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Listening to preferred music with people with severe dementia who wander: A feasibility study

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Background

In Residential Aged Care (RAC), when a person with dementia walks beyond safe limits, or exhibits wandering behaviour, they may walk excessively, walk day and night and/or have problems navigating. This is associated with adverse outcomes which include **unintentional weight loss, extreme fatigue and injury from altercations associated with entry into other residents' private space (boundary transgression (BT))** [1].

Despite these known risks there are few evidence-based guidelines to manage risky wandering in RAC. Considering findings from previous research that listening to preferred music reduces agitation and anxiety in people with dementia [2,3], **we trialled this approach with people with severe dementia who wander in RAC.**

Aims

1. Is it feasible to engage people with severe dementia who were known to wander in a daily 20 minute session of listening to their preferred music?
2. Is this activity pleasurable for the participant?
3. Does this activity reduce risky aspects of wandering?
4. How do staff and family members perceive the music program?

Method

Participants:

- 10 residents from two Brisbane RAC facilities.
- **Inclusion criteria:** Residents with severe dementia AND positive history of walking excessively and exhibiting BT.

The Intervention:

Listen to a selection of preferred music for 20 minutes daily for 3 weeks.

When:

- 30 minutes before unique peak activity period (Facility 1) **OR**
- at random times (Facility 2)

How:

1. Music selected by family members using the *Personal Music Preference – Family Version Tool* [3].
2. Music purchased and loaded onto individual iPod Shuffles.
3. Music listened to via headphones or speakers – directed by family.



Measures

- **Feasibility data:** Checklist of essential elements of the intervention completed at the end of each intervention.
- **Risky aspects of wandering:**
 - Frequency and duration of walking (*Actigraph™* activity monitor 24/7)
 - Frequency and duration of BT* (direct observation 2 x 2 hour observations weekly)
- **Immediate Pleasure:** participant asked if they enjoyed the music at the end of each intervention.
- **Mood:** Direct observation* (Lawton's Modified Behavior Stream) [4] – positive, neutral and negative mood
- **Acceptability and sustainability of the program in RAC:** 20 staff and 4 family members of participants with dementia participated in 1:1 interviews at the end of the program.

* Real time observation data collected using *Noldus Pocket Observer™*

References

1. Nelson, A. and D.L. Algate. *Evidence-Based Protocol for Managing Wandering Behavior*. 2007, New York, USA: Springer Publishing Company.
2. Gerdner, L.A., Use of individualized music by trained staff and family: translating research into practice. *Journal of Gerontological Nursing*, 2005, 31(6): p. 22-30; quiz 55-6.
3. Kales, H.C., L.N. Gitlin, and C.G. Lyketsos, Management of neuropsychiatric symptoms of dementia in clinical settings: recommendations from a multidisciplinary expert panel. *Journal of the American Geriatrics Society*, 2014, 62(4): p. 762-769.
4. Lawton, M. P., Van Haistma, K., & Klapper, J. (1996). Observed affect in nursing home residents with Alzheimer's disease. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 51(1), p. 3-14.

