A Systematic Review of Interventions to Reduce Falls and Improve Staircase Safety for Older People

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WHY conduct this review?

Stairs are the LEADING cause of accidental death! [1, 2]

Falls on stairs cause 230,000 home accidents every year. [3]

Research has examined the development of interventions to improve staircase safety.

WHAT were the aims of this review?

Synthesise and evaluate stair fall interventions.

Identify interventions showing effectiveness in reducing stair falls.

Establish a pathway to implementation for these included interventions.

HOW was this review conducted?

PubMed CINAHL Available via EBSCOhost

Clarivate Web of Science™ Scopus®

MEDLINE

Quality assessment using Cochrane RoB-2 tool and a modified tool developed for proof-of-principle research

RESULTS

No study used fall rates as an outcome measure

Of 57 interventions, only one was conducted in a real-world environment [4]

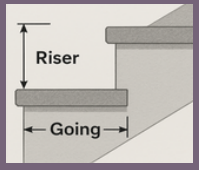
Pathway to Implementation developed to categorise the interventions to a stage of development

Majority of interventions in this review require further research in a laboratory in order to strengthen intervention evidence prior to their progression into a real-world environment

CONCLUSIONS

What should be prioritised for future work?

Optimise already accepted interventions



Progress research of easily applied interventions

No studies evidencing effectiveness for implementation.

Direct comparison of intervention effectiveness was not possible, due to different outcome measures and lack of fall rates.

WHAT'S NEXT?

The next study of my PhD is the validation of wearable sensors. These will allow us to complete intervention research in a real-world environment. Using wearable sensors we will conduct research in our naturalistic experimental home environment.

References

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