

CO-MORBIDITY AS A COMPLICATING FACTOR IN COLLEGE STUDENT SUBSTANCE USE

CONVERSATIONS IN THE DISCIPLINES: *THE CHALLENGE OF REDUCING COLLEGE STUDENT SUBSTANCE MISUSE*

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Overview

- College students as a mental health population
- Defining co-morbidity
 - Focus not just on alcohol “disorder” but on risky drinking
- Brief overview of the literature on co-morbidity, especially as it pertains to college functioning.
- PTSD – Alcohol Comorbidity as one example
 - Data from our lab on the presentation, clinical course of PTSD-SUB
- Intervention implications and cross-disciplinary directions



Introduction and Overview

- College (entry in particular) important developmental period

- Potentially a critical period of risk.

- Emerging Adulthood (Arnett, 2000)
 - New freedoms, responsibilities
 - Transition away from parents
 - New social environment, away from prior supports



- Alcohol use common on U.S. campuses

- Alcohol use peaks at ages 18-24.
 - More than 40% of students engage in heavy episodic ("binge") drinking (Wechsler et al., 2002).
 - Associated with myriad consequences
 - STDS, DUI, academic impairment, alcohol overdose, trauma
 - Drinking, drug use highest early in first college year



The Myth of College Mental Health

- ❑ Myth of college students as protected group with respect to mental health.
- ❑ Historically, college students considered the worried well.
- ❑ Studied only as a sample of convenience

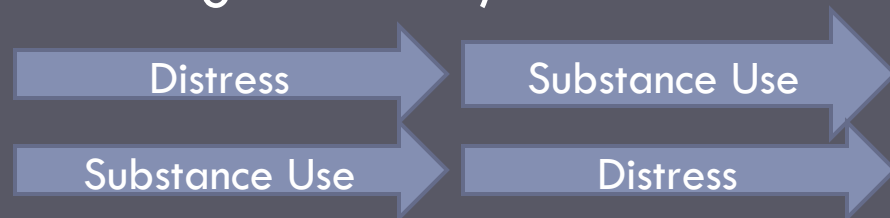


The Reality – College Students and Mental Health

- College students do experience psychological distress and mental illness.
- Rates of psychological disorders among college students similar to those of non-college attending age peers (Blanco et al., 2008)
- This includes:
 - Major depression and anxiety disorders (Hunt & Eisenberg, 2010; Smyth et al., 2008, Twamley et al., 2004)
 - Alcohol and other substance use disorders (Wu et al., 2007)
 - Eating disorders (Hoyt & Ross, 2003)
 - Attention-Deficit/ Hyperactivity Disorder (ADHD; Garnier-Dykstra, Pinchevsky, Caldeira, Vincent, & Arria, 2010)

Defining Co-morbidity

- Two or more psychological disorders/disturbances occurring together within the same individual
 - Alcohol, substance misuse comorbidity among the most common
- The rule rather than the exception
- May be due to some or all of a number of processes
 - Causality (one problem is causing the other)
 - Self-Medication
 - Substance Vulnerability
- Shared environmental risk (e.g., peers, parents, college environment)
- Shared individual-level risk (personality characteristics; e.g., negative emotionality, impulsivity)



The Reality – College Students and Mental Health: Co-morbidity with Anxiety, Depression

- In general, co-morbidity in college students not well understood
- Students with alcohol dependence 2X risk for co-morbid mood or anxiety disorder compared to abstainers (Dawson, et al. 2005)
- Multiple types of anxiety linked to heavy drinking
 - Generalized Anxiety (Kushner et al., 2000; Ross & Tisdale, 1994)
 - Panic (Goldsmith et al., 2009)
 - PTSD (Kushner et al., 2000; Read et al., 2012)
- Depression linked to problem drinking in college and after college (Denhardt & Murphy, 2011; Geisner et al., 2004; Nagoshi, 1999)
- Paradox of protection?