Results

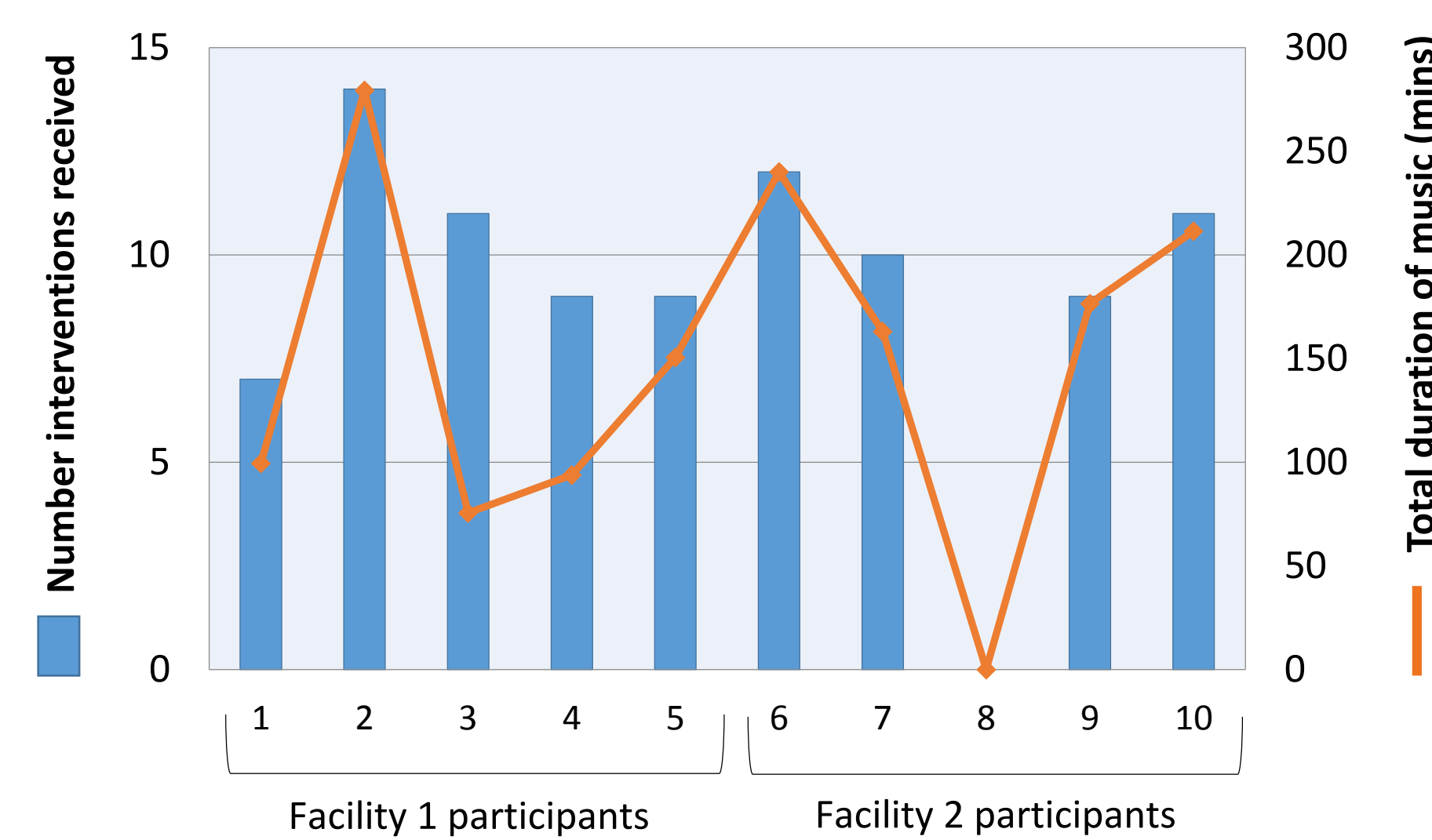
Is it feasible for people with severe dementia who wander, to listen to music for 20 minutes daily?

61% of the scheduled music sessions were initiated

- On average each participant received 9.20 (*SD* = 3.77), out of the scheduled 15 interventions.
- Reasons for not participating: participant refused, was asleep or was involved in other activity at the scheduled time

