

Mental Health, Alcohol and Sexual Risk

Is the Whole more than the sum of its parts ?

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Causal relations
between
substance use
and sexual risk
remain unclear



What factors might influence risk in alcohol users?

- “heavy drinkers” more likely to have multiple partners compared to “non-heavy drinkers” (Shillington et al., 1995)
- alcoholics in treatment more likely to engage in risky sex than general population (Scheidt & Windle, 1996)
- persons reporting problem drinking are more likely to be infected with STD (Cook et al., 2002; Ericksen & Trocki, 1994)

Mental health as a mediating factor

- Does Psychiatric Co morbidity have anything to do with sexual risk?
 - Do personality factors have a role?
 - Does Positive mental health influence sexual risk taking?
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National Institute of Mental Health and Neurosciences, Bangalore



- ❑ 600 bedded psychiatry unit
 - ❑ 60 bedded deaddiction unit
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**1. Indo US study on HIV, SMI
and Substance use *the HIP***

(Health Improvement Project)

NIMHANS and Syracuse University, USA

NIMH RO 1 Grant # MH54929

**2. Alcohol dependence and
sexual risk**

NIMHANS funded study

Objectives of the HIP

- to determine the prevalence of HRSB among substance abusers in treatment
- to identify demographic, psychiatric, and substance use correlates of risk behavior

Carey MP, Chandra PS, Carey KB, (2003) Archives of Sexual Behaviour, 32, 339-349

Method

- Six month period
 - Eligibility Criteria:
 - **new admission**
 - **≥ 18 years of age**
 - **diagnosed with a substance use disorder**
 - **able to complete the assessment**
 - **not acutely psychotic or otherwise unable to participate**
 - **able to provide informed consent**
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Procedures

- i. AUDIT: 10 item alcohol screening measure
 - ii. DAST: drug-use related problems
 - iii. HIV Risk Measure (Gerbert et al.): 10 items
 - iv. STD symptoms: past year
 - v. Clinical Psychiatric assessment – ICD 10 Diagnosis
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Predictor Variables

- Demographic: age, education, marital status, living situation, occupation
 - Psychiatric: diagnosis, psychiatric disorder (y/n), duration, age at first hospitalization, # previous admissions
 - Substance use: cigarette, beedi, betel nut, and chewing tobacco use, AUDIT, DAST
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Criterion Variables

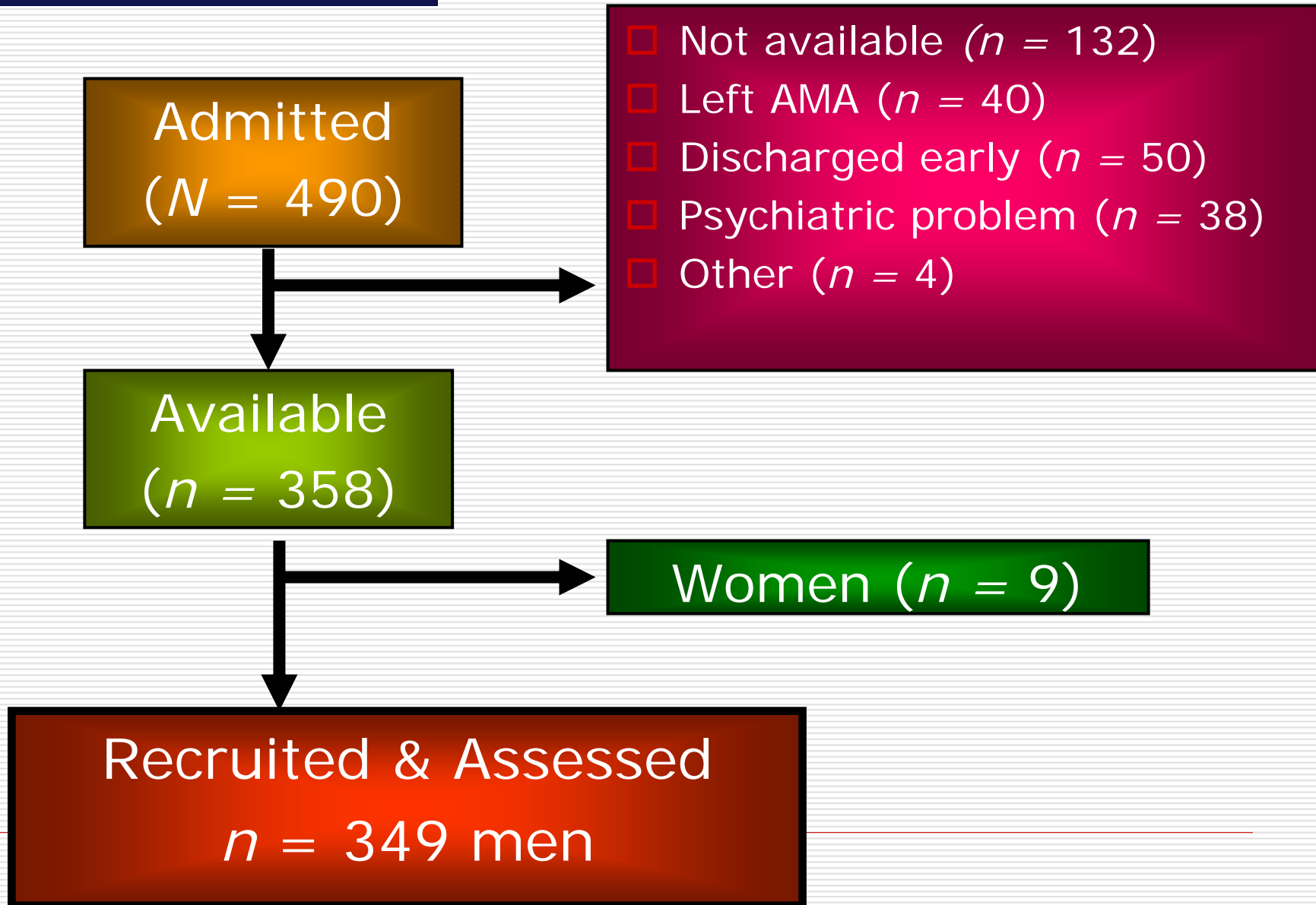
- 1. HIV risk behavior (past 10 years)**
 - 2. HIV risk behavior (past year)**
 - 3. STD symptom (past year)**
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Data Analyses

