



Washington University in St. Louis

GEORGE WARREN BROWN SCHOOL OF SOCIAL WORK

**Are Gambler's with Substance Use Disorders
Reliable Reporters of Their Gambling Behaviors?**

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Presentation Aims

- To assess **variation** in the reliability of: DSM-IV pathological gambling disorder (PGD) by substance use disorder (SUD) status
- To provide self-reported **reasons for unreliability** in PGD diagnosis
- To offer implications/future directions

Background: Problem Gambling/PGD & SUD Comorbidity

- High rates of co-occurring disorders are clearly evident among users of illegal substances

(Compton, Thomas, Conway, Culliver, 2005).

Substance abusers are at increased risk for gambling problems

(National Research Council, 1999)

Background: Problem Gambling/PGD & SUD Comorbidity

Among substance abusers:

Gambling problems = 22%

Pathological Gambling Disorder (PGD)= 11%

(Cunningham-Williams, Cottler, Compton, Spitznagel, Ben Abdallah, J Gambling Studies 2001).

Among those with PGD:

NESARC national study[1] rates of SUD :

Drugs: 38.1%

Nicotine: 60.4%

Alcohol: 73.2%

(Petry NM, Stinson FS, Grant BF. (2005). J Clinical Psychiatry, 66(5): 564-574).

Background: Issues in Nosology

Growing body of recent work:

- Focusing on Pathological Gambling Disorder (PGD) criteria:

Examining whether current criteria truly captures the disorder^{8-12,}

Yet a dearth in studies assessing criteria's applicability to vulnerable populations and reasons for misclassification of PGD

¹Algeria and McGuire 2003 ; ²Horton et al 2000; ³Compton et al 1996; ⁴Canino et al 1999; ⁵Hicks 2004; ⁶Robins & Regier 1991; ⁷Cooke et al 2001; ⁸Stinchfield 2003; ⁹Lesieur 1988; ¹⁰Fisher 2000; ¹¹Beaudoin & Cox 1999; ¹²Toce, 2005 (presentation)

Background: Issues in Nosology

- In order to effectively identify and screen for PGD among those who abuse substances, it is critical to understand ways to best assess for PGD
- Critical to appropriate screening and treatment of gamblers with and without SUD is reliable self-reports of gambling symptoms.
- Thus, we aim to examine the assessment of PGD among gamblers who abuse and/or are dependent upon substances

Background: Issues in Nosology

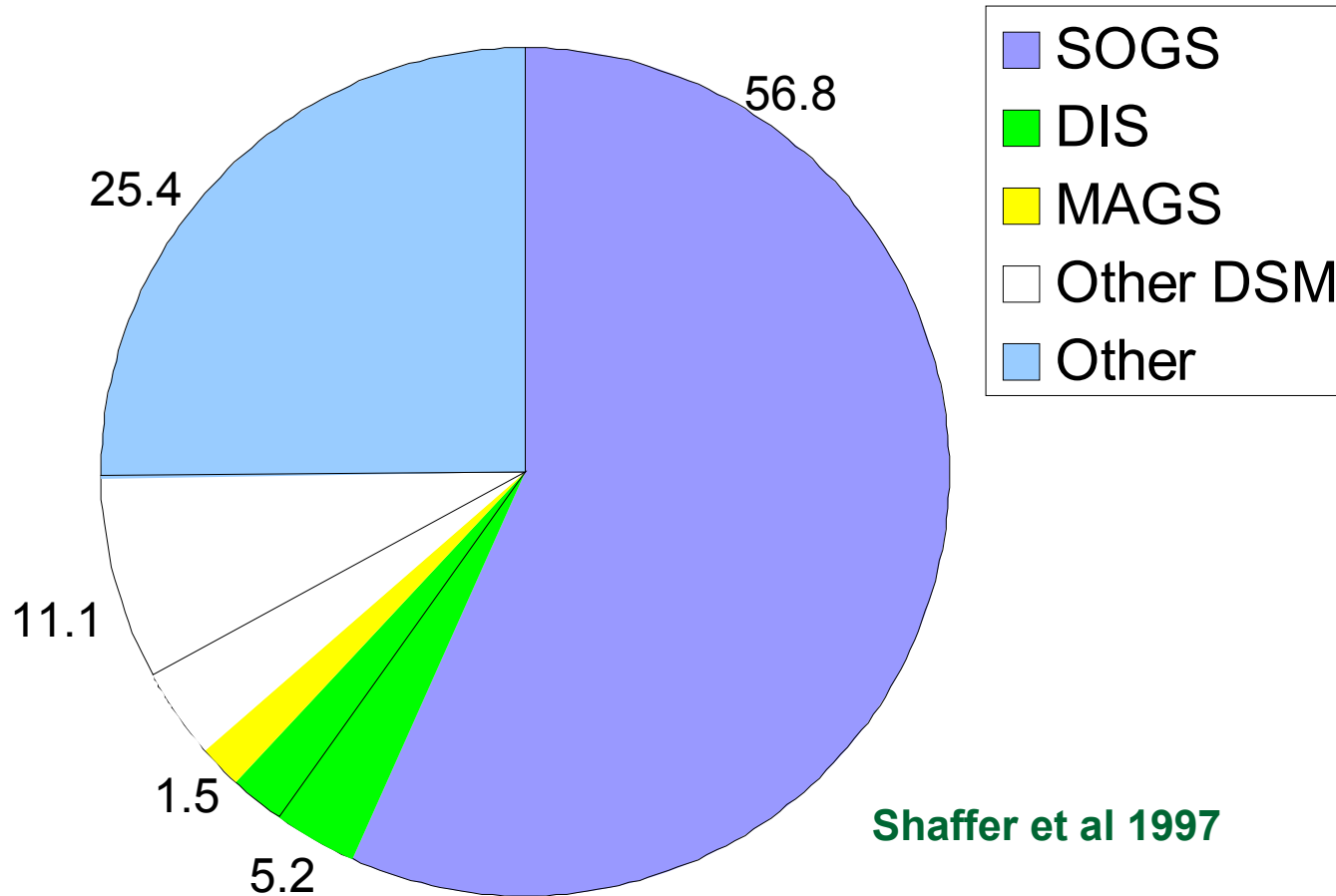
Growing body of recent work:

- Asking us to rethink the Universalist approach to the psychiatric symptom-disorder relationship¹
- Movement toward a more purposeful analysis exploring whether current psychiatric criteria apply equally to certain groups ²⁻⁷
- Focusing on Pathological Gambling Disorder (PGD) criteria:
Examining whether current criteria truly captures the disorder^{8-12,}

