

# LATENT CLASS PROFILES OF SOCIOECONOMIC STATUS AND ASSOCIATIONS WITH ALCOHOL USE AMONG INDIVIDUALS WITH A MENTAL HEALTH PROBLEM

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# BACKGROUND

Research has shown that alcohol and mental health problems co-occur (Puddephatt et al., 2021; Grant et al., 2015; Lai et al., 2015)

Low socioeconomic status (SES) has been shown to be associated with experiencing alcohol harms (Katikireddi et al., 2017) and poor mental health (Goodwin et al., 2018)

- Research tends to examine SES with alcohol use and mental health separately, and using one or two indicators of SES

SES can be defined by a range of aspects, including an individual's occupation, education and housing tenure

- Research has combined multiple indicators to develop a more wholistic understanding of an individual's SES (Boniface et al., 2020; Goodwin et al., 2018)

# AIMS

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1. To define latent class profiles of SES among individuals meeting criteria for a mental health problem

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2. To determine how the odds of alcohol use categories differ across SES profiles among those with a mental health problem

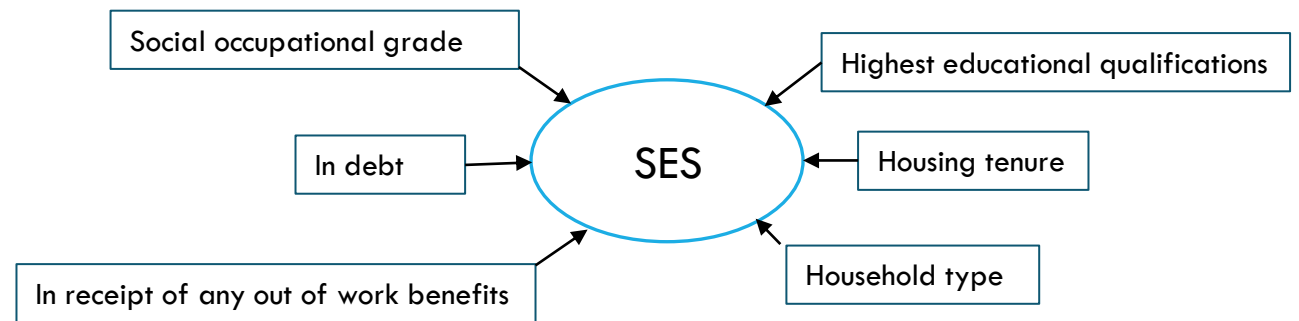
# METHODS

## Data

2014 Adult Psychiatric Morbidity Survey (APMS). Data was then restricted to individuals meeting criteria for any mental health problem (N=1,463)

## Measures of SES

- Six indicators measuring different aspects of SES



## Measures of alcohol use

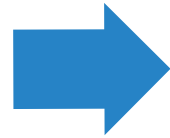
Two screening questions and the Alcohol Use Disorder Identification Test (AUDIT)

1. Non-drinker (answering “no” to screening questions and AUDIT score of 0)
2. Low-risk drinker (AUDIT score of 1-7)
3. Hazardous drinker (AUDIT score of 8-15)
4. Harmful/probable dependent drinker (AUDIT score of 16+)

# ANALYSIS

## 1. Latent class analysis of SES

- Using six indicators of SES
- Running a one-class up to six-class model until the model could no longer be replicated



## 2. Determine best-fitting model

- Lowest AIC, BIC, SSABIC values
- Highest entropy value (Ramaswany et al., 1993)



## 3. Multinomial logistic regression models to examine associations between SES and alcohol use

- Low-risk drinker as the reference category for alcohol use
- High SES as the reference category for SES
- Data weighted to account for complex survey design

