

Social and Parental Involvement and the Impact on Risk of Compulsive Exercise and Body  
Physique Internalization

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**Introduction:**

High school sports have so many benefits such as social stimulation, competition, teamwork, developing leadership skills, and learning to balance schedules. Although sports have been an important factor in my life as I am a multi-sport athlete, I have seen many negatives to participating in high school athletics. Many athletes are forced to compete or play with injuries or illnesses and are scared of revealing this to coaches, parents, and peers due to the pressure of performance. It is dangerous to have adolescents risking their health for a feeling of satisfaction. There are 1,563,692 participants in athletics through modified, freshmen, junior varsity, and varsity athletes in New York State. According to the 2023-2024 participation survey through New York State Public High School Athletic Association, there are 789,540 varsity athlete participants (NYSPHSAA).

Body image has become an enduring problem in athletes of all levels and ages, although adolescence is a crucial period of development for self esteem. Approximately 32% of childcare workers believe parents cause negative body image in their children, and 72.8% of young female adolescents experienced body dissatisfaction and a drive for thinness versus 46.2% of males (Solano-Pinto N, 2021).

Pressure for performance is a catalyst to overtraining, compulsive exercise, and physique internalization. In recent years, social media has become a very influential piece of teenagers' lives. Many social media platforms have fitness influencers and professional athletes who portray a "certain look" of athleticism that many athletes compare themselves to. Younger athletes are being exposed to the pressures of athletic performance which will only worsen as competition increases. Media presentations of male and female bodies have been shown to be

particularly potent sources of sociocultural influence on both boys and girls (e.g. Cafri et al., 2005). Recent work suggests that media exposure does not just influence the dieting behavior of adolescent girls, but the initiation of an exercise program (Field et al., 1999). Indeed it has been noted that “exercise is promoted as an optimal means to achieve the ideal physique” (Lindeman, 1999). Coaches and parents are considered as significant others whose time, effort, and energy is instrumental to talent development (eg., Babkes & Weiss 1999).

The variables above may influence behaviors of compulsive exercise in adolescents which can lead to many health issues, especially eating disorders. Excessive exercise is present in up to 55% of eating disorder (ED) patients, often precedes the onset of an eating disorder, and is one of the last symptoms to subside (Schroff et al., 2006). On the one hand, sport practitioners are particularly at risk of developing ED related features because of the specific pressure from within their sport to improve performance that adds to the existing sociocultural pressure to conform to an ideal body shape (Bar K-J, 2013).

**Purpose:**

The purpose of this study is to evaluate the association between media, family, and peers' influence on student athletes' body physique internalization and compulsive exercise.

**Hypothesis:**

My hypothesis is that athletes' body physique internalization and compulsive exercise has a correlative relationship between social factors such as media, family, and peers and athletic image pressures.

**Null Hypothesis:**

The null hypothesis states athletes' body physique internalization and compulsive exercise does not have a correlative relationship between social factors such as media, family, and peers and athletic image pressures.

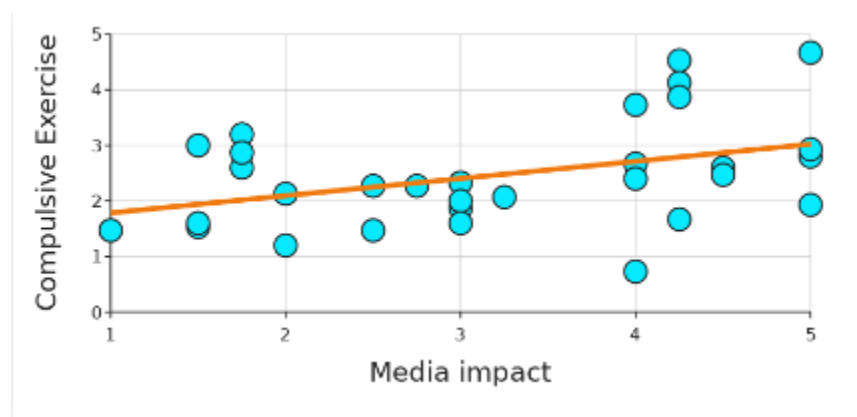
**Methods and Materials:**

Participants were recruited through our school-wide parent website called "FamilyID." The parents filled out a permission form in order to approve their student to participate in my questionnaire. The student athletes were then added to the Google Classroom I created to send out the questionnaire. The questionnaire was grouped into parts of family, media, peers, and personal identification of body image and exercise habits. There were 10 questions involving personal views of body image such as "I spend a lot of time doing things to look athletic" with 5 answers in a scale of agreement. For the three subscales (media, family, and peers) each had 4 questions. All forms were kept anonymous to protect the privacy of all participants by setting the Google Classroom to not collect students' email addresses or any personal information after submission. After receiving the answers, I gave each participant a number based on the order of submission to keep track of their results and scored and averaged the students' answers using Google Sheets. I used the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ) to conduct my project. The SATAQ subscales (media, family, and peers) have demonstrated strong relationships to body image or weight control techniques in girls and muscle building techniques in boys also showed in an extensive meta-analysis that the three SATAQ variables internalization, pressure, and awareness were associated with body image (Smolak et al., 2001). All results were stored in Google Sheets, then the correlations and graphs were made through