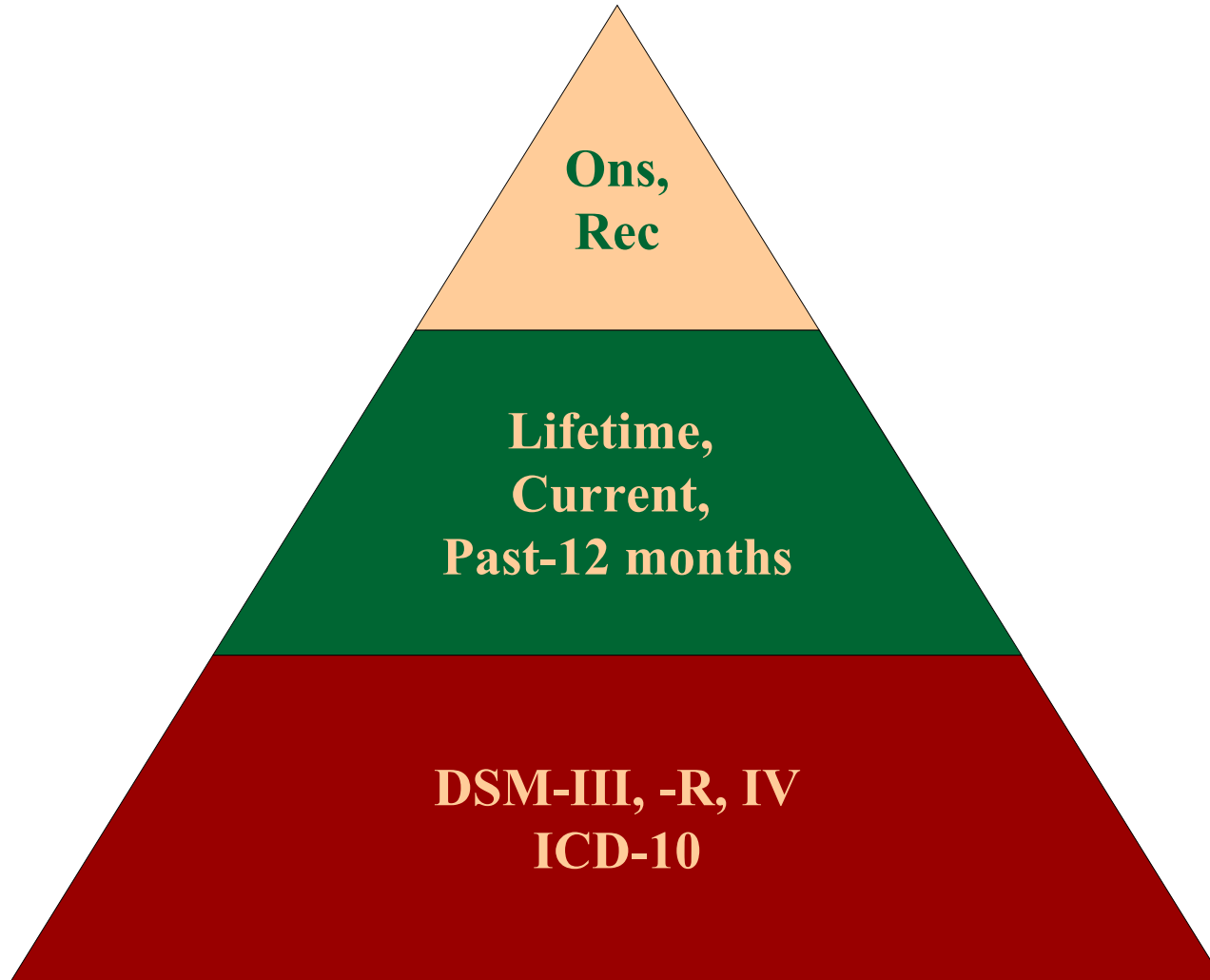
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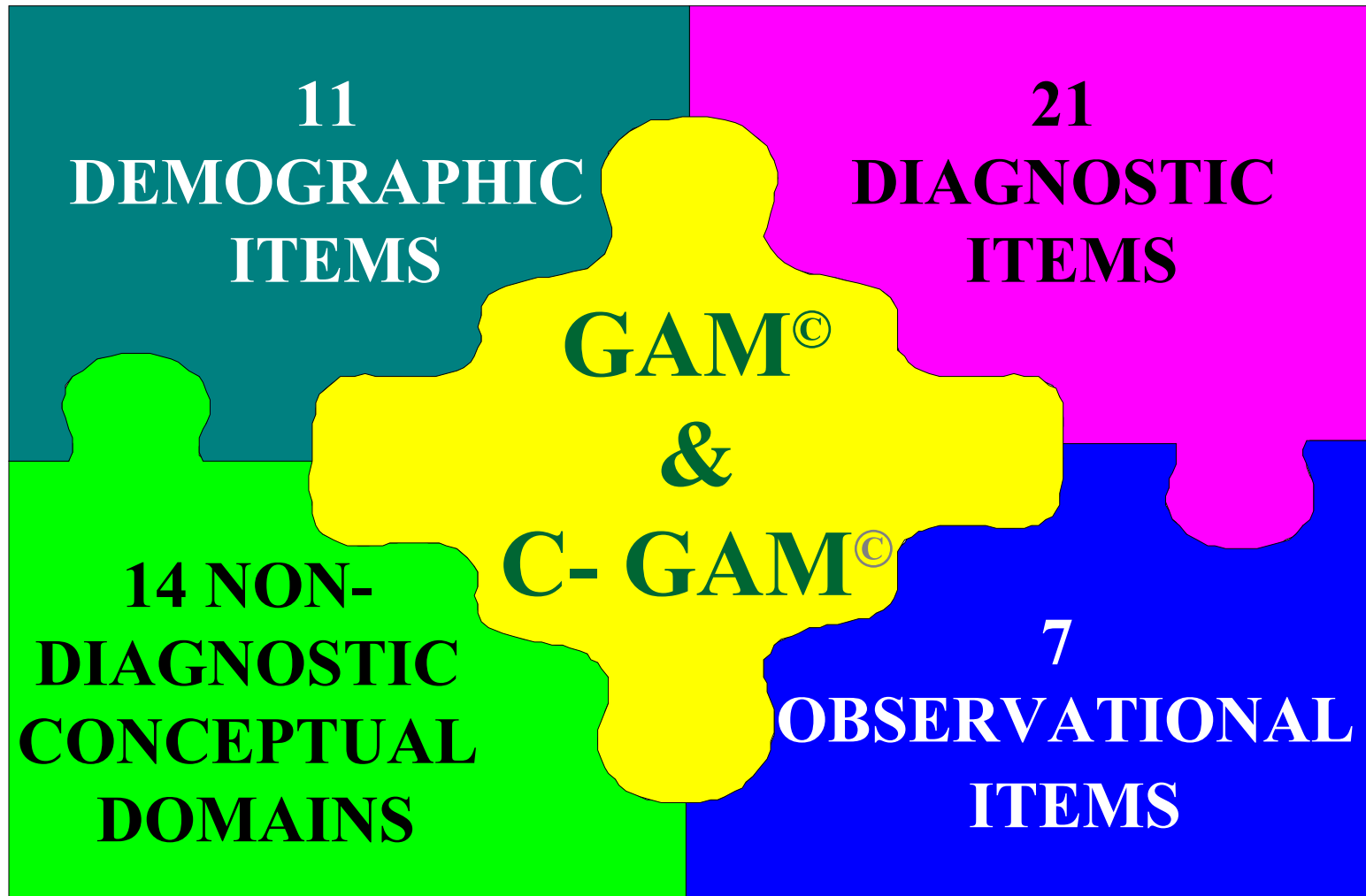
% Published Studies Using Various Assessments



GAM[©]/C-GAM[©] Family of Assessments



Cunningham-Williams et al 2003



Cunningham-Williams, 2003

In order to examine the psychometric properties of the GAM[©]/C-GAM[©]...