The Reality – College Students & Mental Health: Co-morbidity w/ Other Disorders

- Heavy, problematic alcohol involvement also linked to:
 - ▣ Disordered eating (Anderson et al., 2006; Dunn et al., 2002).
 - ▣ ADHD (Baker et al, 2012; Glass & Flory, 2012)
 - ▣ Suicide risk (Gonzalez, Collins, & Bradizza, 2009)
 - ▣ Smoking, other substance use in college (Harrison & McKee, 2011; Jackson et al., 2010)
 - Low-level smoking increasing among college students
 - Unlike other substance use, evidence shows smoking tends to increase rather than decrease post-college

Outcomes of Co-morbidity

- Co-occurrence of psychological disorders and substance use linked to worse outcomes across multiple domains (Cornelius et al., 2004; Goldsmith & Garlapati, 2004, Marlatt, & Brown, 2005).
 - ▣ Health outcomes, health care utilization
 - ▣ Symptom presentations
 - ▣ Future trajectories
 - ▣ Academic, occupational, interpersonal functioning
- Similarly hazardous outcomes for college students with co-morbidity both during college and beyond (Breslau et al., 2008; Hunt & Eisenberg, 2010; Kitzrow, 2003; Tanner et al., 2007)

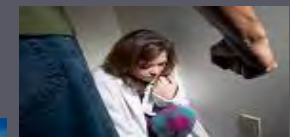
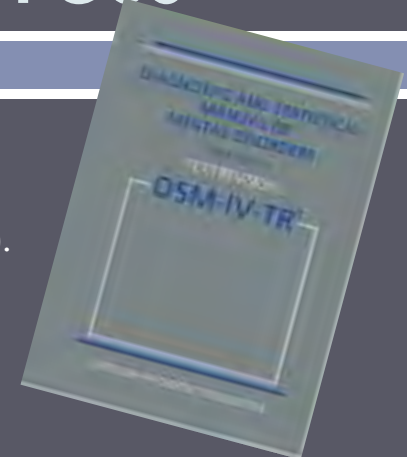
Interim Conclusions: College Students, Mental Health, Comorbidity

- ❑ College students not immune to mental health problems
 - ❑ Co-morbidity with alcohol misuse has been documented
 - ❑ May lead to worse academic, social, mental health outcomes.
- ❑ Multiple factors can influence co-morbidity, augment risk
- ❑ Typically integrated treatments most effective
- ❑ Efficacy of integrated treatments for college students not well studied
- ❑ Understanding of how alcohol interacts with other psychological distress may shed insight for identification, intervention.

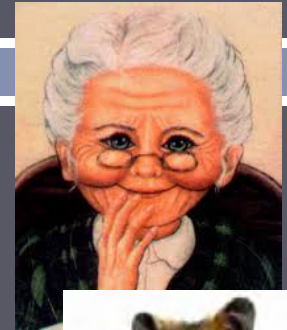
ALCOHOL CO-MORBIDITY: FOCUS ON PTSD

Trauma and Posttraumatic Stress

- According to DSM-IV-TR trauma is:
 - “an event that involves actual or threatened death or serious injury, or other threat to one’s physical integrity” (Criterion A.1.), and a reaction involving “intense fear, helplessness, or horror” (Criterion A.2.).
- PTSD is a maladaptive response to trauma.
 - Constellation of symptoms
 - Includes re-experiencing (Criterion B- 1 sx), avoidance/ numbing (Criterion C- 3 sx), hyper-arousal (Criterion D-2 sx)
- Sub-Syndromal presentations (i.e., “Partial PTSD”) associated with significant impairment

