

PSYCHOSOCIAL FACTORS INVOLVED IN ADHERENCE TO HIV/AIDS MEDICATIONS

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**HIV/AIDS patients
adherent to highly active
antiretroviral therapy
(HAART) can live
relatively normal lives**

**Nonadherence predicts
development of drug
resistance as well as
opportunistic infections
and hospital admissions**

(Bangsberg et al., 2003; Bartlett, 2002)

Poor adherence predicts clinical progression to AIDS

(Bangsberg et al., 2000)

**Reliable viral suppression
requires $\geq 95\%$ adherence
to HAART medications**

(Paterson et al., 2000)

This is equivalent to missing < 3 doses per month on a twice daily regimen.

Average HAART adherence has been estimated at 80%; in our studies approximately 73%.

**Through 2005 there were
15 randomized controlled
trials (RCT) examining
adherence to antiretroviral
therapy.**

(Simoni et al., 2006)

Ten studies reported significant differences either in adherence *or* on clinical impact; 5 studies reported null results.

(Simoni et al., 2006)

In only 2 adherence training studies have both adherence behavior and clinical outcomes showed significant differences between groups at follow-up.

(Pradies et al., 2003; Tuldra et al., 2000)

In our studies we have compared Medication Adherence Training (MAT) alone with MAT plus Cognitive Behavioral Stress Management (CBSM)

Why add CBSM to MAT?

In HIV+ individuals, social support is related to medication adherence.

(Gordillo et al., 1999; Remien et al., 2003)

Depressive symptoms are associated with nonadherence to antiretroviral therapy in HIV+ people.

(Chesney et al., 2000; Mehta et al., 1997)

Self-reported anxiety has also been found to be predictive of non-adherence to HAART in HIV+ people.

(Ammassari et al., 2001)

**We have long used CBSM
to improve social support
and decrease depressed
affect and anxiety in HIV+
people.**

Medication Adherence Training

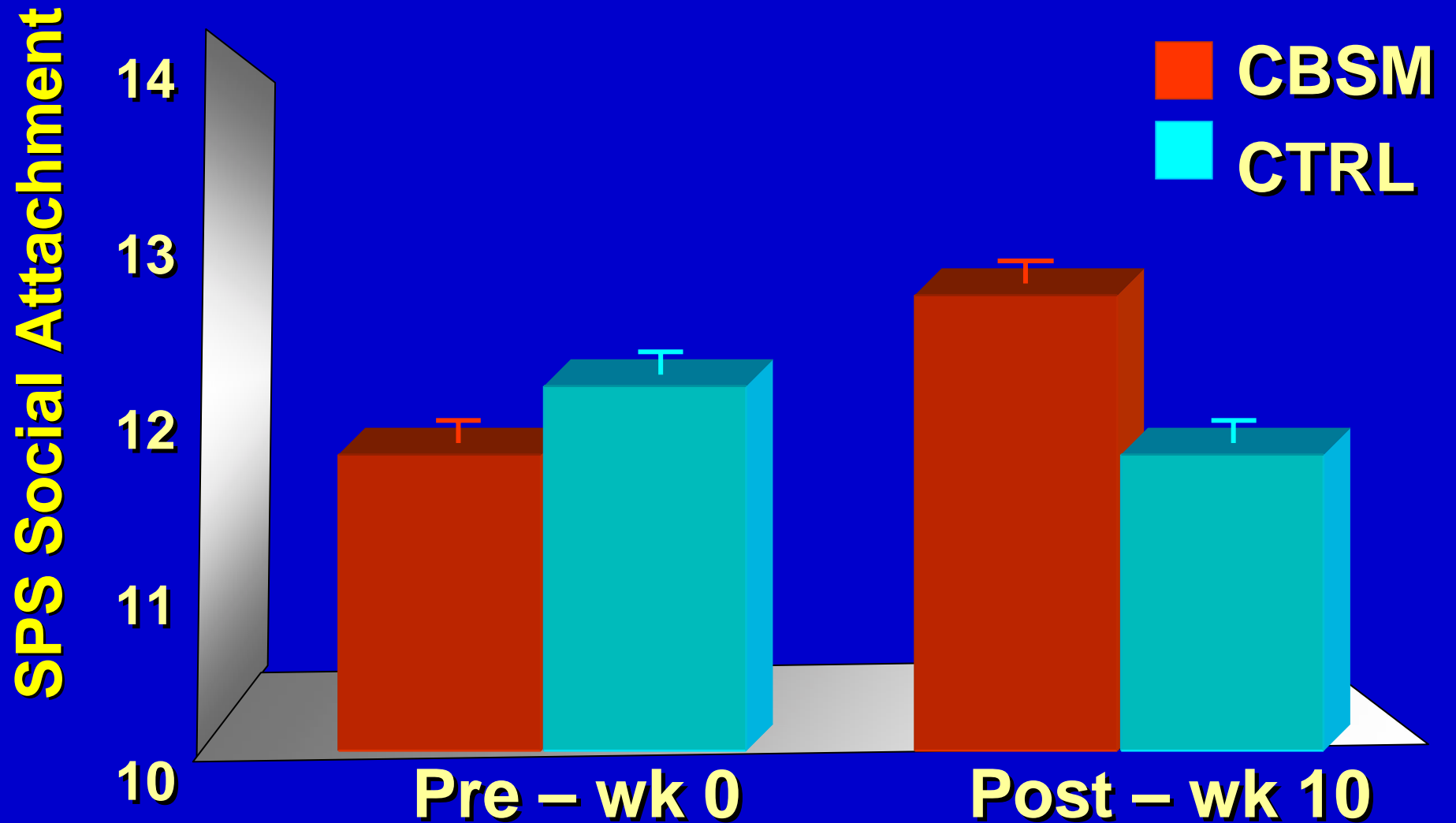
- **Assess HIV and medication knowledge**
- **Assess medication side effects**
- **Assess barriers to adherence**
- **Provide HIV and medication knowledge**
- **Describe consequences of non-adherence**
- **Help alleviate side effects**
- **Help patients deal with barriers**

