

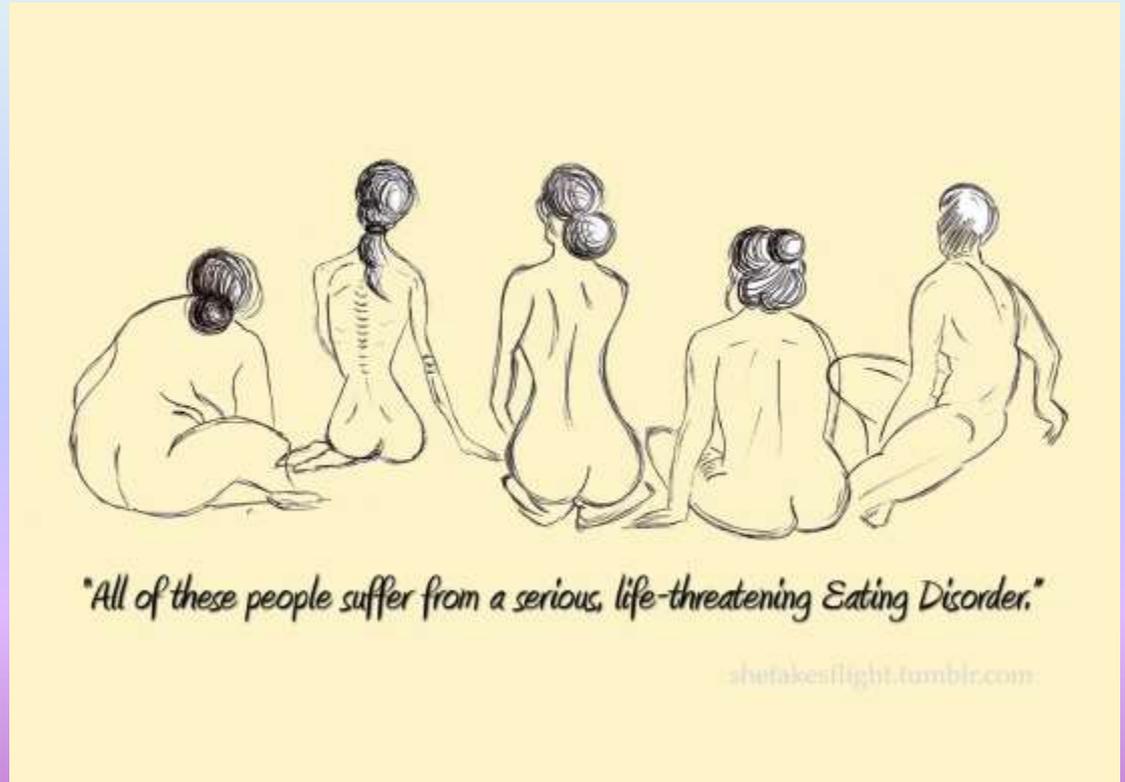
Use of ADHD Medications for Weight Control Purposes in a Suburban High School Population

By Julia Baer



Review of Literature

- 10-15 percent of U.S. population suffers from some kind of eating disorder
- Nine recognized types of E.D.
 - Anorexia Nervosa
 - Bulimia Nervosa
 - Binge Eating Disorder
 - Anorexia Athletica
 - Over exercise
 - Overeating
 - Night Eating
 - Orthorexia
 - EDNOS (Eating Disorder Not Otherwise Specified)