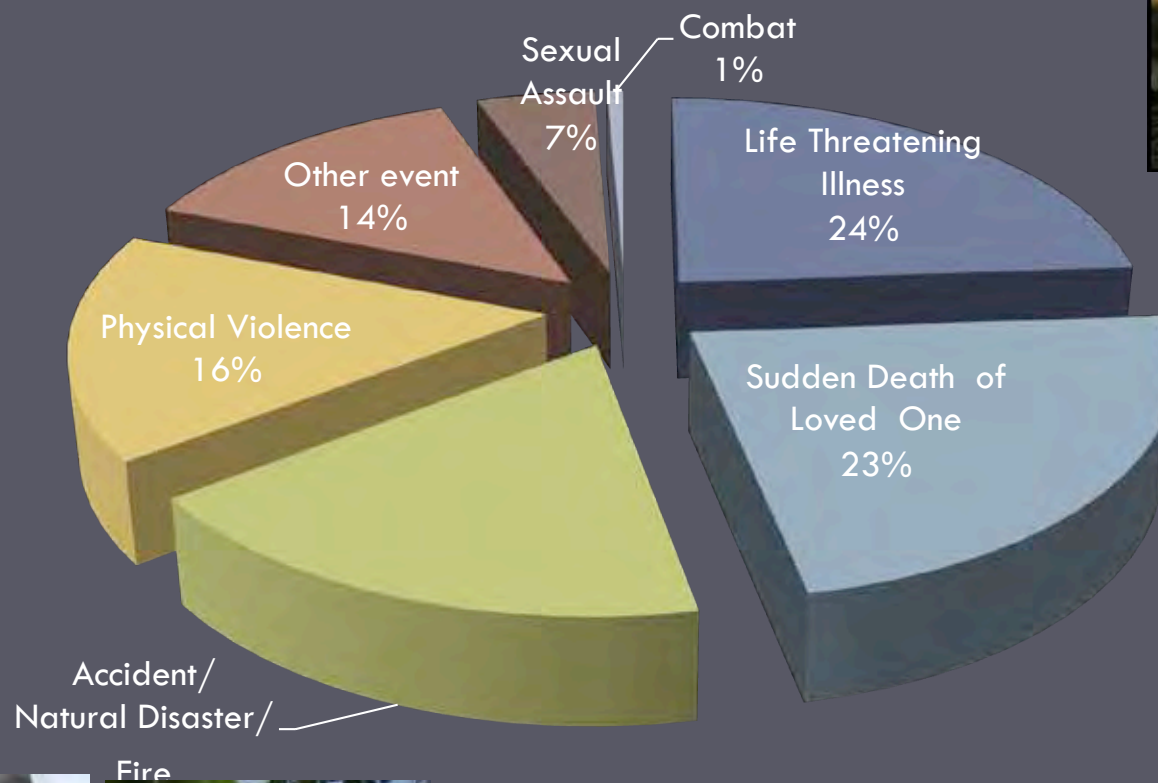


Introduction and Overview



- Trauma in college populations?
 - Prevalence of trauma exposure between 67-84%
 - Types of trauma (e.g., sexual assault, incapacitated assault) especially common in college
 - High prevalence in college relative to community samples
- PTSD in college populations?
 - Estimated rates of PTSD around 8%
 - Comparable to community samples

Trauma Exposure at Entry into College (N=3,014)