- Descriptive analyses:
 - Prevalence of sexual activity & risk behavior

 - Logistic regression modeling:
 - Identify correlates of risk behavior
 - two stages (for each criterion)*
 - **a full model, with all predictor variables**
 - **a reduced model, w/backward elimination stepwise procedure**
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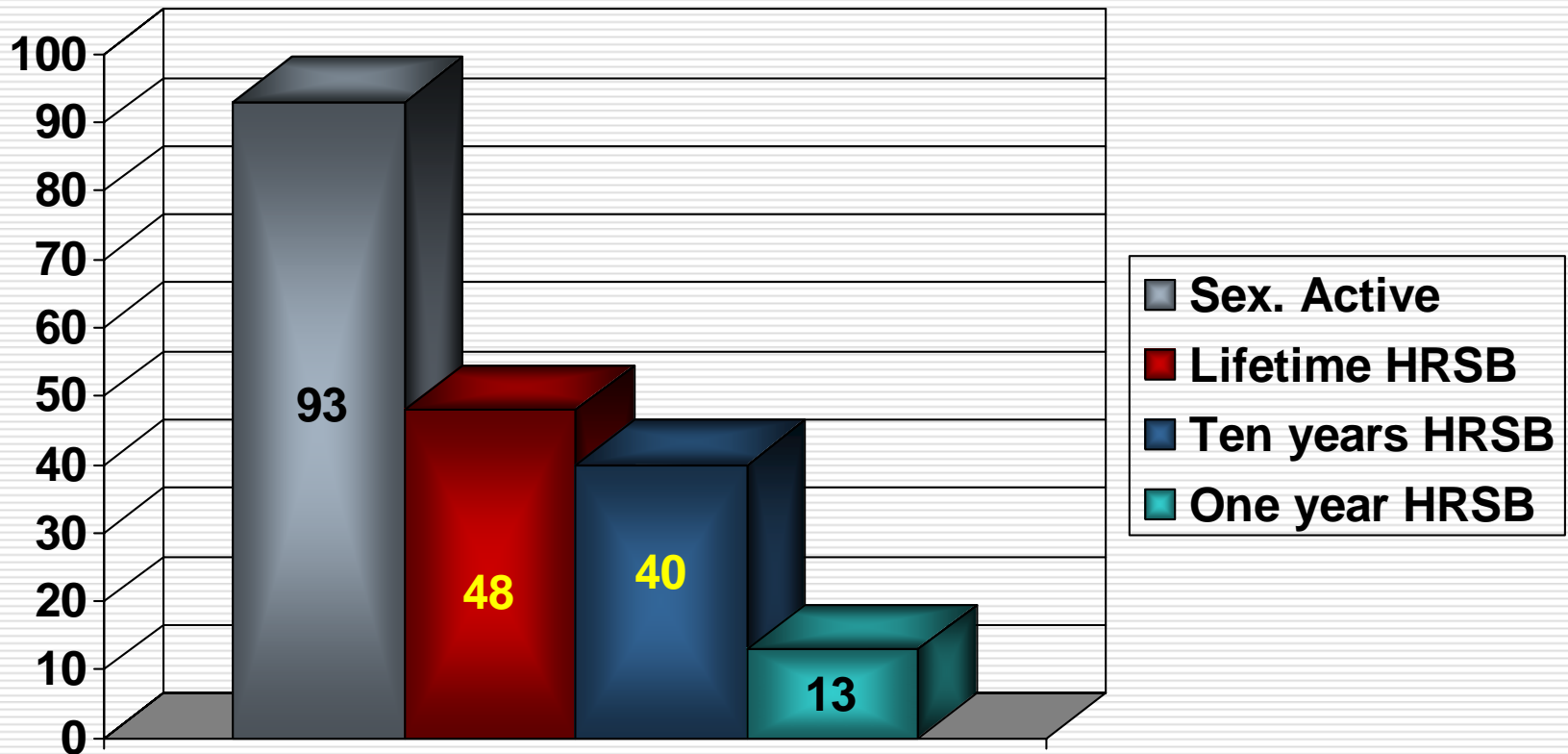
Patient Flow



