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Occupational therapy for the treatment of respiratory disease

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Introduction

There is currently a global lack of practical studies on the effectiveness of occupational therapy for the treatment of respiratory disease. In the present case study, we provided Instrumental Activities of Daily Living (IADL) training for 21 subjects with respiratory disease in efforts to alleviate their breathing difficulties.

Methods

Using the Assessment of Motor and Process Skills (AMPS), we assessed the motor and process skills of 21 subjects while performing cleaning activities (8 males, 13 females; mean age, 39.5 ± 7.4 years; Medical Research Council score grade 3, $n=9$ and grade 4, $n=12$). We then performed interventions for the problematic skills identified by the assessment, such as 'reducing energy consumed', 'coordinating actions and breathing' and 'correcting methods of action', for three days (40 mins/day) before conducting a post-intervention assessment.

Results

The pre and post intervention results for motor skills were 2.57 logits and 3.17 logits, respectively, while those for process skills were 2.00 logits and 2.67 logits, respectively, thereby demonstrating an improvement of 0.5 logits or greater, which indicates that the interventions were effective. We also observed an improvement in average SpO_2 at completion of the cleaning activities from 84.2% upon commencement to 90.1% upon completion, and an improvement in breathing difficulties determined according to the Borg Scale from an average of 3.8 upon commencement to 1.4 upon completion ($p < 0.05$).

Conclusion

IADL training is effective for improving task achievability and alleviating breathing difficulties in individuals suffering from respiratory disease. The further promotion of IADL training is an issue to be addressed in the future.