(McPherson-Baker et al., 2005)

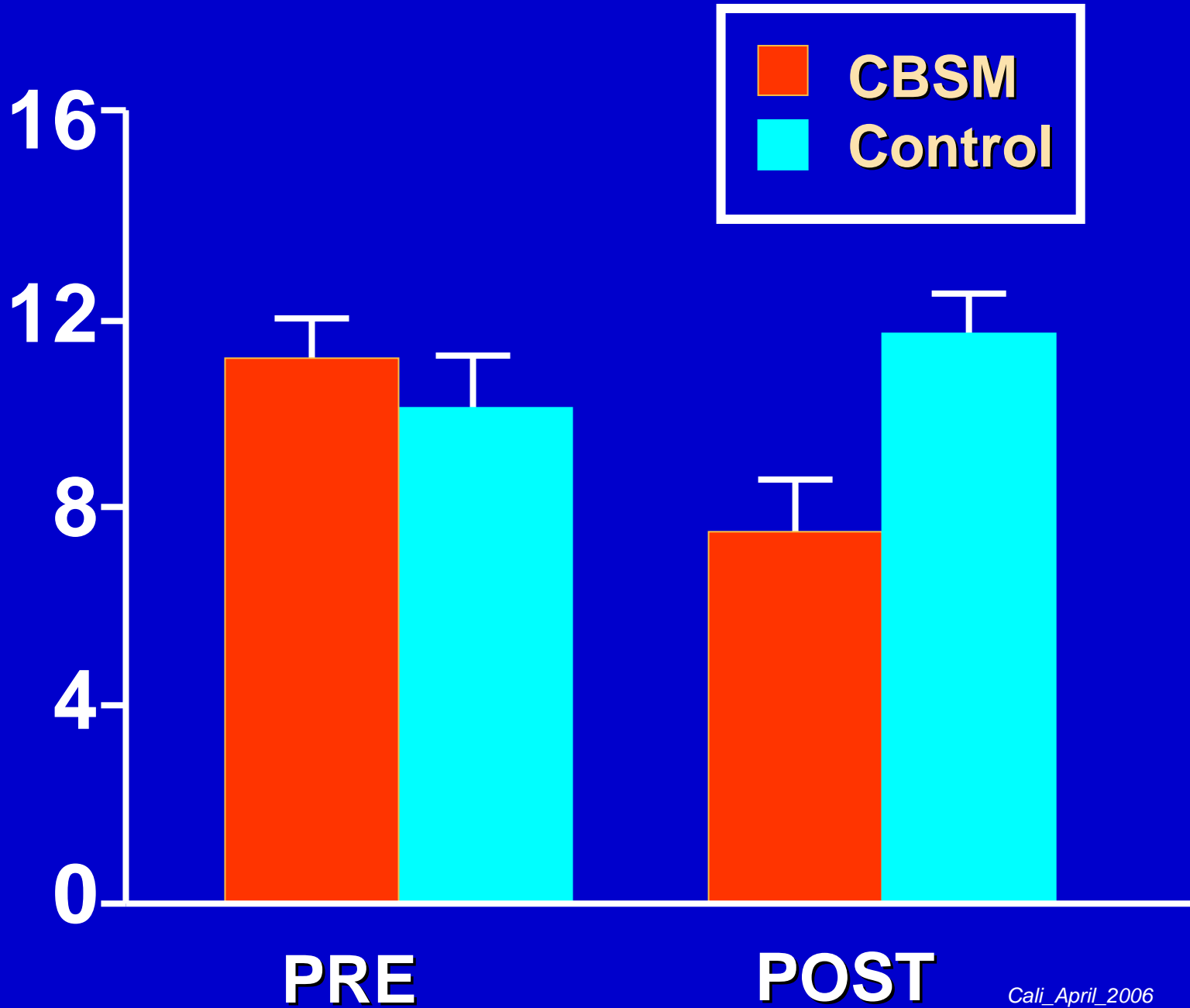
Cognitive Behavioral Stress Management

- Relaxation training**
- Cognitive behavior therapy**
- Group social support**
- HAART information**
- Health behavior information**

