

# Predicting mobility goal attainment for children and young people with acquired brain injuries in residential rehabilitation: Do physiotherapists get it right?

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## Introduction

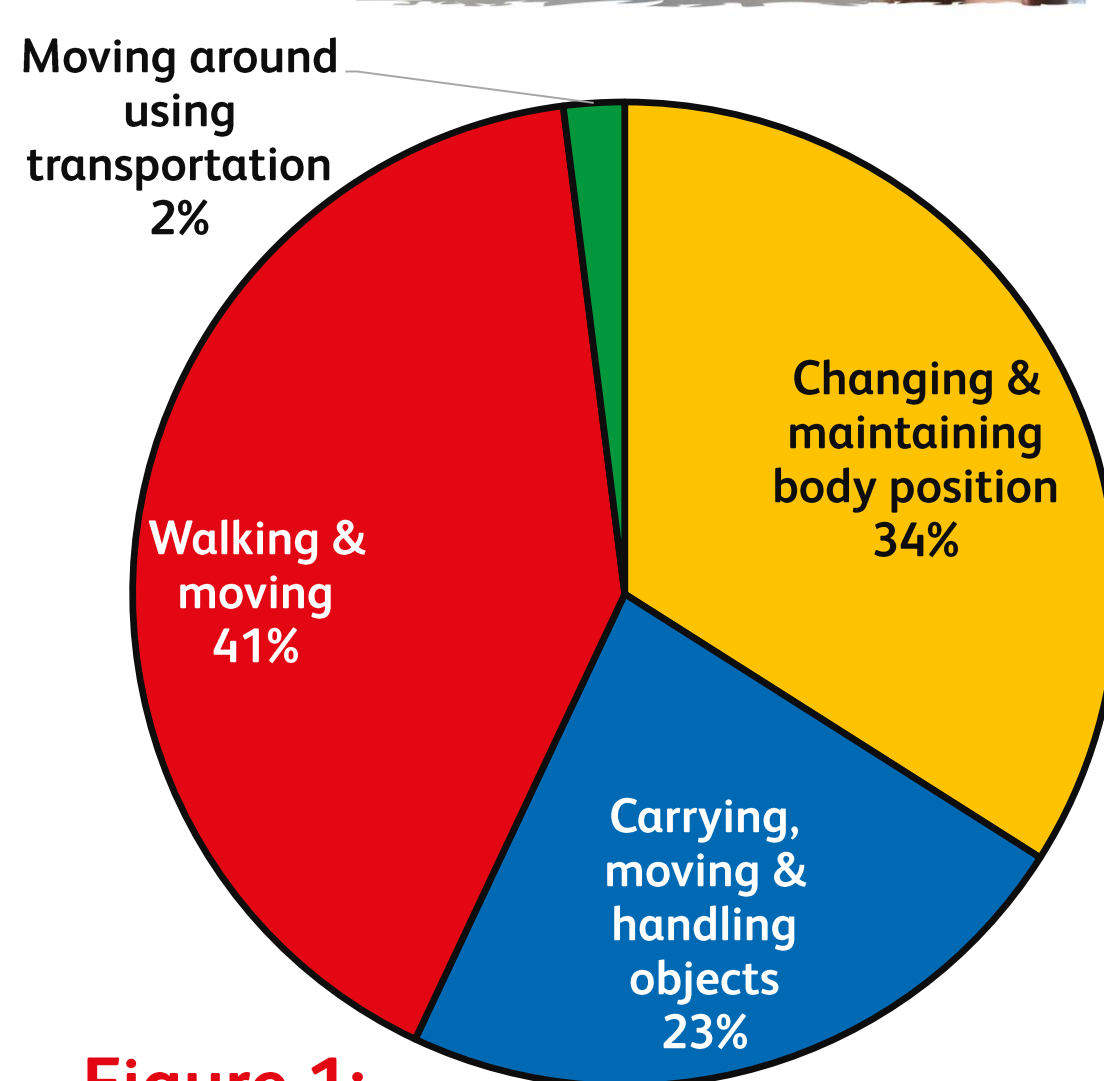
- Goal setting with the child and family is essential to ensure rehabilitation after acquired brain injury (ABI) targets areas of importance to the family (Brewer, Pollock and Wright, 2014).
- Goal attainment scaling light (GAS) (Turner-Stokes, 2009) provides a meaningful and sensitive way of capturing rehabilitation outcomes (Steenbeek et al. 2011).
- Goal setting discussions and use of goals to measure outcomes demand prediction of children's level of achievement during rehabilitation, which is challenging for professionals.
- Literature shows that in adult ABI residential rehabilitation therapists predict the level of goal accurately, so they are achieved at the expected level, 55% of the time (Turner-Stokes et al. 2009).

## Aim of Study

To determine how accurately physiotherapists predict outcomes for mobility based goals identified by children and their family during residential rehabilitation following ABI.

