

Implementing a Group Motivational Intervention to Enhance Physical Activity Motivation in Adults Undergoing Treatment for Alcohol and Other Drugs

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Introduction: Preliminary research suggests that physical activity (PA) may offer health benefits for individuals undergoing Alcohol and other Drugs (AOD) treatment [1,2]. However, challenges such as high relapse rates [3], low adherence rates [4], and the presence of considerable comorbidity [5–7] hinder the integration and sustenance of PA interventions within AOD settings [8]. Above that, motivation for PA emerges as a crucial factor potentially limiting the efficacy of existing PA interventions [9,10]. The present study addresses this issue of PA motivation in an AOD context by implementing a group motivational intervention that was specifically co-designed to foster PA motivation and PA maintenance.

Methods: We conducted an N-of-1 study to examine the effects of a motivational intervention in a cohort of $n = 17$ residents of an AOD treatment facility in Western Australia. The study encompassed a 6-week baseline period followed by a 10-week intervention phase. During the intervention phase, participants received a motivational intervention comprising weekly group counselling sessions. Ecological momentary assessment was utilised to collect daily data on PA motivation, affect, and substance use cravings. Meanwhile, Fitbits were used to track daily step counts and active minutes. After the intervention phase, semi-structured interviews were conducted to assess its feasibility and acceptability.

Results: Preliminary results show that participants maintained 11,934 steps per day on average, with 11,591 steps per day in the baseline phase and 12,176 steps during the intervention phase. Overall attendance for the motivational group sessions was 84% across the 10 weeks of the intervention phase.

Discussions and Conclusions: The findings of this study may guide the adaptation of larger randomised studies across facilities and treatment contexts to examine the efficacy of this motivational intervention. The broader implementation of the motivational intervention could facilitate the extrapolation of preliminary positive effects of PA interventions in individuals with AOD issues.

Implications for Practice or Policy: If broader implementation and uptake occurs, PA interventions may help reducing risks of chronic diseases like cardiovascular disease or type

2 diabetes among people with AOD issues [7]. This could result in enhanced quality of life and reduced healthcare expenditures.

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References

- [1] Hallgren M, Vancampfort D, Giesen ES, Lundin A, Stubbs B. Exercise as treatment for alcohol use disorders: Systematic review and meta-analysis. *Br J Sports Med*. 2017;51(14):1058–64.
- [2] Giesen ES, Deimel H, Bloch W. Clinical exercise interventions in alcohol use disorders: A systematic review. *J Subst Abuse Treat*. 2015;52:1–9.
- [3] Bradizza CM, Stasiewicz PR, Paas ND. Relapse to alcohol and drug use among individuals diagnosed with co-occurring mental health and substance use disorders: A review. *Clin Psychol Rev*. 2006;26(2):162–78.
- [4] Brorson HH, Arnevik EA, Rand-Hendriksen K, Duckert F. Drop-out from addiction treatment: A systematic review of risk factors. *Clin Psychol Rev*. 2013 Dec;33(8):1010–24.
- [5] Kingston REF, Marel C, Mills KL. A systematic review of the prevalence of comorbid mental health disorders in people presenting for substance use treatment in Australia. *Drug Alcohol Rev*. 2017;36(4):527–39.
- [6] Wu LT, Blazer DG. Substance use disorders and psychiatric comorbidity in mid and later life: a review. *Int J Epidemiol*. 2014 Apr;43(2):304–17.
- [7] Ingram I, Deane FP, Baker AL, Townsend CJ, Collins CE, Callister R, et al. The health of people attending residential treatment for alcohol and other drug use: Prevalence of and risks for major lifestyle diseases. *Drug Alcohol Rev*. 2023;42(7):1723–32.
- [8] Thompson TP, Horrell J, Taylor AH, Wanner A, Husk K, Wei Y, et al. Physical activity and the prevention, reduction, and treatment of alcohol and other drug use across the lifespan (The PHASE review): A systematic review. *Ment Health Phys Act*. 2020;19(February):100360.
- [9] Thal SB, Maunz LA, Quested E, Bright SJ, Myers B, Ntoumanis N. Behavior change techniques in physical activity interventions for adults with substance use disorders: A systematic review. *Psychol Addict Behav*. 2023;37:416–33.
- [10] Abrantes AM, Blevins CE. Exercise in the context of substance use treatment: key issues and future directions. *Curr Opin Psychol*. 2019;30:103–8.