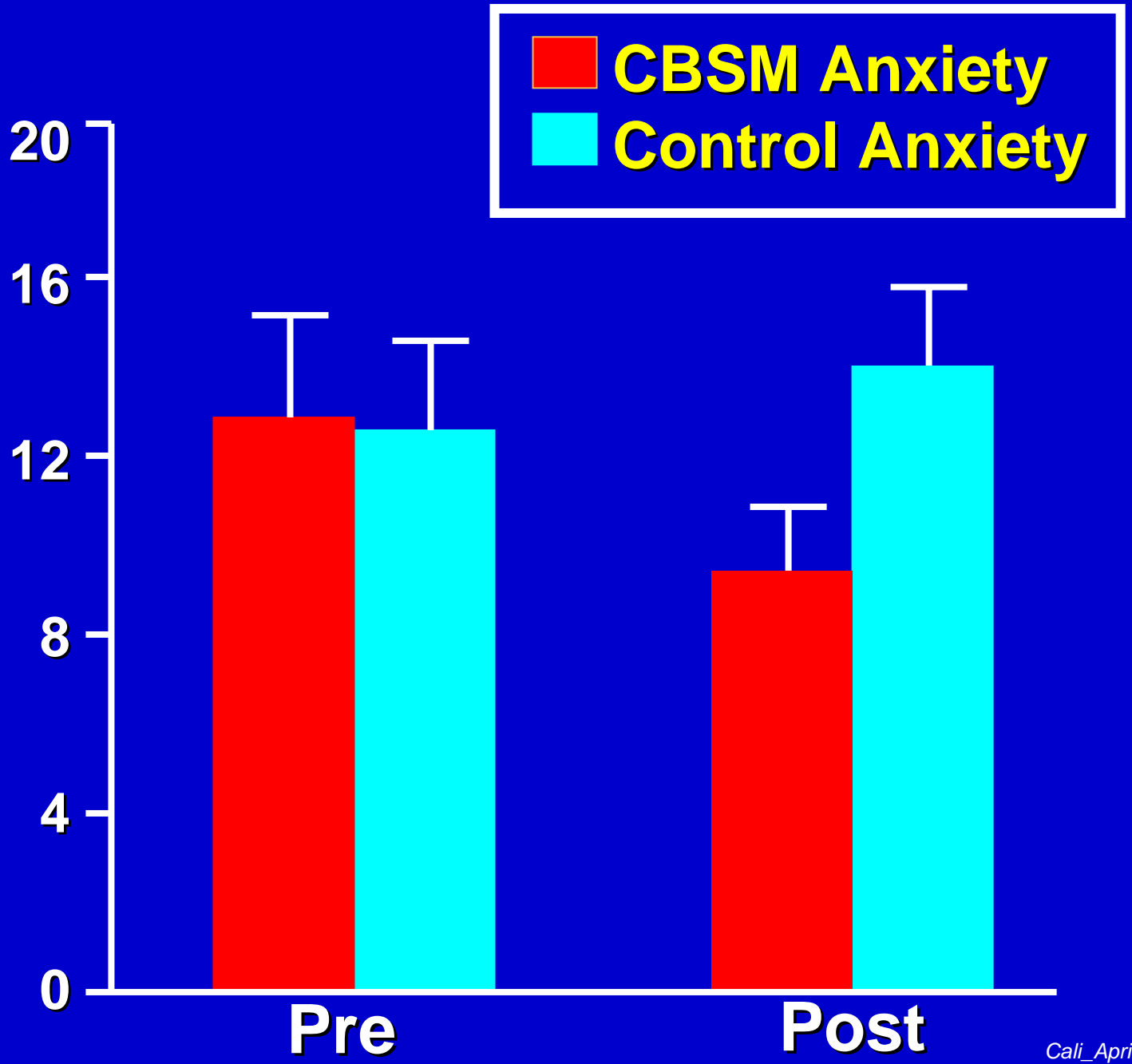
CBSM and Appraisals of Support



BECK Depression



POMS Anxiety



**Are psychosocial factors
involved in adherence to
HIV/AIDS medications and
to clinical outcomes?**

We have looked at relations among psychosocial factors, medication adherence and HIV viral load in 320 men (n=186) and women (n=134) on HAART over a 15-month period. (Weaver et al., 2005)

Psychosocial latent factors formed at baseline were used to predict nonadherence and viral load over a 15-month period.

***Negative Mood* Latent Variable from Profile of Mood States (POMS)**

- Anger**
- Depression**
- Anxiety**

***Social Support* Latent Variable
from Social Provisions Scale (SPS)
and tangible support scale from
Interpersonal Support Evaluation
List (ISEL)**

- Reliable Alliance**
- Social Attachment**
- Guidance**
- Social Integration**
- Instrumental Support**

