

# Binge Drinking: The Five/Four Measure

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- In December 1994 *Wechsler et al.* published a report on behalf of the Harvard Public School of Health on binge drinking by American Students
- In this paper (The 5/4 Measure) the authors clarify some points made in the Report and respond to comments and criticisms raised since publication of Report.

1. Definition of binge drinking = five or more drinks in a row for men and four or more for women at least once during the 2 weeks preceding the survey.

Drink =  $\frac{1}{2}$  oz. of absolute alcohol i.e.

- one 12-oz. beer
- one 5-oz glass of wine
- one 1.5-oz. shot of spirits

## Remarks/Criticisms

A. Wechsler et al chose an arbitrary definition and idiosyncratic definition of 'binge', since the term classically means extended drinking bout of 2 days or more associated with 'alcoholic drinking'

B. Amounts are too small to qualify for truly problematic drinking

## Remarks/Criticism:

A. "Binge" is misleading since the classical definition of 'binge' = extended bout of drinking (minimum 2 days) associated with alcoholic drinking

## Wechsler's Response:

- clinicians did not invent the term binge
- Clinicians' definition of an alcoholic binge is not the only, nor the most commonly used, one
  - 'Binge' carries no requirement that the behavior be carried out over such a long period of time. (eg " eating 'binge' in DSM-IV)
  - Dictionary definitions of 'binge' as a "drunken celebration" or "excessive indulgence," splurge," with no duration prerequisite
- Term *has* been used before to tentatively refer to five drinks [O'Malley et al. (1984)]

## Remarks/Criticism

B. Amounts are too low to qualify as benchmark for drinking with social consequences.

## Wechsler's Response:

- Some previous studies considered the 5 –drink threshold as meaningful in terms of association with problems [Cahalan et al (1969), Johnston et al (1996)]
- 4-drink criterion for females is Wechsler's, but it took into account the different proportions of males/females involved in problematic behaviour at various drinking

## ...cont Wechsler's Response:

- Midanik et al. (1996) found that the risk of driving after drinking, alcohol-related employment problems and ICD-10 alcohol dependence was significantly higher for people who reported consuming five or more drinks in a row at least once in the previous year (compared to people who didn't).
- For certain consequences (eg drink-driving), pattern of drinking is more important than volume [Duncan (1977) found drink-driving related to pattern not volume]

2. Binge drinking has a significant negative impact on health and safety on America's campuses. The five/four measure of binge drinking is significantly associated with greatly increased risk of alcohol-related social consequences

**Remarks/Criticisms:**

- A.** the use of the five/four measure "problematized" drinking behavior that is common on college campuses (44%)
- B.** because it is sufficiently low to include 44% of students, it will have the unintended effect of validating those who are inclined to drink heavily

## Remarks/Criticisms:

A. The use of the five/four measure "problematized" drinking behavior that is common on college campuses (44%)

## Wechsler's Response:

- five/four measure of binge drinking to be significantly associated with greatly increased risk of alcohol-related social consequences
  - *Infrequent binge drinkers* ( 1 or 2 times) or *frequent binge drinkers* (more than 2 times) in the last year had five times and ten times greater odds, respectively, of driving after drinking when to non-binge drinkers
  - *Infrequent* and *frequent binge drinkers* had five times and 25 times greater odds, respectively, of experiencing five or more different alcohol-related problems since the start of the academic year compared to non-binge drinkers.

## ...cont Wechsler's Response:

- Nearly half (47%) of *frequent binge drinkers* experienced five or more alcohol-related problems, compared to 3% of non-binge drinkers
- 92% of the students who reported five or more alcohol-related problems in the previous year were identified by the five/four measure as *binge drinkers*.

## Remarks / Criticism

**B. Because it is sufficiently low to include 44% of students, it will have the unintended effect of validating those who are inclined to drink heavily**

### **Wechsler's Response:**

- Students already view binge drinking as normative . One study found that students regarded 9 drinks in a row as 'normal'
- Defining 'binge drinking ' out of existence will not make it go away.

# Journal of Studies on Alcohol

*binge* describes an extended period of time (typically at least two days) during which time a person repeatedly becomes intoxicated and gives up his or her usual activities and obligations in order to become intoxicated.

# National Institute on Alcohol Alcohol Abuse and Alcoholism

A binge is a pattern of drinking alcohol that brings blood alcohol concentration (BAC) to 0.08 gram per cent or above. For the typical adult this pattern corresponds to consuming 5 or more drinks (male) or 4 or more drinks (female) in about 2 hours. Binge drinking is clearly dangerous for the drinker and for society.  
(definition adopted on the 5th February 2004)

## ...cont.

- A recent Swedish study defines a binge as the consumption of half a bottle of spirits (15 units) or two bottles of wine (15-18 units) on the same occasion.
- Wechsler: 5/4 American units
- In Italy 8 drinks = normal drinking ( Farchi et al 1995. Alcohol and mortality in the Italian rural cohorts of the Seven Countries Study. *International Journal of Epidemiology*, 1995, 27(7), 74-81.

## ...cont.

- In the United Kingdom, bingeing is 'commonly' defined as consuming 11 or more drinks on an occasion.
- 1 American Standard Drink = 14 grams of absolute alcohol
- 1 British Unit = 8 grams of absolute alcohol
- 1 Italian measure = 12 grams of absolute alcohol