

Dance On: Can a community based dance programme improve the physical and psychological wellbeing of socio-economically disadvantaged older adults?

Emily Dingley, Ellie Dean, Sarah Astill and Laura Britten

Email: sp17ed@leeds.ac.uk; fs16ed@leeds.ac.uk
Faculty of Biological Sciences, University of Leeds, UK

INTRODUCTION

- In an era of increasingly ageing populations, physical inactivity amongst older adults is becoming a prominent issue^{[1][2]}.
- On average, the lifespan of inactive older adults is 5 years shorter than those who are active due to physical and biopsychosocial health conditions that result from inactivity^[3].
- Consequently, it is a priority to provide sufficient opportunities within the community to engage older adults in physical activity (PA) interventions as a preventative strategy^[3].

AIMS

- Recruit 100 inactive older adults aged 55+ from socioeconomically deprived areas of Yorkshire (Leeds, Bradford & Doncaster) to participate in a community dance programme.
- Demonstrate significant improvements in physical and psychological health and wellbeing.
- Support dance groups to become self-sustaining post-research.

METHOD

Recruitment:

Rolling recruitment (ongoing)
N = 35 (33 female, 2 male); mean age = 74.5 ± 1.97 years.

Intervention:

60 minutes per week of contemporary dance.
Includes elements of aerobic exercise, balance, low-level resistance and flexibility.

Data collection and analysis:

Baseline, 3 months, 6 months and 12 months.
Measuring physical activity levels (Short Active Lives Questionnaire (SALQ)), well-being (EQ5D3L Health-state), fear of falling (Falls Efficacy Scale (FES)), balance and mobility (Timed Up & Go (TUG)) and qualitative focus groups.

Data analysed using a two-tailed paired t-test.

RESULTS

- Results from baseline to 3 months show:
 - A significant increase of total PA per week (M=139.74 minutes per week), including the dance session (Figure 1).
 - A significant improvement of 10.54% in the EQ5D3L Health-state score (Figure 2).
 - A non-significant improvement of 6.49 points in FES (Figure 3).
 - A significant improvement of 5.72 seconds in TUG (Figure 4).

