

#HEALTHYLIVING: SOCIAL MEDIA COMPARISONS REGARDING PHYSICAL
ACTIVITY AND ALCOHOL USE AMONG COLLEGE STUDENTS

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by

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ABSTRACT

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The current study investigated the relationship between health-related-posts on social media and health-related behaviors. Participants ($n = 91$) were recruited to view one of four researcher-created Facebook profiles, which varied on exercise/health behaviors and alcohol use. They completed a variety of measures assessing aspects pertaining to health-related behaviors, such as locus of control and social physique anxiety, as well as intent to exercise and consume alcohol in the near future. They were then instructed to bring the questionnaire to a second researcher one floor above and it was noted whether or not the participant took the stairs. Results suggest that individuals who viewed the fit profile were more likely to take the elevator, if they had a high locus of control. There was no difference in intent to exercise or drink alcohol among those who viewed differing profiles.

KEY WORDS: Social media, Alcohol use, Exercise, Social Physique Anxiety, Locus of Control

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TABLE OF CONTENTS

	Page
ABSTRACT.....	iii
ACKNOWLEDGEMENTS.....	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES	vii
CHAPTER	
I INTRODUCTION AND REVIEW OF LITERATURE	1
Social Media Use	3
Physical Activity	6
Individual Differences in Physical Activity	7
Alcohol Use	9
The Current Study.....	13
II METHOD	15
Participants.....	15
Design	15
Measures	16
Procedure	19
III RESEARCH HYPOTHESES	20
Hypothesis 1.....	20
Hypothesis 2	20
Hypothesis 3.....	21
Hypothesis 4.....	21

IV	RESULTS	22
	Preliminary Analyses and Data Reduction	22
	Predicting Group Membership.....	24
	Intent to Exercise and Intent to Drink.....	26
	The Relationship Between Fitness Profile and Intent to Drink	27
V	DISCUSSION	28
	Limitations	32
	Implications.....	33
	REFERENCES	34
	APPENDIX A.....	44
	APPENDIX B	45
	APPENDIX C	49
	APPENDIX D.....	50
	VITA.....	51

LIST OF TABLES

TABLE	Page
1 Participant Demographics and Background.....	16
2 Means and Standard Deviation for Study Measures.....	23
3 Intercorrelations of Study Measures.	23
4 Reliability Coefficients for Study Measures.....	24

CHAPTER I

Introduction and Review of Literature

College is a crucial time in young adults' development, in which health patterns are established that frequently endure throughout adulthood (Williams, Holmbeck, & Greenley, 2002). The transition to college is marked by an increase in alcohol use (Borsari, Murphy, & Barnett, 2007) as well as decreased physical activity, weight gain, and poor nutrition (Racette, Deusinger, Strube, Highstein, & Deusinger, 2005). In establishing negative health patterns of hazardous drinking and physical inactivity, college students are at risk for both short-term and long-term consequences. Specifically, binge drinking is associated with alcohol-related problems later in life as well as poorer psychological health (Jennison, 2004), including increased risk for depression (Mohamed & Ajmal, 2015) and general anxiety (Cranford, Eisenberg, & Serras, 2009). Further, physically inactive college students tend to have increased stress in addition to poorer psychological and physical health, both immediately and over time. Such influences are often long-term due to the fact that the physical activity patterns established in young adulthood tend to be maintained throughout life (Bell & Lee, 2005; Bray & Kwan, 2006; Brown, 1991). Identifying the various influences on the establishment of drinking patterns and physical activity levels is necessary to intervene and potentially alter the development of unhealthy behaviors in young adulthood.

The transition to college is also characterized by an exploration of the self and establishment of social networks, which have a large influence on the formation of lasting positive and negative health-related behaviors (Barnett, Ott, Rogers, Loxley, Linkletter, & Clark, 2014). Peer influence is often credited with the increase in alcohol consumption

and the use of other substances often seen in college students (Leasure, Neighbors, Henderson, & Young, 2015). Additionally, perception of peer physical activity level has been shown to be related to intention to exercise (Baker, Little, & Brownell, 2003), revealing that if an individual anticipates high levels of physical activity among his/her peers, he/she may be more inclined to exercise. Often, research focuses on peers as sources of social comparison for adolescents and young adults, and the subsequent influence on the formation of behavior patterns.

Festinger's social comparison theory (1954) suggests that when presented with the option—and, in particular, when they are uncertain of their standing—individuals will compare themselves with others to evaluate their own attitudes and behavior.

Comparisons are often described as either upward or downward, depending on the comparison target. Individuals often seek out downward comparisons, in which they compare themselves to individuals slightly inferior to themselves, in order to elevate self-esteem. Upward comparisons, in which an individual compares oneself to someone seen as superior, may inspire individuals to improve themselves; however, this more often results in negative feelings about oneself and feelings of one's own inferiority (Wood, 1989). Social comparisons may be made as a result of direct and/or indirect contact, demonstrating that individuals can be influenced not only by someone with whom they are familiar, such as peers, but also by others whom they have never met, such as celebrities (Chrisler, Fung, Lopez, & Gorman, 2013). Common methods of comparison result from in-person contact or exposure via other media, such as television or magazine covers, and, in the past decade, there has been a new source of peer influence and social comparison: social networking websites.

