

DEVELOPING ACADEMIC SELF-MANAGEMENT SKILLS AMONG COLLEGE STUDENTS WITH MENTAL HEALTH CONDITIONS: EXECUTIVE FUNCTIONING SKILLS THAT PROMOTE SUCCESS



Michelle G. Mullen, UMASS
Amy Banko, Rutgers University
Brittany Stone, Rutgers University

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The Transitions to Adulthood Center for Research

Acknowledgements



The mission of the Transitions to Adulthood Center for Research is to promote the full participation in socially valued roles of transition-age youth and young adults (ages 14-30) with serious mental health conditions. We use the tools of research and knowledge translation in partnership with this at risk population to achieve this mission.

Visit us at: <http://www.umassmed.edu/TransitionsACR>

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Agenda

- Importance of education for young adults
- Barriers affecting college students
- FAST intervention
- Overview of the study
- Next Steps

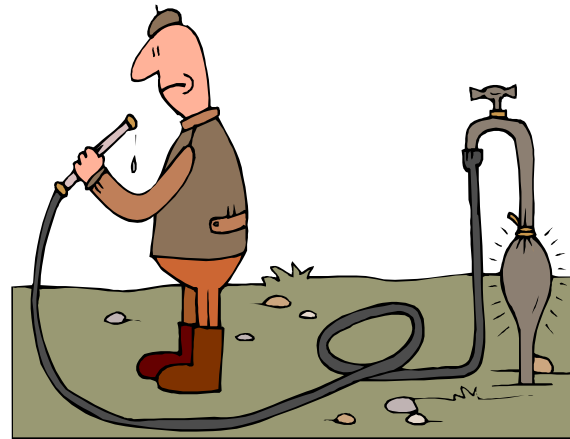
Come to the HYPE table later and we can chat...



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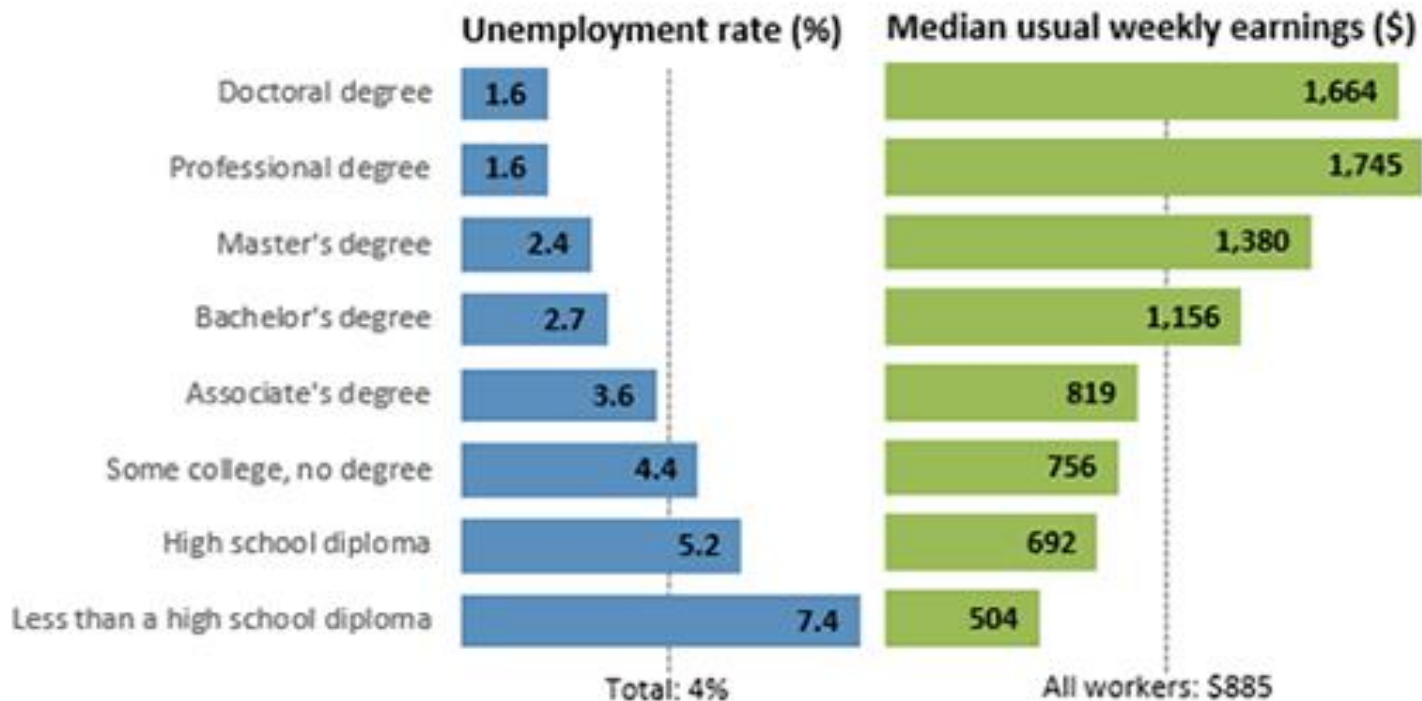
Importance of Higher Education

- Competitive in seeking employment
- Increased options in the workforce
- Better employment
- Higher wages & greater earnings over time
- Benefits
- Career mobility
- Socialization & networking
- Prestigious (and normalizing) role
- Course loads be adjusted by semester; as compared to work



Education Pays...

Unemployment rates and earnings by educational attainment, 2016



Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.

Source: U.S. Bureau of Labor Statistics, Current Population Survey.



Role of Education in Employment

- Work history is predictive of future work history ^{4,5}
- Educational achievement is predictive of both being employed and income. ^{5,6,7}
- Diminishing returns of completing education as one becomes older, thus offering educational support to older adults may limit its impact.
- **Early** educational and employment interventions are critical to youth and young adults in order to have a longer time span to build human capital and avoid a life-time of poverty.



Helping Youth on the Path to Employment (HYPE)



- Prioritizes education over employment for young adults
- Blended employment & education approach
 - Fully integrated educational supports
- Emphasis on early education/ advanced training completion
- Intentionally services to prevent disruptions
- **Purpose:**
- **Prevent disability**
 - Avoid SSA enrollment and/or assist in “coming off the roles”
- **Create economic self-sufficiency**



History of HYPE & FAST

2008

- A Randomized, Controlled, Multisite Trial of the “Effectiveness of Supported Education for Postsecondary Students with Psychiatric Disabilities.” NIDILRR #H133B100037 (Gill, Salzer, Mullen; Temple)

2011

- “Developing Executive Functioning through Cognitive Remediation for College Students with Psychiatric Disabilities” NIDILRR #H133G110239 (Mullen; Rutgers)
- “A Study of Age-Associated Need, Services, and Outcomes of Participants enrolled in Supported Education” NIDILRR #H133B090018. (Gill, Davis, Salzer, Mullen; UMASS)

2012

- “Manual and Training Program to Promote Career Development among Transition Age Youth and Young Adults with Psychiatric Conditions” NIDILRR #H133A120152 (Mullen; Rutgers)



Barriers endorsed by students in a multi-site SEd study

Over **70%** of respondents:

- Concentration (85%),
- Time management (77%),
- Stamina (75%),
- Organization (71%),
- Prioritizing tasks (70%)

Over **50%** of respondents:

- Difficulty memorizing information
- Managing psychiatric symptoms
- Studying for exams
- Taking exams
- Preparing for class
- Writing papers
- Taking notes
- Researching information
- Meeting deadlines



My aha moment...

- Preliminary analysis of educational barriers revealed that students more commonly endorsed issues associated with executive functioning tasks than “classic” mental health symptoms
- Students may not be failing out/dropping out of school because of their mental health symptoms per say, but because they had difficulty with:
 - Remembering when their assignment was due
 - Keeping themselves organized
 - Couldn't remember lectures
- Students needed ***self-management skills*** in order to be *effective*
- At time of FAST grant submission, no published literature existed for CR interventions for college students with mental health conditions



What is FAST?

- A manualized intervention based in the cognitive remediation literature
- CR refers to an intervention that “targets cognitive deficit using scientific principles of learning with the ultimate goal of improving functional outcomes” (McGurk et al., 2013).
 - Approaches vary in length, methods, and format.
- Skill or strategy coaching focuses on teaching skills that can be used to improve cognitive performance **with the aim of reducing the impact of impairment and enhancing performance on real-world cognitive tasks.**
- Some CR programs have been designed to be combined with specific psychiatric rehabilitation interventions
- FAST is a modification of Beth Twamley’s CCT intervention for SE (Twamley et al., 2012)



What's In The Manual?

- Strategies that help students develop self-management skills to reduce barriers in school and enhance performance
- Develop skills and strategies to **compensate** for cognitive barriers
- Tools for them to boost efficiency...work smart, not hard
- Skills for them to practice that can improve cognitive functioning



Table of Contents

Session 1 – Introduction and Calendars

Session 2 – Prospective Memory (Calendars, Lists, Linking Tasks)

Session 3 – Short-term Prospective Memory, Conversational Attention

Session 4 – Conversational Attention, Task Attention

Session 5 – Task Attention

Session 6 – Verbal Learning and Memory/Name Learning

Session 7 – Verbal Learning and Memory

Session 8 – Verbal Learning and Memory/Note-taking

Session 9 – Cognitive Flexibility and Problem-Solving

Session 10 – Cognitive Flexibility and Problem-Solving

Session 11 – Cognitive Flexibility, Problem-Solving, and Planning

Session 12 – Skills Integration, Review, and Next Steps

Selected FAST Self-Management Skills & Strategies

- Goal setting
 - Identification of goals that relate to areas of cognitive difficulty
- Calendaring:
 - the most important self-management skill
- To-do lists
- Eisenhower's Principle: urgent vs important
 - Focus on figuring how to to prioritize time and tasks
- Self-talk
- Task linking
- Set Shifting vs Multi-Tasking
- Visualization
 - Encode- Store -Retrieve



Study Design

- A randomized controlled trial to evaluate the efficacy of FAST among college students with psychiatric conditions.
- SAMPLE:
 - College students were recruited from the New Jersey-NY metro area.
92 eligible participants: 119 participants enrolled; 27 ineligible
 - Participants are college or graduate students who:
 - are between the ages of 18-64;
 - have a DSM-IV Axis-I diagnosis;
 - [for primary study]** have cognitive impairment in at least one domain as measured by performance on the MATRICS Consensus Cognitive Battery (MCCB).
- DESIGN:
 - Each participant is randomized into either the:
 - Treatment group: campus services as usual plus cognitive remediation;
 - Control group: campus services as usual plus one meeting with a cognitive specialist.



Study Design

- The experimental condition participants undergo the intervention for 12 weeks.
- All participants are assessed at 0 (baseline), 4, 8, and 12 months with:
 - the MCCB;
 - symptom ratings (BPRS);
 - self report measures of educational difficulties, cognitive problems, compensatory cognitive strategy use, and college self-efficacy.
- Transcripts are collected throughout study participation.
- Primary hypothesis: Participants receiving FAST will improve on primary academic outcomes (GPA, proportion of courses successfully completed) to a significantly greater degree across the follow-up period compared to controls.
- Secondary: performance on the MCCB; self-reported educational difficulties, cognitive problems, cognitive strategy use and college self-efficacy; symptom ratings.



FAST Intervention: Quick Overview

- Manualized compensatory cognitive remediation intervention to develop self-management skills
- Begins with Session 0
- 12 sessions divided into 4 units
 - Prospective Memory (“Remembering to Remember”)
 - Attention/Vigilance
 - Verbal Learning & Memory
 - Cognitive Flexibility & Problem-Solving
- 1 hour meeting per week
- Meetings occur on campus in private meeting areas



Session 0

- All participants receive at least one meeting
 - Those assigned to control only receive Session 0
- Review implications of common cognitive issues as they relate to school
- Personalized discussion about goals, accommodations, assistive technology, and resources on campus
- Encouraged to register with Disability Services



Baseline Demographics

Demographic	FAST treatment (n=38)	Control (n=34)
Age, mean (SD) Age range	28.76 (10.02) 18-54	28.62 (10.91) 18-54
Gender, n (%) female	26 (68%)	23 (68%)
<u>Ethnicity</u> ^a , n (%)	14 (37%) Caucasian 8 (21%) African American 5 (13%) Hispanic 7 (18%) Asian 4 (11%) other	16 (47%) Caucasian 5 (15%) African American 5 (15%) Hispanic 7 (21%) Asian 1 (3%) other
Subject years of education, mean (SD)	14.08 (1.76)	13.62 (1.23)
Parental years of education, mean (SD)	14.70 (3.09)	13.78 (3.09)
Prior college <u>attempts</u> ^b , n (%)	20 (53%) 0 attempts 9 (24%) 1 attempt 9 (24%) 2 or more attempts	23 (68%) 0 attempts 6 (18%) 1 attempt 5 (15%) 2 or more attempts
Employment status, n (%)	16 (42%) unemployed 16 (42%) PT 6 (16%) FT	14 (41%) unemployed 16 (47%) PT 4 (12%) FT



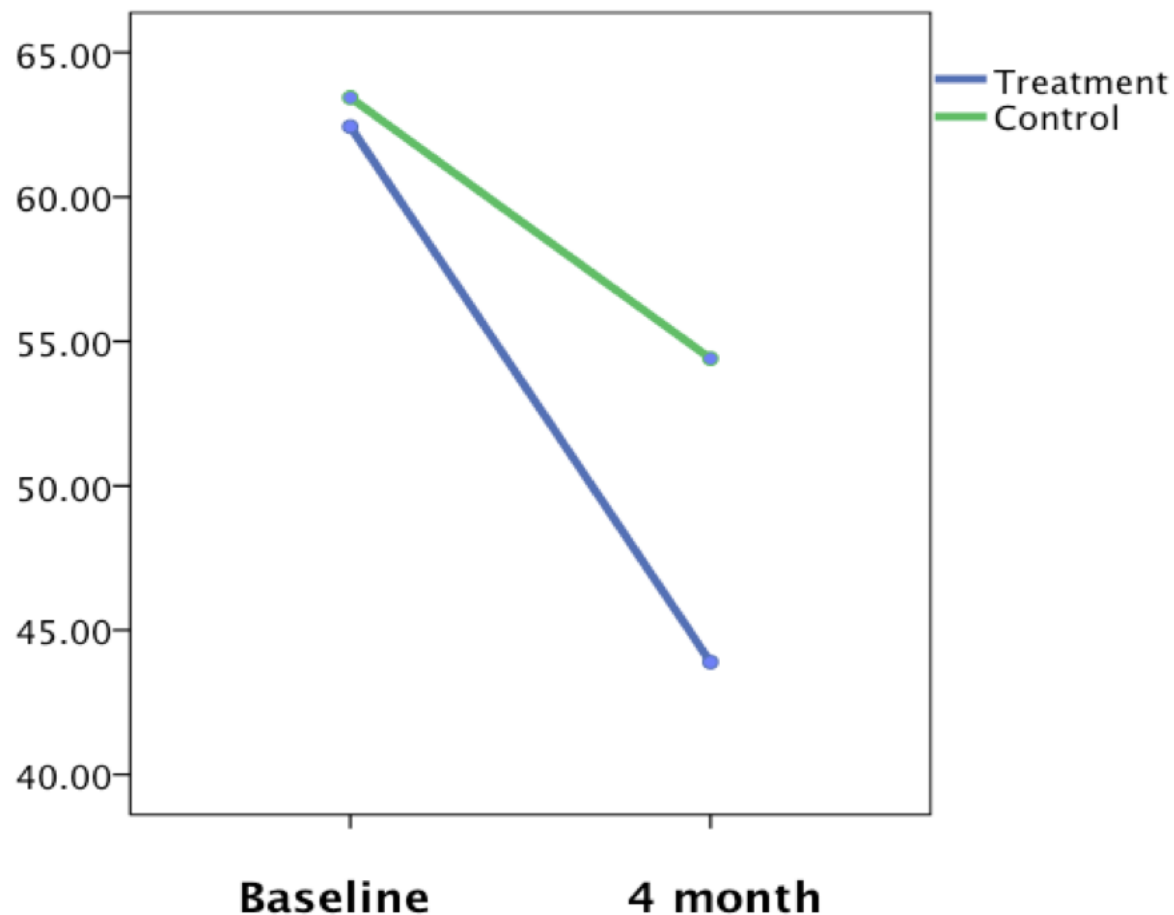
Baseline Characteristics

Characteristic	FAST treatment (n=38)	Control (n=34)
Diagnostic status, n (%)	27 (71%) mood disorder 21 (55%) anxiety disorder 5 (13%) psychotic disorder	25 (74%) mood disorder 16 (47%) anxiety disorder 5 (15%) psychotic disorder
Age first diagnosed, mean (SD)	21.16 (7.25)	20.12 (7.92)
Psychotropic medication status, n (%)	14 (37%) none 17 (45%) antidepressant 8 (21%) anxiolytic 4 (11%) mood stabilizer 3 (8%) psychostimulant 7 (18%) antipsychotic 7 (18%) other	10 (29%) none 18 (53%) antidepressant 4 (12%) anxiolytic 4 (12%) mood stabilizer 3 (9%) psychostimulant 5 (15%) antipsychotic 3 (9%) other
Ever hospitalized for psychiatric reasons, n (%)	12 (32%) yes	13 (38%) yes



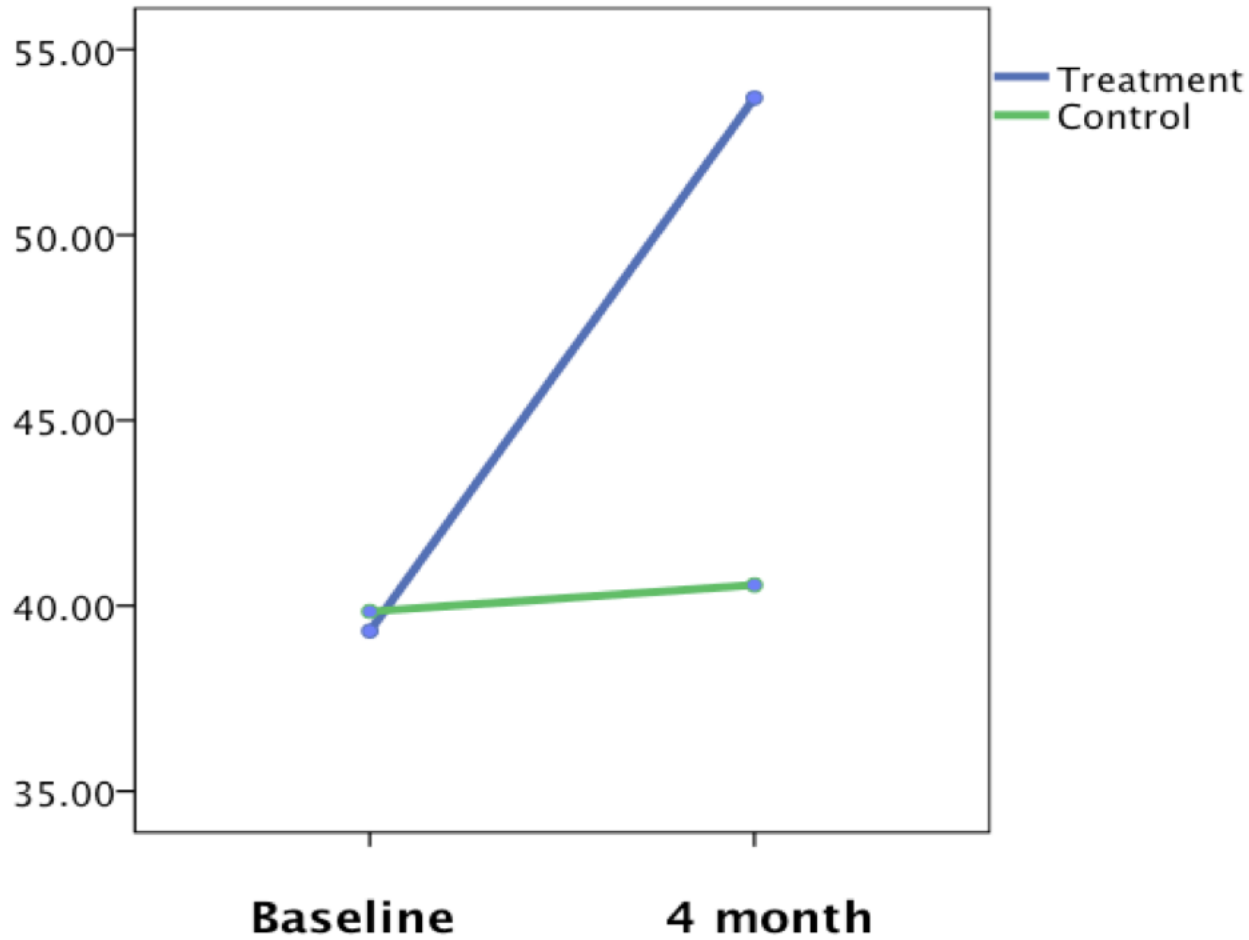
Group Comparisons: Self-Reported Educational Difficulties

Educational Barriers Questionnaire, M. Mullen



Group Comparisons: Self-Reported Cognitive Strategy Use

Cognitive Problems & Strategies Assessment, E. Twamley



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Next Steps:

- Currently evaluating GPA and successful academic progress
- Analyze the impact on MCCB scores after 4 months
- Apply FAST intervention within programming
 - Always looking for new partners...let us know if you are interested
- Add a module (or two) on social skills



Thank You!

Please contact me:
Michelle.Mullen@umassmed.edu

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