Music-assisted relaxation during transition to non-invasive ventilation in people with motor neuron disease

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Theme: Research and Quality Improvement

Background: Motor Neuron Disease (MND) is a progressive neurological disease causing muscle weakening and wastage, leading ultimately to respiratory failure. Non-Invasive Ventilation (NIV) is recommended to help patients manage respiratory insufficiency, however there are associated stressors that can affect tolerance of NIV. This feasibility study investigated the experience and effect of a Music-Assisted Relaxation (MAR) intervention on anxiety, quality of life, and NIV-use during the first 3 months of using NIV.

Methods: Using a cohort mixed-methods design, data were collected at baseline, 7-days and 3-months. Participants self-selected the MAR trial or standard care. MAR included one music therapy session and two personalised MAR CDs for home use with NIV. Measures included the Hospital Anxiety and Depression Scale, Assessment of Quality of Life–8D, and NIV-use data from participants' machines. Qualitative interviews at 7 days and 3 months were conducted with a subgroup of participants and analysed using phenomenological and thematic analysis. Quantitative data was reviewed for descriptive statistics.

Results: 18 participants were recruited. 15 selected MAR and 3 chose standard care. High attrition rate and missing data rendered detailed quantitative analysis inappropriate however data were used to support descriptive analysis. Qualitative results indicated that the music was perceived as relaxing, a distraction from concerns or NIV, promoting sleep, and supporting perseverance through challenges of NIV. Obstacles to using MAR included technical difficulties, being overwhelmed by NIV or considering it unnecessary after a smooth transition.

Discussion: MAR may be a useful intervention to promote relaxation, address anxiety and distract from effects of NIV for patients commencing NIV use. For some patients, MAR was overwhelming when added to the challenges of NIV initiation. These data suggest that MAR may have a role in alleviating the distress of NIV initiation and future research should examine what individual characteristics may predict response.