Social Media Use

Social networking websites such as Facebook, Instagram, and Twitter, are among the most widely used applications, or apps (Statista, 2016) used on electronic devices among young adults (Xenos & Foot, 2008), with the most prevalent activity being viewing others' posts (Pempek, Yermaloayaeva, & Calvert, 2009). Social media use among emerging adults is of special importance not only because they are among the most avid users, but also because that age is a distinct developmental period in which peers are used to shape self-perceptions and to develop identity (Arnett, 2000). Approximately 90% of undergraduates used Facebook by 2008 (Steinfeld, Ellison, & Lampe, 2008), and young adult users have been found to have an average of around 850 Facebook friends (Jang, Lee, & Park, 2014). These numbers may have increased in the past decade as these social media sites continue to grow in popularity.

These websites allow individuals to engage in multiple social interactions and observations from a distance, at all times of day. Additionally, the individual user has full control over the content and amount of information that he or she would like to portray to other users. For instance, the user can post "status updates" with a text description of one's thoughts, emotions and current activities as well as GPS updates of his or her location in real time. Additionally, users are able to post photographs instantly and send them to other users. While these sites can be used to connect to friends and acquaintances around the globe, they also serve as a new and continuous source for social comparative functions such as self-evaluation (Festinger, 1954; Vogel, Rose, Roberts, Eckles, 2014). That is, individuals may utilize the information presented on social media

sites to compare themselves to others and consequently to evaluate themselves on a variety of themes.

Traditionally, social comparisons to peers are made through in-person contact, in which individuals have only a certain degree of control over which characteristics about themselves they reveal to others. Today's society, however, offers more options for individuals to make social comparisons through social networking websites. College students tend to have much larger social networks online than in person (Pempek et al., 2009). Additionally, the more one uses Facebook, the more comparisons one is likely to make (Lee, 2014). Thus, the constant exposure to other people's lives and thoughts allows for more frequent comparisons and self-evaluations than one would encounter without social networking sites.

Despite the desire to make downward comparisons, individuals often find it hard to avoid making upward comparisons on social media (Vogel et al., 2014). This is because social networking, compared with in-person contact, allows for much more control and flexibility in what information is presented to others, and users often post more positive events and photos than they do negative ones, potentially conveying a happier or more appealing picture of one's life (Gonzales & Hancock, 2011). Conversely, in-person contact may convey a more realistic balance of the positive and negative aspects of individuals' lives. As a result of the flexibility that social networking sites allow, it may be easier for others to envy the lives of their peers and engage in constant upward comparisons. Chou and Edge (2012) found that those who use Facebook more frequently, and who as a result are exposed to more posts and profiles of others, report that others live happier and better lives than their own. It is possible that individuals who

use Facebook often are engaging in numerous upward comparisons on a daily basis, more so than they would without the use of social media.

Common topics of social media posts, especially for college students, include fitness-related behaviors and alcohol consumption—two areas that research shows are largely related and influenced by peers (Egan & Moreno, 2011; Korhonen, Kujala, Rose, & Kaprio, 2009; Vaterlaus, 2015; Villiard & Moreno, 2012). In fact, sedentary lifestyles and excessive alcohol consumption often co-occur in college populations (Korhonen et al., 2009). Interestingly, prior research also generally finds a positive relationship between physical activity and alcohol consumption (Leasure et al., 2015). Conroy et al. (2014) indicated that the positive relationship is likely reflecting a “within-person process,” (i.e., on an individual basis) in which physical activity is linked at the daily level. That is, on days in which individual report consuming alcohol more, they report exercising more as well.

Villiard and Moreno (2012) found that 71.9% of social media profiles they evaluated contained at least one of 10 different fitness behavior categories, with most relating to exercising or healthy eating. In a focus group regarding social media, 59% of participants stated that posting statuses regarding exercise or photographs of oneself (“selfies”) engaging in physical activity commonly occurs on social media (Vaterlaus, 2015). These findings suggest the likelihood that many college students are offered frequent opportunities to make comparisons regarding fitness, which may influence the motivation and intention to engage in physical activity.

Additionally, Egan and Moreno (2011) found that male college students referenced alcohol an average of 8.5 times per profile; however, this increased

dramatically with age. Male college students who were over 21 were 4.5 times more likely to reference alcohol than under-age students were. Because college students' online social networks tend to be large, it is probable that even underage students are being exposed to alcohol-related posts of both underage and of-age students. Despite not personally knowing each "friend" on one's social networking site, a majority of users are adolescents and young adults, and thus may be perceived as similar to the user (Moreno, 2011). Further, because models who are perceived as similar are more likely to be modeled and to influence behavior (Eyal & Rubin, 2003), posts regarding physical activity and alcohol use among college students may result in social comparisons and an alteration of perceptions of social norms, ultimately influencing college student's alcohol intake and physical activity levels. In addition, given the positive associations between physical activity and alcohol use found in the literature, it is possible that social comparisons based on one of these behaviors (e.g., physical activity) may also influence the other (alcohol use).

