A latent class analysis of perceived barriers to accessing treatment for alcohol problems

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Objective

- There is a profound unmet treatment need for alcohol use disorders. Some individuals do not seek alcohol treatment due to perceived barriers to treatment. However, the heterogeneity of perceived treatment barriers among a national sample of adults is unknown.

Objectives:

1) **Identify subgroups of treatment-naïve adults with an alcohol use disorder with respect to perceived barriers to alcohol treatment**
2) **Identify factors associated with class membership**

Background

National surveys indicates that <10% of individuals with a lifetime AUD have ever received treatment.

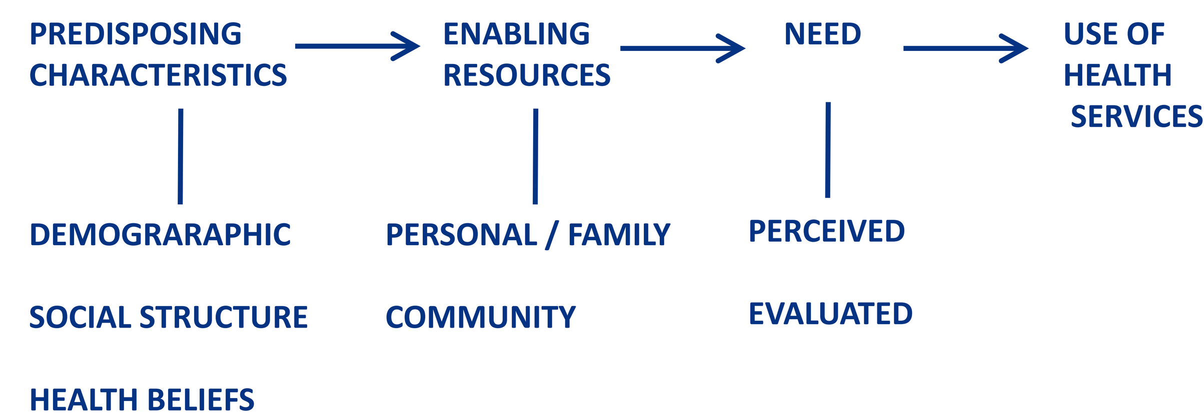
- Alcohol use disorders are characterized by a low occurrence of treatment seeking -- this unmet treatment need has profoundly negative public health, societal and economic impacts

- Previous studies have found the following factors to be associated with alcohol (and substance use) treatment seeking:
  - Higher income and education levels consistently associated with less treatment seeking
  - Being uninsured and being married are both associated with less treatment seeking
  - Mixed findings with regard to gender, age, race/ethnicity

Barriers to alcohol treatment

- Perceived need is strongly associated with treatment seeking – one of most proximal predictors

Figure 1. Andersen's original behavioral model of health services use



- Factors associated with perceived alcohol treatment need:
  - Greater alcohol disorder severity
  - Greater alcohol-related consequences
  - Comorbid psychiatric conditions
  - Family history of alcohol problems

Even when individuals perceive a need for treatment, they may face barriers that hinder them from seeking treatment.

- There are different genres of barriers to alcohol treatment, each with different remedies
  - Financial / Structural
  - Attitudinal / Readiness for Change
  - Perceived Stigma

