Sleep, sweat, and sobriety: a qualitative exploration of how physical activity influences sleep during substance use disorder recovery

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Introduction: Sleep disturbances are common among individuals with substance use disorders (SUDs), can persist beyond treatment, and increase relapse risk while worsening co-occurring mental health conditions [1,2]. Physical activity (PA) improves sleep in general populations [3], with emerging evidence suggesting similar benefits in SUD recovery [4]. However, no study has qualitatively explored how people in recovery and clinicians perceive the PA–sleep relationship. As part of a mixed-methods investigation examining daily PA–sleep associations in SUD recovery [5], this study explored these perspectives to inform the design of tailored interventions.

Methods: Semi-structured interviews were conducted with 21 people with lived experience (PWLE) of SUD treatment and/or recovery at varying recovery stages and 15 stakeholders (clinicians and managers) from residential treatment facilities in Perth, Western Australia. Interviews explored experiences of sleep during recovery, perceptions of how PA influences sleep quality, and preferences for sleep interventions. Interviews were transcribed verbatim and analysed using inductive reflexive thematic analysis [6].

Results: Five themes were generated. PWLE and stakeholders emphasised sleep's central importance for recovery, noting that poor sleep undermined mood, functioning, relationships, and relapse prevention, while good sleep supported recovery engagement. PA was predominantly perceived as beneficial for sleep, particularly through improved sleep onset, fewer awakenings, and enhanced sleep quality, although effects varied by activity type, timing, and intensity. Participants endorsed structured PA programs, relaxation techniques, psychoeducation, routine-building, goal setting, and device-supported monitoring as desirable intervention components.

Discussions and Conclusions: These findings provide novel qualitative evidence that PA is perceived as beneficial for sleep during SUD recovery, complementing quantitative research [4,5]. The convergence of PWLE and stakeholder perspectives highlights demand for sleep-focused interventions integrating PA alongside psychoeducation and behavioural strategies.

Implications on communities, practice, policy and/or First Nations communities: Findings suggest that integrating structured PA and sleep hygiene into SUD treatment is desired by and acceptable to both clients and clinicians, and can inform the development of tailored, person-centred sleep interventions in residential and community-based recovery settings.

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