Physical Activity

Research regarding physical activity and healthy living comparisons has largely focused on in-person comparisons in fitness settings such as at the gym. Wasilenko, Kulik, and Wanic (2007) found that direct exposure to a "fit peer" while exercising had a negative effect on women's body satisfaction and exercise behavior. This finding was consistent among all body types and body mass index (BMI) levels; thus, exposure to a thin and fit peer reduced body satisfaction for participants who already had low BMI levels, as well as those with high BMI levels. There was no increase in body satisfaction, but an increase in exercise duration, for those who were exposed to an "unfit peer" when

compared with “no peer.” The authors suggested that exposure to an unfit peer may actually produce motivation to exercise so as to not become like the unfit peer.

Additionally, those exposed to a fit peer exercised for a shorter amount of time when compared with those exposed to an unfit peer, suggesting that people may make involuntary upward comparisons in fitness settings that influence feelings regarding one’s own body satisfaction and exercise behaviors.

While upward comparisons made in-person within fitness-related settings have been shown to influence exercise behavior, the extent to which upward comparisons made indirectly actually influence exercise behavior is unclear. That is, are comparisons that individuals make via social media as influential on one’s behavior? The answer may depend on a variety of individual differences.

Individual differences in physical activity

Social physique anxiety. There is undoubtedly pervasive pressure on individuals to maintain an ideal physique in today’s culture. An inability to achieve such standards may manifest as social physique anxiety (SPA): the belief (whether rightly or wrongly) that others are negatively judging one’s physical appearance. This concern may consequently influence individuals’ physical activity and health behaviors. SPA is similar to body image but conceptually more narrow. Overall, early body image research revealed commonalities among all weight groups in regard to body dissatisfaction and weight misperception. That is, college students tend to be dissatisfied with their weight and to misperceive their weight-related appearance, across all body types (Gray, 1977; Miller, Link, & Link, 1980). Further, gender disparities are evident in that women tend to be more dissatisfied with their bodies and to overestimate their body size in comparison

to men. The concept of social physique anxiety builds off of body image, and focuses on others' perception of one's physique rather than one's own perception. In developing a measure to assess SPA, Hart et. al. (1989) demonstrated that individuals who scored high in SPA reported greater distress when confronted with a fitness-related evaluation and lower body-esteem.

Because many individuals have misperceptions of their bodies, social physique anxiety may result from a *perceived* failure to reach the fitness standards of peers, even if the individual is of average weight (Hart, Leary, & Rejeski, 1989). Consequently, SPA has been linked to a multitude of health-related behaviors. Specifically, higher levels of SPA are associated with maladaptive behavioral patterns such as disordered eating and poor dietary choices, while lower levels of SPA have been linked to more adaptive behavioral outcomes such as healthy exercise behavior (Brunet & Sabiston, 2009; Hart, et. al., 1989; Salovey, Rothman, Detweiler, & Steward, 2000; Strong, Ginis, Mack, & Wilson, 2006).

Research regarding the relationship between SPA and physical activity largely surrounds distinct exercise behaviors (e.g., going to the gym) and ignores daily physical health-related choices (e.g., taking the stairs instead of the elevator). It is plausible that anxiety regarding other's perceptions may extend beyond engaging in distinct exercise patterns and play a more pervasive and moderating role impacting one's daily choices.

Locus of control. Locus of control has been linked to a multitude of health-related outcomes. Specifically, an external locus of control has a direct relationship with poorer physical and emotional health, while an internal locus of control is associated with more positive health-related outcomes, such as decreased risk of heart disease (Cobb-

Clark, Kassenboemer, & Schurer, 2013). This relationship may exist because individuals who maintain an internal locus of control invest more in their health because the expected returns are higher; that is, they believe their investment in their health presently will result in more positive health outcomes in the future. In short, those with an internal locus of control likely assume their choices play a direct role in their future health. Thus, they are more likely to choose a healthier lifestyle such as eating healthier and exercising more.

Relatedly, in regards to social comparisons, in-person upward comparisons may have a motivational or amotivational influence on exercise, depending on the individual's locus of control (Pila, Stamiris, Castonguay & Sabiston, 2014). For people with cognitions that revealed an external locus of control, such as a feeling of helplessness regarding one's body, upward comparisons served as a amotivational influence (e.g., "My body is different and there is nothing I can do about it"). Participants with a higher internal locus of control were accompanied by motivational cognitions indicating they could achieve goals and make changes. These findings suggest that locus of control may serve to moderate the outcome of the comparison.