Prevalence of Sexually Active and Risky Sexual Behavior ($n = 352$)

Item	1 Year %	10 Yrs %
Sexually active	78%	92%
Any risk indicator	13%	40%
Had ≥ 2 sexual partners	7%	32%

Sexual behaviour among alcohol use inpatients (n=352)



Reduced Models and Summary

Predictors of HIV Risk (past year & 10-year)

- *Co-morbid psychiatric disorder*

- *AUDIT and DAST scores*

Predictors of STD Symptoms

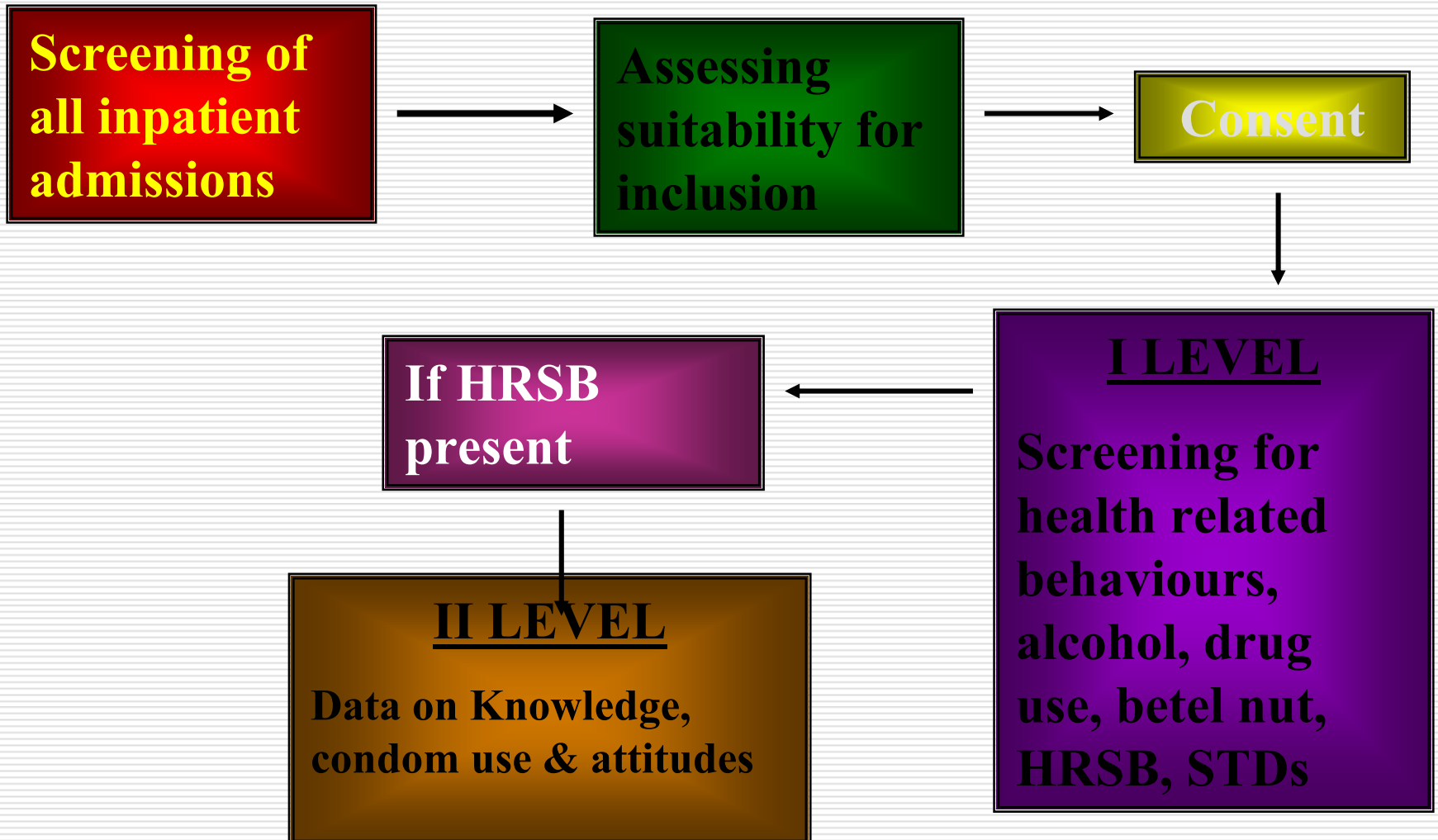
Psychiatric disorder

DAST scores

HIV Risk among men seeking treatment of substance abuse

- One-quarter of all patients tested positive for at least one STI
 - Seroprevalence rates were:
 - 12.9% for syphilis
 - 10.3% for chlamydia
 - 3.1% for Hepatitis B
 - 1.1% for HIV
 - No consistent pattern of associations between STI status and sociodemographic, **psychiatric**, and sexual behavioral characteristics
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HIV Risk Behaviour among Psychiatric Inpatients: Results from a Hospital-Wide Screening (n=618)



HIV Risk Behaviour among Psychiatric Inpatients: Results from a Hospital-Wide Screening Study in Southern India (n=618)

Life time High Risk (n=125) vs Low Risk (n=493)

Predictors of High Risk Sexual Behaviour

- Being male
- Current use of tobacco
- DAST score of more than 2