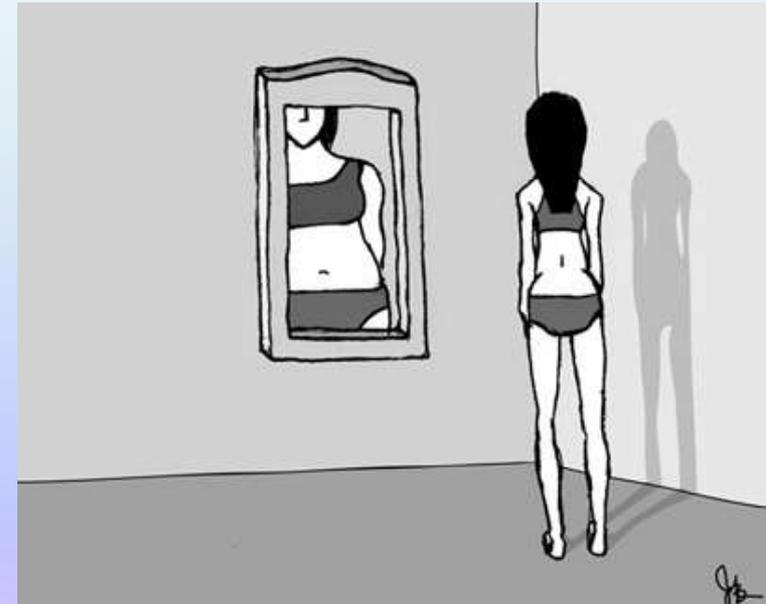


<http://www.beautifulyoubyjulie.com/wp-content/uploads/2011/02/hopepostcard.jpg>

Increased Risk

- Women
- Westernized societies (Nasser et al, 2011)
- Those suffering from depression/ anxiety
- Affluent societies (Ansary et al, 2009)
- Eating disorders have been linked to impulse control disorders, including drug use
 - Lifetime use of illegal drugs to influence weight is 7.6% higher, and of legal drugs is 25.8% higher

http://sq28kv71wv32mlqc.zippykid.netdna-cdn.com/wp-content/uploads/2013/11/121463678_44800c11b2.jpg



(Kroutil et al, 2006)

Use of ADHD Medications

- Approximately 11% of children ages 4-17 had been diagnosed with ADHD as of 2011. (CDC)
- Up to 9% of grade & high school students reported use of ADHD medications as compared to up to 35% of college students (Wilens et al, 2008)

Uses:

- Better academic performance
- Concentration
- Increase alertness
- To experiment
- To get high
- Weight loss purposes



<http://holykaw.alltop.com/wp-content/uploads/2013/03/foto-students.jpg>

- 12% respondents cited weight loss among reasons for use (Jeffers et al, 2013)

High Risk Populations

- Adolescents engaging in unhealthy weight loss practices more likely to:
 - Abuse substances
 - Perceive themselves as overweight and depressed
 - Report polydrug use and drug-related problems (Fernández-Aranda, 2008)

http://www.hnetalk.com/Member/wp-content/uploads/2010/06/substance-abuse_opt.jpeg

- Misuse of ADHD medications is slightly higher in:

- Females
- White populations
- Individuals who showed greater difficulty coping with stressors (Meyer et al, 2010)



Research Objective

- To examine the prevalence of misuse of ADHD medications for weight loss purposes in a high SES, suburban high school population.
- To look at whether individuals using ADHD medications have similar or different weight loss behaviors over all compared to a control population.
- To look at the difference in stress management and self-confidence between these groups.



http://cs.ucsb.edu/~xiaohanzhao/Research%20Projects_files/Research.jpg

Hypothesis

H1: Students who report using ADHD medications for weight control purposes will also report other unhealthy weight management behaviors.

<http://pro.psychcentral.com/2013/meds-for-adhd-an-update/004428.html>

H2: Students who report using ADHD medications will report a compromised ability to cope with stress and a lower level of self-confidence than the overall population.



