

Exploring seating solutions for children with complex physical disabilities – less is more

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Summary

Currently children with complex physical disabilities have an extensive array of static and mobile seating for home and education. This service development reviews the efficacy of the provision of ONE customised seat, evaluating their posture, comfort, activities of daily living (ADLs), and life style needs at home and in education.

Aims & Objectives

This service development explores the efficacy of the provision of one customised seat for children who are functioning at, or to an equivalent level to, the gross motor classification system (GMFCS) for cerebral palsy (CP) of 3-5. Quantitative and qualitative outcomes were used to evaluate posture, comfort, ADLs, life style needs, and cost comparisons between seating packages.

Background

Concerns were initially raised by community therapists that children with an equivalent GMFCS of 3-5 often had up to five seats. These included a buggy, static seats for home, special needs education, mainstream education, and also an “easy chair”. The commercial seats were not meeting all the children’s postural and comfort needs in the short and long term. The community team approached Blatchford at the Leicester wheelchair service to ascertain if we could work in partnership to jointly assess for ONE customised chair that would fully meet the child’s postural and life style needs. This service development was carried out to guide us in developing our clinical practice, and to ascertain if this was a development that would benefit both child/family/education and healthcare services. Working in partnership, the criteria, provisos and pathways were jointly agreed between the two services, working closely with the commissioners and families throughout.

All children who met the criteria underwent a full postural management assessment, utilising the Oxford Enablement Centre assessment tool which uses descriptive data for posture in sitting and lying, joint range of movement (ROM) recording for the lower limbs, and photographic recording of spinal posture. Spinal mapping was mandatory for children with fixed spinal and/or pelvic deformities. All participating children had a 24-hour postural management programme in place in education and home, and there was no commercial static or mobile seat that fully met their needs. Children were assessed by a Blatchford seating engineer, community therapist and wheelchair clinician to determine, in consultation with family, which customised seat best met the child’s needs. All requests for funding of the seats went through the complex care panel for approval and funding.

On provision of the customised seat on a mobility base, therapists, child, family and education participated in providing us with outcome measures. These included scoring by family and clinician on comfort and posture of child in existing and customised seat in handover appointment. This was followed by a questionnaire at one month to both family and education to gather information on posture, comfort, ADLs, use of the chair in the different environments, and manual handling. Financial comparisons were also compiled to look at cost differentiations between the purchase of one customised seat that is used for the child’s static and mobility needs, and the cost of multiple chairs in the various environments.

Analysis of outcomes revealed a reported increase in child's comfort and posture, and families found having one chair easier to manage within the home environment. There was a significant difference in the cost of multiple seats in comparison to the customised seat, which was expected.

Discussion

Although few in number, this service development confirmed that there are children for whom commercially readily available seating equipment does not address their postural and functional seating needs. This project identified that there is a gap in (local) service provision regarding addressing the static seating needs of some children with complex postural needs. The outcomes support the view that this can be successfully addressed through one customised chair which addresses both static and mobile seating needs.

Close partnership working of local NHS children's physiotherapy services and the commissioned local provider for mobility equipment (Blatchford) was pivotal to development and completion of this project.

Outcomes reported have been positive from clinical (comfort, posture), environmental and financial perspectives. Feedback from school staff around the practical issues of using customised seating has brought about changes in the special seating provision.

Due to the success of this project, further work is ongoing to provide one seating system addressing all seating needs for identified children, aiming to close the gap in local service provision. Outcome measures will continue to be collected to add further data regarding this way of seating provision. Longer term evaluation would be of benefit to see what impact single customised seating provision has for children and their families, from both clinical and financial perspectives.

Next steps include working closely with commissioners to see if this way of addressing seating needs can be rolled out on a larger scale, and whether a permanent pathway for this way of seating provision can be developed.

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