Alcohol Use

Adolescents on the verge of young adulthood are largely influenced by peers as their reliance on their parents slowly diminishes and they explore their identities. In fact, peer risky behavior may influence an individual's engagement in risky behaviors, such as tobacco or alcohol use (Cruz, Emery, & Turkheimer, 2012; Trucco, Colder, & Wieczorek, 2011). Approximately 80% of college students drink alcohol, and nearly 40% of them report binge drinking (National Institute on Alcohol Abuse and Alcoholism,

2016). Further, consequences of drinking vary in severity from academic problems to sexual assault, suicide, and death. A few possible explanations found for peer influences on increased alcohol use in college are peer pressure, friend selection, and/or socialization. *Selection* refers to the tendency for individuals to choose friends who show similarities in behaviors and attitudes and who thus may perpetuate drinking habits. *Socialization* refers to an individuals' adherence to their perceptions of social norms among their social group. That is, individuals may simply conform to the behaviors and attitudes present within their friend groups, or perhaps to the behaviors and attitudes that they *believe* are present (Steglich, Snijders, & Pearson, 2010). In investigating the role of social norms on alcohol use, the distinction between descriptive and injunctive norms becomes important. *Descriptive norms* describe the behavior of others and in doing so, delineate what is normal behavior in any given situation, whereas *injunctive norms* proscribe behavior and as a result, convey how others think you *should* behave in a given situation (Borsari & Carey, 2002; Stok, de Rider, de Vet, & de Wit, 2014). While research has established that both types of social norms influence behavior, descriptive norms are more effective at inducing modeling whereas injunctive norms may be more likely to promote reactance (Cruwys, Bevelander, & Hermans, 2015; Stok et al., 2014). Descriptive norms have been shown to influence individuals' alcohol consumption (Borsari & Carey, 2002; Priebe & Spink, 2011); however, a key component of this relationship is that the reference group that is providing the descriptive norm must be seen as similar to the person (Priebe & Spink).

Social media sites may offer a similar source of influence on initiating or increasing alcohol use in that others' profiles may convey social norms to which

individuals are likely to adhere. Moreno, Briner, Williams, Brockman, Walker and Christakis (2010) found that of the 400 college students' profiles they viewed, 56.3% referenced alcohol, with a total of 341 references in all. An individual's constant exposure to peers' alcohol-related posts might influence the comparisons being made, as well as real-life behaviors related to alcohol consumption. Moreno, Briner, Williams, Walker, and Christakis (2009) found that adolescents perceive alcohol references on social media profiles as accurate and influential. Thus, adolescents transitioning into emerging adulthood who view peers' positive attitudes toward drinking may be more likely to assume the posts are an accurate representation of social norms, ultimately leading them to adopt those attitudes toward drinking and, in turn, increasing their alcohol consumption (Strasburger & Wilson, 2002).

Few studies to date have investigated the relationship between social media and risky alcohol consumption. Overall, the finding that an individual's alcohol-related posts on his or her own profile predict his or her own alcohol-related problems and alcohol consumption has been replicated (Ridout, Campbell, & Ellis, 2012; Westgate, Neighbors, Heppner, Jahn, & Lindgren, 2013). The role of peer alcohol-related posts on individual behavior and attitudes is still unclear and is limited by a dearth of research on the topic. In some settings, friends' alcohol-related posts significantly predicted meeting clinical criteria for alcohol abuse did not predict the individual's actual alcohol use or cravings (Westgate et al., 2013). The authors suggest the possibility that in assessing this relationship retrospectively, some aspect of this relationship may have been lost. That is, Westgate et al. (2013) examined the relationship between friends' posts and individual alcohol consumption via a single item asking the participants how often their friends post

alcohol-related content on Facebook, with answers ranging from “never” to “daily.” They hypothesized that manipulating friends’ posts experimentally may reveal a different result.

Conversely, another line of research with adolescents found increased exposure to friends’ profile posts regarding risky behaviors, such as drinking, was associated with more frequent reports of drinking and smoking, suggesting that social media profiles may be a basis for peer influence (Huang et al., 2014). There are multiple possibilities to consider in explaining the differences in results above. First, while college students and adolescents are similar in regards to social developmental influences, they differ largely in regard to setting. That is, the environmental influences related to being in college could have played a part in the differences observed between the two aforementioned studies. Another possible explanation may result from the methodological differences. While both assessed social media posts via retrospective perspectives, Huang et al. (2014) focused their analyses on perceptions of 7 *close* friends’ alcohol-related posts on multiple social media sites, rather than assessing general Facebook friends’ alcohol-related posts as in Westgate et al. (2013). Relatedly, the authors note that by focusing solely on close friends, the findings themselves are limited in that a majority of adolescents have vastly larger social networks on social media and are likely exposed to and influenced by posts beyond those of their close friends. Lastly, age itself may play a role in explaining social media comparisons regarding alcohol use. Litt and Stock (2011) demonstrated that young adolescent exposure to “older peers” profiles largely influenced attitudes towards drinking. Specifically, adolescents who viewed social media profiles of older individuals

that promoted drinking were more willing to drink, had more positive attitudes toward drinking and were more likely to perceive alcohol use as normative.

These mixed results delineate the need for further research investigated the relationship between social media comparisons regarding alcohol use and individual alcohol consumption. As mentioned, retrospective methodologies may pose a limitation in assessing the impact these social comparisons may have. As such, experimental research is needed in order to observe and denote differences in social media comparisons.