Procedure

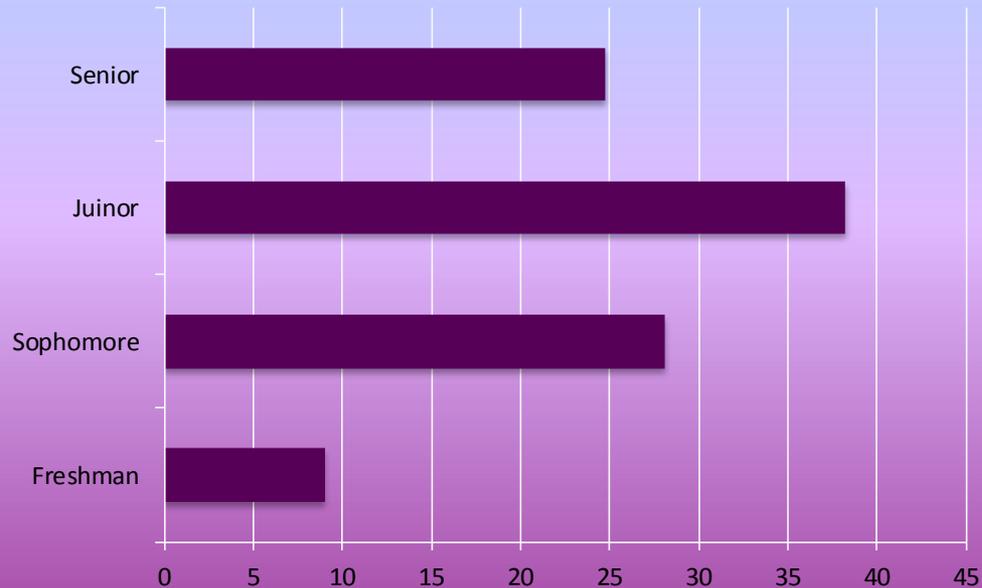
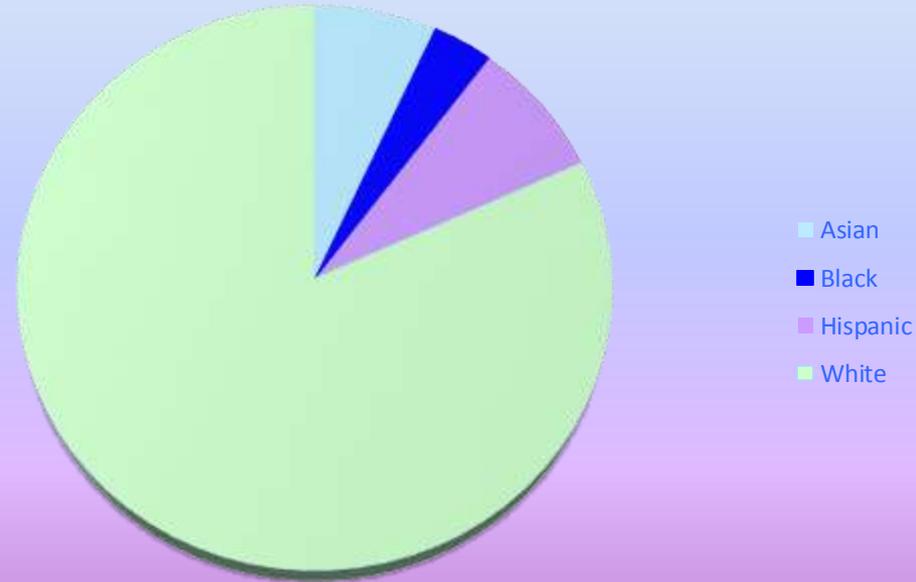
- Students at a suburban high school were given consent forms
- Students who returned completed consent forms were emailed a link to a survey on [surveymonkey.com](https://www.surveymonkey.com)
- 89 adolescent subjects from a high SES suburban high school were surveyed
- Participants were aware that their survey responses were anonymous
- Survey contained questions related to identity, dieting, body image, ability to cope, weight loss behaviors, and the use of ADHD medications, as well as questions from the Rosenberg Self-Esteem Scale and The EADES questionnaire