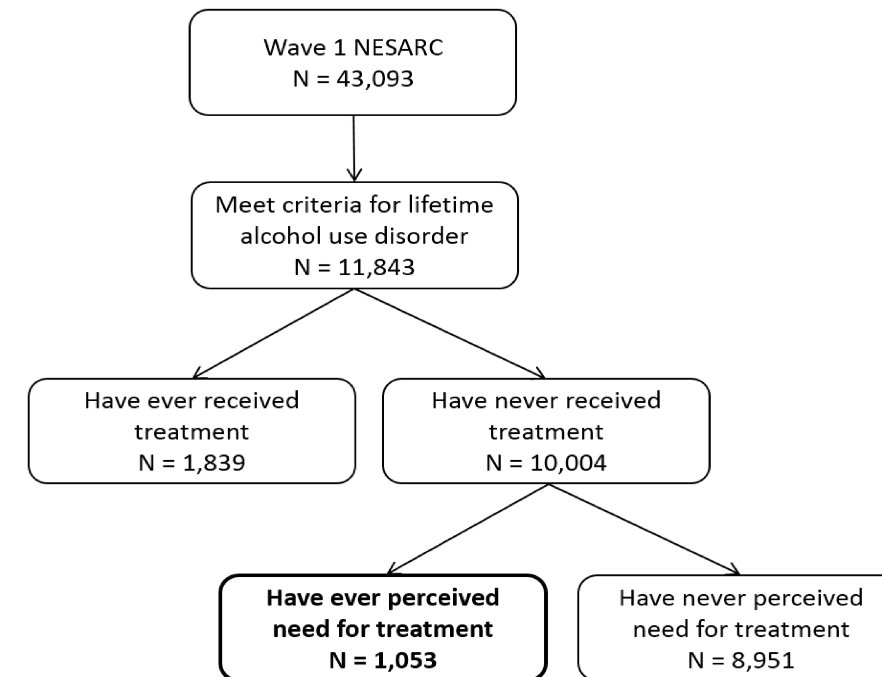
- **However, the heterogeneity of perceived barriers to alcohol treatment is not well understood. This study seeks to describe subgroups of adults with respect to perceived barriers, and identify predictors of group membership**

Study sample

Analysis was restricted to adults ages 18+ who:

- Met lifetime criteria for an alcohol use disorder

  AND
- Reported a perceived need for treatment of alcohol problems yet did not obtain treatment



Approximately 90% of treatment naïve individuals with a lifetime AUD do not perceive a treatment need

Table 1. Descriptive statistics of study sample

Variable	*N*	*%*
Age		
18-29	164	15.6%
30-49	556	52.8%
50+	333	31.6%
Male	681	64.7%
Race / Ethnicity		
White	663	63.0%
Black	172	16.3%
Hispanic	153	14.5%
Other	65	6.2%
Living with Partner	466	44.3%
Education		
< High School	198	18.8%
High School	327	31.1%
> High School	528	50.1%
Household Income		
<15,000	232	22.0%
15,000-29,999	251	23.8%
30,000-59,999	323	30.7%
60,000+	247	23.5%
Insurance Status		
Private	516	49.0%
Public (Medicare, Medicaid, VA)	284	27.0%
None	253	24.0%
Lifetime Alcohol Disorder		
Abuse only	195	18.5%
Dependence (with or without Abuse)	858	81.5%
Mother was a problem drinker	225	21.4%
Father was a problem drinker	547	51.9%
Lifetime non-alcohol substance use disorder	535	50.8%
Lifetime mood disorder	609	57.8%
Lifetime anxiety disorder	411	39.0%

