

Clinical Correlates of the AUDIT in an Outpatient Alcohol Treatment Population

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ABSTRACT

We evaluated the concurrent validity of “zones” of total scores for the Alcohol Use Disorders Identification Test (AUDIT) at baseline among outpatients randomized to treatment conditions in the COMBINE study. Subjects (942 males, 426 females) were categorized into one of 3 AUDIT zones (AUDIT total score = 8-15, 16-19, 20-40) and compared for differences in concurrent measures of demographics, Alcohol Dependence Scale, DrInC, OCDS, SCID alcohol dependence symptoms, GGT, % CDT, and categorical measures of physiological dependence, tolerance, and withdrawal. MANOVA and chi square indicated significant increasing linear trends across AUDIT zones. These results suggest that the AUDIT is a marker of severity of dependence in a clinical sample seeking outpatient treatment and warrants further investigation as a possible brief outcome measure, extending its potential utility beyond its current more traditional role as a screening instrument.

BACKGROUND

The Alcohol Use Disorders Identification Test (AUDIT) is widely used in various clinical settings as a screening measure for identifying individuals with hazardous and/or harmful drinking patterns. The World Health Organization has suggested 4 “zones” of AUDIT scores (0-7, 8-15, 16-19, and 20-40) reflecting increasing risk levels. However, these zones have not been empirically validated as a measure of severity in a clinical population that has been diagnosed as alcohol dependent. We evaluated the concurrent validity of the AUDIT zones among participants in the COMBINE study, a multisite outpatient trial evaluating the efficacy of combining pharmacotherapies and behavioral interventions for alcohol dependence.

METHODS

- AUDIT was completed during brief telephone screening

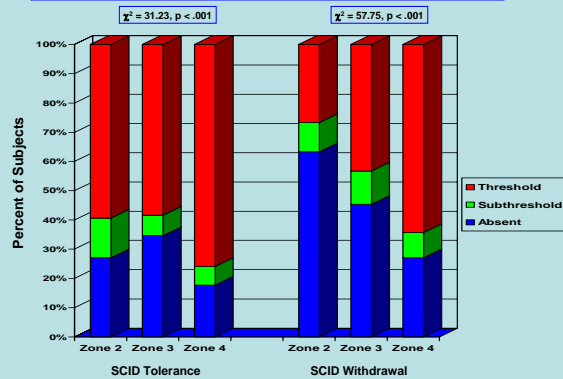
Baseline Battery

- Alcohol Dependence Scale (ADS)
- Drinkers' Inventory of Consequences (DrInC)
- Obsessive-Compulsive Drinking Scale (OCD)
- Structured Clinical Interview for DSMIV Disorders (SCID) (total symptoms, tolerance, withdrawal, or physiological dependence)
- % Carbohydrate deficient Transferrin (% CDT)
- Gamma Glutamyltransferase (GGT)

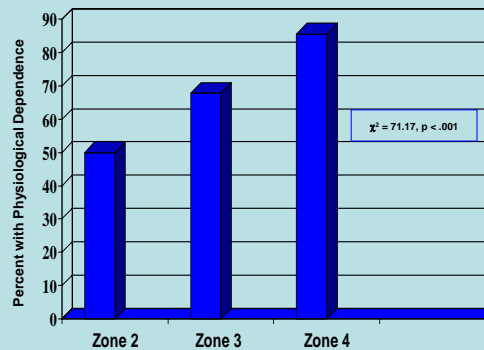
Sample Characteristics

- Excluded: 2 participants with AUDIT < 8
- Participants (942 males, 426 females)
- Gender: 69.0% Male
- Age: M = 44.5
- Years of Education: M = 14.5
- Ethnicity: Non-Hispanic White (76.8%)
- Alcohol Problem Duration M = 13.8 Years
- Prior Treatment for Alcohol Problem: 49.3%

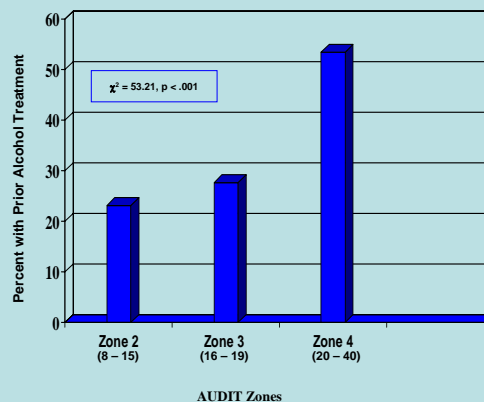
Percent of Subjects within Each AUDIT Zone Positive for Tolerance or Withdrawal



Percent of Subjects Within Each AUDIT Zone Positive for Physiological Dependence



Percent of Subjects Within Each AUDIT Zone with Any Prior Alcohol Treatment



RESULTS

Demographics

- Zone 4 subjects significantly younger and less well educated
- No differences across zones in minority status or gender
- Zone 4 subjects less likely to be employed full time or to be in higher income brackets

Dependence-Related Variables

- Zone 4 subjects more likely to experience physiological dependence, tolerance, and withdrawal
- Zone 4 subjects significantly more likely to have prior treatment for alcohol problems

Multivariate Analyses of Clinically Relevant Variables

- Significant overall multivariate difference across zones
- This multivariate difference remains even when age is entered as a covariate

Comparison of AUDIT Zones on Drinking-Related Variables

Variable	AUDIT Total r	Zone 2 (8-15) N = 65	Zone 3 (16-19) N = 144	Zone 4 (20-40) N = 1159	F
DrInC	.57	28.2	31.4	50.7	83.6 ¹
ADS	.59	8.9	11.7	17.7	73.3 ¹
SCID Alcohol Dependence Sx	.43	4.0	4.4	5.3	64.8 ¹
CIWA-Ar	.16	1.3	1.3	2.0	8.2 ¹
OCDS	.41	19.4	22.2	27.6	49.7 ¹
%CDT	.11	2.7	3.3	3.5	4.2 ²
GGT	.09	62.0	55.4	77.9	1.9

Multivariate F = 16.73, df = 14/2320, p < .0001

¹ p < .001

² p < .025

Differences in colors reflect significant pairwise differences

Study Limitations

- Selection bias based on inclusion/exclusion criteria for efficacy trial
- All measures cross-sectional
- No evaluation of the reliability of clinical diagnosis based on SCID

SUMMARY

- Increasing scores on the AUDIT, as reflected in the zones suggested by the WHO, are associated with higher rates of physiological dependence, tolerance, withdrawal, and prior treatment for alcohol problems
- AUDIT Zones 2 through 4 are linearly associated with severity of dependence, negative consequences, craving, and lab markers of recent drinking (%CDT)
- These results suggest that the AUDIT may serve as a marker of alcohol dependence and severity of dependence, extending its potential utility beyond its current more traditional role as a screening instrument
- Future research should test empirically derived and gender-specific cutpoints for clinically meaningful “zones” and investigate the sensitivity to change of the AUDIT score as a brief outcome measure

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