

Mentored Professional Enrichment Experience

Applicant:

Name of Project/Experience:

“Weight-Based Peer Victimization: Coping Behaviors that Contribute to Obesity”

Location where Project/Experience will take place:

Office Location: Lindegren Hall, Room 210A, SIUC, Carbondale

Laboratory Location: Life Science II, Room 224 and 243, SIUC, Carbondale

Mentor Name and Contact Information:

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RATIONALE

Peer victimization, a result of “bullying,” is a prevalent social problem that has recently been the subject of much study¹. Additionally, the prevalence of overweight or obese adolescents has dramatically increased in recent years. Many studies have been designed to describe what is known as “weight-based victimization².” Being overweight or obese has been deemed a risk factor for peer victimization, and connections are being made that tie weight-based victimization to depression, poor self concept, further changes in body mass index (BMI), eating disorders, and several other health concerns³. Thus, it is important to examine the peer victimization behaviors that are contributing to weight-related medical problems so commonly seen in today’s clinical setting.

Although many correlations between weight-based victimization and negative health outcomes have been studied, few researchers have attempted to identify the connection between certain behavioral coping mechanisms and resulting health disorders, most specifically behaviors that contribute to obesity. This specific project aims to identify behaviors that correlate with an increased BMI (and thus obesity), and then show that victimized adolescents exhibit a greater frequency of these behaviors than their peers.

GOALS

My goal in participating in this project is to begin establishing behavioral contributors to obesity as a result of peer victimization. Weight disorders can be devastating to one’s self esteem, lifestyle, and overall health, and once certain contributory lifestyle habits are formed they are often difficult to reverse. One goal of my study is to find positive trends between certain high-frequency behaviors and weight (specifically, BMI). I then theorize that victimized adolescents may tend to engage in these high-risk weight-related behaviors more frequently than non-victimized adolescents, as a sort of coping mechanism to perhaps distract from the bullying

they experience. Thus, my main goal is for this study to provide support for the theory that peer victimization can lead to some of the behavioral contributions to obesity.

A second goal of mine is personal; I would very much like to gain experience working in a clinical type of research lab. This is an element of science and medicine with which I have little experience, yet something I have always been interested in. Within this project my specific goals are to design the project, learn how to develop an original questionnaire, learn proper subject interviewing procedure, and learn how to analyze data to find meaningful and applicable trends.

METHODS

The first phase of this study involves further research and generation of a phone interview questionnaire. I intend to research other studies done on weight-based victimization, identify common behavioral coping mechanisms of victimized adolescents, generate a list of hypothesized “high risk” behaviors for weight disorders, and compare the frequencies of these behaviors between victimized and non-victimized adolescents. Interview questions will be generated based on these elements of common coping mechanisms and behaviors known to contribute to obesity. The questionnaire will be formatted as a “5-point Likert-type scale” with the question stem being, “On the last day on which you were bullied, how often do you engage in behaviors such as...” If a subject does not report experiencing bullying, the question stem will be modified to “Yesterday...” The questionnaire will be tested on a test group (for example, summer students in an undergraduate psychology course) to be sure the questions can be understood. A questionnaire, “Screening Questionnaire for Eating Behaviors Associated with Overweight and Obesity,” used in a related study⁴ is attached; it will likely be modified to fit my study. The following behaviors will be incorporated into the questionnaire:

- Excessive (over 3 hours) of video game usage
- Excessive (over 3 hours) of computer usage
- Excessive (over 3 hours) of TV usage
- Binge eating of comfort foods (frequently consuming unusually large amounts of food, often accompanied in shame and secrecy)
- Avoidance of P.E. or extracurricular athletic activities

The second phase of the study is the interviewing and data collection. One week will be spent on interview training, and the following 3-4 weeks will be spent interviewing the subjects. The subjects are 85 adolescents (ages 12-20) selected as a non-clinical sample of children in the southern Illinois region. The subjects have previously been studied in Dr. DiLalla’s laboratory at two time periods (age 5 as well as two years ago, when they were between 10 and 18 years old) for peer-interaction behaviors and were rated on a continuous scale for levels of victimization. They will be rated during the interview this summer a third time for their level of victimization (the standard questionnaire “Multidimensional Peer Victimization and Bullying Scale” used for this rating is attached). All 85 subjects will be blindly interviewed (their prior victimization status will be unknown to the interviewer) with this questionnaire as well as my weight-related behavioral questionnaire. Each subject’s BMI will also be obtained. Two hours are estimated for total preparation, interview, and wrap-up of each subject. Four interviewers will divide up the subjects (21 subjects/interviewer) and I will be one of these interviewers. It has been considered that all 85 subjects may not be able to be reached during the data collection period, so a