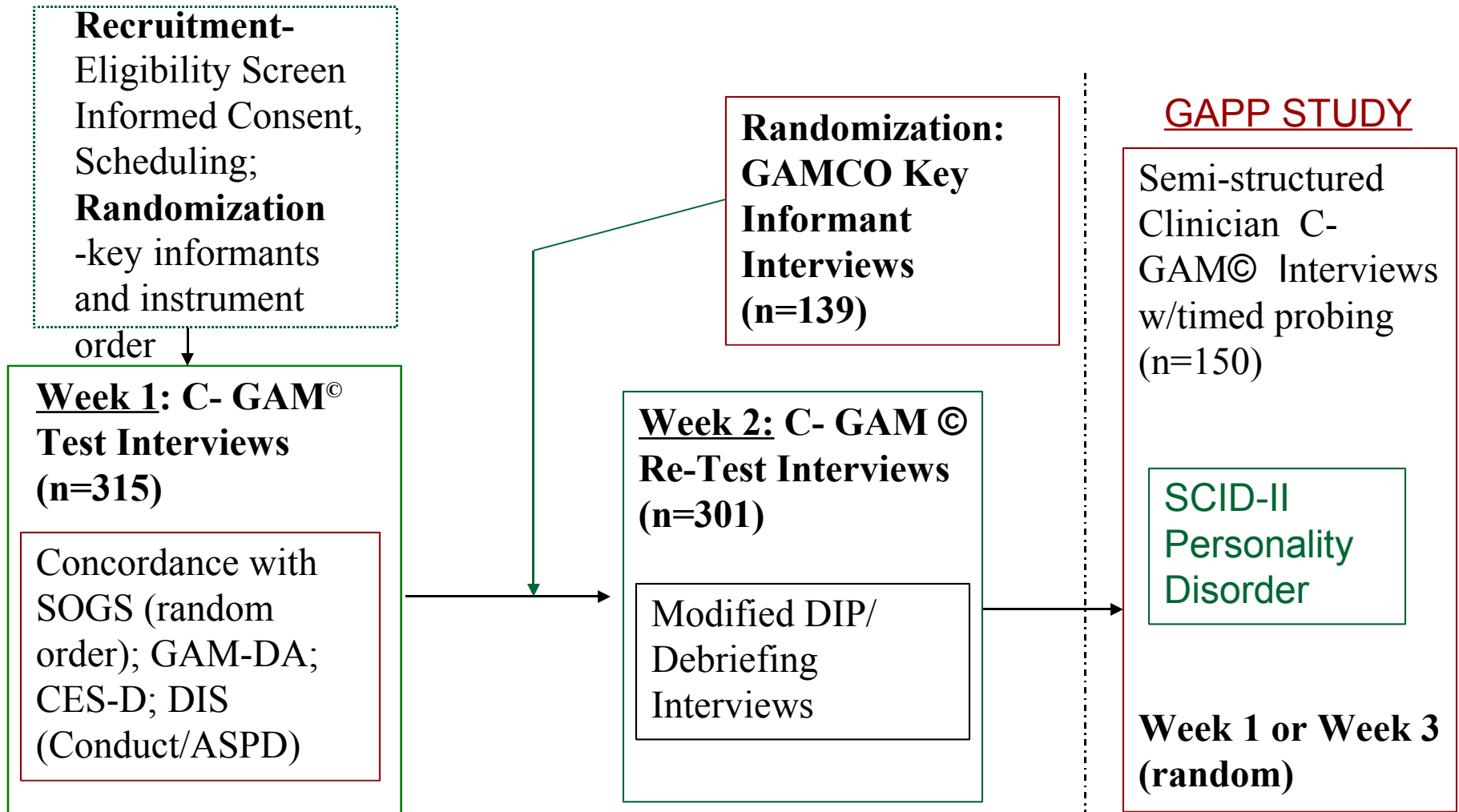
We designed 2 studies:

GAMCO and GAPP

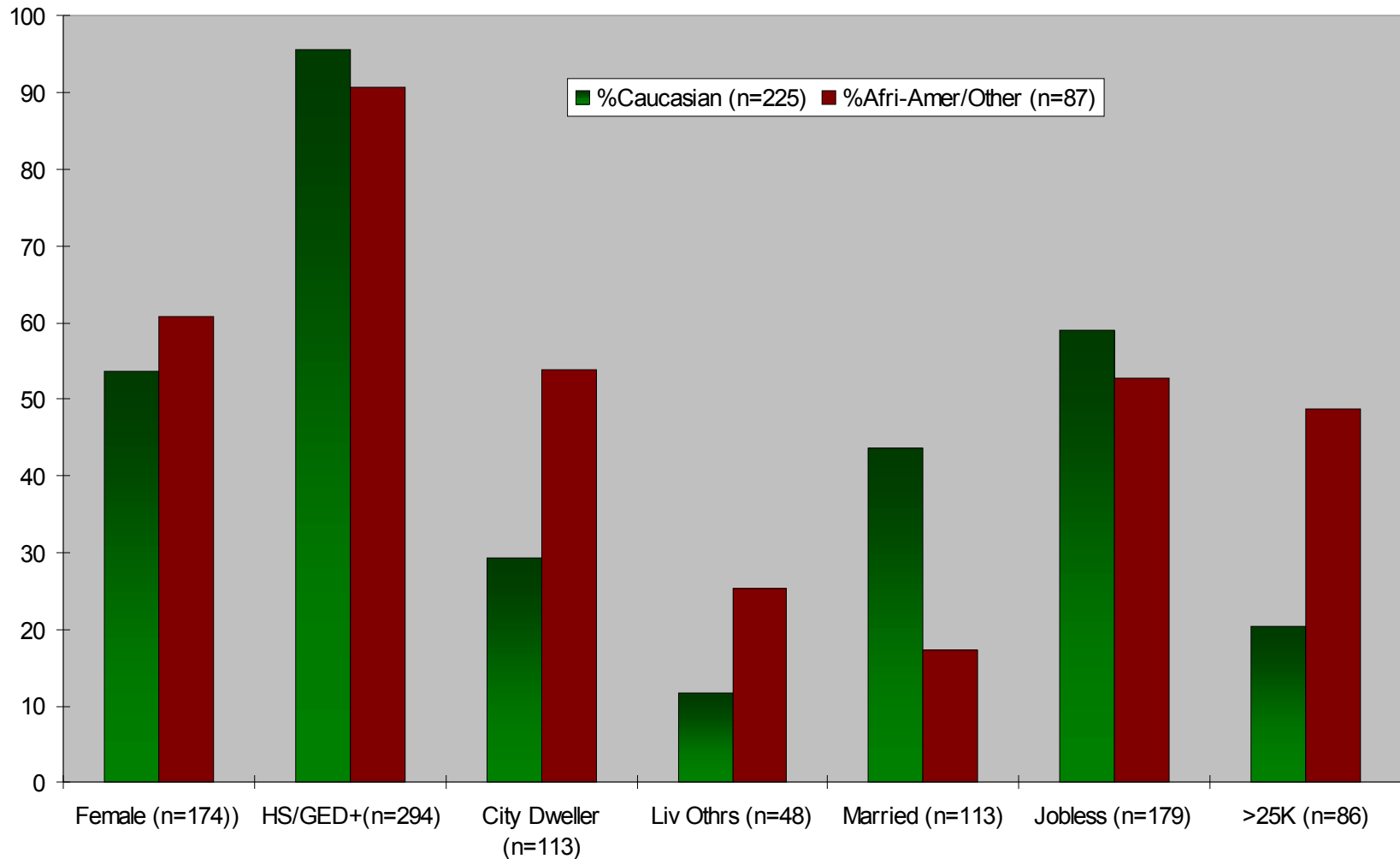
Funded by the National Institute on Drug Abuse of the National Institutes of Health - *GAMCO: #DA 000430 and GAPP: #DA 015032*

GAMCO/GAPP Reliability & Validity Protocols

NIDA #K01-04030 & #R01 -015042



Sample Characteristics (n=299)



Methods: Analysis of Reliability

Kappa: Proportion of Agreement, corrected for chance. Varies from -1.0- +1.0

Proportion of Agreement

Excellent = More than 0.75

Good = 0.60 – 0.75

Fair = 0.40 – 0.59

Poor = Less than 0.40

Cohen 1960;
Fleiss & Cohen 1973

Methods: Analysis of Reliability-Cont'd

Answers the Question :

Is Reliability (agreement) statistically different for
Gamblers with SUD versus **Gamblers without SUD**:

for gambling symptoms?

and

for DSM-IV PGD?

As operationalized by the C-GAM©

Sample: 4 Groups of Gamblers (n=290[^])

Stratified by DSM-IV Substance Use Disorders* :

3) Alcohol Abuse/Dep only (n=22; 7.6%) - **AA**

4) Drug Abuse/Dep only – (n=44; 15.2%) - **DA**

5) Both Abuse/Dep (n=30; 10.34%) - **Both**

6) Neither Abuse/Dep (n=194; 66.9%) – **Neither**

**As operationalized by the GAM-DA© administered at Time 1 only*

[^] Missing data =n=9

RESULTS:

Substance Use Disorder (SUD)
Variation: **Gambling Symptoms**

DSM-IV Criteria: Persistent & Recurrent maladaptive gambling indicated by **at least 5/10** of the following:

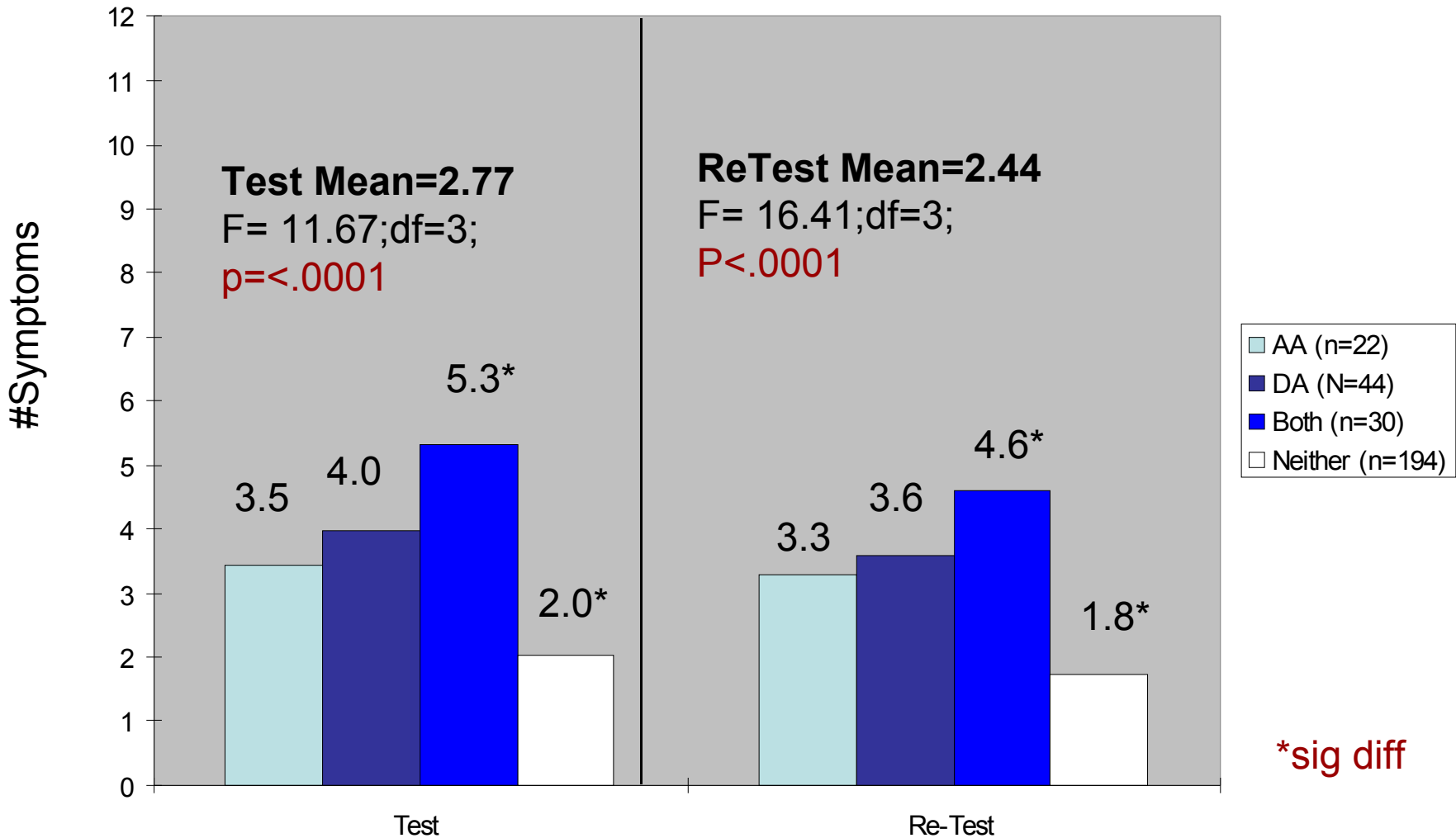
From DSM-III

- legal problems
- relationship, job/school problems
- hiding losses
- financial bail-out
- Criterion B: Manic Episode exclusion

From DSM-III-R

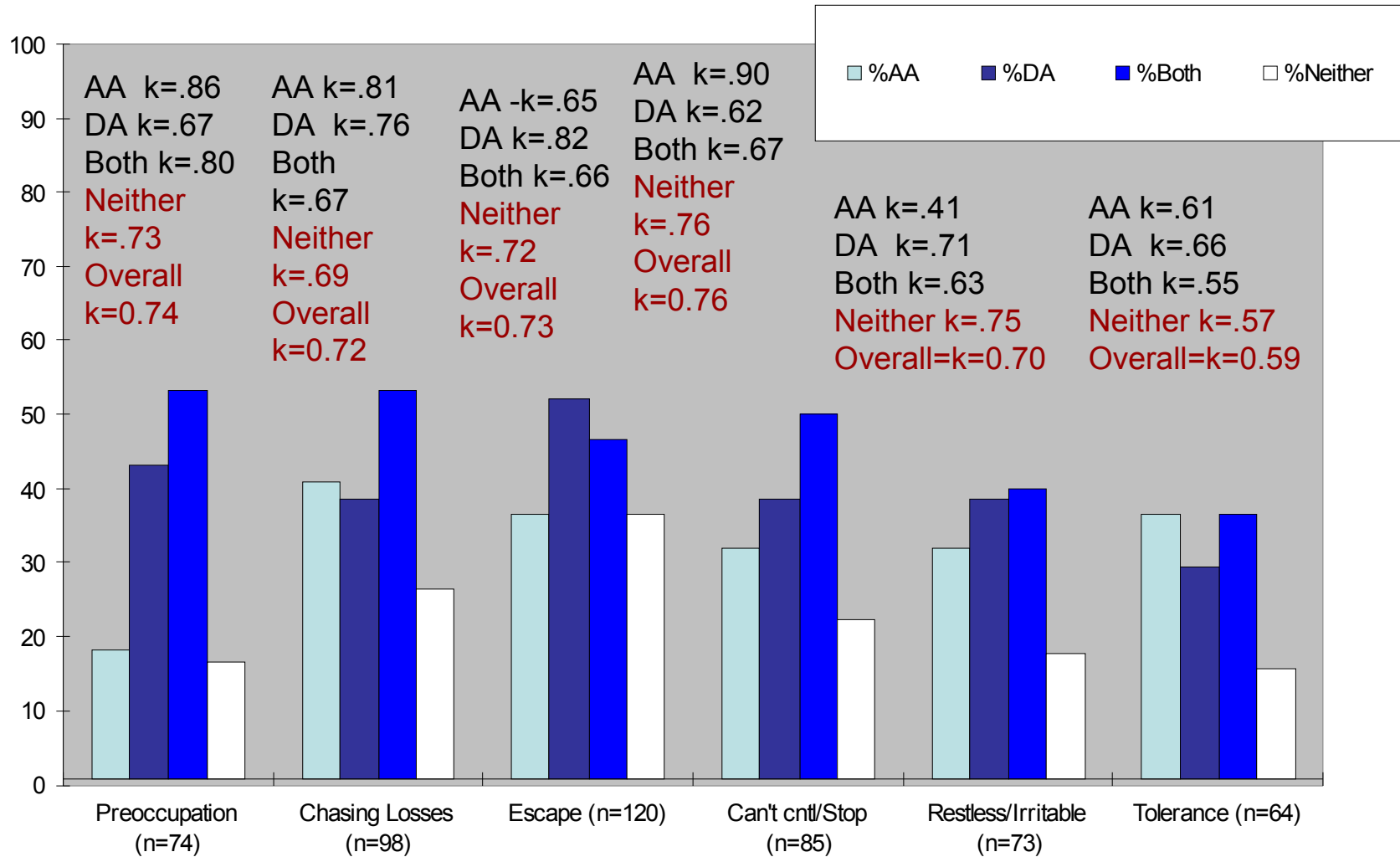
- preoccupation
- tolerance
- restless/irritable if unable to gamble
- chasing losses
- trying to quit/cut down
- Gambling to escape

Mean # Gambling Symptoms - C-GAM[®] Test Versus Retest: By SUD Status (n=299)