# RESULTS: LATENT CLASS ANALYSIS

Table 1: Model fit from one to six-class model

Fit indices	One-class	Two-class	Three-class	Four-class	Five-class	Six-class
Model replicated	NA	Yes	Yes	Yes	Yes	No
Loglikelihood	-8940.511	-8433.465	-8241.634	-8103.776	-8035.702	-8004.882
No of parameters	15	31	47	63	79	95
LMR-LRT	NA	1004.250	380.401	273.371	134.99	61.117
AIC	17911.022	16928.930	16577.267	16333.552	16229.405	16199.764
BIC	17990.346	17092.866	16825.815	16666.711	16647.176	16702.147
SSABIC	17942.695	16994.389	16676.511	16466.580	16396.218	16400.362
Entropy	NA	0.772	0.888	0.813	0.772	0.764

# RESULTS: CLASS DESCRIPTION OF FOUR CLASS MODEL

## Class one: “Economically inactive, social renters” (N=361, 21.31%)

- Demographic characteristics
  - 51% are male
  - 78% aged under 54
  - 54% are single
- SES characteristics
  - 79% are not working or have not worked in the past year
  - 46% are educated to A-Level/GCSE level and 44% have no qualifications
  - 64% are social renters

## Class two: “Routine/intermediate occupations, mixed owner/renters” (N=537, 47.83%)

- Demographic characteristics
  - 51% are male
  - 90% aged under 54
  - 57% are single
- SES characteristics
  - 66% are in routine or intermediate occupations
  - 70% are educated to A-Level/GCSE level
  - 50% are homeowners, 28% private renters, 22% social renters

## Class three: “Retired, homeowners” (N=250, 11.91%)

- Demographic characteristics
  - 62% are female
  - 97% aged over 54
  - 56% are married or in a civil partnership
- SES characteristics
  - 90% are retired
  - 46% have no qualifications, 24% are educated to A-Level/GCSE Level
  - 71% are homeowners

## Class four: “Professional occupations, homeowners” (N=315, 18.95%)

- Demographic characteristics
  - 51% are male
  - 85% aged under 54
  - 48% are married or in a civil partnership
- SES characteristics
  - 83% are in managerial/professional occupations
  - 71% are educated to degree level
  - 68% are homeowners

# RESULTS: ASSOCIATIONS WITH ALCOHOL USE

## Non-drinker

- “Economically inactive, social renters”: **Five times more likely** to be a non-drinker (OR=4.98, 95% CI=3.03-8.21)
- “Routine/intermediate occupations, mixed owner/renters”: **Twice as likely** to be a non-drinker (OR=2.39, 95% CI=1.48-3.87)
- “Retired, homeowners”: **Four times more likely** to be a non-drinker (OR=3.98, 95% CI=2.39-6.63)

## Hazardous drinker

- “Economically inactive, social renters”: No association with being a hazardous drinker
- “Routine/intermediate occupations, mixed owner/renters”: No association with being a hazardous drinker
- “Retired, homeowners”: **Less likely** to be a hazardous drinker, (OR=0.48, 95% CI=0.27-0.85)

## Harmful/probable dependent drinker

- No associations were found between SES and being a harmful/probable dependent drinker



# IMPLICATIONS

- Individuals with a mental health problem are likely to present from a range of SES backgrounds
- Compared to “professional occupations, homeowners”, individuals assigned to other SES classes are more likely to be a non-drinker, with odds highest among those assigned to “economically inactive, social renters”
  - This may be due to a number of reasons, such as being a previous heavy drinker, being on medication
- Among individuals with a mental health problem, SES is not necessarily associated with drinking at levels which may be harmful to health
- Compared to “professional occupations, homeowners”, individuals assigned to other SES classes was not associated with harmful/probable dependent drinking
  - This may be due to a number of reasons, such as the prevalence of common and severe mental health problems across each SES class (Puddephatt et al., 2021), dimensions of the AUDIT (Beard et al., 2016)

# NEXT STEPS

To explore the role of other contextual factors which may mediate the relationship between SES and alcohol use

- Social support (Cohen & Wills, 1985; Haverfield et al., 2019)
- Neighbourhood disadvantage (Karriker-Jaffe et al., 2011; McElroy et al., 2019)



**THANK YOU**

**ANY QUESTIONS?**

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