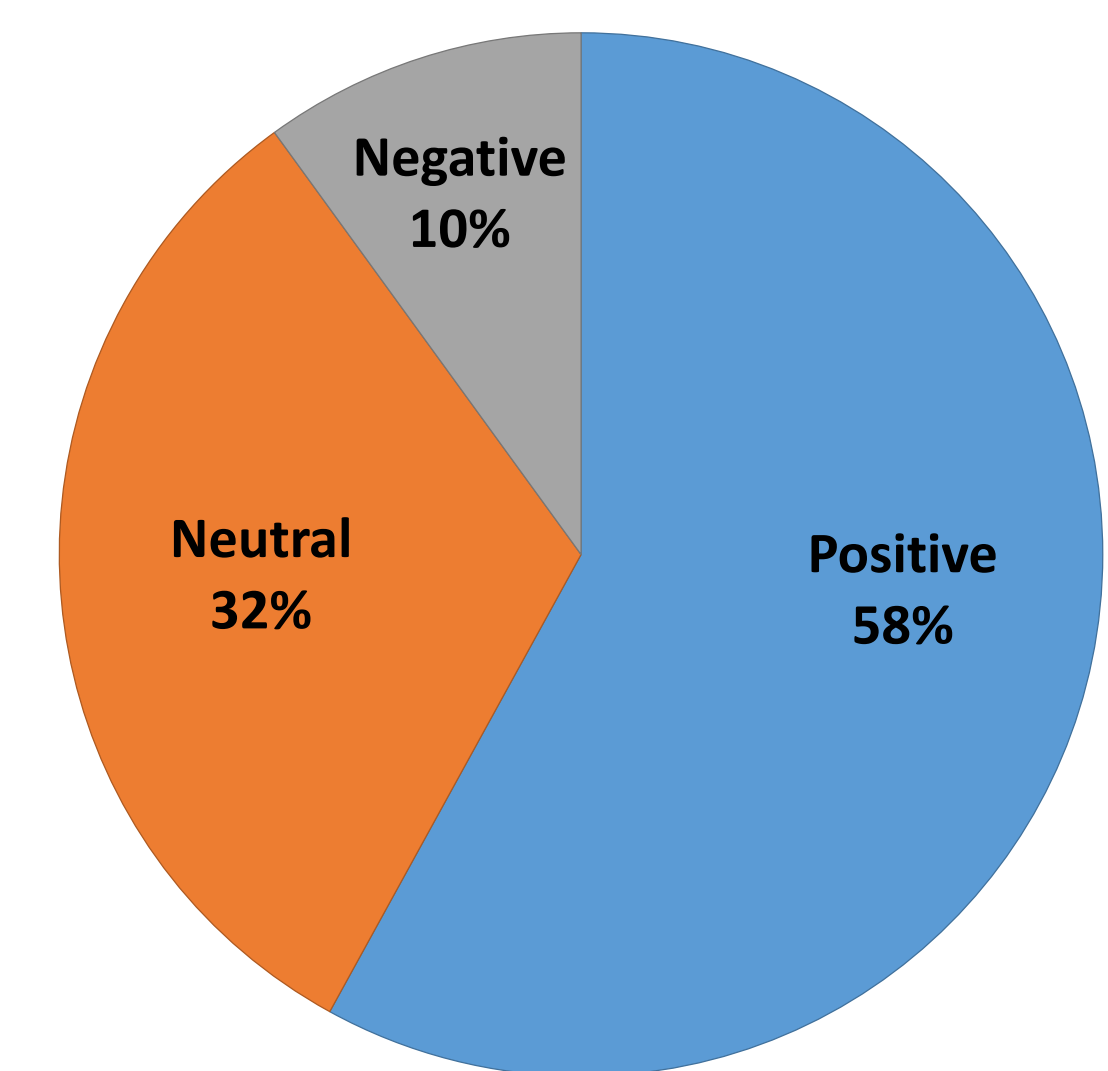
60% of the interventions initiated went the full 20 minutes

- Mean duration of each intervention was 16.19 minutes (*SD* = 6.19 mins; range 0.10 – 20.00 minutes).



Was listening to the music a pleasurable experience?

- Participants were asked 'Did you enjoy listening to music at the end of each session:
 - **51% said YES**
 - **33% did not respond**
 - 13% said NO or were neutral
 - 3% response not recorded
- RAs observed mood during each music session (n=92). **Positive mood was most frequently observed.**



"I thought that it would've been a really good idea to put the residents to bed at night with the earphones on and settle them, then once they fall asleep, take the earphones away" [Staff]