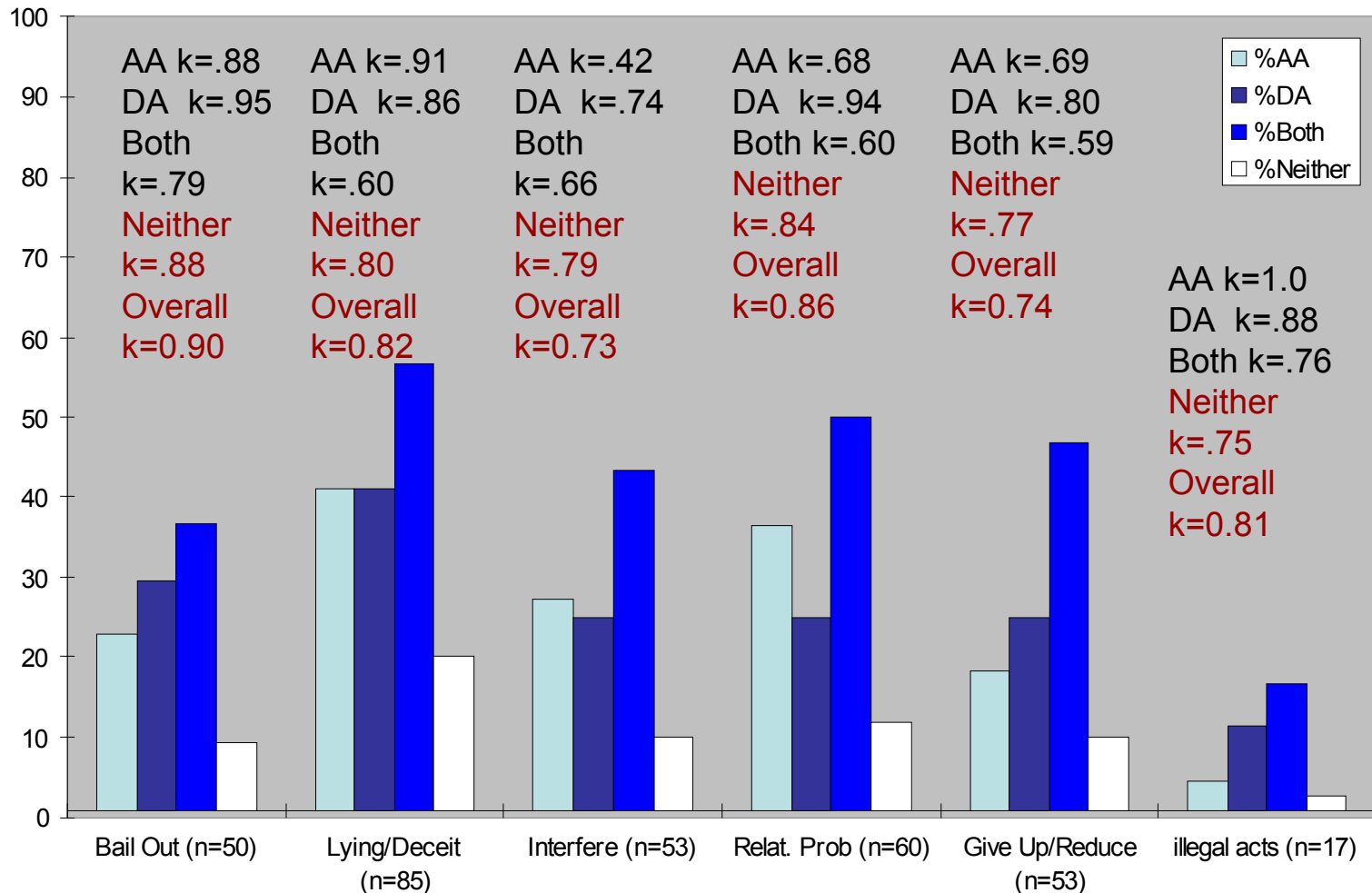


% Positive by SUD STATUS: Gambling Symptoms

Test Interview

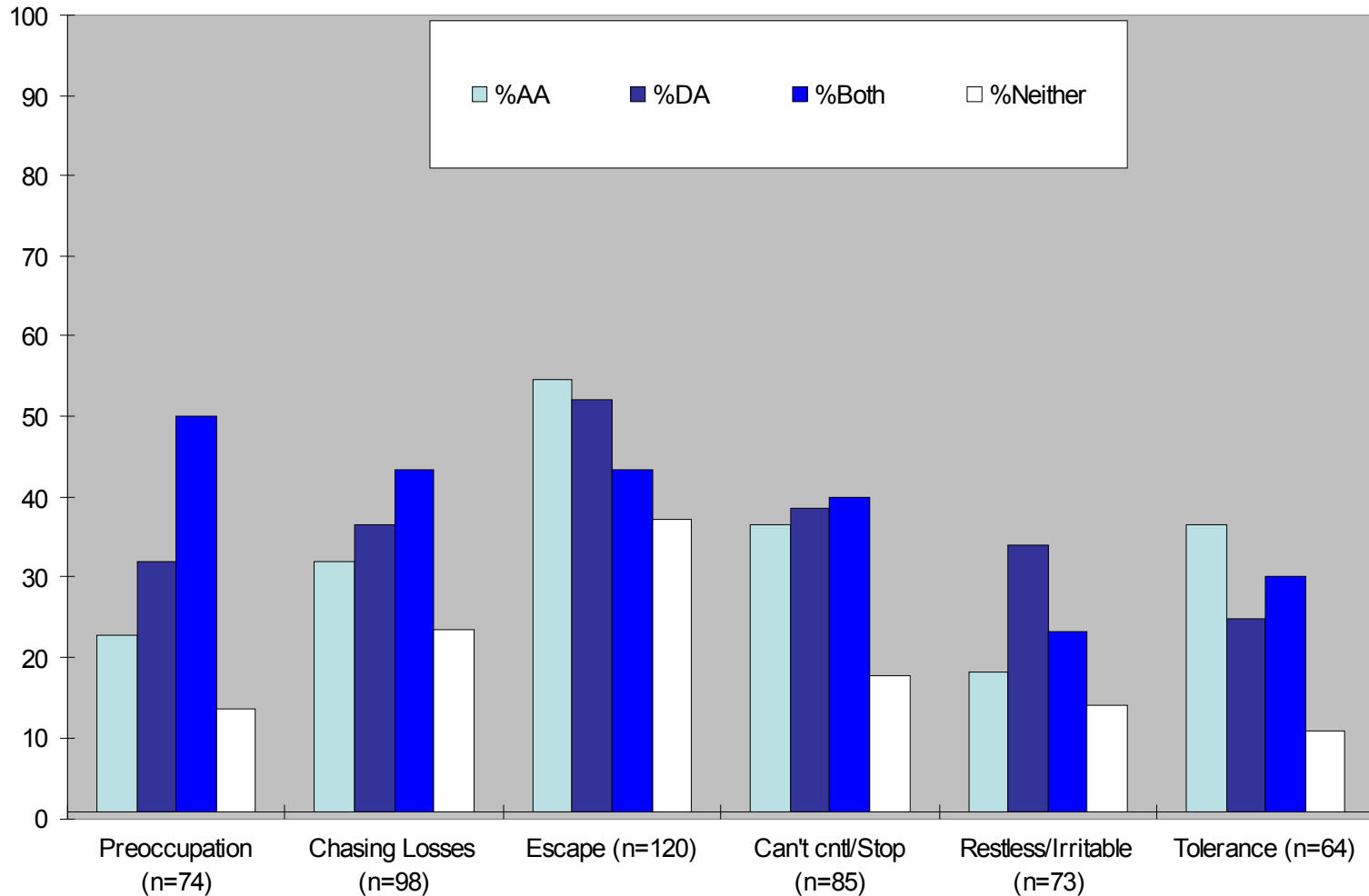


% Positive by SUD STATUS: Gambling Symptoms Test Interview – Continued