- How often have you used diet pills?
 - Never
 - Once
 - More than once in the past year, less than every month
 - Every month
 - Every week
 - Daily
- When you have taken diet pills, did you use them to control your weight?
 - I have never taken diet pills
 - Yes
 - No
- Have you ever taken (check any and all that apply)
 - Adderall
 - Ritalin
 - Focalin
 - Dexedrine
 - Concerta
 - Any other ADHD medication
- If these medications (Adderall, Ritalin, Focalin, Dexedrine, Concerta, other ADHD medications) were readily available to you, and you knew they would help with weight control, would you use them for that purpose?
 - No, Never
 - Probably not
 - Maybe
 - Probably
 - Yes
 - Other (please specify)

Population Demographics

Participants	89	
Gender		
Male	28	31.46%
Female	61	68.54%
Ethnicity		
Asian	6	6.74%
Black	3	3.37%
Hispanic	7	7.87%
White	72	80.90%
Grade		
Freshman	8	8.99%
Sophomore	25	28.09%
Junior	34	38.20%
Senior	22	24.72%



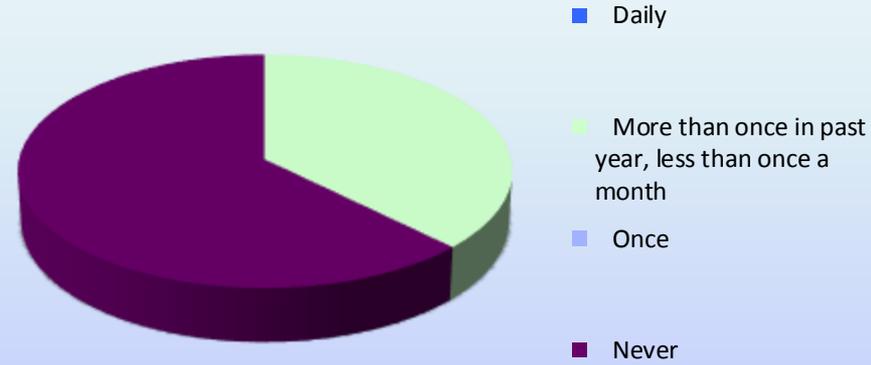
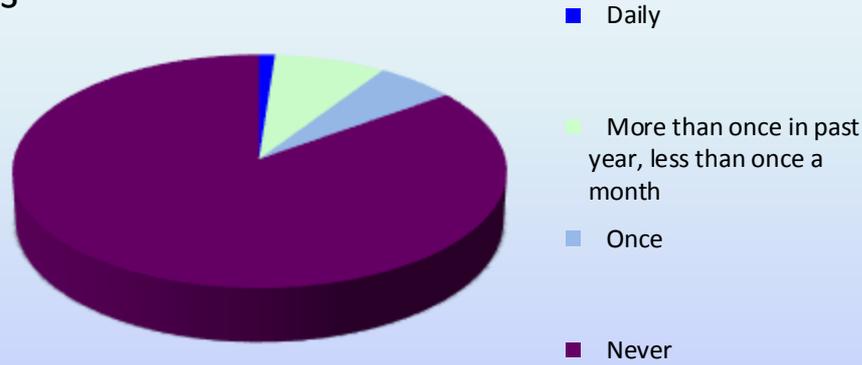
Unhealthy Weight Loss Behaviors (Side by Side Comparison)

