

The Healthy Minds Network



Webinar Series, Session #1
June 28, 2013

Agenda for Today's Webinar

Welcome

About the Healthy Minds Network (HMN) and webinar series

- Today's topic: Mental health and college student success

Introductory presentations [25 minutes]

- Sarah Ketchen Lipson & Daniel Eisenberg, *University of Michigan*
- Amelia Arria, *University of Maryland*
- Chris Brownson & Teresa Granillo, *University of Texas*

Discussion [35 minutes]

About the Healthy Minds Network (HMN)



Sarah Ketchen Lipson,
University of Michigan

What is HMN?

The Healthy Minds Network for Research on Adolescent and Young Adult Mental Health

- Self-sustaining research-to-practice network based at University of Michigan
- Public health approach to mental health among young people
- Started in late 2012
- HMN core team: Daniel Eisenberg, Sarah Ketchen Lipson, Katie Beck, Blake Wagner III, Rebecca Lindsay, Jun Zhang, John Miller
- HMN working group (20+ people)

Building a collaborative, international network to:

- (1) produce knowledge (*research*)
- (2) distribute knowledge (*dissemination*)
- (3) use knowledge (*practice*)

New Resource: HMN Website



The Healthy Minds Network

for Research on Adolescent and Young Adult Mental Health

HOME FOR SCHOOLS NEWS BLOG RESEARCH EVENTS ABOUT LOGIN

HEALTHY
MINDS
STUDY

U-SHAPE

INKBLOTS

OTHER
PROJECTS

Welcome to the Healthy Minds Network

The *Healthy Minds Network for Research on Adolescent and Young Adult Mental Health (HMN)* is dedicated to improving the mental and emotional well-being of young people through innovative, multidisciplinary scholarship. HMN addresses the connection between the mental health of adolescents and young adults and their health behaviors, physical health, and social, educational, and economic outcomes. Taking a public health approach, HMN focuses on three main objectives: (1) producing knowledge (*research*), (2) distributing knowledge (*dissemination*), and (3) building and strengthening an international research-to-practice network (*collaboration*). Through a rich array of research projects, the network serves as a resource for researchers, clinicians, secondary and higher education administrators, policymakers, and the public. Based at the University of Michigan, HMN is headed by a team of scholars from fields including public health, education, medicine, psychology, and information sciences, many of whom are affiliated with the UM Comprehensive Depression Center.

****Upcoming *webinar* on mental health and academic outcomes! *Free and no special software needed* .****

****Click [here](#) for details****

Who is Part of the Network?

Researchers

Clinicians

Advocates

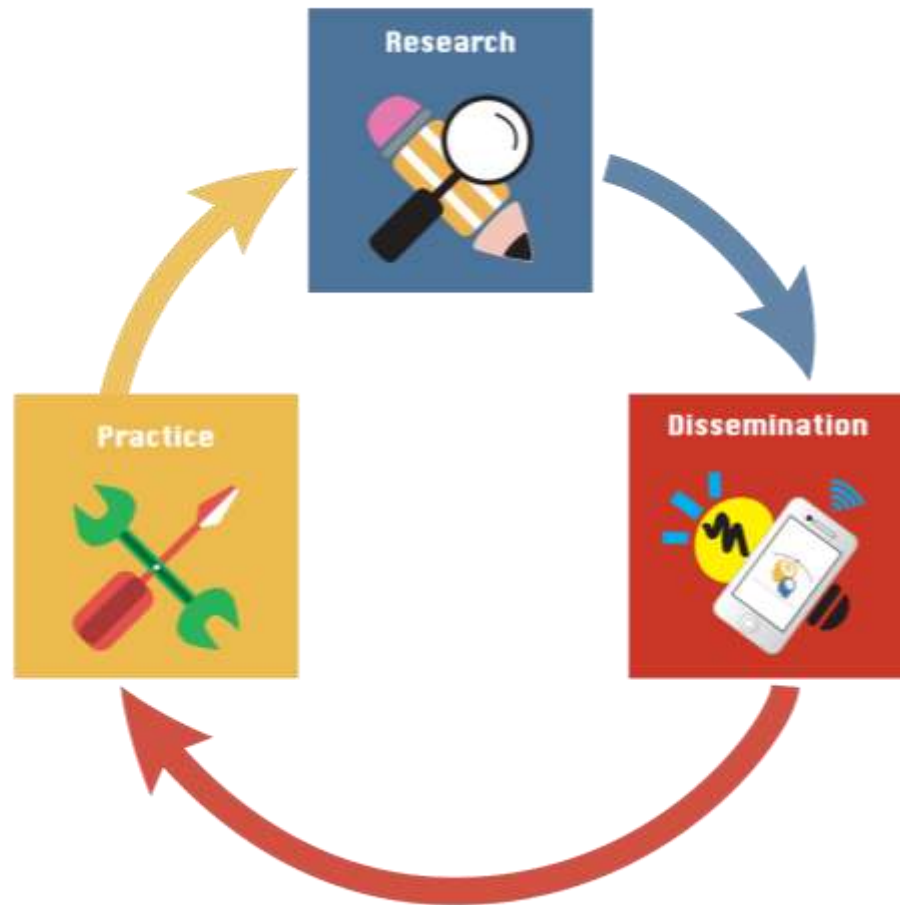
Campus practitioners

Schools (colleges, universities, high schools)



How can we work together?

Research-to-Practice Feedback Loop



HMN Research Overview

Survey-based studies

- Healthy Minds Study
- U-SHAPE: University Study of Habits, Attitudes, and Perceptions around Eating

Intervention studies

- *inkblots*, Mental Health First Aid, e-Bridge

Participate in HMN Research

Healthy Minds Study enrolling schools for 2014

New enhancements

- Interactive web interface
- *-explore your data further*
- *-generate graphs and tables for presentations*
- Improved data reports

Benefits of participation

- Easier than ever to participate
- Many uses of HMN data...



Uses of HMN Data

Assess need

Raise awareness

Compare to peer institutions →

Apply for grants

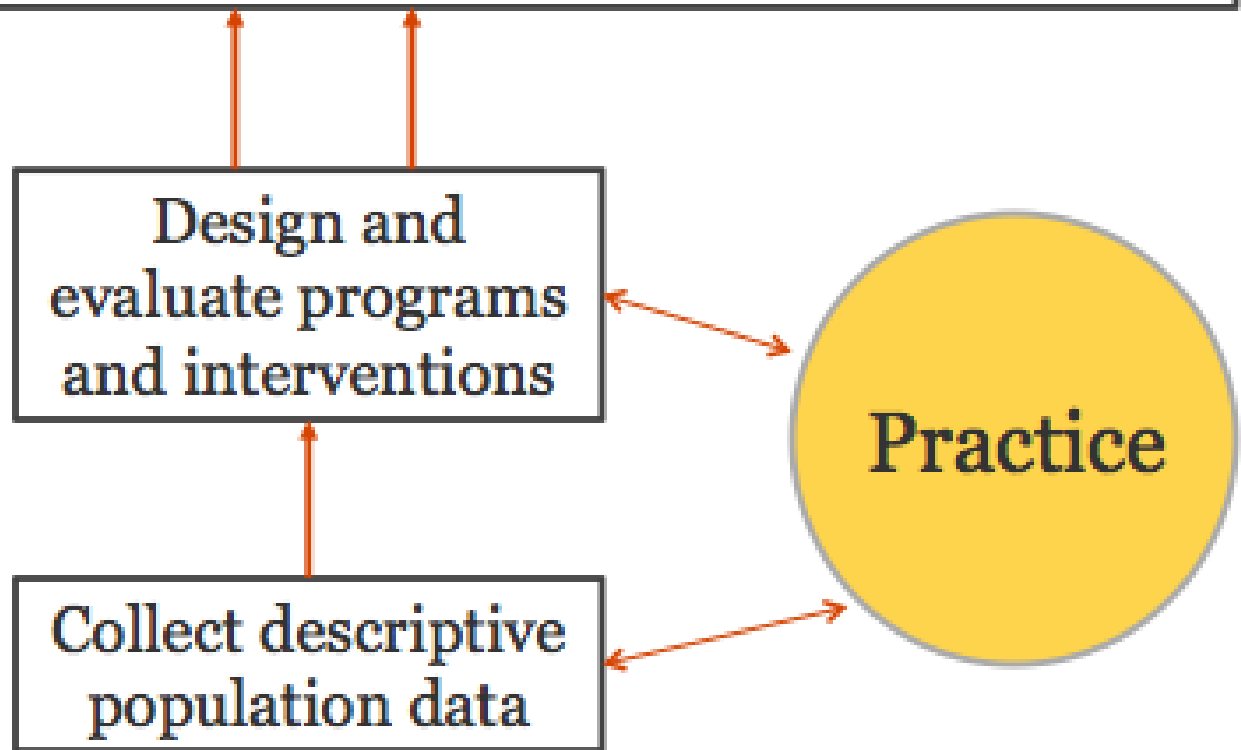
Advocate for resources

Develop and improve campus programs



Research-to-Practice, from Economic Perspective

How to invest most efficiently in health (and long-term success and wellbeing) in youth populations?



Mental Health and Academic Success in College

Daniel Eisenberg,
University of Michigan

Context

Not everyone recognizes the importance of mental health-> important to understand the link between mental health and other outcomes

Americans are inundated with messages about success—in school, in a profession, in parenting, in relationships—without appreciating that successful performance rests on a foundation of mental health” (U.S. Surgeon General’s Report on Mental Health, 1999, p. 4-5)

College students report depression and anxiety among top impediments to academic performance (ACHA, 2011)

Research Overview

Study: Eisenberg, Golberstein, & Hunt (2009)

- Detailed descriptive analysis of association between mental health and academic outcomes in college

Question: How does mental health predict academic success in college?

Data: random sample of undergraduate and graduate students at 1 university (baseline: 2005 (N=2,798), follow-up: 2007 (N=747))

Main outcomes: GPA and retention

Key explanatory variables: depression and anxiety (PHQ), eating disorders (SCOFF)

Mental health measures linked to university academic records (including previous academic performance)

Main Findings

Depression (PHQ-9 score) predicts student retention

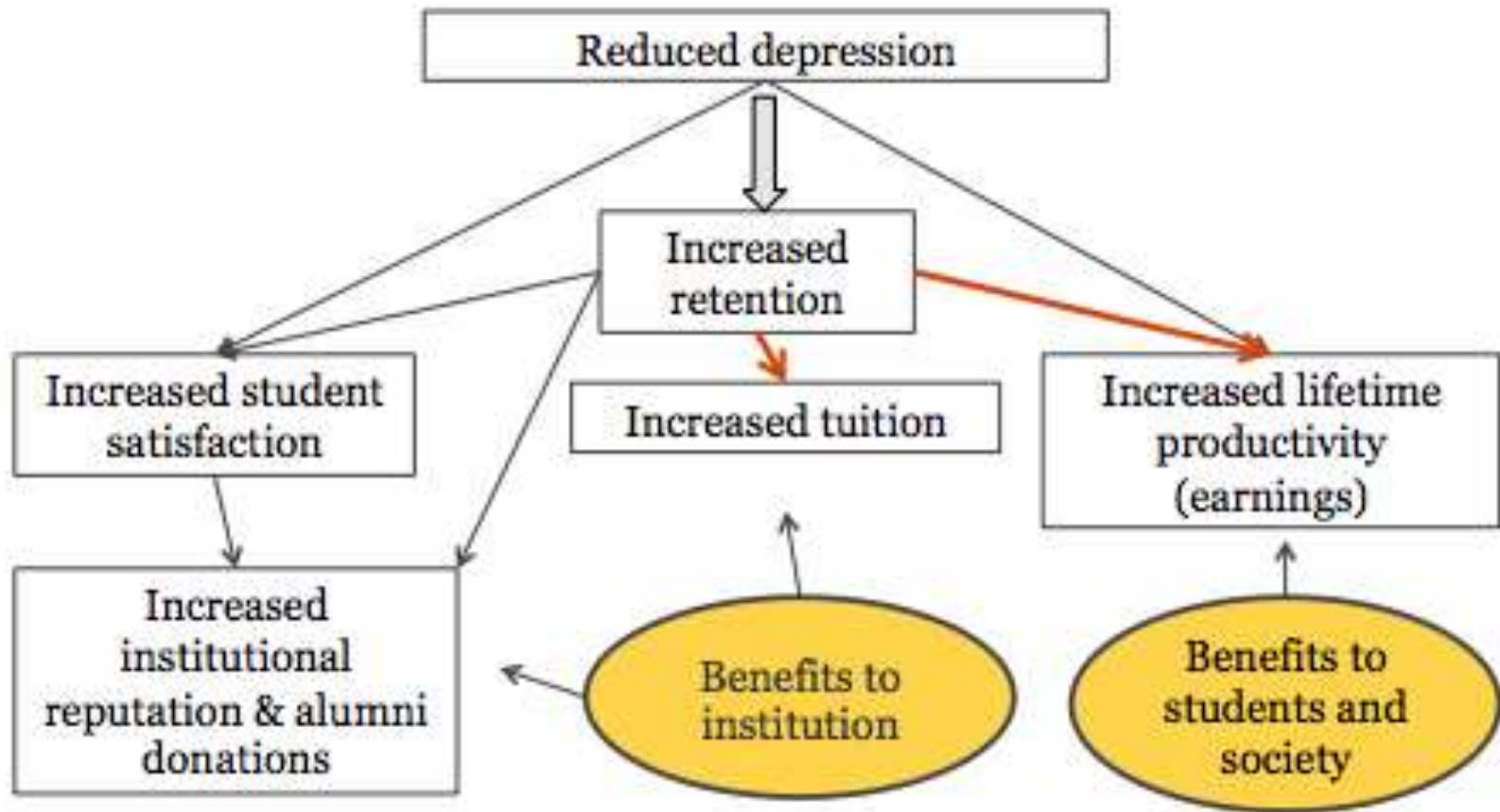
- Depressed: 10% departure rate
- Non-depressed: 6% departure rate

GPA predicted by depression, anxiety, disordered eating

Economic case for program treating 500 depressed students

- Costs ~ \$500,000
- Tuition from retained students: > \$1 million
- Lifetime earnings for students: > \$2 million

Economic Case for MH Services



Implications

Strong economic case for mental health services and programs

Opportunities to prevent drop-out (assessing risk based on academic performance *and* mental health status)

- Low GPA in previous semester
- Positive screen for a mental health problem

Applied to sample considered here, **adding mental health criteria would increase identification of students who eventually drop out** (from identification of 11% to identification of 30% of all drop-outs)

Research Considerations

Internal validity: need for more definitive causal estimates of the effects of mental health on college success (RCTs)

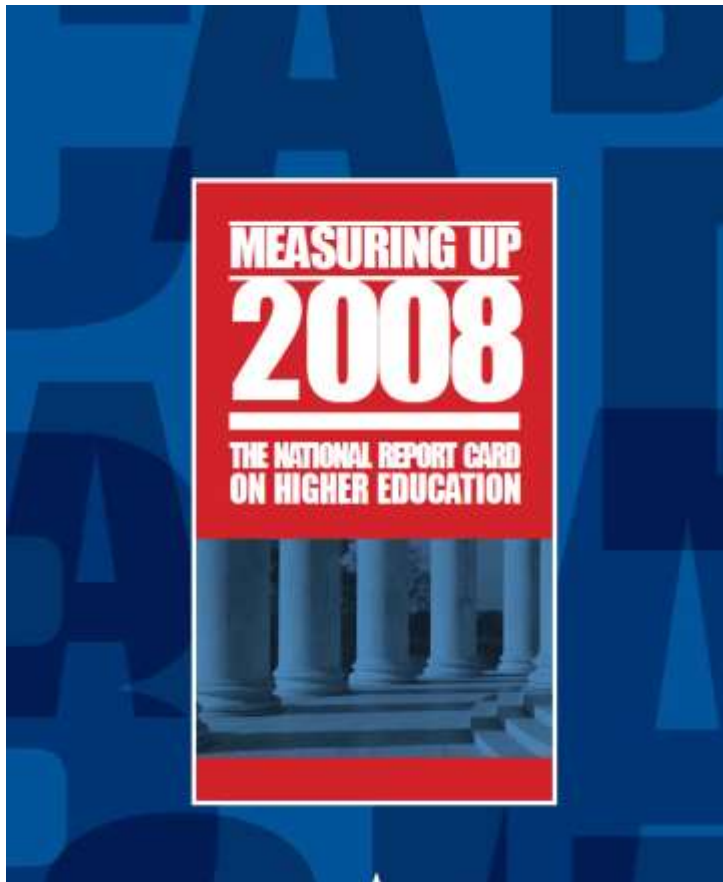
External validity: how does the MH-success relationship vary across schools (size, location, competitiveness, community colleges, etc.)? (NOTE: replication of analysis at small art and design school found similar results)



Findings from The College Life Study (CLS)

Amelia Arria,
University of Maryland

Impact on Global Competitiveness



“Low college completion rates—as with the declining rates of high school completion—are depriving the nation of college-educated and trained workers need to keep the American workforce competitive globally.”

Readiness for Employment

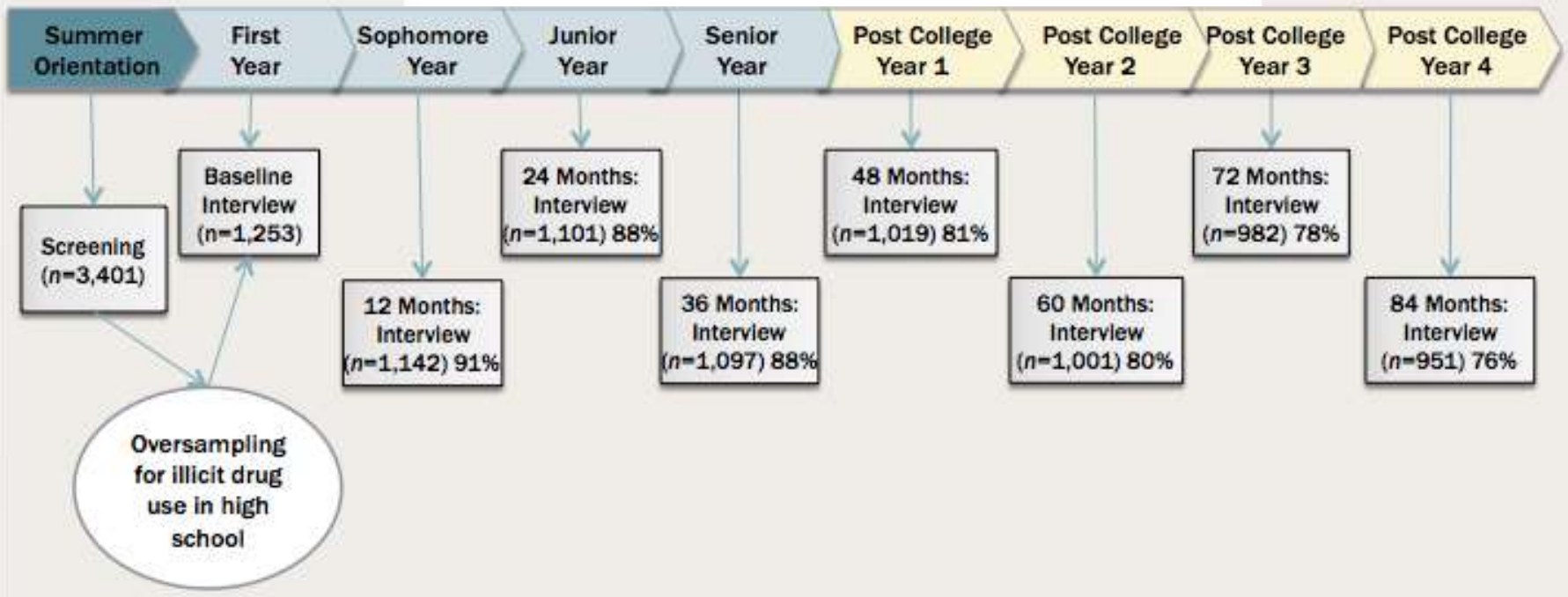
A TEST OF LEADERSHIP

Charting the Future of U.S. Higher Education

A Report of the Commission Appointed by
Secretary of Education Margaret Spellings

“There are disturbing signs that many students who do earn degrees have not actually mastered the reading, writing, and thinking skills we expect of college graduates. Over the past decade, literacy among college graduates has actually declined. ***Unacceptable numbers of college graduates enter the workforce without the skills employers say they need in an economy in which, as the truism holds correctly, knowledge matters more than ever.***”

College Life Study



Major Domains Measured in the CLS



Demographics

Family Composition
Gender
Race/Ethnicity
Socioeconomic Status
Parental Education



Individual Characteristics

Personality/Temperament
Religiosity
Sensation-seeking
Physical Health



Stress & Social Support

Peer Relations
Peer Drug Use



Parent Influences

Parental Monitoring
Relationship Quality
Communication
Parental Authority Style
Family History



Alcohol and Other Drugs

DSM-IV Disorders
Quantity/Frequency
Consequences
Nonmedical Prescription Drug Use
Sharing & Selling Prescription Drugs
Perceived Harmfulness



Academic Achievement Personal Goals Employment Quality of Life



Mental Health

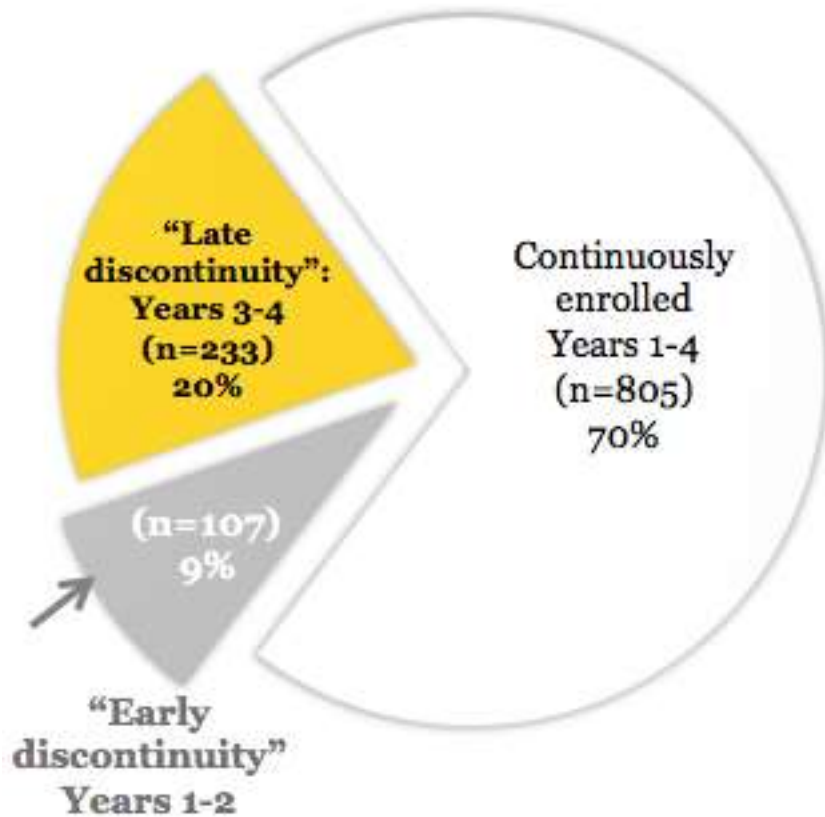
Major Depression
Bipolar Disorder
Anxiety Disorder
ADHD
Suicidal Behaviors

Health Services

Conceptual Model



Mental Health Problems Related to Discontinuous Enrollment During College



Individuals who were diagnosed with depression during college were three times more likely to experience early discontinuity, even after controlling for demographics, drug and alcohol use, and high school GPA.

Arria et al. (in press) Discontinuous enrollment during college: Associations with substance use and mental health. *Psychiatric Services*.

Marijuana Use and Mental Health

Some studies have demonstrated an association between marijuana use and bipolar, major depression and mania (Henquet, 2006).

Clear evidence has accumulated showing that marijuana is a contributory factor for the development of schizophrenia (DiForti, 2009; Bossong, 2010; Arseneault, 2004).

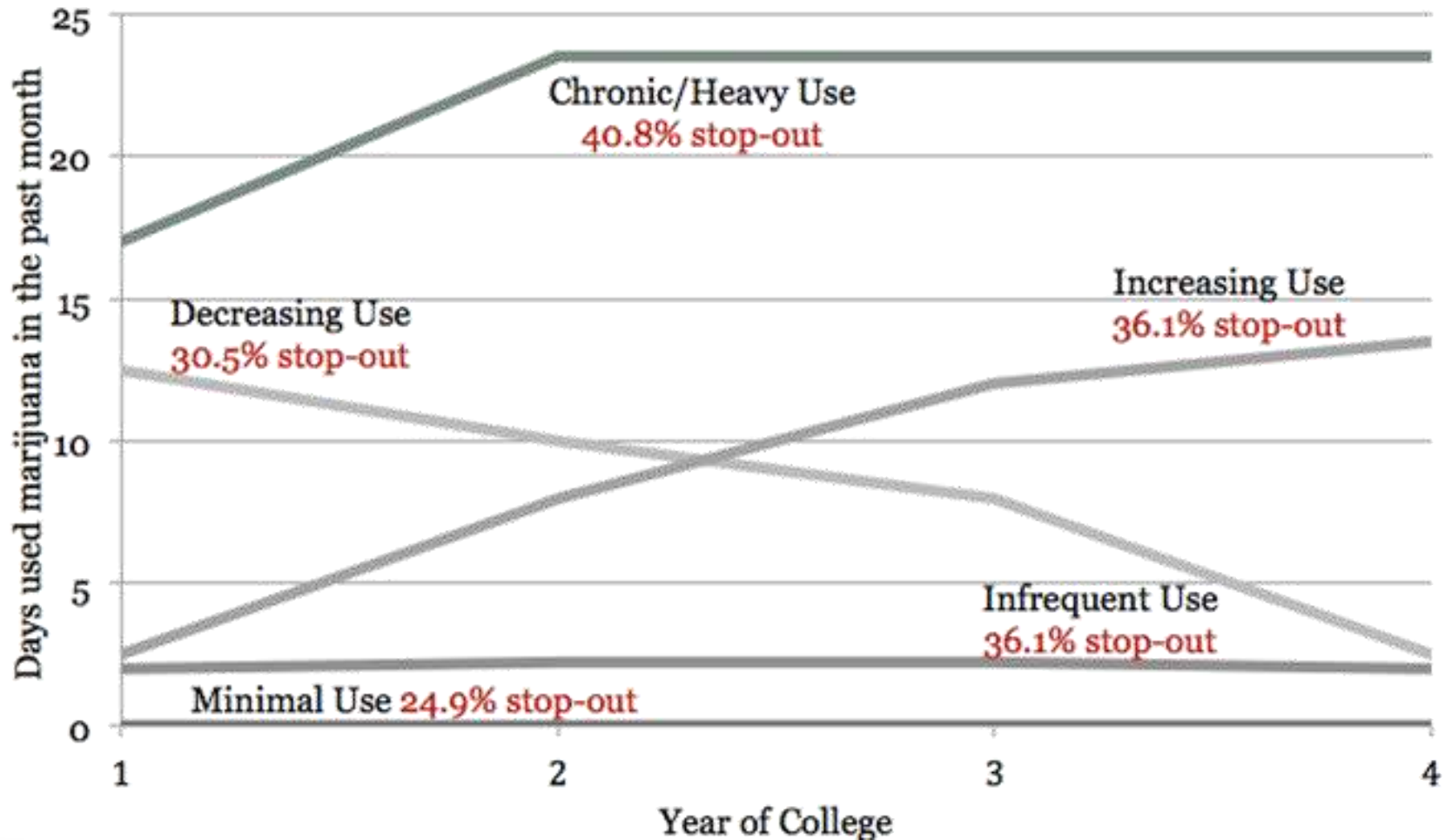
Mental Health and Substance Use

Excessive drinking, drug use, and mental health problems tend to cluster among the same students, but their effects on academic outcomes do not overlap completely.

The effects of mental health and substance use on academic outcomes are separate and additive.

Academic consequences of drinking (e.g., falling behind on work, missing class) can be more pronounced when the drinker also has mental health problems.

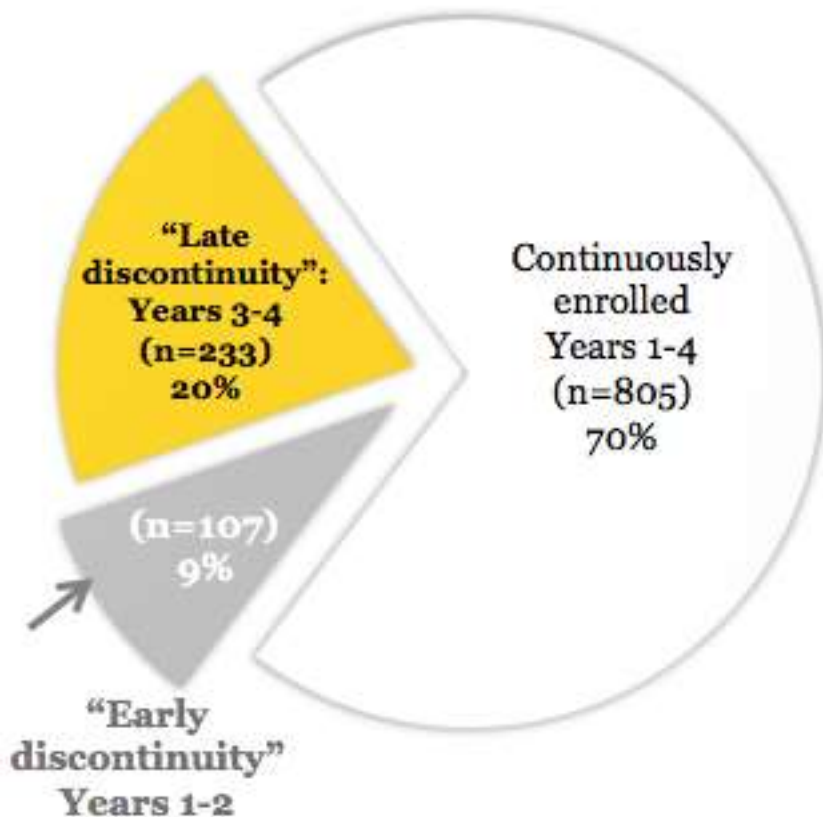
Discontinuous Enrollment and Past-month Marijuana Use



(References listed at the end of presentation)

Marijuana and Alcohol Use: Relationships to Discontinuous Enrollment

Discontinuity during college



First year alcohol use (typical number of drinks/day) and frequency of marijuana use was related to late discontinuity, even after controlling for demographics, psychiatric symptoms and diagnosis, and high school GPA.

Arria et al. (in press) Discontinuous enrollment during college: Associations with substance use and mental health. Psychiatric Services.

Expand Role of Academic Assistance Centers

Implement AOD/mental health screening in academic assistance centers.

Focus on students who are struggling academically.



Include questions about concentration problems, missed classes due to AOD use, and personal academic goals.

“Connect the dots” for students regarding the contribution of AOD use to mental health and to academic difficulties.

Expand Role of Academic Assistance Centers

Explain how continued AOD use and untreated mental health problems can compromise long-term opportunities.

Empower staff who work at academic assistance centers to assess and respond to AOD and mental health problems.

Monitor both AOD use and academic performance to chart progress to student.

New Study on Mental Health and Academic Performance

**Chris Brownson & Teresa Granillo,
*University of Texas***

**THE NATIONAL RESEARCH CONSORTIUM
OF COUNSELING CENTERS IN HIGHER EDUCATION**

Founded in 1991 at UT Austin

6 completed studies to date

Membership is determined study-by-study

Structure of Proposed Study

Scale:

National

Multiple higher education institutions

Duration:

Longitudinal, follow cohort of students for 4 or 5 years

Data Collection:

Annual or bi-annual

Goal:

Explore intersection between mental health, mental health service utilization, and academic outcomes in a non-clinical, college campus context

Constructs of Interest: Positive & Risk Factors

Connectedness (e.g., social, school)

Motivation

Self-efficacy

Resiliency

Coping

Sense of Coherence

Mental health literacy

Alcohol/substance use/abuse

Mental health: Wellness, wellbeing, mental health continuum, flourishing vs. languishing, psychological disorders

Academic outcomes: GPA, graduation, yearly retention

DISCUSSION

Guiding Questions

How could the work presented today re: mental health academic outcomes inform your work? What more should we do?

How can research inform the development of innovative programs at the intersection of academic and emotional success?

What is an efficient and effective way to get student, self-reported, survey data about mental health from a non-clinical population (i.e.: PHQ, SCL, etc.)?

In the National Research Consortium study, what do you all think of the independent variables listed as they relate to academic outcomes? What is most intriguing? What is missing? What should be deleted?

WRAP-UP

Other Elements of HMN

Regular communication with Network members

- Research briefs (monthly)
- Webinar series (bi-monthly)
- Conversations with participating schools

Annual Research Symposium (March 11-12, 2014)

Next generation of scholars



Getting Involved

Healthy Minds Network: healthymindsnetwork.org

College Life Study: www.cls.umd.edu

The National Research Consortium of Counseling Centers in Higher Education: www.cmhc.utexas.edu/researchconsortium.html

THANK YOU FOR JOINING US!



More information

Email: healthyminds@umich.edu

Web: www.healthymindsnetwork.org

Key References

Findings presented by Daniel Eisenberg come from:

Eisenberg, D., Golberstein, E., & Hunt, J. B. (2009). Mental health and academic success in college. *The BE Journal of Economic Analysis & Policy*, 9(1).

Findings presented by Amelia Arria come from:

Arria, A. M., Caldeira, K. M., Vincent, K. B., Winick, E. R., Baron, R. A., & O'Grady, K. E. (2013a). Discontinuous college enrollment: Associations with substance use and mental health. *Psychiatric Services*, 64(2), 165-172.

Arria, A. M., Garnier-Dykstra, L. M., Caldeira, K. M., Vincent, K. B., Winick, E. R., & O'Grady, K. E. (2013b). Drug use patterns and continuous enrollment in college: Results from a longitudinal study. *Journal of Studies on Alcohol and Drugs*, 74(1), 71-83.

Other References

American College Health Association. American College Health Association-National College Health Assessment II: Reference Group Executive Summary Fall 2011. Hanover, MD: American College Health Association; 2012.

Arria, A. M., Kuhn, V., Caldeira, K. M., O'Grady, K. E., Vincent, K. B., & Wish, E. D. (2008a). High school drinking mediates the relationship between parental monitoring and college drinking: A longitudinal analysis. *Substance Abuse Treatment, Prevention, and Policy*, 3(6), 1-11.

Arria, A. M., O'Grady, K. E., Caldeira, K. M., Vincent, K. B., & Wish, E. D. (2008b). Nonmedical use of prescription stimulants and analgesics: Associations with social and academic behaviors among college students. *Journal of Drug Issues*, 38(4), 1045-1060.

Arria, A. M., Garnier-Dykstra, L. M., Cook, E. T., Caldeira, K. M., Vincent, K. B., Baron, R. A., & O'Grady, K. E. (2013c). Drug use patterns in young adulthood and post-college employment. *Drug and Alcohol Dependence*, 127(1-3), 23-30.

Arria, A. M., Wilcox, H. C., Caldeira, K. M., Vincent, K. B., Garnier-Dykstra, L. M., & O'Grady, K. E. (2013d). Dispelling the myth of "smart drugs": Cannabis and alcohol use problems predict nonmedical use of prescription stimulants for studying. *Addictive Behaviors*, 38(3), 1643-1650.

Blanco, Okuda, Wright, Hasin, Grant, Liu, & Olfson (2008). Mental health of college students and their non-college attending peers: Results from the National Epidemiologic Study on Alcohol and Related Conditions. *Arch Gen Psychiatry*. 65(12):1429-1437.

Other References

Bolla, K. I., Brown, K., Eldreth, D., Tate, K., & Cadet, J. L. (2002). Dose-related neurocognitive effects of marijuana use. *Neurology*, *59*(9), 1337-1343.

Borsari, B., & Carey, K. B. (2000). Effects of a brief motivational intervention with college student drinkers. *Journal of Consulting and Clinical Psychology*, *68*(4), 728-733.

Breslau, J., Lane, M., Sampson, N., & Kessler, R. C. (2008). Mental disorders and subsequent educational attainment in a US national sample. *Journal of Psychiatric Research*, *42*(9), 708-716.

Brown, S. A., Tapert, S. F., Granholm, E., & Delis, D. C. (2000). Neurocognitive functioning of adolescents: Effects of protracted alcohol use. *Alcoholism: Clinical and Experimental Research*, *24*(2), 164-171.

Carey, K. B., Carey, M. P., Maisto, S. A., & Henson, J. M. (2006). Brief motivational interventions for heavy college drinkers: A randomized controlled trial. *Journal of Consulting and Clinical Psychology*, *74*(5), 943-954.

de la Jara, R. (2006). IQ percentile and rarity chart. Retrieved May 1, 2013, from <http://www.iqcomparisonsite.com/iqtable.aspx>

Department of Education. (2012). *Fiscal year 2013 budget summary and background information*. Washington, DC: Department of Education.

Dill, A. L., Gilbert, J. A., Hill, J. P., Minchew, S. S., & Sempier, T. A. (2010). A successful retention program for suspended students. *Journal of College Student Retention: Research, Theory and Practice*, *12*(3), 277-291.

Other References

DuPont, R. L., Caldeira, K. M., DuPont, H. S., Vincent, K. B., Shea, C. L., & Arria, A. M. (2013). *America's dropout crisis: The unrecognized connection to adolescent substance use*. Rockville, MD: Institute for Behavior and Health.

Ehrenreich, H., Rinn, T., Kunert, H. J., Moeller, M. R., Poser, W., Schilling, L., Gigerenzer, G., & Hoehe, M. R. (1999). Specific attentional dysfunction in adults following early start of cannabis use. *Psychopharmacology, 142*(3), 295-301.

Eisenberg, D., Gollust, S. E., Golberstein, E., & Hefner, J. L. (2007). Prevalence and correlates of depression, anxiety, and suicidality among university students. *American Journal of Orthopsychiatry, 77*(4), 534-542. doi:10.1037/0002-9432.77.4.534

Eisenberg, D., Golberstein, E., & Hunt, J. B. (2009). Mental health and academic success in college. *The B.E. Journal of Economic Analysis and Policy, 9*(1), 1-35. doi:10.2202/1935-1682.2191

Fontes, M. A., Bolla, K. I., Cunha, P. J., Almeida, P. P., Jungerman, F., Laranjeira, R. R., Bressan, R. A., & Lacerda, A. L. T. (2011). Cannabis use before age 15 and subsequent executive functioning. *The British Journal of Psychiatry, 198*(6), 442-447.

Guide to Community Preventative Services. (2006, 12/16/2011). Preventing excessive alcohol consumption: Enforcement of laws prohibiting sales to minors. Retrieved April 3, 2013, from <http://www.thecommunityguide.org/alcohol/lawsprohibitingsales.html>.

Hunt, J., Eisenberg, D., & Kilbourne, A. M. (2010). Consequences of receipt of a psychiatric diagnosis for completion of college. *Psychiatric Services, 61*(4), 399-404.

Other References

Hustad, J. T. P., Barnett, N. P., Borsari, B., & Jackson, K. M. (2010). Web-based alcohol prevention for incoming college students: A randomized controlled trial. *Addictive Behaviors, 35*(3), 183-189.

Ipsos Public Affairs. (2012). *How America pays for college 2012*. Washington, DC: Sallie Mae.

Kessler, R. C., & Foster, C. L. (1995). Social consequences of psychiatric disorders, I: Educational attainment. *American Journal of Psychiatry, 152*(7), 1026-1032.

Kulesza, M., McVay, M. A., Larimer, M. E., & Copeland, A. L. (2013). A randomized clinical trial comparing the efficacy of two active conditions of a brief intervention for heavy college drinkers. *Addictive Behaviors, 38*(4), 2094-2101.

Martinez, J. A., Sher, K. J., & Wood, P. K. (2008). Is heavy drinking really associated with attrition from college? The alcohol-attrition paradox. *Psychology of Addictive Behaviors, 22*(3), 450-456.

Meier, M. H., Caspi, A., Ambler, A., Harrington, H., Houts, R., Keefe, R. S. E., McDonald, K., Ward, A., Poulton, R., & Moffitt, T. E. (2012). Persistent cannabis users show neuropsychological decline from childhood to midlife. *Proceedings of the National Academy of Sciences, 109*(40), E2657-2664.

Mezquita, L., Stewart, S. H., & Ruipérez, Á. (2010). Big-five personality domains predict internal drinking motives in young adults. *Personality and Individual Differences, 49*(3), 240-245.

National Center for Education Statistics. (2012). Integrated postsecondary education data system. Retrieved January 17, 2012, from <http://nces.ed.gov/ipeds/>.

Other References

National Center for Public Policy and Higher Education. (2008). *Measuring up 2008: The national report card on higher education*. San Jose, CA: National Center for Public Policy and Higher Education.

National Institute on Alcohol Abuse and Alcoholism. (2012). *Fact sheet: College drinking*. Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism.

Nelson, T. F., Toomey, T. L., Lenk, K. M., Erickson, D. J., & Winters, K. C. (2010). Implementation of NIAAA College Drinking Task Force recommendations: How are colleges doing 6 years later? *Alcoholism: Clinical and Experimental Research*, *34*(10), 1687-1693.

Pascarella, E. T., Tagliapietra-Nicoli, G., Goodman, K. M., Park, S., Seifert, T. A., & Whitt, E. J. (2007). College student binge drinking and academic achievement: A longitudinal replication and extension. *Journal of College Student Development*, *48*(6), 715-727.

Pinchevsky, G. M., Arria, A. M., Caldeira, K. M., Garnier-Dykstra, L. M., Vincent, K. B., & O'Grady, K. E. (2012). Marijuana exposure opportunity and initiation during college: Parent and peer influences. *Prevention Science*, *13*(1), 43-54.

Pope, H. G., Jr., Gruber, A. J., Hudson, J. I., Cohane, G., Huestis, M. A., & Yurgelun-Todd, D. (2003). Early-onset cannabis use and cognitive deficits: What is the nature of the association? *Drug and Alcohol Dependence*, *69*(3), 303-310.

Rosander, P., Backstrom, M., & Stenberg, G. (2011). Personality traits and general intelligence as predictors of academic performance: A structural equation modelling approach. *Learning and Individual Differences*, *21*(5), 590-596.

Other References

- Schulenberg, J., O'Malley, P. M., Bachman, J. G., Wadsworth, K. N., & Johnston, L. D. (1996). Getting drunk and growing up: Trajectories of frequent binge drinking during the transition to young adulthood. *Journal of Studies on Alcohol*, *57*(3), 289-304.
- Scribner, R., Mason, K., Theall, K., Simonsen, N., Schneider, S. K., Towvim, L. G., & deJong, W. (2008). The contextual role of alcohol outlet density in college drinking. *Journal of Studies on Alcohol & Drugs*, *69*(1), 112-120.
- Scribner, R. A., Theall, K. P., Mason, K., Simonsen, N., Schneider, S. K., Towvim, L. G., & Dejong, W. (2011). Alcohol prevention on college campuses: The moderating effect of the alcohol environment on the effectiveness of social norms marketing campaigns. *Journal of Studies on Alcohol & Drugs*, *72*(2), 232-239.
- Singleton, R. A., & Wolfson, A. R. (2009). Alcohol consumption, sleep, and academic performance among college students. *Journal of Studies on Alcohol & Drugs*, *70*(3), 355-363.
- Solowij, N., Jones, K., Rozman, M., Davis, S., Ciarrochi, J., Heaven, P. L., Lubman, D., & Yücel, M. (2011). Verbal learning and memory in adolescent cannabis users, alcohol users and non-users. *Psychopharmacology*, *216*(1), 131-144.
- Solowij, N., Stephens, R. S., Roffman, R. A., Babor, T., Kadden, R., Miller, M., Christiansen, K., McRee, B., & Vendetti, J. (2002). Cognitive functioning of long-term heavy cannabis users seeking treatment. *Journal of the American Medical Association*, *287*(9), 1123-1131.
- Takagi, M., Yucel, M., Cotton, S. M., Baliz, Y., Tucker, A., Elkins, K., & Lubman, D. I. (2011). Verbal memory, learning, and executive functioning among adolescent inhalant and cannabis users. *Journal of Studies on Alcohol and Drugs*, *72*(1), 96-105.

Other References

The Task Force on Community Preventative Services. (2009). Recommendations for reducing excessive alcohol consumption and alcohol-related harms by limiting alcohol outlet density. *American Journal of Preventive Medicine*, 37(6), 570-571.

Thompson, K. M. (2007). Alcohol-related legal infractions and student retention. *Journal of Studies on Alcohol and Drugs*, 68(5), 689-696.

U.S. Department of Health and Human Services. (1999). *Mental Health: A Report of the Surgeon General*. Rockville, MD: National Institute of Mental Health.

Weitzman, E. R. (2004). Poor mental health, depression, and associations with alcohol consumption, harm, and abuse in a national sample of young adults in college. *Journal of Nervous and Mental Disease*, 192(4), 269-277.

Williams, J., Powell, L. M., & Wechsler, H. (2003). Does alcohol consumption reduce human capital accumulation? Evidence from the College Alcohol Study. *Applied Economics*, 35(10), 1227-1239.

Wolaver, A. M. (2002). Effects of heavy drinking in college on study effort, grade point average, and major choice. *Contemporary Economic Policy*, 20(4), 415-428.

Zeigler, D. W., Wang, C. C., Yoast, R. A., Dickinson, B. D., McCaffree, M. A., Robinowitz, C. B., & Sterling, M. L. (2005). The neurocognitive effects of alcohol on adolescents and college students. *Preventive Medicine*, 40(1), 23-32.