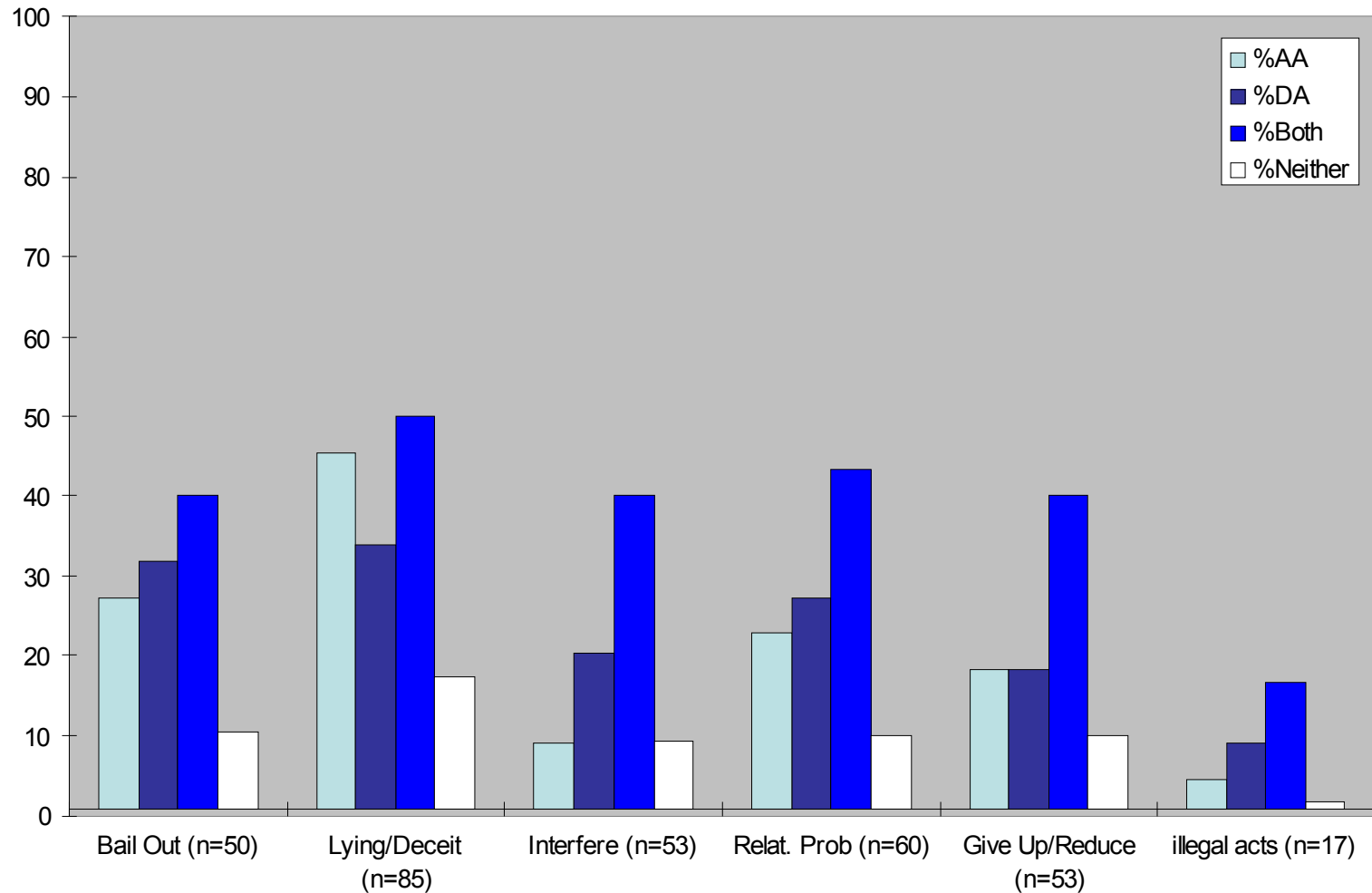


% Positive by SUD STATUS: Gambling Symptoms

Re-Test Interview



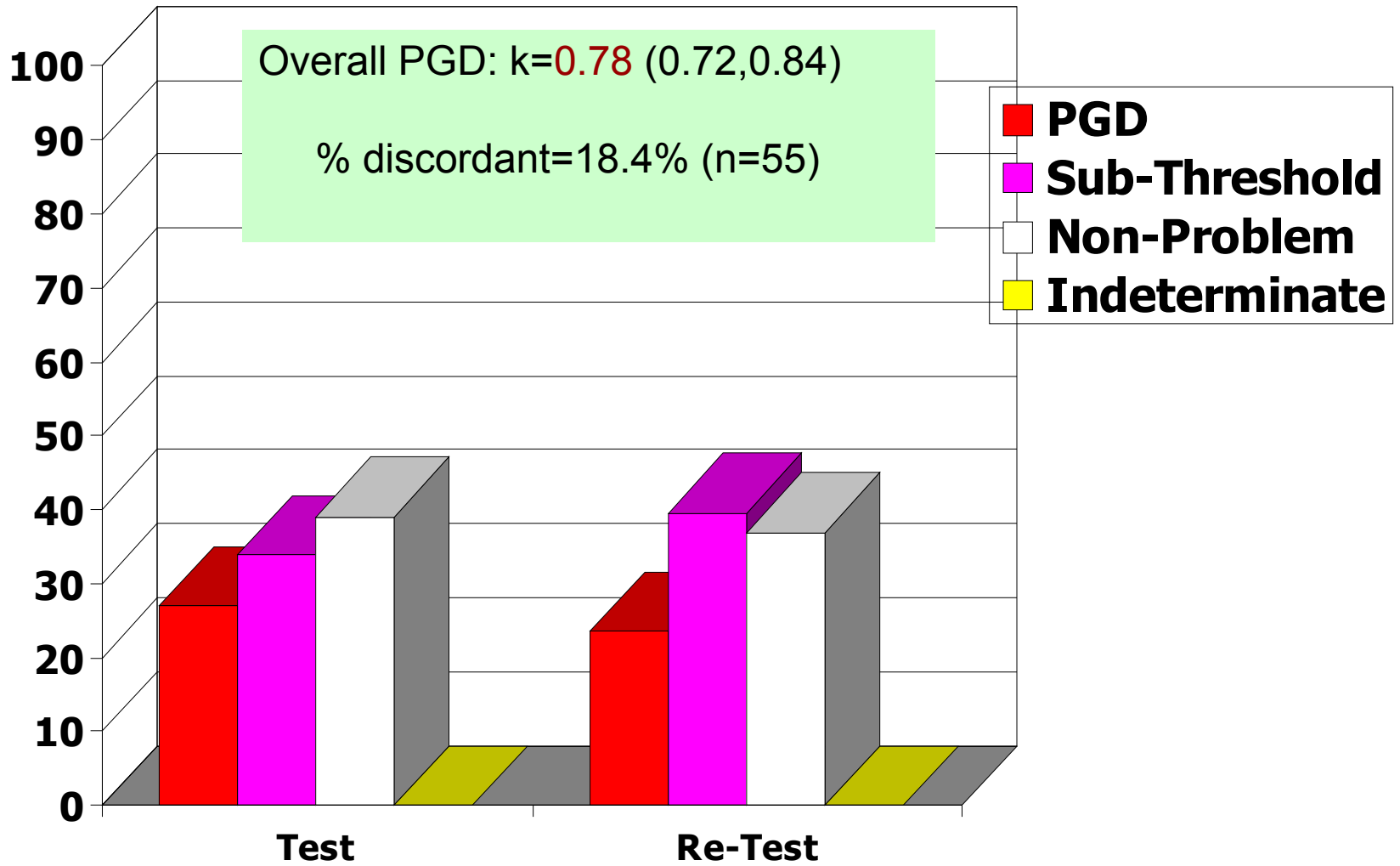
% Positive by SUD STATUS: Gambling Symptoms Re-Test Interview (Cont'd)



RESULTS:

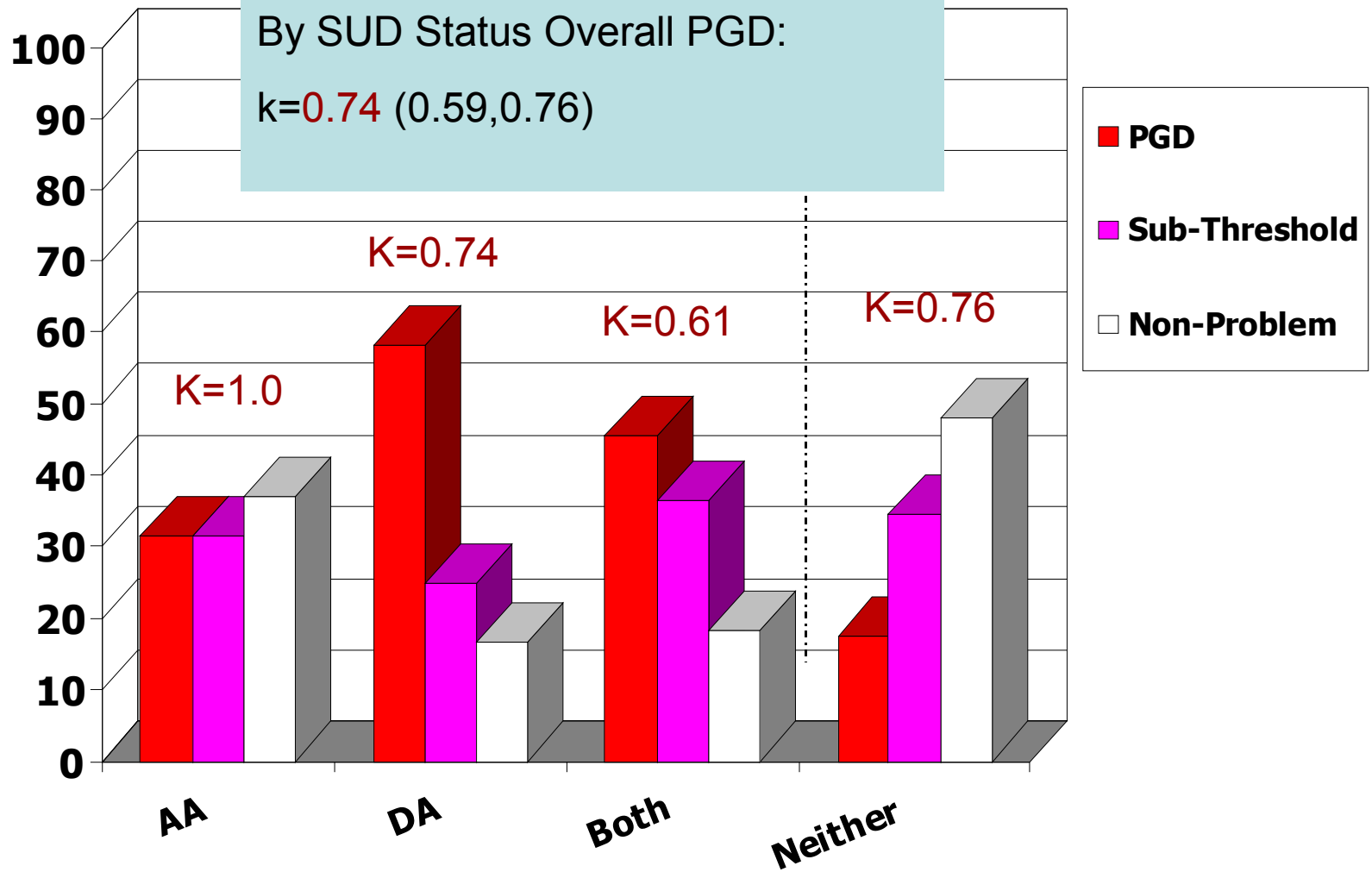
Variation by SUD Status: **Pathological Gambling Disorder**

DSM-IV PGD: Overall Diagnostic Classification Prevalence and Reliability (n=299)