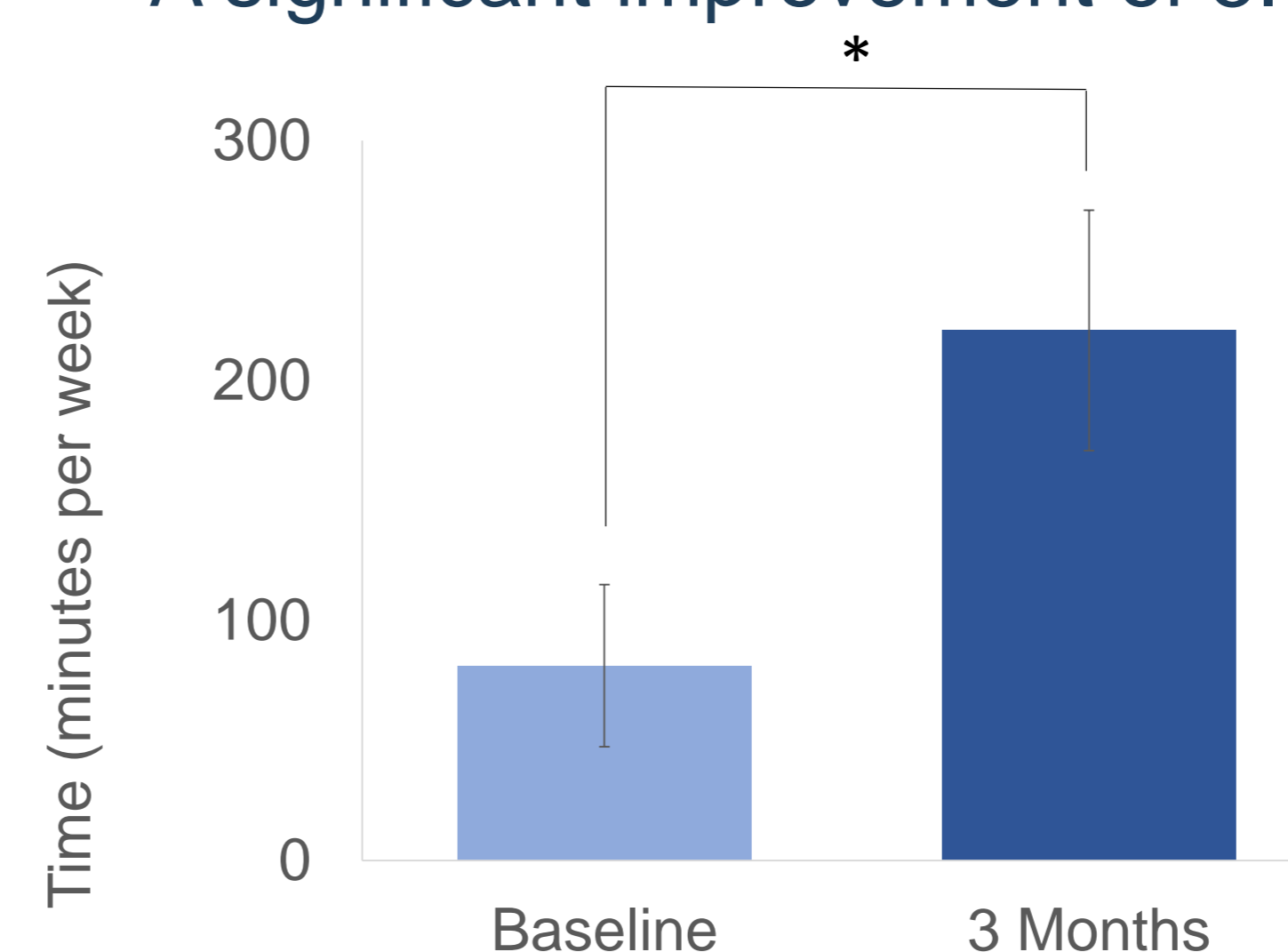


Figure 1: Mean (n=35) ± SE of SALQ measuring physical activity levels (* denotes significance at p<0.05).

