



Service Priorities and Programmes
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Clinical effectiveness: Tailor-made seating device in improving patient's sitting posture and relieving pressure in Siu Lam Hospital

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Keywords:

sitting posture

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Introduction

Siu Lam Hospital serves patients with severe intellectual disability and majority of them are suffering from physical disability, some might even have deformity. A good seating device is important to facilitate their daily sit out, participation in activities, as well as reducing the risk of developing pressure ulcers. Occupational therapists have been contributing in the design and fabrication of tailor-made seating device since 1995. While its clinical effectiveness was largely based on the therapist's clinical judgement and experience, it would be necessary to provide more objective clinical evidence by using objective outcome measures in the evaluation.

Objectives

Objectives: To provide evidence on the effectiveness of tailor-made seating device in improving patient's sitting posture and relieving pressure.

Methodology

Methodology: The study adopted One-Group Pre and Post Test Experimental Design. Basing on the need for a new seating device, 11 subjects were recruited with convenient sampling. Data on their sitting posture and the interface pressure acting on their back and seat were measured by the Seated Postural Control Measure for Adult (SPCMA) 2.0, in which lower scores represented better sitting posture. The interface pressure was measured by Force Sensitive Application Mapping System, in which higher scores represented higher pressure. The data were analysed by Wilcoxon Signed Rank Test (one-tailed).

Result

1. Demographics: In the 11 subjects, there was 6 male and 5 female. The mean age was 40.6, ranging from 19-57
2. Sitting Posture: There was significant median difference between pre and post evaluation ($p = 0.002$). Patient demonstrated better sitting posture on the new seating device.
3. Interface pressure: There was significant median difference between pre and post evaluation in the average seat pressure ($p =$

0.007) and maximal seat pressure ($p=0.012$). Patient received less interface pressure while they sat on new seating device. Although there was reduction of average and maximal back pressure, the result did not reach a significant level ($p=0.080$ and 0.339)