEEN ROAMI WALKERS AND TRADITIONAL WALKERS: A PILOT STUDY

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**Background:** The speed and safety that an individual achieves during stair training are closely related to one's independence in activities of daily living and community participation.<sup>1</sup> The Roami® walker (Kismet, Chattanooga, TN) is a 4-in-1 mobility aid with retractable wheels where the height of the front legs is adjustable independent of the back legs.<sup>2</sup> **Purpose:** The purpose of this pilot study was to assess the feasibility of a protocol to compare speed, safety, and confidence during stair negotiation between the Roami walker and a traditional walker. **Methods:** Due to COVID-19 restrictions, only young, healthy subjects participated in this pilot study. Subjects completed the Mini-Cog© screening (University of Washington, Seattle, WA), baseline vitals, and 10-meter walk test to determine eligibility. Next, subjects performed a separately timed evaluation of stair ascent and descent with a traditional walker and then the Roami walker. Lastly, participants completed a subjective questionnaire regarding feelings of safety, pain, and confidence with both walkers. **Results:** Six individuals participated in the pilot feasibility study. The mean ascent and descent times were 24.65 and 28.55 seconds, respectively, with a traditional walker, and 30.18 and 35.47 seconds with the Roami walker. The subjective questionnaire revealed that the majority of the participants felt safer and more confident when using the Roami walker. **Discussion:** Limitations included the COVID-19 mandates, population bias, testing order bias, and a small sample size. Future research should include special populations. **Conclusion:** Overall, stair navigation speed was faster with a traditional walker; however, participants noted increased feelings of safety and confidence with the Roami walker. This protocol appears feasible to be used in a more representative population of mobility-impaired older adults.

**KEYWORDS:** Safety, Mobility Aid, Speed

This study was approved by Franciscan Missionaries of Our Lady University Research and Scholarship Council and the Institutional Review Board.

## REFERENCES

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