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minimum of 65 subjects has been established to successfully conduct this study. (Any given funding will be critically used as an incentive to subjects for participating.) During the data collection period, there will be regular lab meetings each week to determine coding and ranking parameters for the data being collected as well as as to learn how to enter data on the computer.

The last phase will be data analysis with continued lab meetings. The first analysis will be to categorize the subjects into three groups based on their level of victimization from all three ages at which they have been assessed:

1. Not victimized at any age
2. Sometimes, not consistently, victimized (victimized only one out of the three times, or the first and third time)
3. Victimized at all three ages or the last two (most recent) times interviewed

Comparisons will be made among groups as to frequencies of weight-related behaviors and BMI. During this final phase, I will learn how to analyze these data appropriately.

ANALYSIS

Analysis of variance techniques will be used to compare the three victimization groups on the variables of BMI, eating behaviors, and physical activity to determine whether the groups differ. I expect that individuals who report greater frequencies of the questioned weight-related behaviors will have a greater BMI. Building upon that assumption, I furthermore hypothesize that individuals within the victimized group will exhibit the highest frequencies of behaviors known to contribute to weight gain and thus related to obesity. Positive trends found in my study would support an initial correlation between victimization and weight-related behaviors as coping mechanisms.

SUPPORT

1. Do you request support funds? **Yes** No
2. Would you be able to participate if a scholarship is not available? Yes **No**

Please note that we do not need an exhaustive or extensive list of literature references.

REFERENCES

¹ Ambert, A. (1994). A Qualitative Study of Peer Abuse and Its Effects: Theoretical and Empirical Implications. *Journal of Marriage and the Family*, 56(1), 119-130.

² Janssen, I.; Craig, W.; Boyce, W.; Pickett, W. (2004). Associations Between Overweight and Obesity With Bullying Behaviors in School-Aged Children. *Pediatrics*, 113(5), 1187-1194.

³ Adams, R. and Bukowski, W. (2008). Peer Victimization as a Predictor of Depression and Body Mass Index in Obese and Non-Obese Adolescents. *Journal of Child Psychology and Psychiatry*, 49(8), 858-866.

⁴ Greenwood, J.L.; Murtaugh, M.; Omura, E.; Alder, S.; Stanford J.B. (2008). Creating a Clinical Screening Questionnaire for Eating Behaviors Associated with Overweight and Obesity. *Journal of American Board Family Medicine*; 21(6): 539 - 548.

“Screening Questionnaire for Eating Behaviors Associated with Overweight and Obesity⁴”

Type of Question	Questions	Possible Answers
Restaurant and fast food		
1-day recall	How many times did you eat restaurant or fast food yesterday (for example, Chili's, McDonalds, Burger King, etc)?	0 1 2 3 4 5 6 7 >7
Typical recall	How many times do you typically eat restaurant or fast food in one week (for example, Chili's, McDonalds, Burger King, etc)?	0 1 2 3 4 5 6 7 >7
Beverage with sugar added		
1-day recall	How many times did you drink juice yesterday (for example, orange juice, apple juice, Sunny Delight)?	0 1 2 3 4 5 6 7 >7
	How many cans of non-diet soda pop did you drink yesterday (for example, Coke, Pepsi, Sprite)?	
Typical recall	How many times do you typically drink juice in one day (for example, orange juice, apple juice, Sunny Delight)?	0 1 2 3 4 5 6 7 >7
	How many cans of non-diet soda pop do you typically drink in one day (for example, Coke, Pepsi, Sprite)?	
Fruits and vegetables		
1-day recall	How many times did you eat vegetables yesterday (for example, broccoli, spinach, greens, salad, etc)?	0 1 2 3 4 5 6 7 >7
	How many times did you eat fruit yesterday (for example, an apple, an orange, a hand full of grapes, etc)?	