% Difference in never having used- **29.59%**

Overall

ADHD Subset

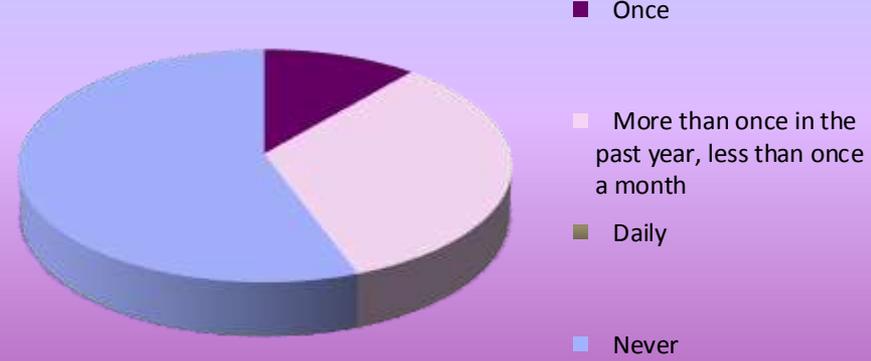
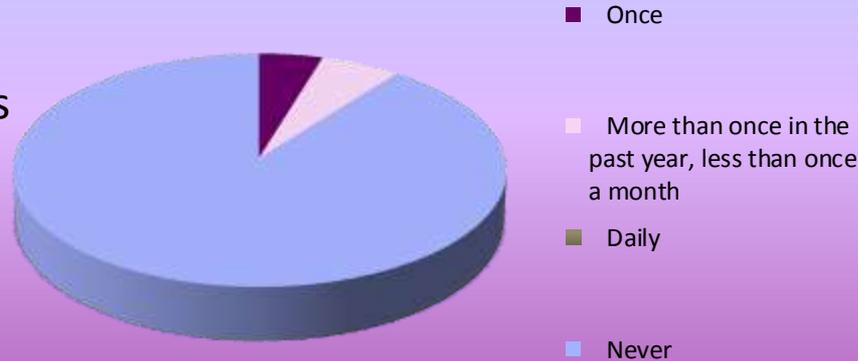
Laxatives



Fisher's exact= 0.046

% Difference in never having used- **32.08%**

Diet Pills



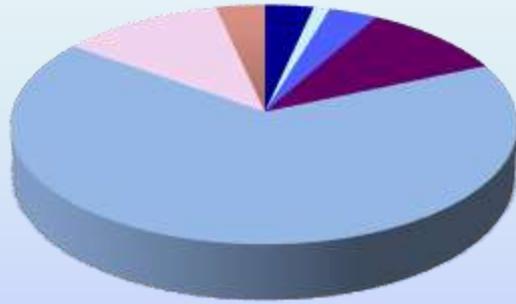
Fisher's exact= 0.003

These findings confirm my first hypothesis

Unhealthy Weight Loss Behaviors (Side by Side Comparison)

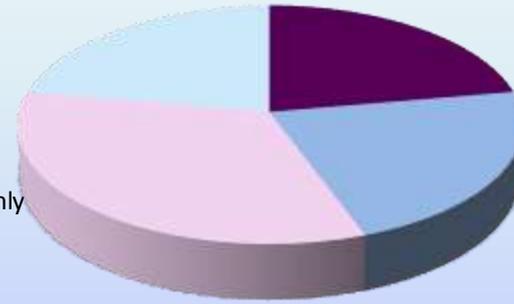
% Difference in never having used- 42.95%

Overall



- Daily
- Weekly
- Monthly
- More than once a year, less than monthly
- Never
- Once
- Other

ADHD Subset



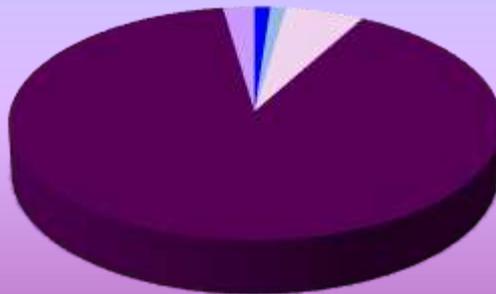
- Daily
- Weekly
- Monthly
- More than once a year, less than monthly
- Never
- Once
- Other

Fasting

Fisher's exact= 0.004

% Difference in never having used- 10.98%

Vomiting



- Weekly
- Monthly
- More than once in past year, less than once a month
- Never
- Once



- Weekly
- Monthly
- More than once in past year, less than once a month
- Never
- Once

