

Physio acoustic Chair Trial

Forewords

This trial was done at residential aged care setting in Gold Coast Australia and carried out during April –May 2011. There are no names mentioned as the management of the care group wants this trial report to stay anonymous at least at this stage. This is the only paragraph added to this report afterwards; all the rest is original writing by the senior physiotherapist who conducted the trial with the assistance of their care staff. HUR Australia Pty Ltd has supplied the equipment for the trial.

Background

The Physio acoustic Chair delivers low frequency sound waves (27-86 Hz) to a comfortably sitting person. A variety of health benefits have been documented following the use of this chair in trials conducted on the elderly population including improved mobility levels, decreased cholesterol levels and improved circulation.

Our trial of the chair was aimed at assessing impact on:-

- agitation/ restlessness in the dementia residents;
- level of pain;
- level of mobility.

Participants

All participants were high care residents with multiple diagnoses living in an aged care facility at the time of the trial.

Six dementia residents aged between 75 and 85, all of whom regularly displayed behaviours of wandering/ agitation, were involved in the first trial.

Six residents, aged between 75 and 98, with significant pain issues were involved in the second group.

Six residents aged between 77 and 89 were assessed for effect on mobility.

Intervention

Residents received 3-4 sessions per week over an 8 week trial period. Sessions were specific for relaxation, pain management or activity according to programs supplied with the chair.

All residents who participated in the trial were comfortable sitting in the chair- 2 residents were excluded from the trial at their own request and 1 resident became too ill and discontinued.

Results

The chair was used for the dementia residents at times when the wandering/agitated behaviours were evident. In all cases there was a marked decline in these behaviours reported by carers directly involved with the residents.

Pain level was assessed before the commencement of the trial, reassessed immediately after the use of the chair and residents were asked how long they noticed a change in pain levels. Pain was scored on a scale of 1-10 for each situation. These residents all had high levels of initial pain reporting levels of 7-9. In all but one case, residents reported a consistent decrease of 3 points for their level of perceived pain with use of the chair. Pain was reported to remain decreased for a period of 3-4 hours. The other resident reported complete relief of level 9 pain, lasting for 24 hours, consistently reporting this relief to her daughter. This result was significantly different to reports from other residents as indicated.

Mobility level was assessed by timing residents' ability to walk 5 metres using their normal level of assistance e.g. wheeled walker/ rollator and/or staff assistance with walk belt. This level of assistance was consistent pre-trial and post-trial. All these

elderly residents demonstrated marked improvements in mobility levels, ranging from 25.65% improvement to 75.49% improvement. Average improvement in time taken to walk 5 metres was 47.13%. This improvement is especially significant as all these residents were nursing home residents with significant gait problems. No other mobility therapies were conducted during this trial period.

RESULTS

Condition Causing Pain	Pain level	
	Pre Chair	After Chair
Resident 1 (kyphoscoliosis)	7	4
Resident 2 (OA)	9	0
Resident 3 (OA)	8	5
Resident 4 (crush fractures, OA)	9	5
Resident 5 (Neuropathic pain, Charcot Marie tooth disease & resultant OA)	9	6
Resident 6 (Chronic low Back pain)	8	5

MOBILITY PROGRAM

Resident	Time to walk 5 metres	
	Pre trial	Post trial
1	15.5 sec	8 sec
2	26.9 sec	20 sec
3	17 sec	9.6 sec
4	26.9 sec	17 sec
5	20.4 sec	5 sec
6	36.1 sec	17 sec

Summary

Results from all areas studied were very encouraging. The sample groups were naturally small as all were selected from within one facility but the consistency of results was remarkable and supports a conclusion that use of this chair within the aged care setting allows a variety of significant benefits- specifically our trial suggests benefits for wandering/ aggressive dementia residents, residents with severe pain and residents with mobility problems who may be too frail to participate in common group or individual exercise classes. The Physio acoustic Chair was extremely easy for staff to use and almost all residents enjoyed the chair.