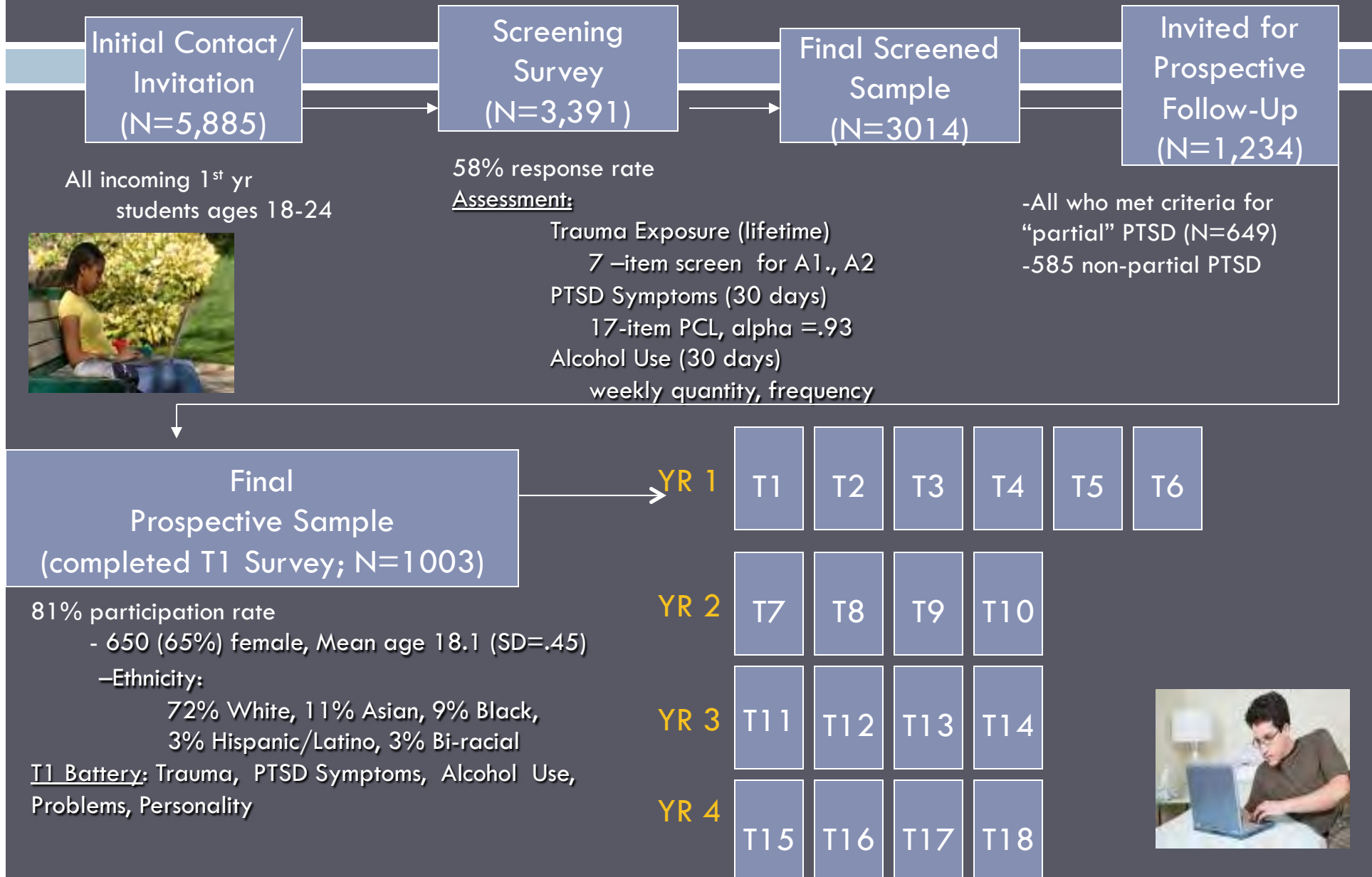


Read, Ouimette et al., 2011

Trauma, PTSD Symptoms, and Alcohol Involvement

- College students vulnerable to both trauma and heavy drinking
 - Aspects of the college experience may augment the risk for either of these, or both together
- Trauma, traumatic stress symptoms, and substance use commonly co-occur
 - Influence one another over time
- Examination of trauma/PTSD associations with alcohol involvement, in college students largely overlooked
 - Examine prevalence of trauma, PTSD, and model the longitudinal course of substance use and traumatic stress in students at their transition into and over the course of college.

