

FREE PAPER 1

Development of a reliable, valid measure to assess parents' and teachers' understanding of postural care for children with physical disabilities

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Summary

This paper describes the development of a reliable valid measure of parents' and teachers' understanding of daytime postural care for children with physical disabilities. The measure is intended to evaluate the effectiveness of a training programme for parents and teachers based on the '*A-Z of postural care*'

Aims and Objectives

To develop a population and context specific measure of parents' and teachers' understanding of postural care for children with physical disabilities.

Background

A significant number of children with a physical disability have a motor impairment that puts them at risk of deformity, compromises their function and can lead to longer-term health problems. Conservative therapeutic management of posture depends on parents and teachers having a sound understanding of this approach, and confidence in applying the principles of postural care at home and school. In response to findings from a study that identified a lack of confidence amongst teachers responsible for managing the postural care needs of pupils; therapists, teachers and parents developed the *A-Z of postural care*. This booklet provides information for teachers and parents about the inclusion of children with physical disabilities in the classroom, how to manage the specialist equipment children use, how to promote the child's functional skills, and encourage independence and strategies for coping with emotions associated with teaching and caring for children. A National Institute for Health Research (NIHR) Research for Patient Benefit award has been granted to evaluate the effectiveness of the *A-Z of postural care* and the accompanying training programme developed for parents and teachers. As there are no published outcome measures that assess teachers' and parents' knowledge and understanding about postural care, the first phase of the evaluation was to develop a reliable, valid measure.

Method

An initial list of questionnaire items was developed based on the content of the *A-Z of postural care*. Items were designed to assess knowledge and understanding of postural care for children with disabilities; two further subscales were included to assess confidence and concerns in relation to providing postural care in the school and/or home environment. The outcome measure was then tested for validity and reliability on 152 participants. These participants were recruited from a range of professions and were divided into two groups to enable a comparison of scores between an experienced/knowledgeable group (e.g., occupational therapists and physiotherapists) and a less experienced/knowledgeable group (medical engineers, student physiotherapists, teachers).

Results

To assess the reliability of the scale we examined Cronbach's Alpha (a measure of internal consistency) for each of the three subscales and for the total scale. Results indicate adequate reliability ($>.70$) for all three subscales (Knowledge and Understanding: $\alpha = .96$; Confidence: $\alpha = .92$; Concerns: $\alpha = .87$) and for the total scale ($\alpha = .82$).

Known groups' validity analysis was also conducted to determine the validity of the measure. 'Known groups' expectation was defined as the experienced group showing statistically significant higher levels of knowledge, understanding and confidence, whilst also demonstrating lower levels of concerns compared to the less experienced group. In line with expectations the more experienced group had higher levels of knowledge and understanding (M = 65.97 vs. M = 54.45, $p < .001$); and confidence (M = 77.76 vs. M = 63.64, $p < .001$); and lower levels of concerns (M = 12.81 vs. M = 15.98, $p < .001$) than the less experienced group. These results suggest that the outcome measure is also a valid measure of the constructs identified.

Discussion

The strength of the measure is that it has been developed from the evidence based content of the *A-Z of postural care*. In developing the items for the scale a consultation phase ensured that the views of professional and lay experts in the field of postural care, including parents, teachers and therapists who care for and work with children with disabilities on a regular basis were incorporated. The scale therefore draws directly on the issues and experiences of those involved with postural care at school and home. The involvement of parents in the development of the scale is particularly important in the light of a shift towards patient involvement in the evaluation of health care interventions more generally, and the development of outcome measures. This scale was design for use in a postural care training programme that will be rolled out across Kent, Surrey and Sussex in 2012-13 as part of a wider study, which will explore the effectiveness of an education programme for teachers and parents involved in postural care. The measure will be utilised before and after a postural care training programme to assess whether levels of knowledge/understanding and confidence increase from baseline as a result of the intervention. Results from the research will be disseminated in the relevant professional journals, and it is hoped that other researchers will see the benefit of using this validated outcome measure to assess the constructs identified.

References

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