Latent profile analysis using cross-sectional observational data to identify psychosocial health profiles and associated risk of hazardous alcohol use within a cohort of community-dwelling adults aged 50-70 years in Southeast Melbourne, Australia.

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Introduction

Social isolation and loneliness are associated with increased substance use, and mental health may play a role in mediating this relationship. Older adults are disproportionately affected by poor social health and mental health challenges, yet limited research has examined how these factors intersect to influence hazardous alcohol consumption.

Methods

Data were collected between September 2023 and July 2024 from participants aged 50–70 residing in southeast Melbourne. Psychosocial profiles were derived from validated measures of loneliness (UCLA-LS), social interaction and satisfaction (DSSI), symptoms of anxiety and depression (GAD-7 and PHQ-9). Risk of hazardous alcohol use was assessed using the AUDIT-C. LPA was employed to identify distinct psychosocial profiles, and a three-step method was used to assess predictors of profile membership and hazardous alcohol use outcomes.

Key Findings

Four profiles emerged: 1) "low social connection, good mental health"; 2) "low social connection, poor mental health"; 3) "high social connection, good mental health;" and 4) "high social connection, poor mental health". People who were younger (β=-0.11, $p<0.05$), had lower educational attainment (β=-0.81, $p<0.05$), and reported recent tobacco or non-medical substance use (β=0.90, $p<0.05$ and β=1.18, $p<0.05$ respectively) were more likely to

belong to the profile “low social connection, poor mental health” than “high social connection, good mental health”. Probability of hazardous alcohol consumption was highest in the profile “high social connection, poor mental health” (0.20).

Conclusions

Latent profiles of psychosocial health were significantly associated with significant differences in alcohol consumption, with the profile “high social health, poor mental health” having the highest probability of hazardous alcohol consumption.

Implications on communities, practice, policy

The identification of distinct psychosocial profiles offers policy makers actionable insight into high-risk subgroups, informing the design of targeted, age-responsive policies and services that promote mental and social wellbeing.

Disclosure of Interest Statement

No relevant competing interests.