Procedural Flow Chart



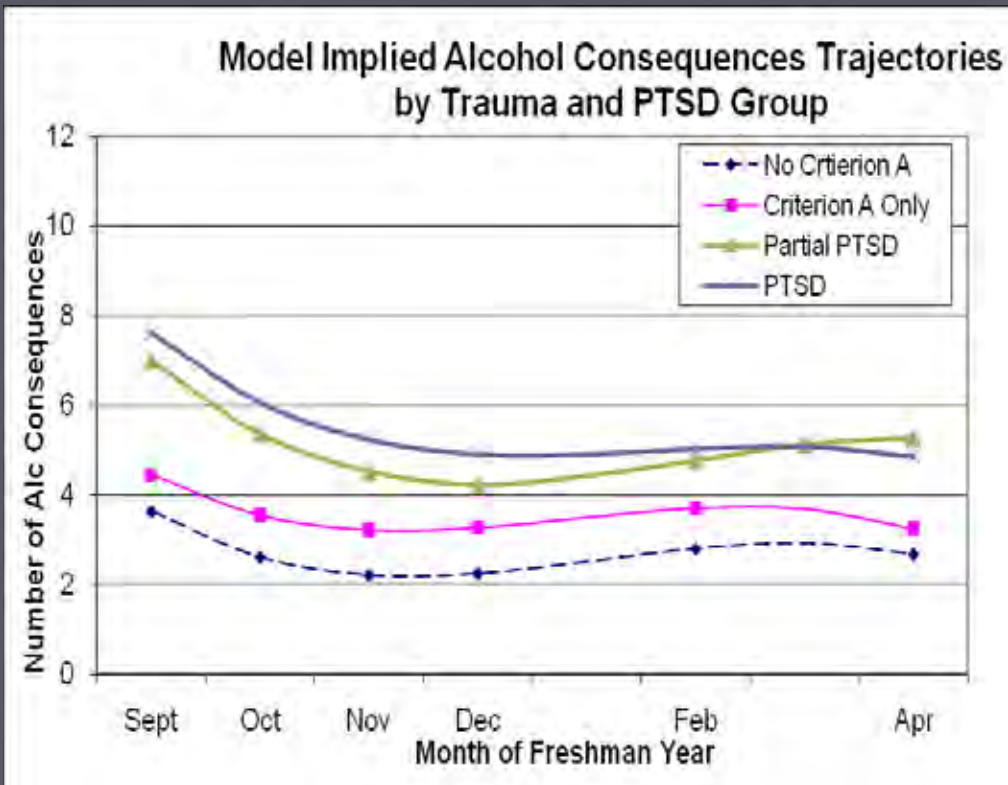
PROSPECTIVE COURSE OF TRAUMA, PTSD, AND SUBSTANCE USE



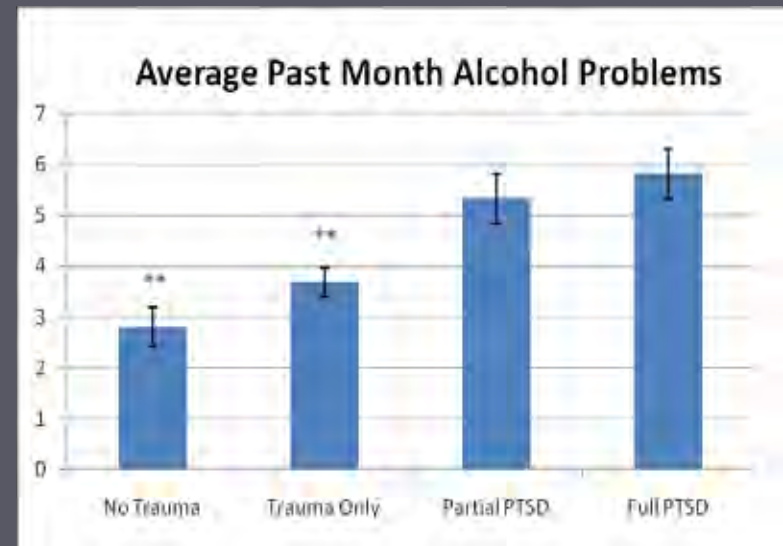
QUESTION 1

WHAT IS THE EFFECT OF PTSD AT COLLEGE MATRICULATION ON THE COURSE OF ALCOHOL, OTHER SUBSTANCE USE IN THE FIRST YEAR OF COLLEGE?