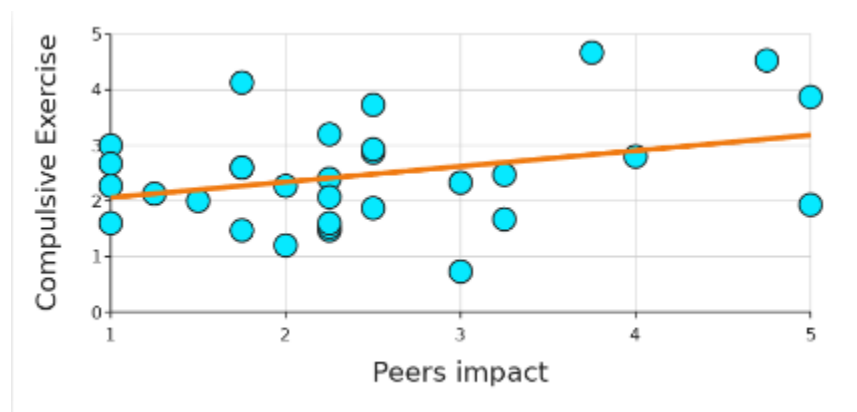
DataClassroom. I then found the  $r^2$  values and p-values for each variable in order to find the significance.

### Results:

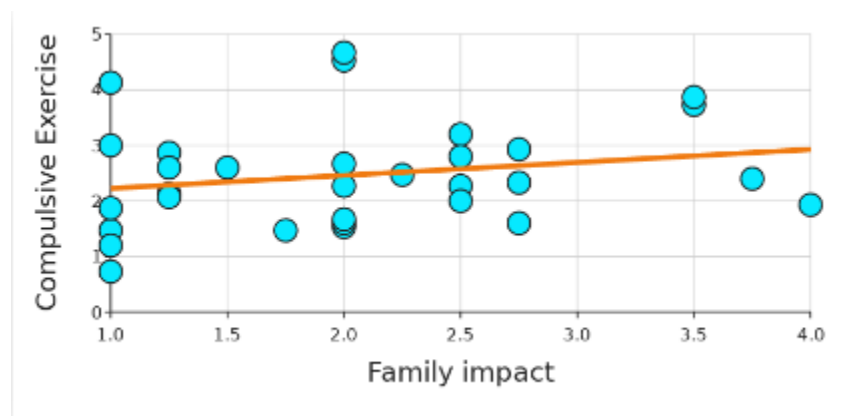
After creating a regression model for each of my three variables, I found the r-squared and the p-values for each. To start, Media significantly predicts compulsive exercise with an  $r^2$  of 0.164 and a p-value of 0.02. Social media is a prevalent resource of influential behaviors and marketing techniques which stimulates a myriad of social pressures and image concerns.



The variable Peers is not statistically significant as it has an  $r^2$  of 0.107 and a p-value of 0.07. The effect of peer relationships has some impact on athletes but not strong enough for significance.



I have found that the variable Family does not have any significance and there is no proven relationship between compulsive exercise and itself. Family had an  $r^2$  of 0.045 and a p-value of 0.25.



### Discussion and Conclusion:

As discussed in the results, the variable Media was statistically significant with a p-value of 0.02. Media was the most related out of the 3 variables. High school athletes are negatively impacted by the effects of media on body image and physique internalization. Due to my small sample size, there was a lack of consistency in the answers I received from the student athletes. The answers for Media were mostly consistent, but for family and peers there were many very high and very low averages. With a small sample, it is difficult to gauge an average with such a small range of data. There were some outliers which were detrimental to the accuracy of the results. I believe that a larger sample size would help correct my values. My hypothesis was not supported, however, the pressures of media, family, and peers influences many athletes to different degrees which may be dangerous to creation of injuries, eating disorders, and mental health problems. The risks of the variable Media are very serious and even fatal to some adolescents.

**Future Research:**

I would like to expand my sample size in order to gather more data to ensure accuracy in my results. Starting the questionnaire from elementary school age students following to high school would be an interesting comparison and indicator of when body image pressures and risks for compulsive exercise may begin. Elementary age children are not as susceptible to media as middle and high schoolers, but they are influenced by their parents and peers significantly. Lastly, a variable of coaches' impact on compulsive exercise would be another influential factor I would like to study along with my other three variables. I believe that coaches make a tremendous impact on athletes and shape their attitudes mentally in both positive and negative ways.

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