Didgeridoo playing as alternative treatment for obstructive sleep apnoea syndrome: randomised controlled trial

Milo A Puhan, *research fellow*[1], **Alex Suarez**, *didgeridoo instructor*[2], **Christian Lo Cascio**, *resident in internal medicine*[3], **Alfred Zahn**, *sleep laboratory technician*[3], **Markus Heitz**, *specialist in respiratory and sleep medicine*[4], **Otto Braendli**, *specialist in respiratory and sleep medicine*[3]

[1] Horten Centre, University of Zurich, 8091 Zurich, Switzerland, [2] Asate Alex Suarez, 9630 Wattwil, Switzerland, [3] Zuercher Hoehenklinik Wald, CH-8639 Faltigberg-Wald, Switzerland, [4] Lungenpraxis Morgental, Zurich, Switzerland

Correspondence to: O Braendli otto.braendli@zhw.ch

Abstract

Objective To assess the effects of didgeridoo playing on daytime sleepiness and other outcomes related to sleep by reducing collapsibility of the upper airways in patients with moderate obstructive sleep apnoea syndrome and snoring.

Design Randomised controlled trial.

Setting Private practice of a didgeridoo instructor and a single centre for sleep medicine.

Participants 25 patients aged > 18 years with an apnoea-hypopnoea index between 15 and 30 and who complained about snoring.

Interventions Didgeridoo lessons and daily practice at home with standardised instruments for four months. Participants in the control group remained on the waiting list for lessons.

Main outcome measure Daytime sleepiness (Epworth scale from 0 (no daytime sleepiness) to 24), sleep quality (Pittsburgh quality of sleep index from 0 (excellent sleep quality) to 21), partner rating of sleep disturbance (visual analogue scale from 0 (not disturbed) to 10), apnoea-hypopnoea index, and health related quality of life (SF-36).

Results Participants in the didgeridoo group practised an average of 5.9 days a week (SD 0.86) for 25.3 minutes (SD 3.4). Compared with the control group in the didgeridoo group daytime sleepiness (difference -3.0, 95% confidence interval -5.7 to -0.3, P = 0.03) and apnoea-hypopnoea index (difference -6.2, -12.3 to -0.1, P = 0.05) improved significantly and partners reported less sleep disturbance (difference -2.8, -4.7 to -0.9, P < 0.01). There was no effect on the quality of sleep (difference -0.7, -2.1 to 0.6, P = 0.27). The combined analysis of sleep related outcomes showed a moderate to large effect of didgeridoo playing (difference between summary z scores -0.78 SD units, -1.27 to -0.28, P < 0.01). Changes in health related quality of life did not differ between groups.

Conclusion Regular didgeridoo playing is an effective treatment alternative well accepted by patients with moderate obstructive sleep apnoea syndrome.