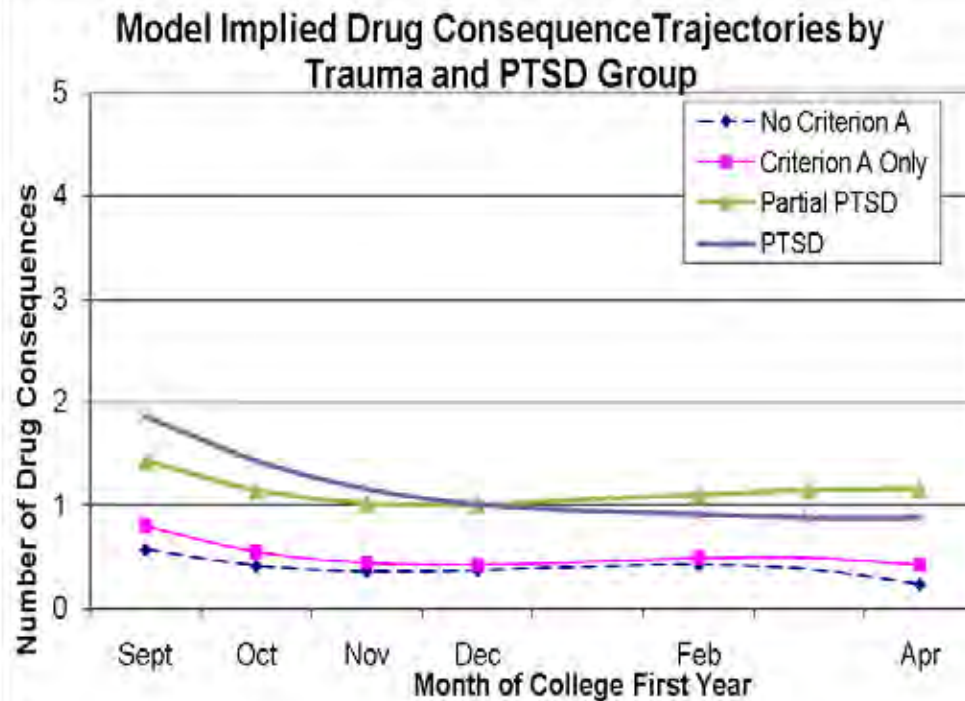
Alcohol and Other Drug Problems as a Function of PTSD Symptom Status



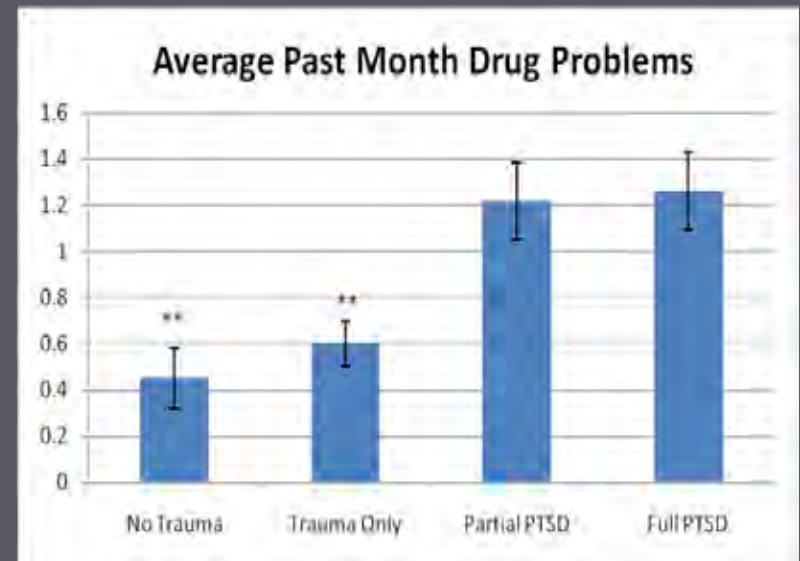
ALCOHOL: Higher rates of alcohol problems across the college years, faster declines in 1st semester.



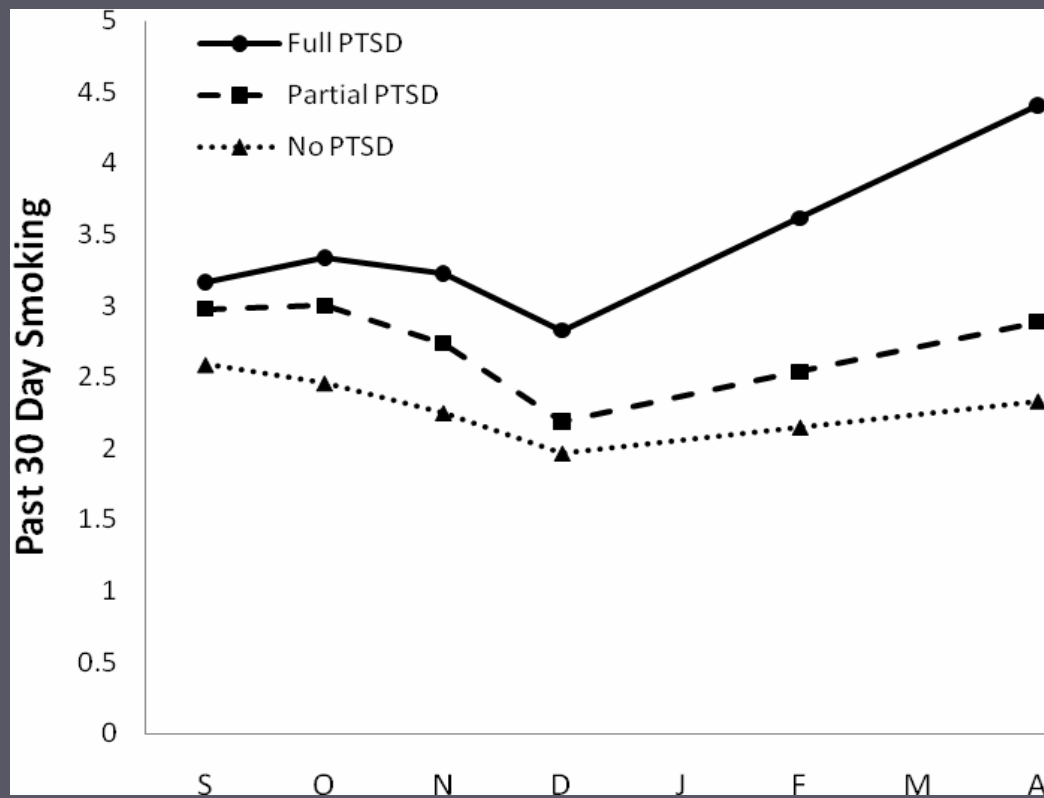
Other Drug Problems as a Function of PTSD at Matriculation



OTHER DRUGS: Higher rates of other drug problems at matriculation, faster declines in 1st semester.



Smoking Trajectories over the 1st College Year



Evidence of greater smoking increases in 2nd semester for those with PTSD.

Read, Wardell, Vermont & Colder, 2012

Question 1: Conclusions

- ❑ Entering college with PTSD – even partial PTSD-
places students at risk for alcohol consequences
 - ❑ Risk greatest in first 1-3 months of college
 - ❑ Persists across year
- ❑ Pattern appears to be the same for other drugs
- ❑ Smoking over the year also affected, but effect
most dramatic as year progresses

QUESTION 2

WHAT ARE THE EFFECTS OF ALCOHOL USE,
TRAUMA EXPOSURE ON PTSD SYMPTOM
COURSE OVER THE FIRST COLLEGE YEAR?

Question 2

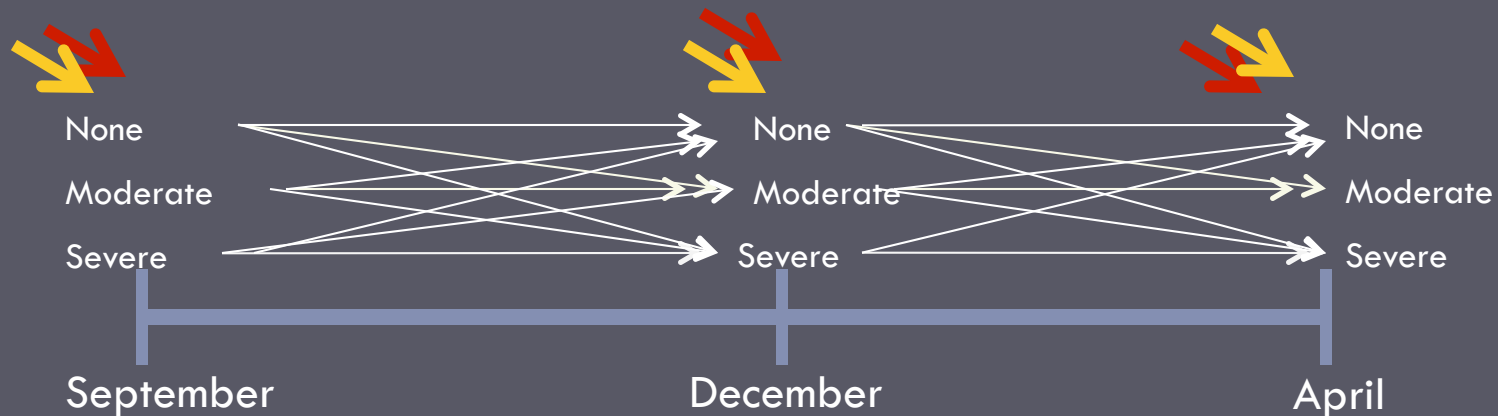
- Examined latent classes of PTSD symptoms in matriculating 1st year students (N=944), what predicted transition into and out of these classes over time.
 - Trauma exposure
 - Alcohol involvement
 - Three time points in first year:
 - September – December - April

PTSD Symptom Patterns

- Identified 3 classes of PTSD symptoms (None, Moderate, Severe)
- Saw a lot of variability (transitioning) over the first year of college
- Most typically saw symptom resolution, HOWEVER, substantial subset (n=241, 26%) did not resolve or got worse.

	Sept	Dec	April	N
1	None	None	None	324
2	Moderate	Absent	Absent	189
3	Moderate	Moderate	Moderate	74
4	Severe	Severe	Severe	56
5	Severe	Moderate	Moderate	44
6	Moderate	Moderate	Absent	37
7	Moderate	Severe	Moderate	32
8	Severe	Absent	Absent	30
9	Absent	Absent	Moderate	20
10	Moderate	Moderate	Severe	18
11	Severe	Moderate	Absent	16
12	Severe	Moderate	Severe	14

Influence of Alcohol, Trauma Exposure on PTSD Symptom Changes



- What predicts transitions into, out of PTSD classes over time?
 - ▣ Trauma exposure
 - ▣ Alcohol involvement
- Trauma consistently predicted PTSD worsening, non-resolution.
- Some evidence that alcohol associated with PTSD symptoms worsening, non-resolution

PTSD-Alcohol Summary Conclusions

- ❑ Matriculation peak time for effects of PTSD on alcohol involvement
- ❑ Risk conferred by trauma, PTSD persists over first year
 - ▣ Greater risk for PTSD than trauma alone
 - ▣ Shows variability depending on the substance (e.g., smoking)
- ❑ Alcohol involvement also affects PTSD over time
 - ▣ Drinking likely to lead to worsening of PTSD symptoms
- ❑ Reciprocal effects?

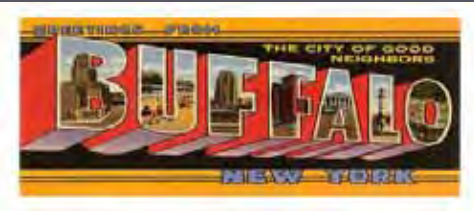


Application of findings

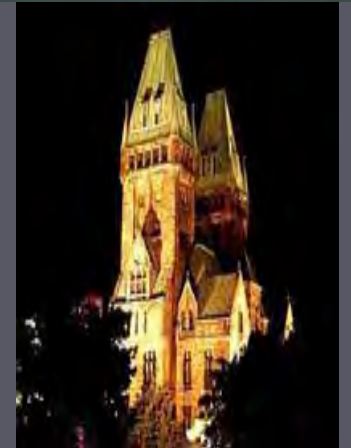
- Given risk early in 1st college year, early screening and intervention important
- Target coping, other self-medicating processes in intervention
- Intervention on heavy drinking may also ameliorate PTSD symptoms
- Comprehensive assessment of multiple domains of distress appears warranted.
- College-based treatments of co-occurring disorders not well examined.

General Conclusions and Future Directions

- Comorbidity in college students can have substantial and broad impact
 - ▣ Currently few services in place to identify, treat co-morbidity
- Need to make students aware of resources early on
- Better integration of research findings with on-campus services
 - ▣ Counseling Centers, Psychological Clinics
 - ▣ Wellness initiatives
 - ▣ Administration, university policy
- Relations between university-, community-based resources
- Integrated mental health
 - ▣ VA systems as model



Acknowledgments



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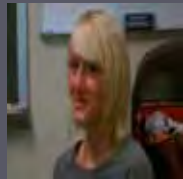


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