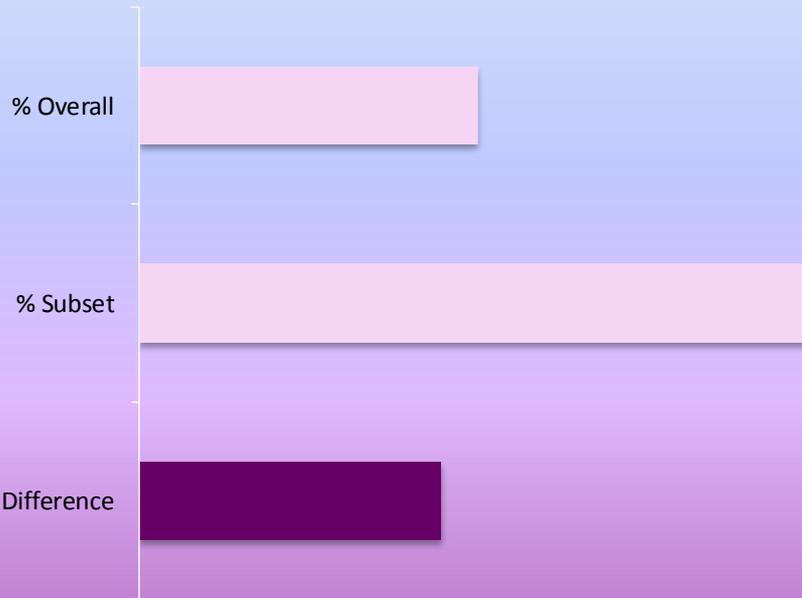
These findings confirm my first hypothesis

Difference in Unhealthy Weight Loss Behaviors Between Overall and ADHD Subset Population

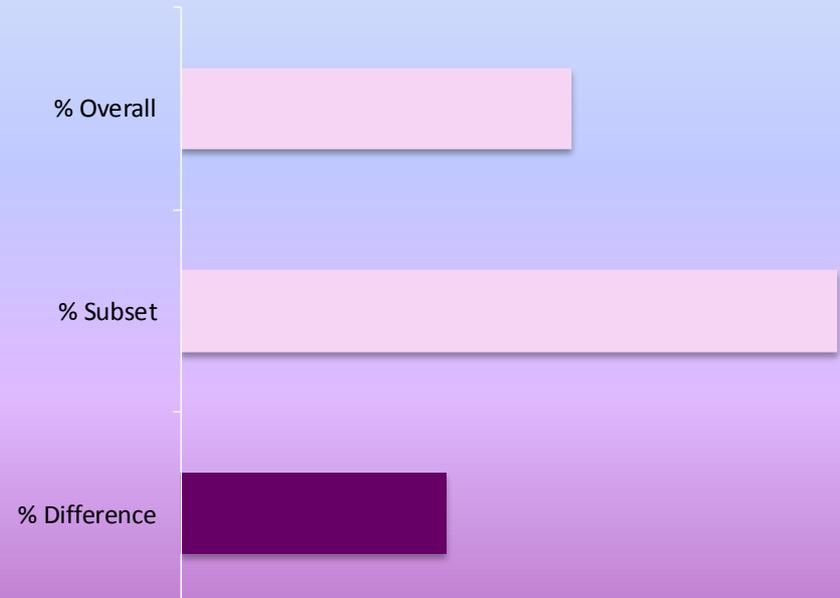
Looking at Frequency of Use and Intent

Use of laxatives for weight control

Fear of “becoming fat”, experienced often



64.4% Difference



26.9% Difference

Fisher's exact= 0.011

Fisher's exact = 0.583

Stress Management and Self Confidence

- No significant difference was found between the control population and the ADHD subset population in dealing with stressors or self confidence