The Current Study

While some research has investigated the impact of social media on attitudes and self-esteem, relatively little, if any, has investigated their direct impact on behavior or intentions. The current study aimed to bridge that gap by investigating the relationship between peer social media posts regarding physical activity and alcohol use and college students' immediate, as well as planned, behavior. A majority of remote modeling and descriptive norm studies have revealed the same effect as live modeling; however, some research has found little to no evidence for this assertion (Cruwys et al., 2015). As such, the need for more research regarding remote modeling and indirect exposure to norms is apparent as the opportunity for remote modeling in forms of social media is continuously increasing. Specifically, the current study exposed participants to one of four Facebook profiles that varied on fitness and alcohol use level. That is, profiles intended to serve as a descriptive norm displaying physical activity (Fit) or no physical activity (Sedentary). Additionally, the profiles conveyed the descriptive norm of alcohol use (Pro Alcohol) or no alcohol use (Neutral). The four possible combinations of these profiles served to

provide an array of descriptive norms to participants, varying what each participant views as “typical” behavior of peers. Importantly, these Facebook profiles were (falsely) attributed to a college student attending the same university as participants, in order to increase the likelihood of perceived similarities between the participant and profile.

While direct exposure to fit peers in a fitness setting, as it concerns physical activity, may influence current cognitions and behavior (Pila et al., 2014; Wasilenko et al., 2007), indirect exposure at all times may influence repeated cognitions and immediate or planned behavior. One common observable measure of physical activity is taking the stairs. Stair taking expends nearly 10 times the amount of energy used at rest (Ainsworth et al., 1993) and in general, those who take the stairs regularly have been found to have decreased body mass indices (BMI) and decreased risk for heart disease (Kennedy, Boreham, Murphy, Young, & Mutrie, 2007; Meyer et al., 2010). Motivational signs and cues placed in the vicinity of staircases increase the amount of people who choose to take the stairs (Ford & Torok, 2008; Suri, Sheppes, Leslie, & Gross, 2014). In light of these findings, the current study attempted to use this observable measure of physical activity to explore whether exposure to social media posts, which are potentially accessible at all times and locations, may serve as the same reminder/motivation and result in the same findings (i.e., increased physical activity, as measured by stair taking).

CHAPTER II

Method

Participants

Ninety-two participants were drawn from a sample of Sam Houston State University (SHSU) students using the Psychology Experimental Research Participation (PeRP) program, an online system that allows students at SHSU to sign up for participation in various research projects. Participation is typically either required for course credit or deemed eligible for extra credit for various courses at SHSU. Participants were at least 18 years of age. Intercollegiate athletes were excluded from this study as this study was interested in examining these relations among typical college students with varying degrees of physical activity, whereas intercollegiate athletes are required to be engaged in high levels of physical activity as a requirement of their sports. Three cases were excluded from analyses due to incomplete or missing data. Demographics for the sample are provided in Table 1.

Design

This study employed a 2 (Fitness Post: Fit, Sedentary) x 2 (Alcohol Post: Pro, Neutral) between-subjects design.

Table 1

Participant Demographics and Background (N = 89)

Variable	Mean (SD)	Percent
Gender		
Male		10.90
Female		89.10
Age	20.24 (2.01)	
Race/Ethnicity		
Caucasian		46.70
African-American		31.50
Latino/a		21.70
Asian/Asian-American		3.30
Native American		2.20
Other		3.30
Average Facebook Friends	670 (855.06)	
Average # Hours on Social Media	5 (6.80)	
Average # Drinks per week	2.57 (4.06)	1.50
Average Time spent exercising	95.64 (75.02)	

Measures

Demographics. The demographics questionnaire consisted of items assessing basic demographic information such as age, gender, ethnic and racial background, and year in school. It also contained items assessing social media use including the number of Facebook friends, how much time is spent on social media, and the most commonly used social media sites (Appendix B).

Facebook Posts. The current study employed four disparate types of Facebook posts, which were combined to create four unique Facebook profiles (i.e., Fit/Pro Alcohol, Fit/Neutral Alcohol, Sedentary/Pro Alcohol, and Sedentary/Neutral Alcohol). The posts were designed to be gender neutral (that is, the posts did not convey information typically associated with gender stereotypes) to reduce any confounding variables related to gender. Further, this allowed participants to infer the gender of the social media profile user. Participants were randomly assigned to view only one of these profiles, which are described in Appendix A.

Social Physique Anxiety Scale. Social Physique Anxiety was measured using the Social Physique Anxiety Scale (SPAS; Hart et al., 1989). This measure consists of twelve items that assess the degree to which an individual becomes anxious when others observe or evaluate his/her physique. Participants are asked to rate the extent to which each item is characteristic of them on a 5-point scale ranging from 1 (not at all) to 5 (extremely). High scores reflect a greater degree of social physique anxiety. The scale is found to have good internal consistency (coefficient alpha = .85) as well as test-retest reliability ($r = .82$) among college students. Example of items found in this scale is, “In the presence of others, I feel apprehensive about my physique/figure,” and “I wish I wasn’t so up-tight about my physique or figure.”

Locus of Control. Locus of control was assessed using Rotter’s Internal-External Locus of Control Scale. The scale is comprised of 29 double statements in which participants choose which of the two statements they agree with most. Sample items include “Heredity plays the major role in determining personality,” or “It’s one’s experiences in life which determine what they’re like.” Higher scores reflect an internal

locus of control. The scale has established strong convergent/discriminant validity and test-retest reliability (Rotter, 1966). Internal consistency within this study was .69.