Staff and Family perceptions of acceptability and sustainability of the program

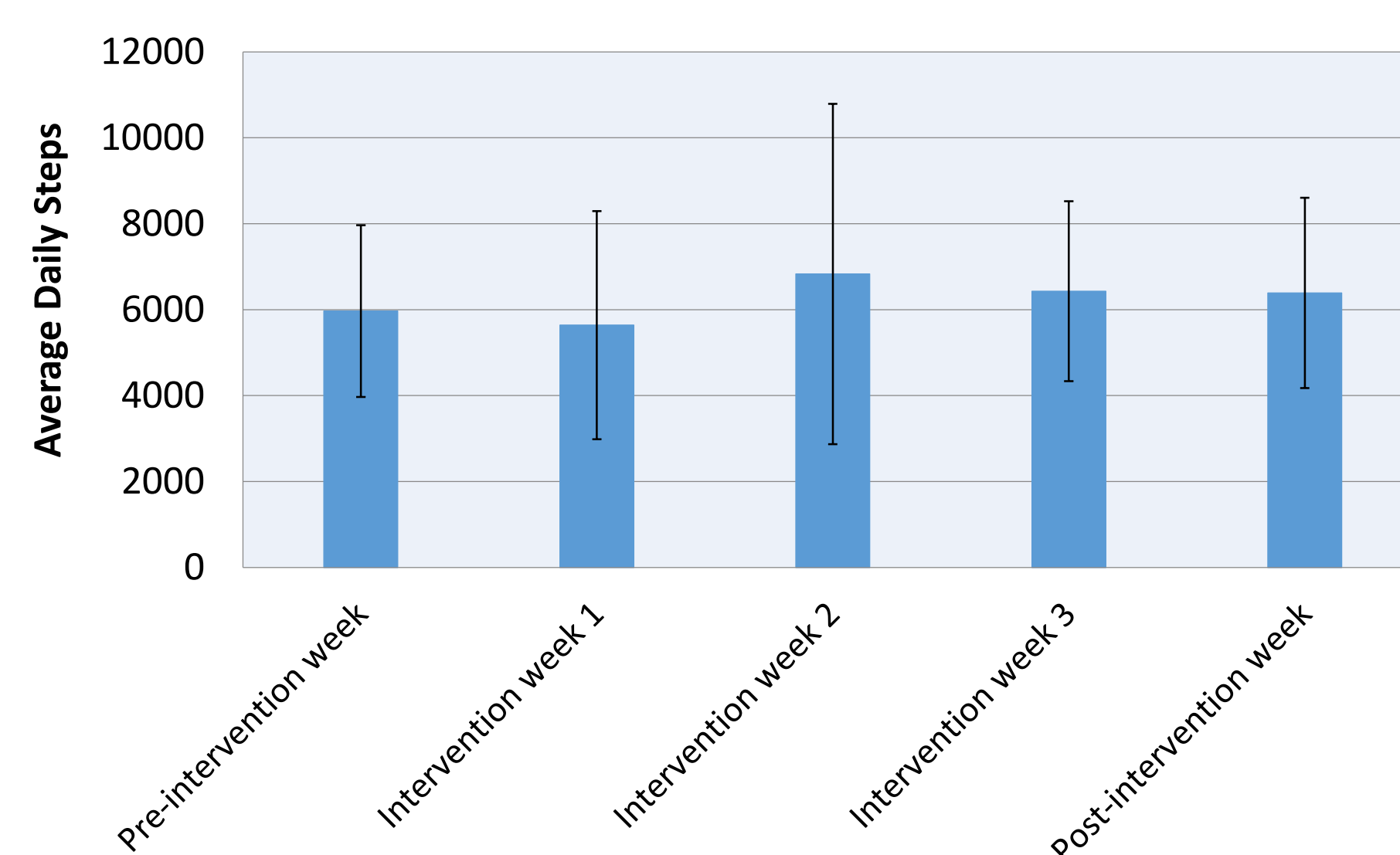
- Participants enjoyed listening to music.
- Positive changes in the person's mood and behaviour were observed.
- The program caused minimal impact on the facility.
- The program should continue.
- Modifications to the program could improve sustainability.

"... the mood seemed to be a lot more calm and relaxed and almost happy. I think it's that they're doing something different and it's calming." [Staff]

