Lying down on the job- does posture affect grip strength and opening hospital food and beverage packaging?

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Abstract

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Introduction

Packaged forms of food and beverage are increasingly common ways to provide nutrition to hospital inpatients and the 'openability' of that packaging is essential for recovery from illness. Previous research has highlighted the difficulties this population has in opening packaging in a seated position but no research has examined the effect of lying in a hospital bed on the 'openability' of hospital food and beverage packaging or the impact on grip and pinch strength.

Aim

As elderly people are over-represented in NSW hospitals and grip and pinch strength decreases with age, this study aimed to determine if lying in a hospital bed affected grip and pinch strength scores and the 'openability' of a range of hospital food and beverage items in a well, independently living elderly population.

Methods

- Measurement of grip and pinch strength of a well elderly (>65 yrs) population in 2 postures, sitting and lying
- Measurement of time taken to open a range of hospital food and beverage items in the 2 postures using video cameras
- Qualitative data collection of the participant's experience of the food and beverage packaging using scales of 'openability'
- Data analysis to detect any significant differences between the two positions and the strength of association between all continuous variables.

Results

There is a significant decrease in pinch strength scores in the lying position compared to the seated posture. To successfully open a number of the food and beverage items, pinch strength was a critical factor.

Conclusion

Design of hospital food and beverage packaging must consider the ability of the end user