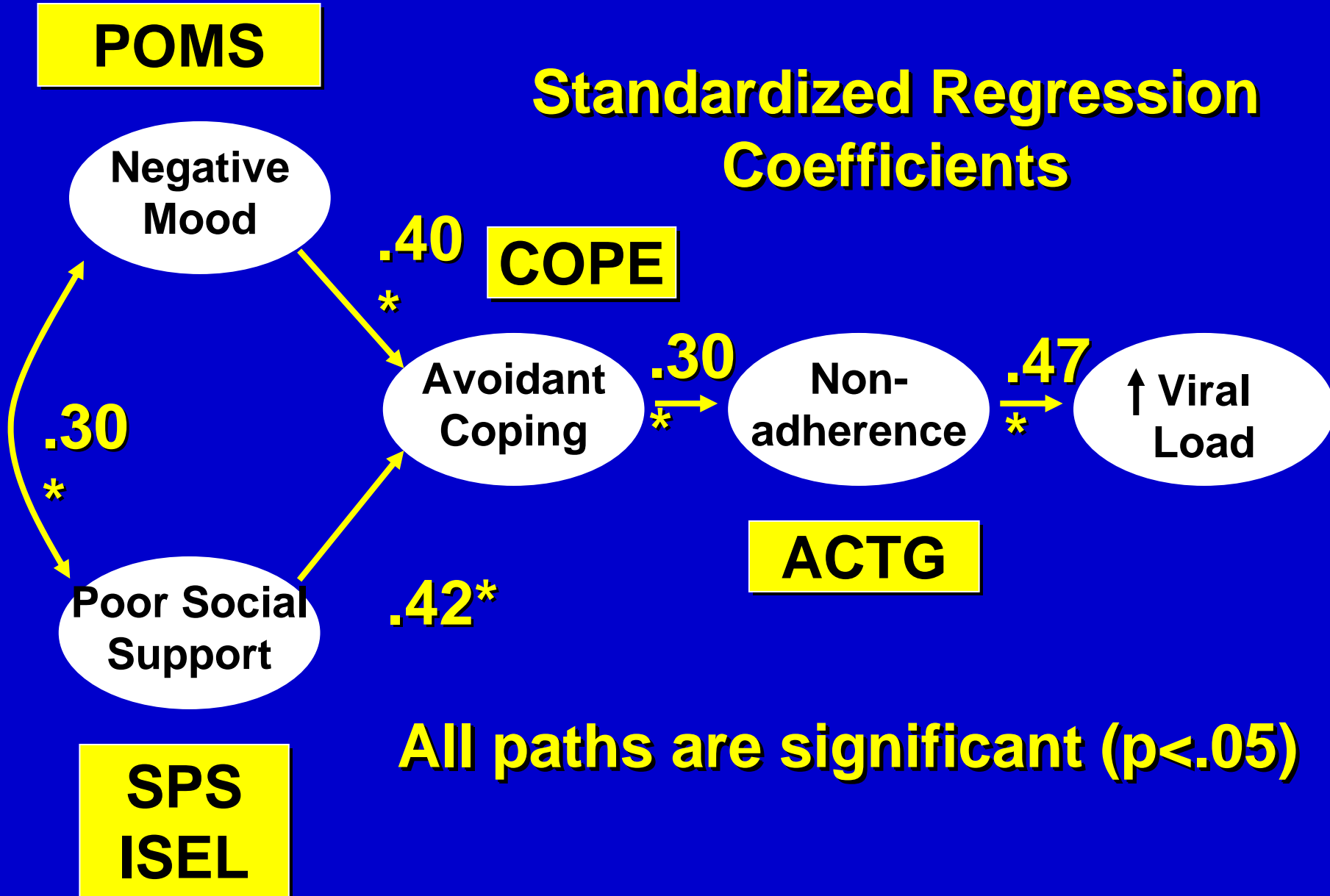
***Coping Strategies* from the COPE inventory (Carver et al., 1989)**

- Disengagement**
 - Denial**
 - Active Coping**
 - Acceptance**
 - Positive Reinterpretations**
- AVOIDANT COPING**
-
- ```
graph LR; A[Disengagement] --- B[]; B --- C[Denial]; B --- D[AVOIDANT COPING];
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# **Non-Adherence (AIDS Clinical Trial Group)**

- Number of pills missed during past 4 days divided by number of pills prescribed for those 4 days**

# Standardized Regression Coefficients



# CONCLUSION

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- 1) Greater negative mood and lower social support are related to greater use of avoidance-oriented coping strategies**

# CONCLUSIONS

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**2) Use of avoidance-coping strategies is related to greater medication nonadherence and, subsequently higher viral load.**

- **Approach-oriented coping strategies such as active coping, positive reframing, and acceptance were unrelated to HAART nonadherence.**

**Do CBSM interventions aimed at decreasing negative mood, improving social support and improving coping influence medication adherence and HIV viral load? Tune in later today!**



**Weaver et al (2005). A stress and coping model...*Health Psychology, 24, 385-392.***