- AUDIT score of more than 8**

Chandra, Carey MP, Carey KP, et al, (2003) International Journal of STD and AIDS, 14, 532-538

STIs among Psychiatric Patients... contd

HIV : 2%,

- ❑ Chlamydia : 10%
 - ❑ Hepatitis B : 3%
 - ❑ Syphilis : 3%
 - ❑ At least one infection : 15%
 - ❑ No consistent associations between infection status and patient characteristics, including age, gender, psychiatric diagnosis
 - ❑ Lifetime STIs associated with high AUDIT score of more than 8
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How do Mental Health Problems increase sexual risk?

- ❑ Severe Mental Illness
 - ❑ Personality Problems
 - ❑ Poor negotiation, problem solving
 - ❑ Drinking as coping
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Psychiatric Illness – Risk Behavior Link

Possible Mechanisms:

Mental illnesses may increase risk because patients:

- **confused or misinformed about HIV**
- **poorly motivated to adopt risk reduction strategies**
- **lack the interpersonal & social skills to negotiate for safer sex**
- **social networks riskier**
- **unable to work, homeless**
- **disease sequelae emerge in early adulthood when sexual activity peaks**

Sensation Seeking as a trait and sexual risk

- A comparison of men with alcohol dependence with and without sexual risk (n = 100)