Statistical methods

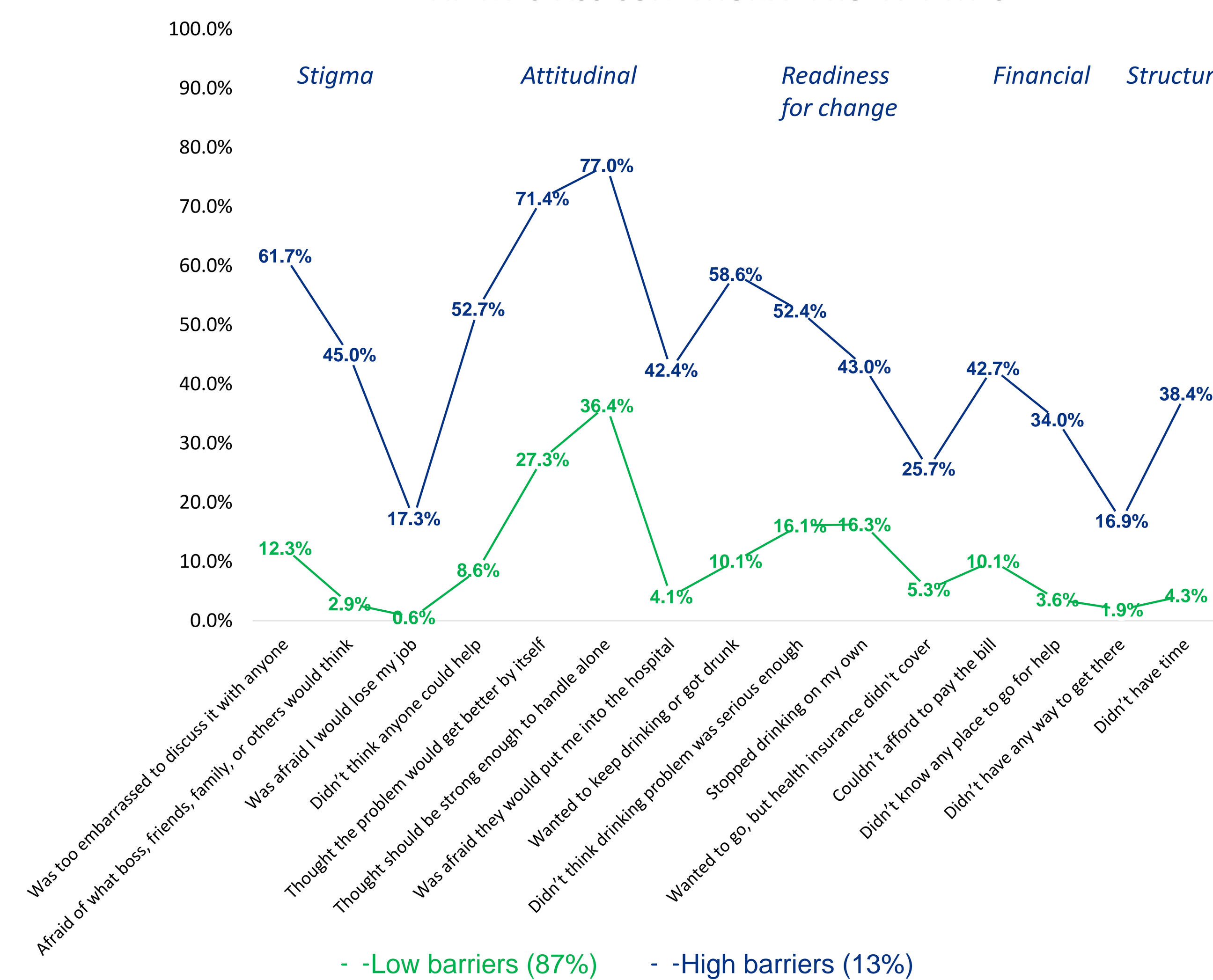
- **Latent class analysis:** performed on 15 items regarding specific treatment barriers
  - Fit statistics: AIC, BIC, adjusted BIC, entropy
  - Sensitivity analysis performed by fitting latent classes based on original 27 items and subgroup of 20 items: results highly similar
- **Latent class regression:** examined relationship between class membership and demographics, alcohol disorder-related factors, mental health disorders
  - First conducted univariate regressions – covariates significant at 0.20 level were retained for final multivariate regression
- Analyses conducted in Mplus v7

Latent class analysis results

Table 2. Prevalence of perceived treatment barriers among 1,053 treatment-naïve individuals with a lifetime AUD. Question stem for Perceived Barrier items was "I did not seek help because…"

Perceived barriers (Latent class indicators)	*N*	*%*
Stigma		
Was too embarrassed to discuss it with anyone	200	19.0%
Afraid of what boss, friends, family, or others would think	94	8.9%
Was afraid I would lose my job	31	2.9%
Attitudinal		
Didn't think anyone could help	157	14.9%
Thought the problem would get better by itself	343	32.6%
Thought should be strong enough to handle alone	428	40.6%
Was afraid they would put me into the hospital	83	7.9%
Readiness for change		
Wanted to keep drinking or got drunk	171	16.2%
Didn't think drinking problem was serious enough	205	19.5%
Stopped drinking on my own	198	18.8%
Financial		
Wanted to go, but health insurance didn't cover	88	8.4%
Couldn't afford to pay the bill	148	14.1%
Structural		
Didn't know any place to go for help	78	7.4%
Didn't have any way to get there	45	4.3%
Didn't have time	90	8.5%

Attitudinal barriers were most common, specifically belief that "I should be strong enough to handle it alone."