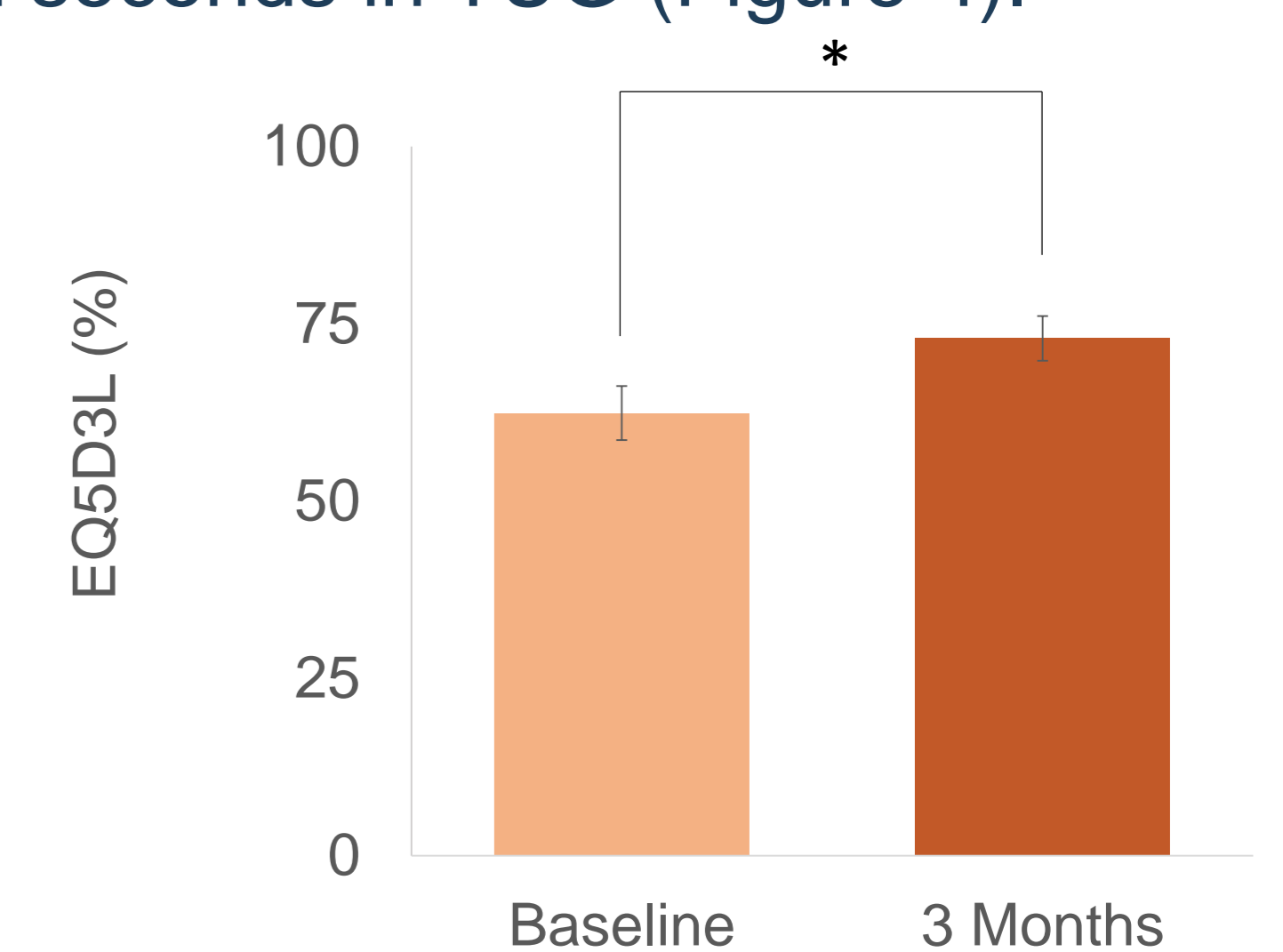


Figure 2: Mean (n=35) ± SE of EQ5D3L Health-state score measuring well-being (* denotes significance at p<0.05).