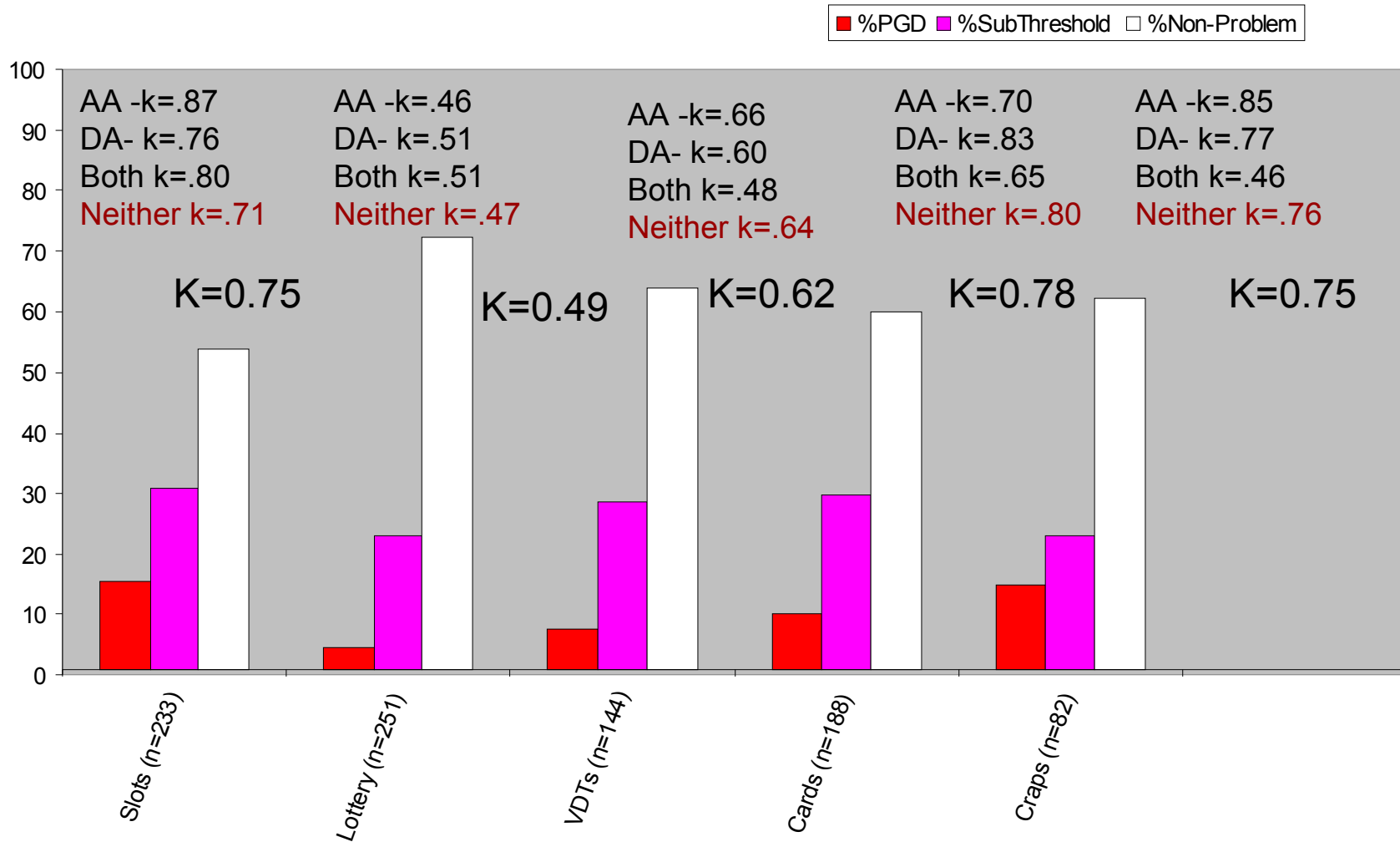


RELIABILITY BY SUD STATUS

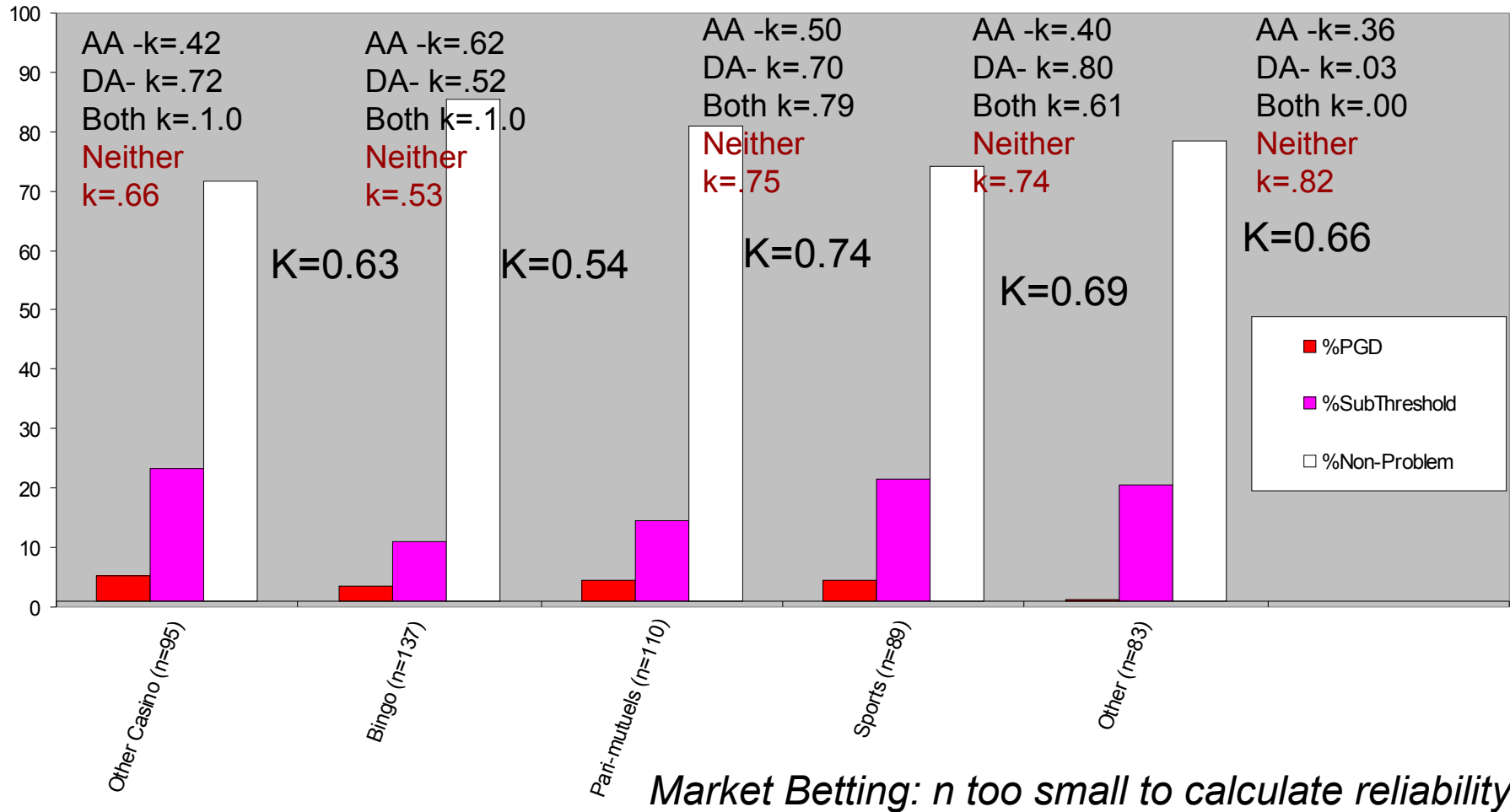
DSM-IV PGD: Overall Diagnostic Classification Prevalence (T1) and Test-Retest Reliability (n=299)



Conditional Prevalence of Activity-Specific Diagnosis – C-GAM[®] and Test-ReTest Reliability by SUD Status(n=299)

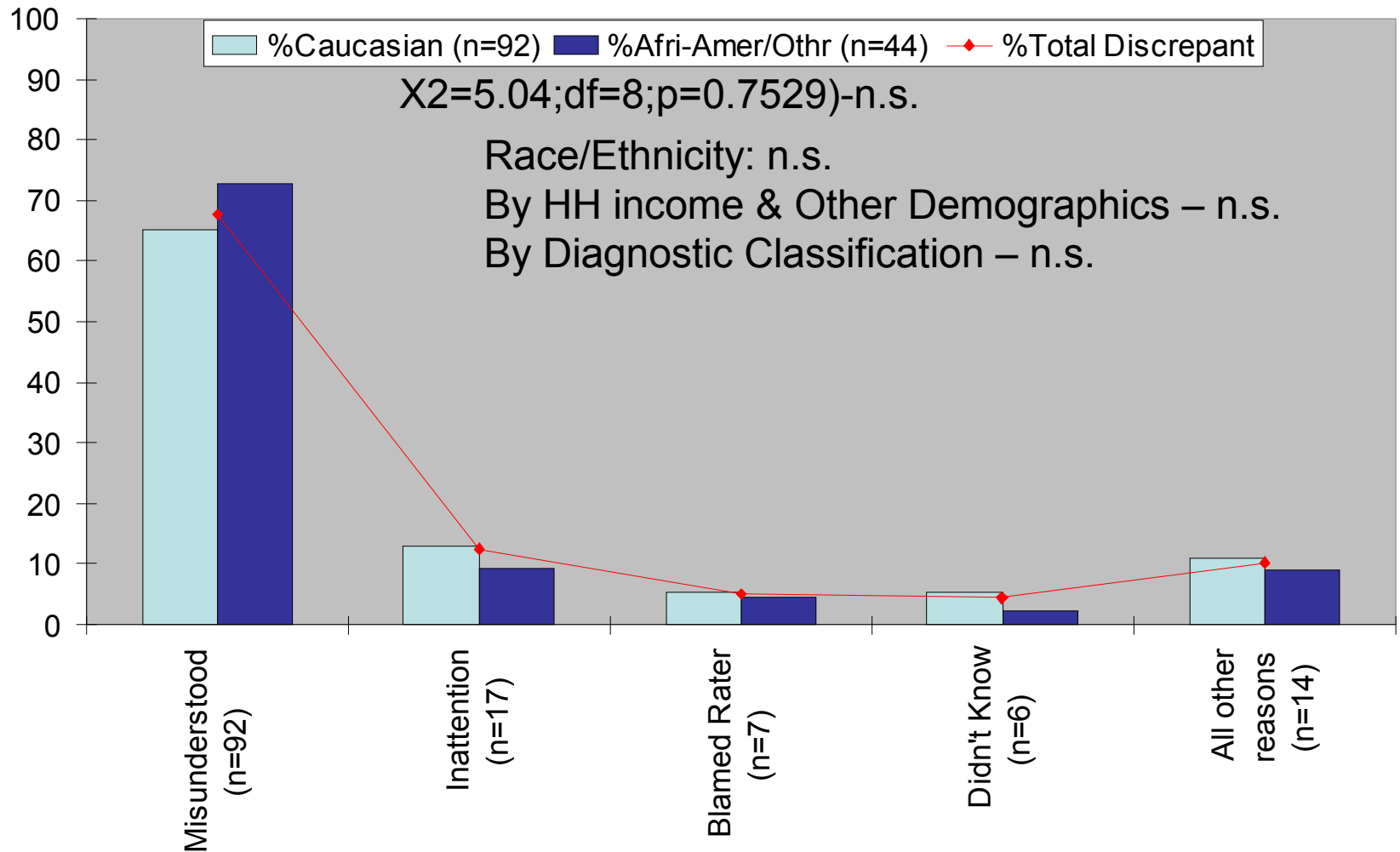


Conditional Prevalence of Activity-Specific Diagnosis – C-GAM[®] and Test-ReTest Reliability (n=299)



Variation in Reports of
Gambling Symptoms:
Self-Reported Reasons for
Inconsistent Responses

Self-Reported Reasons for Discrepancies: **Gambling Symptoms** (n=136 discrepancies between T1 and T2)



Summary

DSM-IV PGD (as operationalized by the C-GAM):

- Overall:

Excellent test-retest reliability overall ($k=0.74$)

For Substance Abusers:

Alcohol $k=1.0$; Drugs $k=0.74$; Both $k=0.61$)

For Non-Abusers: $k=0.76$

- Activity-specific diagnoses: Applies equally-well by SUD status

- Self-Reported Reasons for Unreliability:

Misunderstood the question

Implications/Future Directions

Looking toward DSM-V:

- C-GAM may be useful as it provides important and information on the symptoms that comprise current criteria (across all nosologies)
- While an activity-specific diagnosis is not yet officially recognized in the current criteria, the C-GAM data may be informative in making inroads into this uncharted area in problem gambling research
- The C-GAM may be a useful tool in the social work armamentarium aimed at reducing PGD among gamblers who abuse/are dependent upon substances

Implications/Future Directions (cont'd)

- As the kappa statistic is affected by the base rate of the disorder and says nothing about validity, **it is important to triangulate these data** with additional psychometric data collected in the GAMCO/GAPP protocols
- There are likely **additional confounding variables** that will help to shed light on SUD variation in reliability (e.g. age, HH income, etc)
- Examine further treating **PGD as a multi-dimensional** (rather than categorical) construct assessing whether there are different cut-points by SUD status

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