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Typical recall	How many times do you typically eat vegetables in one day (for example, broccoli, spinach, greens, salad, etc)?	0 1 2 3 4 5 6 7 >7
	How many times do you typically eat fruit in one day (for example, an apple, an orange, a hand full of grapes, etc)?	
Breakfast		
Typical recall	How many times do you typically eat breakfast in 1 week (7 days)?	0 1 2 3 4 5 6 7 >7
Portion size		
Typical recall	When eating restaurant food, do you eat all of the food served to you at one time?	Never Rarely Occasionally Sometimes Often Usually Always
Physical activity		
1-week recall	How many days during the <i>past week</i> have you performed physical activity where your heart beats faster and you are breathing harder than normal for 30 minutes or more (in three 10-minute bouts or one 30-minute bout)?	0 1 2 3 4 5 6 7 >7
Typical recall	How many days in a <i>typical week</i> have you performed activity such as this (see above)?	0 1 2 3 4 5 6 7 >7

⁴ Greenwood, J.L.; Murtaugh, M.; Omura, E.; Alder, S.; Stanford J.B. (2008). Creating a Clinical Screening Questionnaire for Eating Behaviors Associated with Overweight and Obesity. *Journal of American Board Family Medicine*; 21(6): 539 - 548.

MPVBS (Multidimensional Peer Victimization and Bullying Scale)

Read the questions below and select one of the three answer choices that best matches your answer.

	Never	Once	More than once
1. Other kids have punched me.	0	1	2
2. Other kids have kicked me.	0	1	2
3. Other kids have hurt me physically in some way.	0	1	2
4. Other kids have helped me in class.	0	1	2
5. Other kids have tried to get me in trouble with my friends.	0	1	2
6. Other kids have invited me to a birthday party.	0	1	2
7. Other kids refuse to talk to me.	0	1	2
8. Other kids made other people not talk to me.	0	1	2
9. Other kids have called me names.	0	1	2
10. Other kids have given me compliments.	0	1	2
11. Other kids have made fun of me because of my appearance.	0	1	2
12. Other kids have made fun of me for some reason.	0	1	2
13. Other kids have sworn at me.	0	1	2
14. Other kids have invited me over to their house.	0	1	2
15. Other kids have taken something of mine without permission.	0	1	2
16. Other kids have tried to break something of mine.	0	1	2
17. Other kids have stolen something from me.	0	1	2
18. Other kids have damaged my property on purpose.	0	1	2
19. Other kids have helped me when I got hurt.	0	1	2
20. Other kids that I did not know have introduced themselves to me.	0	1	2

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MPVBS

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Read the questions below and select one of the three answer choices that best matches your answer.

	Never	Once	More than once
1. I have punched other kids.	0	1	2
2. I have kicked other kids.	0	1	2
3. I have hurt other kids physically in some way.	0	1	2
4. I have beaten up other kids.	0	1	2
5. I have helped other kids in my class.	0	1	2
6. I have tried to cause trouble between other people and their friends.	0	1	2
7. I have been invited to a birthday celebration.	0	1	2
8. I have refused to talk to other people.	0	1	2
9. I have tried to get others to refuse to talk to certain people.	0	1	2
10. I have complimented other people.	0	1	2
11. I have called other people names.	0	1	2
12. I have made fun of another person's appearance.	0	1	2
13. I have invited other kids over to my house.	0	1	2
14. I have made fun of another person for a reason other than their appearance.	0	1	2
15. I have sworn at other people.	0	1	2
16. I have introduced myself to a new student.	0	1	2
17. I have taken something from another kid without permission.	0	1	2
18. I have tried to break something that belonged to another kid.	0	1	2
19. I have stolen from another kid.	0	1	2
20. I have deliberately damaged another kid's belongings.	0	1	2
21. I have bullied another kid and my brother or sister did it with me (leave blank if you have no brothers or sisters).	0	1	2
22. I have bullied another kid and my twin did it with me (leave blank if you have no twin).	0	1	2

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Multidimensional Peer-Victimization Scale (MPVS; Mynard & Joseph, 2000).