We identified 2 distinct subgroups: the Low Barriers class reported few barriers (primarily attitudinal), whereas the High Barriers class faced notable barriers across domains, with attitudinal barriers being the most prevalent

- **High Barriers class** (12%): faced notable barriers across all domains; most common were attitudinal, stigma-related, and readiness for change

- **Low Barriers class** (88%): low prevalence of perceived barriers across all 5 categories; most common were attitudinal

- Classes have similar relative frequencies, yet different absolute frequencies of barriers

Latent class regression results

Table 3. Latent class regression: Odds of high barriers class membership, relative to the low barriers class. OR reflects unadjusted (univariate) associations; AOR reflects adjusted (multivariate) associations.

	High barriers class			
Covariates	OR	95% CI	AOR	95% CI
Demographics				
Age				
18-29	1.7†	0.8-3.9	1.1	0.4-3.2
30-49	0.8	0.5-1.5	0.7	0.3-1.4
50+	*ref.*		*ref.*	
Male	0.6†	0.4-1.1	1.1	0.6-2.2
Race/Ethnicity				
White	*ref.*			
Black	0.7	0.3-1.8		
Hispanic	0.9	0.4-1.9		
Other	0.9	0.3-2.2		
Living with partner	0.7	0.4-1.2		
Education				
< High school	*ref.*		*ref.*	
High school	1.6	0.7-3.6	1.9	0.7-5.4
> High school	2.0†	0.8-4.7	2.7**	1.1-6.7
Household income				
<15,000	1.7†	0.8-4.0	2.07*	0.9-4.6
15,000-29,999	1.5	0.7-3.5	1.5	0.6-3.2
30,000-59,999	1.7	0.8-3.7	1.6	0.7-3.8
60,000+	*ref.*		*ref.*	
Insurance				
None	1.1	0.5-2.1		
Public	1.3	0.7-2.4		
Private	*ref.*			
Alcohol risk & severity				
Lifetime alcohol disorder				
Abuse only	*ref.*		*ref.*	
Dependence (with or without abuse)	2.6**	1.2-5.9	1.5	0.6-4.0
Mother was a problem drinker	1.9**	1.1-3.2	1.8*	1.0-3.3
Father was a problem drinker	1.6*	1.0-2.8	1.2	0.7-2.0
Comorbid psychiatric conditions				
Lifetime (non-alcohol) substance disorder	2.1**	1.1-4.0	1.7	0.8-3.4
Lifetime mood disorder	2.4**	1.2-4.7	1.8	0.8-4.0
Lifetime anxiety disorder	2.8**	1.6-5.0	1.9**	1.1-3.5

† $p < .20$, * $p < .10$, and ** $p < .05$

Comorbid anxiety disorder, higher education were significantly associated with High Barriers class membership. Maternal alcohol problems and low income were associated with High Barriers class at the trend level.

Discussion

- Not perceiving a need for treatment is a primary hurdle to treatment. Of those who do perceive a need, only a minority seek treatment

- Among those with perceived barriers to treatment, attitudinal barriers are most common, yet there is important heterogeneity
  - We identified 2 distinct classes: the Low Barriers class, who reported several attitudinal barriers but low prevalence of barriers in other domains, and the High Barriers class, who reported a robust set of barriers across domains, with attitudinal barriers most common

- Either lack of perceived need or attitudinal barriers may mean that individuals are unlikely to initiate or follow through on treatment

- SBIRT: Screening, Brief Intervention, & Referral to Treatment
  - Screening is crucial given that individuals are unlikely to self-identify
  - Brief Intervention: could include Motivational Interviewing, aiming to decrease attitudinal barriers
  - Referral to Treatment: linkage to longer term care

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