Profile Likability. How likable participants found the profile that they viewed was assessed using the Reysen Likability Scale (Appendix E). This scale consists of 11 items, assessed on a 7 point scale where 1 is equal to “Very Strongly Disagree” and 7 is equal to “Very Strongly Agree.” The scale has been demonstrated to have a coefficient alpha of .86 (Reyson, 2005). Sample items include “This person is friendly,” and “This person is approachable.”

Physical Activity. Daily physical activity will be gauged using the Physical Activity Questionnaire which was adapted from the Global Physical Activity Questionnaire (World Health Organization). Participants were asked how many times they engaged in vigorous and moderate physical activity for at least 10 min throughout their free time during the previous week.

Drinking Activity. Participant’s typical drinking behaviors was assessed using the Daily Drinking Questionnaire (DDQ). Four questions assessed how many standard drinks participants consumed every day during a typical week (Monday-Sunday) in the past three months (Kivlahan, Marlatt, Fromme, Coppel, & Williams, 1990). Standard drink definitions were included within this measure.

Intention to Exercise and Intention to Drink. Intention to exercise and drink alcohol were measured using items directly assessing how likely the participant is to exercise, eat healthy foods, and/or drink alcohol in the near future, adapted from Yun and Silk (2011). Four items per topic (‘I intend/plan/want/expect to exercise regularly or

drink alcohol in this coming week) will be measured on a 5-point scale ranging from 1 (completely disagree) to 5 (completely agree). (Appendix C and D)

Procedure

Participants met the researcher on the first floor of the College of Humanities and Social Sciences (CHSS) building on the SHSU campus and were then brought into the computer lab. They initially completed the informed consent, demographics, PAQ, DDQ, Rotter's Internal-External Locus of Control Scale, and Social Physique Anxiety scale through SurveyMonkey. They were then randomly assigned to view one of 4 social media profiles for approximately 5 minutes. They were given the following introduction: "This is a Facebook profile from a Sam Houston State University student who allowed us to use it for our study. All identifying information, including pictures of the student, has been removed to protect his/her identity. Please simply review the profile posts for 4-5 minutes. Afterwards, we will be asking you to rate how likeable this person seems to you along with some other measures."

After viewing the profile, participants first completed the Reysen Likability Scale, then the Intention to Exercise and Intention to Drink questionnaires in a paper format.

Participants were then walked to the main lobby and given the following instructions:

"Please deliver your survey to my colleague who is in charge of collecting the surveys. He/She is on the second floor, right up those stairs or the elevator in room XX and following your submitting your surveys, he/she will grant you your PeRP credit."

The researcher then noted if the participant took the elevator or stairs (both of which are next to each other and within view).

CHAPTER III

Research Hypotheses

Hypothesis 1

I hypothesized that participants who view one of the “Fit” profiles (i.e., Fit/Pro Alcohol or Fit/Neutral Alcohol) will be more likely to take the stairs instead of the elevator, as the profile will be an immediate reminder of the benefit of physical activity, similar to the motivational signs implemented by Ford and Torok (2008) and Suri et al. (2014). However, I hypothesized that this will only hold true for those with a high locus of control and low social physique anxiety. Similar to Pila et al. (2014), I expected that viewing a “Fit” profile would likely induce motivational cognitions that would result in the individual believing he/she is able to achieve the same level of health-related activity as the individual in the profile. With a low locus of a control, viewing a “Fit” profile would be more likely to induce amotivational cognitions surrounding an inability to achieve such a status. Further, because those who are high in SPA, tend to have overall poorer health-related behaviors, possibly resulting from a perceived inability to achieve health and fitness standards, it seemed possible that high SPA would hold constant and overshadow the influence of modeling. As such, locus of control and social physique anxiety were expected to moderate the relationship between the Facebook profile viewed and the immediate behavioral outcome.

Hypothesis 2

Similarly, participants exposed to one of the “Fit” profiles were expected to report greater intent to exercise in the near future because indirect exposure to peers’ social media profiles would serve as a descriptive norm, as opposed to an injunctive norm.

While some research has demonstrated both demotivational and motivational influences when exposed to fit peers in-person (Pila et al., 2014; Wasilenko et al., 2007), I hypothesized that individual differences, such as locus of control and social physique anxiety, largely play a role in this relationship. As such, controlling for the two variables would reveal a motivational influence.

Hypothesis 3

Further, I hypothesized that participants who viewed one of the pro-alcohol profiles would adopt excessive alcohol use as normative (Strasburger & Wilson, 2002) and consequently would report greater intent to consume alcohol in the future than those who viewed the neutral alcohol profile. As prior research has suggested, reported exposure to risky peer alcohol-related behavior via social media is associated with individuals' past reported alcohol consumption (Huang et al., 2014). Consequently, it was predicted that this relationship would hold true for future planned events in addition to those reported in the past.