Willingness to Use ADHD Medications

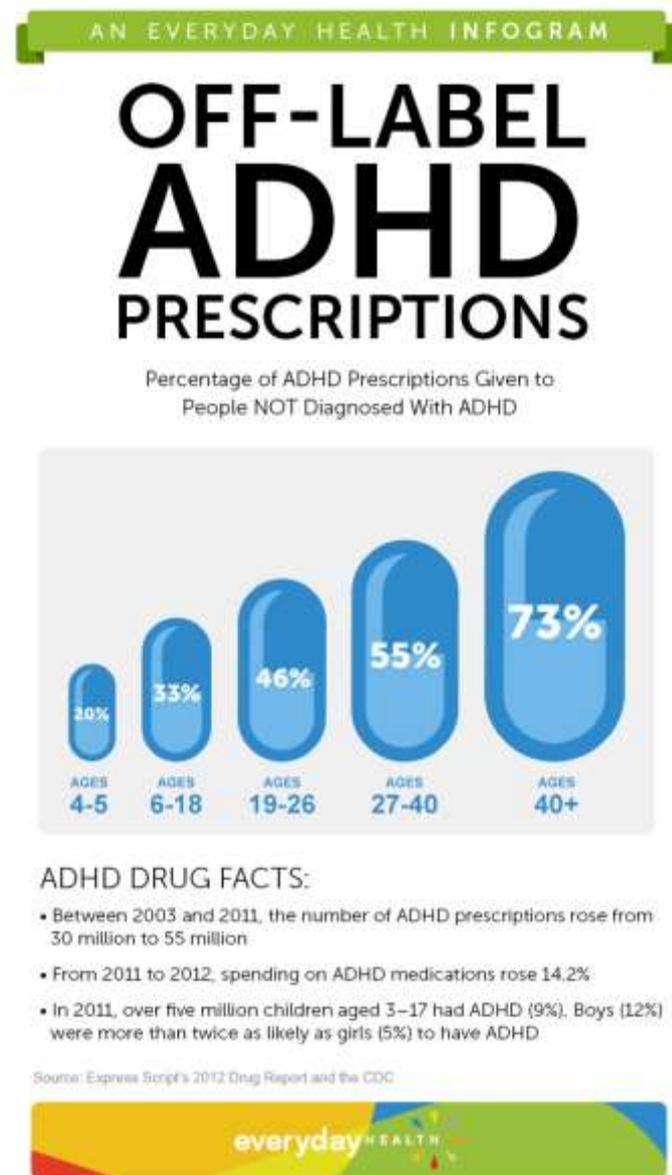
Students who reported having used ADHD medications in the past reported that they would take ADHD medications in the future for weight control purposes, if provided to them, more often than the overall population did.

(Fisher's exact= 0.003)



Conclusion

- High School students who use ADHD medications are more likely to have unhealthy weight loss/ management behaviors than the overall population. This is a novel finding.
- Concurrent with findings of Jeffers et al 2013 in her study of college students
 - Can be hypothesized that there is link between appetite suppressing components of these medications and unhealthy weight loss behaviors



Conclusion

- Large majority of ADHD subset were high school upperclassman
 - Illustrates that this is the time when students begin experimenting with prescription medication
 - High school students are a high risk population



Conclusion

- Majority of participants of this study who reported using ADHD stimulants reported that the appetite suppressing effects contributed to their use (Wilens, 2008)
 - Dissimilar to a finding of Jeffers et al that found that only 12% of those using prescription stimulants used them for weight control purposes. (2013)
- Those reporting use of ADHD medications in the past reported increased willingness to use these medications in the future for weight control purposes. This is a novel finding.



http://cdn2-b.examiner.com/sites/default/files/styles/image_content_width/hash/33/4b/Eating%20Disorder%20Charlotte%20Astrid%20flickr.JPG?itok=xrsQLR6D

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Major Findings

- This study found that the use of ADHD medications in a high school population is correlated with:
 - Unhealthy weight loss behaviors
 - Age (Majority of those reporting use were seniors)
 - A willingness to use ADHD medications if provided in the future
- Students reported that appetite suppressing qualities contributed to use