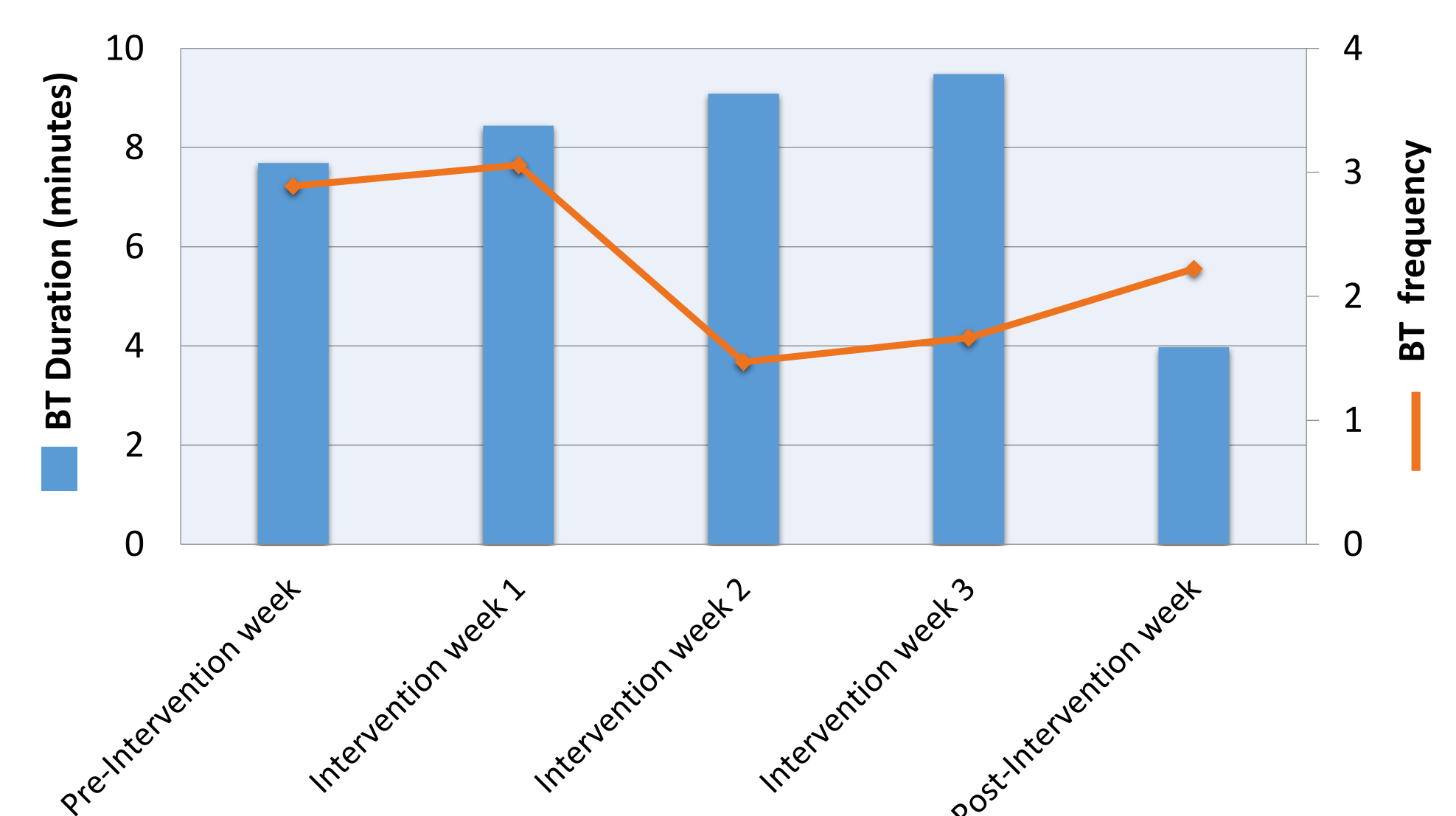
"You could tell by his facial expressions and changes in attitude that it was very productive and quite enjoyable for the resident." [Staff]

What was the impact of listening to music on characteristics of wandering?

Participants' mean **steps per week** remained similar over the five weeks – **participating did not exacerbate frequent walking.**



The average frequency and duration of **boundary transgressions (BT)** during 2 hour observation periods did not vary significantly – **participating did not significantly exacerbate BT.**



What we have learnt....

- Risky aspects of **wandering behaviour not exacerbated** by the program
- It was a **pleasurable activity** for some participants
- Staff/family thought it was an **acceptable and sustainable** activity
- **20 minutes could be too long** → reduce to 10 minutes
- **Headphones were tolerated** → trial headphones for all
- **Family choice of music not always current** → involve person with dementia in music choice
- **Staff wanted more involvement** → consider staff feedback for next trial

