An Ergonomics Approach to Managing Transfers from Two Handed to Single Handed Care

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MSc Thesis

Ergonomics & Human Factors – Health & Community Care

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Background - increasing demands on Social Care

• Growing ageing population
• Increasing number of people living with a limiting condition
• Reduction of core funding - between 2011-16 core funding was reduced by 37%
• Introduction of the Care Act 2014 and the National Living Wage
• Shortage of social care workforce –
  o high rates of vacancies – 2016/17 vacancy rates were 6.6% (11.4% in home care service)
  o low staff retention – 2016/17 turnover rate of 27.8% (36.8% in home care services).

Resulted in:

- Waiting lists for home care packages
- Delay in hospital discharge
- Family providing care
- Expensive alternatives –
  - Interim residential care
  - Non-commissioned services.

More efficient care support options required – Single Handed Care (SHC)
‘Single Handed Care’(SHC) Reviews – 2016/17

SHC - provision of a moving and handling or care task by one person.

• Purpose – to increase capacity within home care workforce
• Review of double-up packages of care within commissioned Home Care Services
• Included exchanging floor-based hoists (typically double-up) for overhead tracking hoists (more suited for SHC).
Feedback – SHC review

‘What’s changed...?’

‘We’ve always doubled-up when hoisting, what’s changed?...’

‘Using a hoist on my own is not safe...’

‘SHC is illegal...’

‘Cost savings’ eclipse ‘safety’?

‘the Council is just trying to save money...’

‘double ups are safer...’

Kirklees Council 2016/17
Research Question

Is using an overhead hoist with one handler (SHC) safer, or as safe as a floor-based hoist with two handlers (double-up)?
Literature Review

SHC – cost savings  (Phillips et al, 2014; Pluckrose and Bagatelas, 2017; Smith and Orchard, 2009)


Comparisons of overhead with one/two vs floor-based with one/two handlers  (Dutta et al, 2012)
Aim

Ergonomically evaluate two systems of work

A transfer task - from bed to seated surface (chair, commode, wheelchair etc) using:

a) An overhead tracking hoist with one handler (SHC).

b) A floor-based hoist with two handlers (double-up).
Method

Procedure:
Both systems were compared within and between:
• Laboratory conditions
• Home Care Service evaluation.
Group interviews - explored views and experiences of care providers.

Participants:
• LAB – 8 experienced M&H practitioners
• SE – 17 experienced Home Care Support workers
• Group interview – 10 care provider supervisors
Data Collection

Service user
• Self rated feelings of ‘safety & security’, ‘comfort’ and ‘privacy & dignity’

Staff/handlers
• Self rated performance success
• Rate of perceived exertion
• Observation transfer tool (adapted DINO)
• Postural analysis (REBA) (LAB only – analysis at four points)

Task
• Time of transfer
• Task analysis
Results - quantitative

32 conditions observed (transfer from bed to seated surface) -
• SE – 16 (8 overhead/SHC, 8 floor-based/double-up)
• LAB– 16 (8 overhead/SHC, 8 floor-based/double-up)

Overhead/SHC favourable in all outcomes
# Statistical Significance

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Results - qualitative

Feedback from service users, staff and care providers:

Discussion/views fell into two areas:

- Floor-based vs overhead
- SHC vs double-up

Negative  Positive
Conclusion

Using an overhead with one handler is safer than using a floor-based hoist with two handlers.
On a final note........

SHC is not suitable for every service user, only after a suitable and sufficient risk assessment should SHC be prescribed.
Thank you

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References: