

# Academic Stress and Study Habits

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Capstone

# Research Topic

## Research Questions

- How do undergraduate students cope with academic stress?
- What is the relationship between perceived academic stress and preferred study method?
- What is the relationship between perceived academic stress and deviant behavior?

## Significance

- College students experiment with substances more than other 18-25 year-olds
- College students are willing to take extreme measures to match workload
- Non-medical prescription stimulant use highest among college students and is steadily increasing (NSDUH 2016)

# Theoretical Framework

## Strain Theory - Merton (1938)

- Presents a way to study deviant behavior that arise based on social/cultural circumstance
- Strain = tension between “frame of aspirational reference” and access to legitimate means
- “literal demoralization” or “deinstitutionalization” of means (675)
  - I.e. wealth accumulation in the U.S.
- Strain → deviance
- **Problem: strain doesn't always lead to deviant behavior**

## General Strain Theory – Agnew (1992, 2002)

- **Update: indirect relationship between strain and drug use**
- Strain = disjunction between *aspirations* and *expectations (or achievements)*
- Strain → negative affective states
- Individuals may cope using “non-deviant” means
  - Minimize importance
  - Self-esteem
- Chronic strain = higher propensity for deviant behavior

# Existing Literature

- Use prevalence varies across studies – 4% and 35% of undergraduate students
- Most research is only interested in relationship between non-med use and other drug use
  - Low and Gendaszek (2002) – cocaine and MDMA
  - McCabe et al (2014) – binge drinking and marijuana
- Less research on strain, criminological theory
  - “Prescribing Some Criminological Theory” – Maahs et al (2016); “Academic strain and non-medical use of prescription stimulants among college students” – Ford and Schroeder (2009)
  - Strain = school importance vs. GPA
  - Mixed results
- Criminalization of non-med users

# Methods and Sample

- Survey – written and online through Qualtrics
- 100 UIUC undergraduates
  - 34% freshman, 15% sophomore, 27% junior, 22% senior
  - 45% white, 25% Asian/pacific islander, 7% Latinx, 3% African-American
  - 60% female, women
- Follow-up interviews
  - Subjective meaning of “stress”
  - Perceptions of study drug use on campus
  - Discover underlying motivations not captured by survey data

# Data Analysis - Strain

- Operationalizing “Strain”
  - Inputs: hours per day, hours per week
  - Outputs: feeling prepared for class, feeling prepared for exams, GPA
- Input/Output score
  - Coded variables 1-4
  - Sum of variables
  - Inputs – outputs
  - High/low input/output
- High input, low output = under strain

## Strain Variable Groups

| Strain Variable     | Freq.     | Percent      | Cum.          |
|---------------------|-----------|--------------|---------------|
| -----+-----         |           |              |               |
| Outputs > inputs    | 15        | 15.00        | 15.00         |
| no strain           | 61        | 61.00        | 76.00         |
| <b>under strain</b> | <b>24</b> | <b>24.00</b> | <b>100.00</b> |
| -----+-----         |           |              |               |
| Total               | 100       | 100.00       |               |

# Data Analysis – Negative Affect

- Operationalizing “Negative Affective State”
  - Level of academic stress on an average day (none, low, moderate, high)
  - Perception of Academic Stress Scale (Bedewy and Gabriel (2015)
    - 19-item scale –  
Wilcoxon rank sum test  
- results TBD

## Reported Level of Academic Stress by Strain Group

| Strain Variable     | Stress Average Day |          |           |           | Total     |
|---------------------|--------------------|----------|-----------|-----------|-----------|
|                     | none               | low      | moderate  | high      |           |
| outputs > inputs    | 1                  | 3        | 7         | 4         | 15        |
| no strain           | 0                  | 8        | 31        | 22        | 61        |
| <b>under strain</b> | <b>0</b>           | <b>0</b> | <b>14</b> | <b>10</b> | <b>24</b> |
| Total               | 1                  | 11       | 52        | 36        | 100       |



# PAS Scale – Frequent Responses

- Negative affect items
  - My teachers are critical of my academic performance (41% agree/strongly agree)
  - I fear failing courses this year
  - I think that my worry about examinations is a weakness of character
  - Teachers have unrealistic expectations of me (40% **disagree**)
  - The size of the curriculum (workload) is excessive (48% agree/strongly agree)
  - I believe that the amount of work assigned is too much (42% agree/strongly agree)
  - I am unable to catch up if I fall behind in my work (46% agree/strongly agree)
  - I struggle to balance my school-work and social life (60% agree/strongly agree)



# Data Analysis – Study Drugs

- Preferred study method
  - Coffee, cramming
    - Not dependent on stress level
  - Both stimulating methods
- Study Drug Use
  - Use rate consistent with literature
- Knows user
  - 62% - regardless of use
- Estimated campus use
  - 47% about half

| Has Used Study Drug | Use Rates |         |        |
|---------------------|-----------|---------|--------|
|                     | Freq.     | Percent | Cum.   |
| no                  | 74        | 79.57   | 79.57  |
| yes                 | 19        | 20.43   | 100.00 |
| Total               | 93        |         | 100.00 |

## Study Drug Use by Strain Variable

| Strain Variable  | Has Used Study Drug |           |           |
|------------------|---------------------|-----------|-----------|
|                  | no                  | yes       | Total     |
| outputs > inputs | 12                  | 3         | 15        |
| <b>no strain</b> | <b>46</b>           | <b>10</b> | <b>56</b> |
| under strain     | 16                  | 6         | 22        |
| Total            | 74                  | 19        | 93        |

# Preliminary Findings

- Study drug use at UIUC on higher end of the spectrum
- 88% of students report moderate/high academic stress on an average day
- Higher frequency of high academic stress among those under strain
- No direct relationship found between strain and study drug use
- Positive association between negative affect and study drug use
  - 17% of “no strain” group have used study drug
  - 27% of “under strain” group have used study drug

# Limitations and Future Research

- Limitations
  - Prescription status unknown
  - Small sample, college students not representative
  - Self-report data, social desirability bias
- Future research
  - Longitudinal study
  - Examine relationship with binge drinking
  - Frequency, dosage of use