Hypothesis 4

Lastly, given the positive relationship found between physical activity and alcohol use, it seemed possible that modeling of one of these behaviors through social media might influence the other. Therefore, I investigated an exploratory research question addressing the linkage of these behaviors. Specifically, is viewing a profile of a more physically active individual associated with changes in one's intention to use alcohol?

CHAPTER IV

Results

Preliminary Analyses and Data Reduction

Prior to running the analyses necessary to answer the research questions, data transformations were applied and internal consistency coefficients were computed. All continuous variables were normally distributed except the intent to exercise variable. After examining the potential impact of several different commonly used transformation formulae, the transformation that best improved the normality of this variable was squaring the variable, which I applied to intent to exercise. The means and standard deviations for the study measures are included in Table 2.

The intercorrelations among study measures are presented in Table 3. As shown in the table, only two measures that were significantly correlated: Social Physique Anxiety and Locus of Control, $r = .36, p < .001$. Reliability coefficients were also computed for the study measures and are presented in Table 4. As evidenced in the table, the reliability coefficient for the Social Physique Anxiety Scale was surprisingly low, considering prior reported reliability coefficients. Accordingly, it appears that the SPAS did not reliably assess participants' social physique anxiety as intended for this particular sample.

Table 2

Means and Standard Deviations for Study Measures

Measure	Profile Viewed				
	1	2	3	4	Total
RLOCS	10.89 (3.34)	10.25 (3.53)	10.17 (3.30)	9.00 (3.13)	10.13 (3.33)
SPAS	36.05 (12.33)	34.46 (8.61)	36.58 (13.35)	34.48 (9.45)	45.62 (11.26)
RLS	47.03 (7.58)	49.63 (6.95)	41.88 (8.34)	49.24 (9.09)	46.63 (8.49)
Exercise Intent	4.10 (.923)	4.38 (1.04)	4.18 (0.90)	4.17 (.090)	4.18 (0.92)
Alcohol Intent	2.24 (1.31)	1.51 (0.99)	2.23 (1.31)	2.20 (1.42)	2.10 (1.30)

Note. RLOCS = Rotter's Locus of Control Scale. SPAS = Social Physique Anxiety Scale. RLS = Reysen Likability Scale.

Table 3

Intercorrelations among Study Measures

Measure	1	2	3	4	5
1. Social Physique Anxiety	-				
2. Locus of Control	.36*	-			
3. Intent to Exercise	-.09	.04	-		
4. Intent to Drink	.06	.10	-.18	-	
5. Likability	.2	-.10	-.10	.06	-

Table 4

Internal Consistency of Study Measures

Measure	Cronbach's Alpha	n (items)
1. Social Physique Anxiety Scale	.852	12
2. Rotter's Locus of Control Scale	.687	22
3. Intent to Exercise	.927	4
4. Intent to Drink	.979	4
5. Reysen's Likability Scale	.857	11

Predicting Group Membership

The first research question, whether viewing the “Fit” profile increased the likelihood of taking the stairs, and whether SPA and LOC served as moderators to this relationship, was tested using a logistic regression. The first step in running this analysis was to combine profiles into two distinct types; those that contained fitness-related posts were grouped into one category and those containing sedentary posts were grouped into another (dummy coded with sedentary as the reference group). Then, profile type, SPA, and LOC were independently entered into the logistic regression, along with the interactions of profile type and SPA, and profile type and LOC. The criterion variable was stairs or elevator (dummy coded with stairs as the reference group). Initial results indicated that LOC significantly predicted group membership ($b = .247, p = .022$). Profile type alone did not significantly predict group membership ($b = 1.85, p = .297$); however, the interaction between Locus of Control and Profile Type suggested further exploration was warranted ($b = -.294, p = .061$).

Due to its small relation with taking stairs, social physique anxiety was removed from subsequent analyses. A logistic regression was rerun using only locus of control and profile as predictor variables. Upon removing SPA, locus of control by itself was a significant predictor ($b = .211, p = .038$). Further, the interaction between profile viewed and locus of control was also significant ($b = -.294, p = .038$). Experts on research design have recommended *post hoc* probing of interactions with p values smaller than .15 (Hays, 1994).

In order to further investigate the significant interaction, point biserial correlations were run within each profile group (Fit and Sedentary) between the dummy-coded outcome variable (stairs/elevator) and locus of control. For the “Sedentary” profile, locus of control was negatively correlated with stair taking, though the relationship was not significant ($r = -.128, p = .406$). These results indicated that as locus of control increased, the individuals who viewed “Sedentary” profiles were more likely to take the stairs (reference group). For those who viewed the fit profile, there was a significant positive correlation ($r = .323, p = .03$), indicating that individuals with higher locus of control were more likely to take the elevator.

The logistic regression was then replicated using the profile containing alcohol-related posts as the predictor variable. Initial results were similar to those of the fitness-related profiles, suggesting that there may be an interaction between locus of control and profile type, $b = .308, p = .067$. To further investigate the relationship within these profile groups, point biserial correlations were also run between locus of control and the outcome variable. Among those who viewed the neutral alcohol profile, there was a positive correlation between locus of control and taking the stairs, ($r = .355, p = .03$),

indicating that higher locus of control was associated with taking the elevator. There was no correlation among those viewing the pro-alcohol profile, ($r = -.04$, $p = .769$).