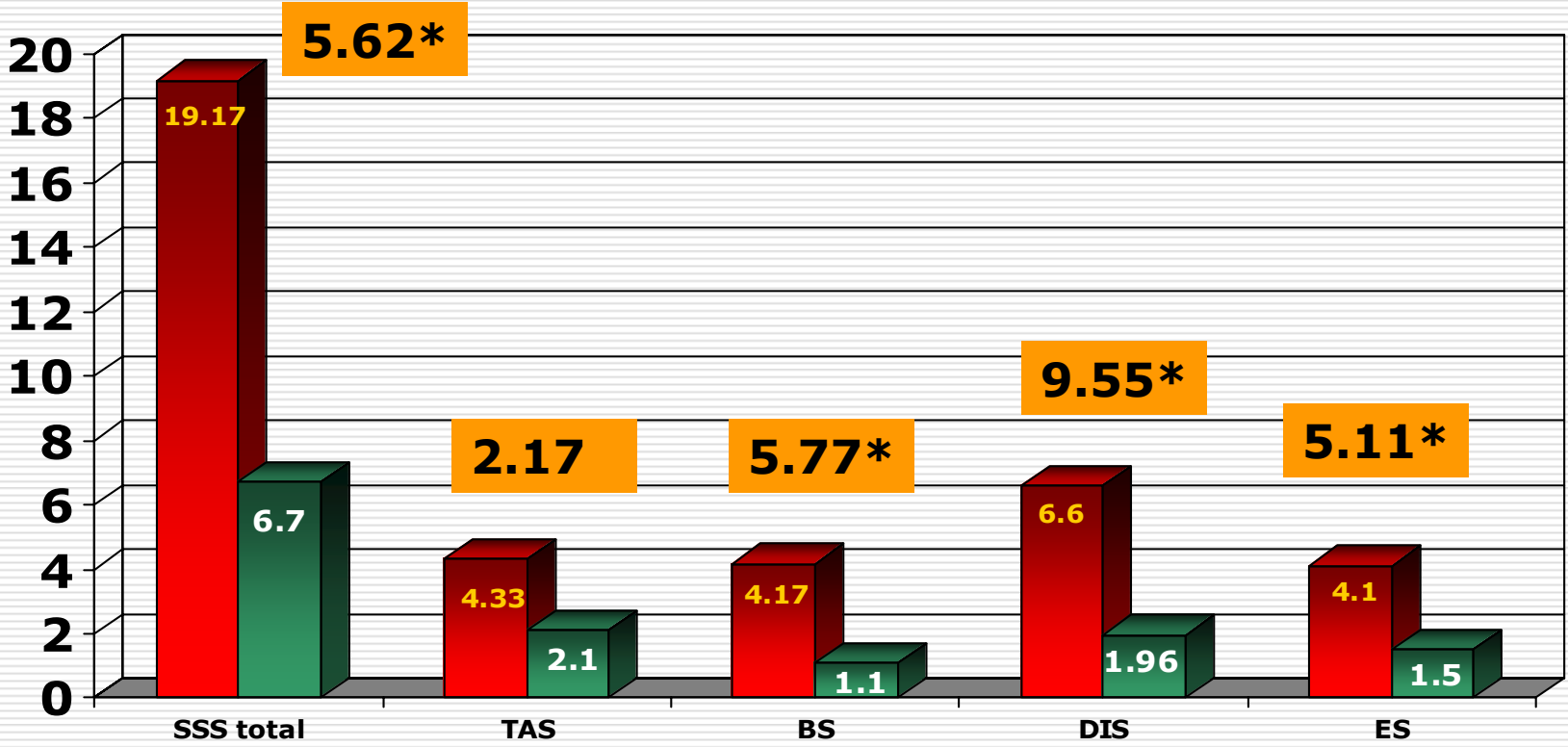
Chandra PS, Krishna VAS, Benegal, V, Ramakrishna J, (2003)
IJMR, 117, 88-92

Sensation Seeking (Zuckerman, 1994)

- **TAS** – Thrill & Adventure Seeking
 - **BS** – Boredom Susceptibility
 - **DIS** – Disinhibition
 - **ES** – Experience Seeking
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Sensation Seeking and HRSB

Chandra PS, Krishna VAS, Benegal, V, Ramakrishna J, (2003)
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■ Risk ■ No Risk

TAS – Thrill & Adventure Seeking
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Psychiatric Co-morbidity in problem drinkers

	Alcohol abuse	Alcohol Dep
<input type="checkbox"/> Psychosis		12 %
<input type="checkbox"/> Mood Disorders	10.2	28 %
<input type="checkbox"/> Anxiety Disorders	22.7 %	35.8%
<input type="checkbox"/> Personality Disorders		44 %

- Kessler et al, 1997, National Comorbidity Survey, Archives of General Psychiatry
 - Echeberua, 2007
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Alcohol and Mental Health Problems as Double Jeopardy

Unanswered Research Questions

- Does positive mental health contribute to reduced risk?
 - Do persons with alcohol use and co morbid psychiatric problems have more risk?
 - What is the evidence for minor mental health problems- does it decrease or increase risk?
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