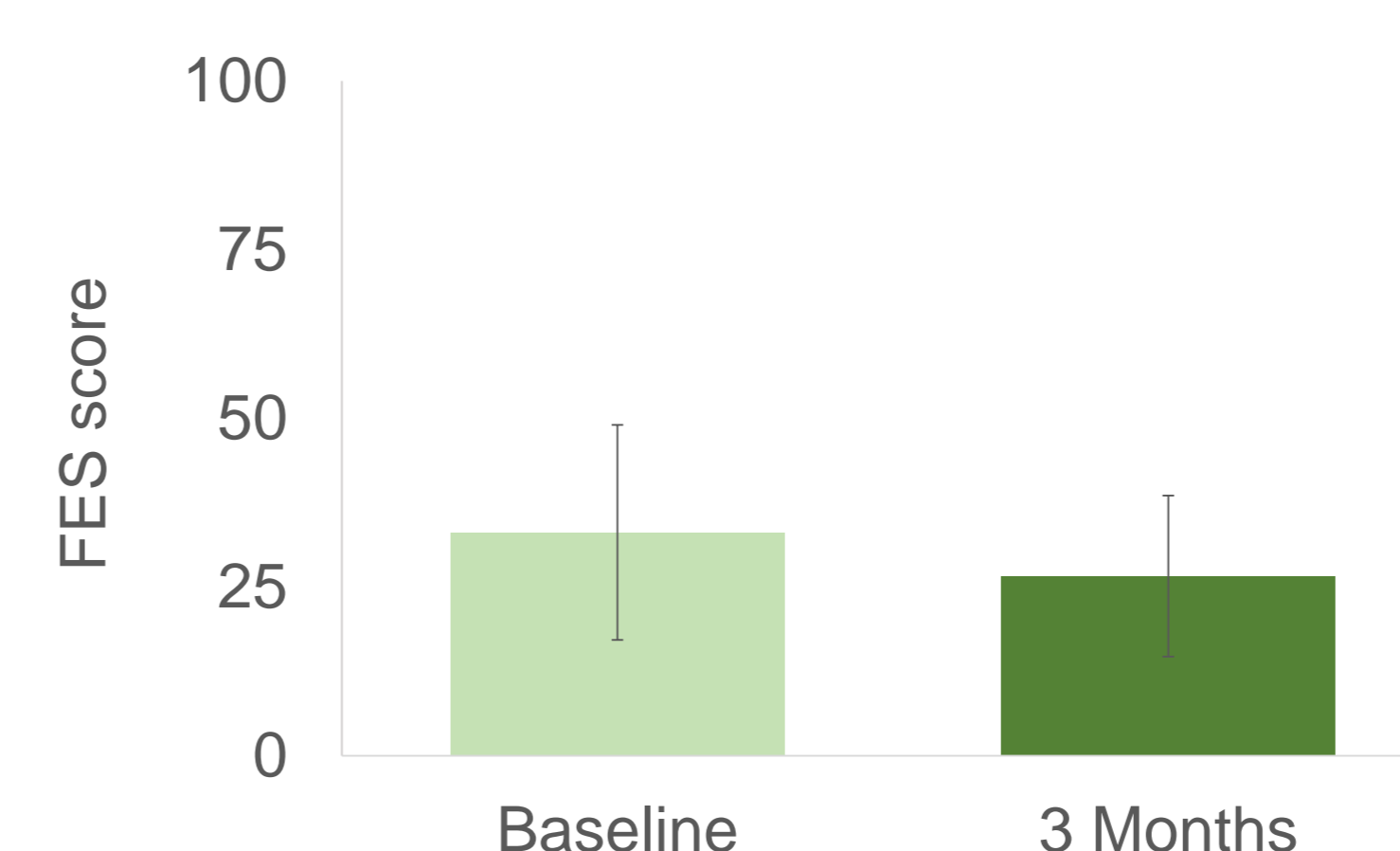


Figure 3: Mean (n=35) ± SE of FES score measuring fear of falling (note: decreased score denotes reduced fear of falling).