## Results

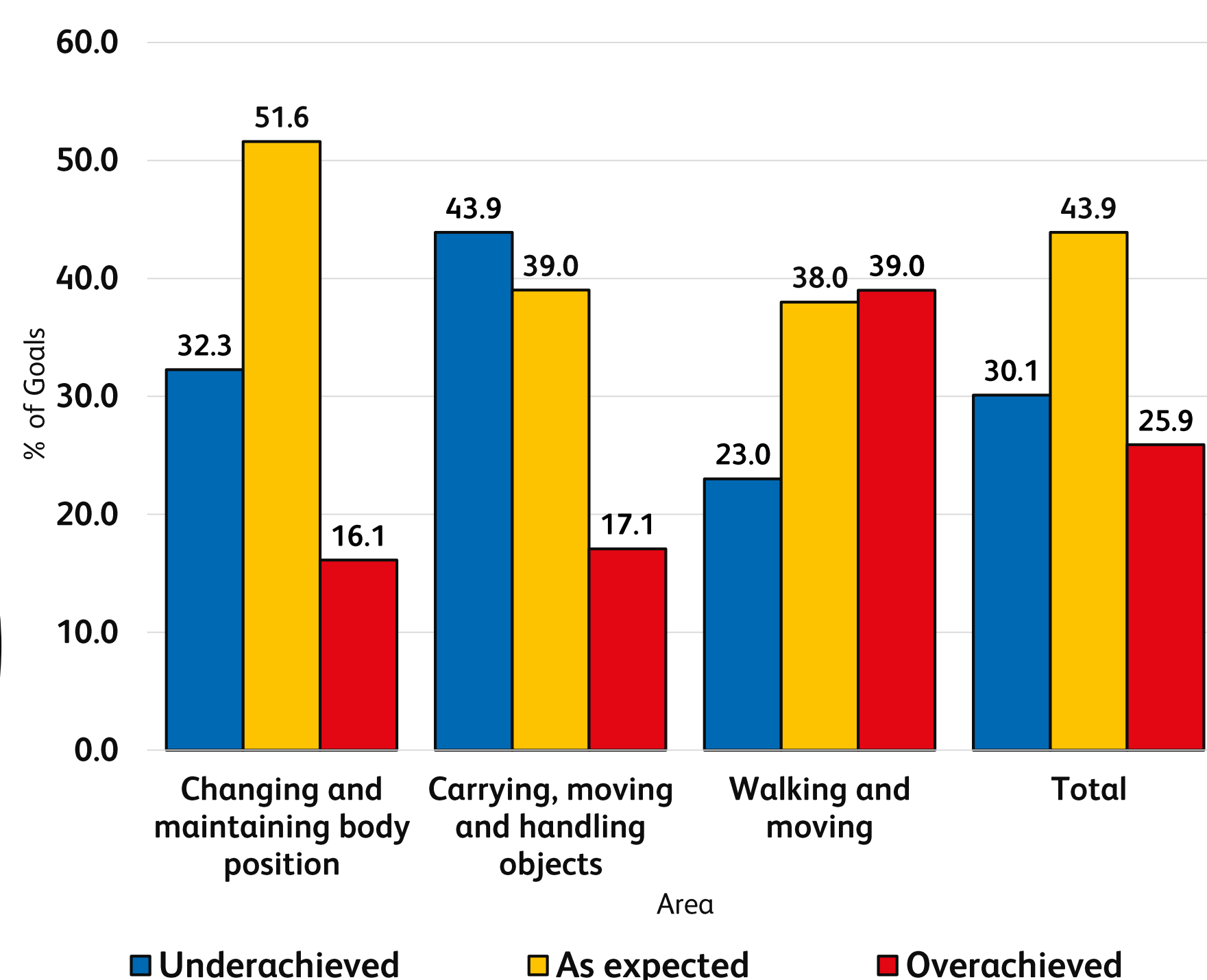
- In total, 859 goals were set: Mobility had the highest number of goals out of all the ICF categories (239).
- Figure 1 shows the distribution of goals across the items in the mobility domain.
- Figure 2 shows that overall mobility scores are achieved 'as expected' on 43% of occasions and this varies between different items.



**Figure 1:**  
Mobility goals

## Patients & Methods

- All children/youth admitted to a residential rehabilitation programme following severe ABI between September 2013-2016 (n=122, mean 9.3 years (1-17 years) included).
- Goal setting interviews were held between the child and/or parent, and treating therapist.
- Expected achievement levels were predicted by therapists on admission and scored near discharge as to whether they were achieved 'as expected', 'overachieved' or 'underachieved'.
- All therapists were specialist or highly specialist level, and trained in-house in the use of GAS light.
- All goals were retrospectively mapped onto the International Classification of Functioning, Disability and Health. Visual analysis of goal achievement level was conducted.



**Figure 2: Level of goal achievement**

## Conclusion

- Mobility goals are achieved at the expected level less than half the time, which is consistent with goals across all ICF domains, and similar to other rehabilitation services.
- Expected outcomes for upper limb, and walking and moving based goals are the most difficult to predict, with therapists commonly overestimating upper limb functioning, and underestimating walking function.
- Understanding difficulties of outcome prediction will enable physiotherapists to set more accurate goals, have better informed discussions with families regarding expected outcomes and thus improve rehabilitation programmes for children with ABI.

## References

- Brewer, K. et al (2014).
- Steenbeek, D. et al (2011).
- Turner-Stokes, L. (2009).
- Turner-Stokes, L. et al (2009).



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