The effectiveness of specialist seating provision for nursing home residents.

Seating Matters/Ulster University Knowledge Transfer Partnership (KTP).
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Introduction

In 2013, an estimated 475,000 older people lived in residential and nursing homes across the UK (LaingBuisson, 2014). There are about 15,700 private, voluntary and Local Authority care homes in the UK, providing care at an estimated annual value of more than £8 billion per annum (Annexe, 2002).

Approximately half of the residents of nursing home facilities are predominantly wheelchair or seating users. The seating chairs in nursing homes were never intended for continuous sitting. In some cases, the poor posture and positioning as a result of inadequate seating, results in increased discomfort; skin breakdown; reduced mobility; limits on vision, swallowing, and breathing; and biomechanical problems, such as hips out of normal alignment and poor extremity positioning.

“I feel like we are never going to get one [a chair] to suit her. We have used three from storage but they have not been suitable and her current chair is leaving marks on her skin.”

Caregiver feedback

Impact of poor seating

Many people who suffer from long term disabilities, or who are elderly, lack mobility. As a result, they often spend long hours in positions of time sitting, whether in a wheelchair or an armchair. When people spend prolonged time sitting they can become very uncomfortable and may develop poor posture, pressure ulcers or both. Many nursing home residents do not receive an adequate seating assessment on admission to the nursing home and therefore are provided with unsuitable seating which can be very harmful.

Caregiver feedback

Methodology

A seating assessment should be fundamental to the initial assessments undertaken when a person is admitted to a nursing home. A professional trained in how to assess and prescribe pressure relief measures should carry this out. The resident should ideally be matched with suitable specialised seating to meet their postural and functional needs.

Methods

Study Design: This study involved a mixed methods design. We used a range of qualitative and quantitative tools, both standardised and those designed by the research team, based on issues identified in the literature.

Participants were recruited from three nursing homes and randomly allocated to one of two groups. The control group continued to use their existing chair while the intervention group were provided with a chair that was compatible with their individual seating and postural needs.

Both groups were monitored by Occupational Therapists from the research team over a 12 week period looking at their seating and postural abilities, oxygen saturation levels, functional skills, skin integrity, and caregivers’ level of input.

A questionnaire was completed by the caregiver before and after the 12 week trial period. A seating assessment was also completed with each participant before and after the trial period to monitor and record any changes in posture, skin breakdown or medical presentation.

Outcome measures:

At the beginning of the trial the following assessment tools were administered for participants in both the intervention and control groups.

Clinical factors:

• Demographics (such as age of client, medical history etc)

• Seating assessment which assesses the resident’s seating and postural needs, sitting skills, range of movement for sitting and transferring (in/out of the chair)

• Digital Photographs (taken before and after initial assessment with residents sitting in their original chair and in the chair they used during the trial period)

Physiological factors:

• Boden Scale to measure risk of developing pressure ulcers

• Pulse Oximeter to measure saturated oxygen levels

Quality of life factors:

• Caregiver questionnaire to gather any changes, if any before and after trial period

Results

Initial findings are shown in brief below. For more information on the research findings please email contact@seatingmatters.com

Pressure Ulcers/Red areas:

The results in this area have been very significant with no participants developing a red area or pressure ulcer whilst using Seating Matters specialised seating. In the Control Group, there was a 5% increase in pressure ulcers. Each existing pressure ulcer in this group remained. Concurrently, the participants in the Intervention Group, using the Seating Matters chairs, had a reduction in pressure ulcers by 88.3%.

Pulse Oximeter-saturated oxygen levels:

Interestingly 95% of the intervention participants were found to have an increase in oxygen saturation levels over the 12 week trial. The rest of the intervention participants maintained their initial results while 45% of the control participants experienced decreased oxygen saturation levels while continuing to use their existing seating which had not been individually tailored to their needs.

Caregiver feedback

In some cases, participants even regained the ability to feed themselves independently and carers found that assisting with this activity was much easier and safer when positioned correctly in a Seating Matters chair.

“Caregiver feedback

“Can we now feed her in the chair as she is using Seating Matters provided us with a table that can be fitted on. It’s teen great.”

References:


Martina Tierney and Seating Matters have teamed up with leading researchers in health sciences, working with Ulster University to continually push the boundaries of seating innovations. Together we are discovering the effectiveness of suitable seating provision in increasing functional ability, improving postural management, quality of life and reducing the risk of pressure ulcers in adults in nursing homes.