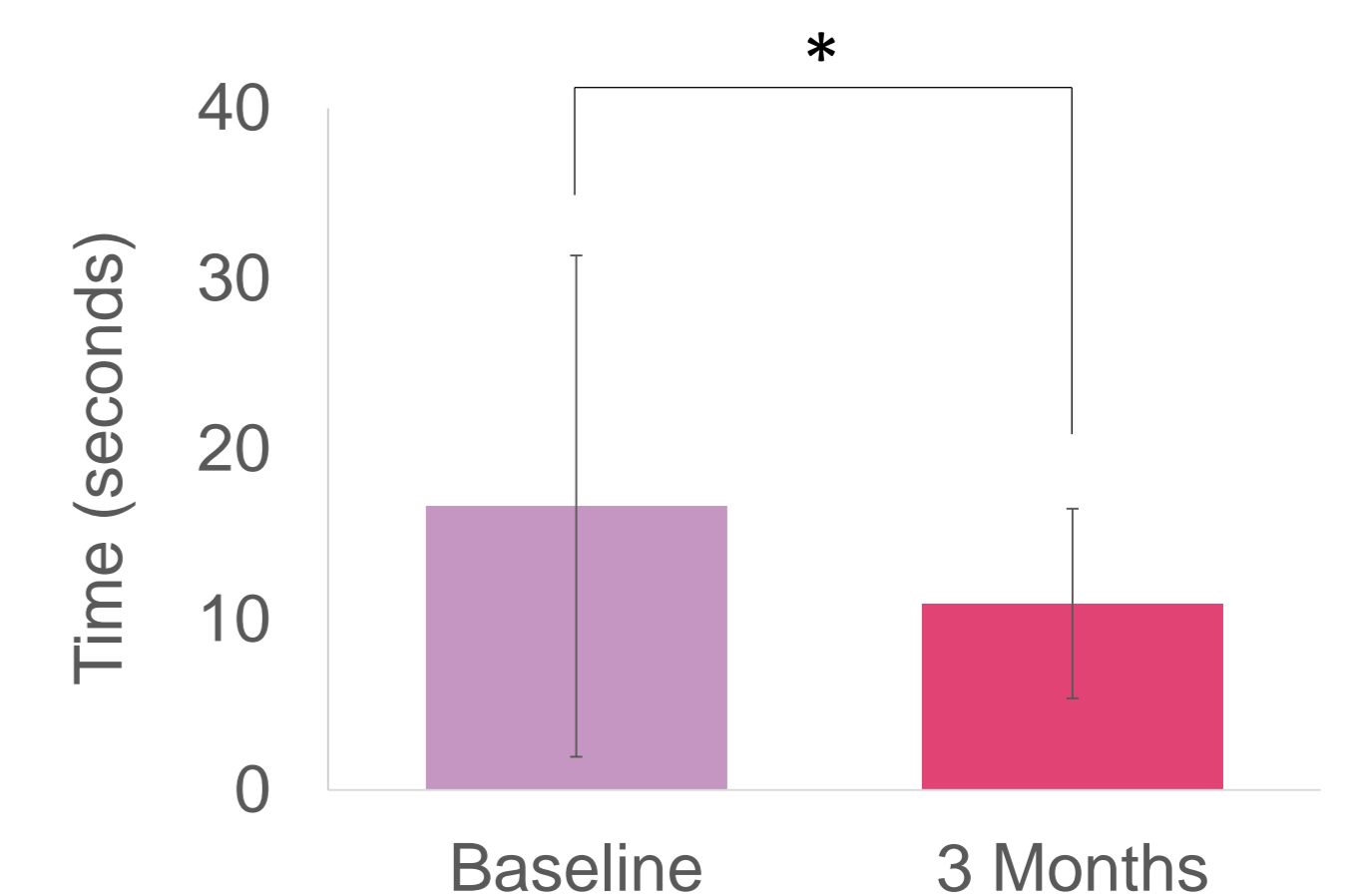


Figure 4: Mean (n=35) ± SE of TUG, measuring balance and mobility (* denotes significance at p<0.05).



- Qualitative measures at 3 months reveal participants thoughts and feelings towards the dance:

"It makes my brain work"

"I look forward to it"

"I feel more mobile on my feet"

"I find my arms and shoulders are getting more flexible"

DISCUSSION AND REFERENCES

- Results demonstrate that contemporary dance may increase weekly physical activity levels, however it is unclear whether this is occurring elsewhere apart from participation in dance sessions. Subjective well-being and mobility and balance also showed significant improvements. Fear of falling, life satisfaction and happiness improved but did not reach significance. Qualitative data support these indications by reflecting themes of improved flexibility, mobility and mood.
- The improvement in physical and psychological well-being may result in reduced incidence of health conditions associated with sedentary behaviour amongst older adults, consequently reducing health and social care pressures and costs.
- So far the results are very positive and we hope that the on-going recruitment of participants and follow-up data collection will allow these improvements to further develop. We are also aiming to secure further funding for 2020 onwards to sustain Dance On groups.

[1] Office for National Statistics. 2016. *National Population Projections: 2016-based statistical bulletin*. [Online]. [Accessed 12 July]. Available from: <https://bit.ly/2rk1VEh>

[2] Intiso, D., Di Rienzo, F., Russo, M., Paziienza, L., Tolfa, M., Iarossi, A., and Maruzzi, G. 2012. Rehabilitation strategy in the elderly. *Journal of Nephrology*, 25(19), pp.90-95.

[3] Aucella, F., Valente, G. L., and Catizone, L. 2014. The role of physical activity in the CKD setting. *Kidney blood press research*, 39(2), pp. 97-106