Intent to Exercise and Intent to Drink

To assess the hypotheses that viewing a fit profile would be associated with increased likelihood to exercise and viewing the pro-alcohol profile would be associated with increased likelihood to consume alcohol, two One Way Analyses of Variance (ANOVAs) were computed. The first ANOVA was run in order to determine whether means for the covariates differed across profile groups. They did not; SPA, $F(1, 87) = .002$, $p = .97$, and LOC, $F(1, 87) = 2.15$, $p = .15$, were similar across all profile groups. However, because social physique anxiety demonstrated a very small relation, it was removed from the final model. As such, locus of control was entered as a covariate in the ANOVAs in order to determine whether there were differences between groups of participants while controlling for LOC. Regarding intent to exercise, Levene's test was nonsignificant ($p = .378$), indicating variances were similar across groups, but there were no differences among those who viewed the fit profile and those who viewed the "Sedentary" profile on intent to exercise when controlling for locus of control, $F(1, 85) = .007$, $p = .932$, $\eta_p^2 < .001$. In regard to intent to drink alcohol, Levene's test was also nonsignificant ($p = .82$), and there were no significant differences between those who viewed the pro-alcohol profile and those who viewed the neutral profile on intent to drink alcohol while controlling for LOC, $F(1, 85) = 1.18$, $p = .28$, $\eta_p^2 = .013$. As such, the hypotheses were not supported. That is, the specific Facebook profile viewed by participants was not associated with intent to engage in exercise, nor was it significantly linked with intent to consume alcohol in the near future.

The Relationship Between Fitness Profile and Intent to Drink

In order to determine whether viewing a “Fit” profile was associated with increased likelihood to drink alcohol, an ANOVA was also computed also using locus of control as a covariate. Levene’s test was nonsignificant, suggesting equal variances across groups, and no differences between the two groups were observed on intent to exercise, $F(1, 85) = .94, p = .34, \eta_p^2 < .001$. A second ANOVA was run to determine if viewing a “Pro-Alcohol” profile was associated with increased likelihood to exercise. There were no differences between the two groups on intent to exercise, $F(1, 85) = .90, p = .344, \eta_p^2 = .011$.

CHAPTER V

Discussion

Results indicate that viewing a social media profile was associated with a change in odds in immediate behavior (i.e., taking the stairs.) While the first hypothesis—that Social Physique Anxiety would aid in predicting group membership—was not supported, analyses revealed a noteworthy finding. More specifically, there was a significant interaction between locus of control and profile viewed. That is, those who viewed a “Fit” profile were more likely to take the elevator, if they were high in locus of control. These results are unexpected given prior research pertaining to locus of control in regards to physical activity. Individuals with a high locus of control generally perceive health-related behaviors as having a higher return (Cobb-Clark et al., 2013). Thus, previous research has shown that when participants are presented with visual stimuli pertaining to health-related behaviors, they are more inclined to perceive the information in a motivational fashion.

The current research, however, suggests that this motivation may only extend to a certain point. That is, when accessing information pertaining to health-related behaviors via social media, individuals high in locus of control may perceive the stimuli in an amotivational fashion. One possible explanation for this relationship may be that the profile served as a source of injunctive norms, which promoted psychological reactance. Reactance refers to “the motivational state that is hypothesized to occur when a freedom is eliminated or threatened with elimination” (Brehm & Brehm, 1981, p. 37). Consequently, reactance yields the desire to reinstate that freedom, ultimately rendering the persuasive power of the message inconsequential. In the current study, it is possible

that quantity of “Fit” posts within “Fit” profile led the viewer to feel threatened in terms of their freedom to choose their daily behaviors. Consequently, when an individual has a high locus of control, he/she may respond to the situation in terms of emphasizing his/her ability to achieve a similar outcome at his/her leisure, ultimately resulting in the participant taking the elevator. That is, the participant may have reacted to the perceived threat by engaging in a behavior directly opposing that which was presented, highlighting their free behavioral will and ability to make changes if they so choose.

Consistent with prior research, injunctive norms tend to promote reactance (Cruwys, Bevelander, & Hermans, 2015; Stok et al., 2014). Further, individuals with an internal locus of control have been shown to react more strongly to perceived threats of personal freedom (i.e., display greater reactance) and exhibit more frustration and performance deficits (Cherlunik & Citran, 1974; Mikulincer, 1988). Further, while the results for those who viewed the “Sedentary” profile were nonsignificant, they further highlight the importance of locus of control in determining physical activity. That is, viewing a “Sedentary” profile was less influential, and those with a high locus of control were more inclined to take the stairs in general. Similar to Pila et al., (2014), the results suggest that locus of control is an important factor to consider when investigating health-related behaviors. However, this study emphasizes the further importance of the type of norm (descriptive versus injunctive), and potentially reactance, as a second factor that is worthy of consideration when understanding social comparisons regarding physical activity.

Accordingly, this result suggests that on a general level, daily exposure to social media profiles could influence individuals’ daily health-related behaviors. Because the

current study focused on only a single exposure and a single behavioral observation, it is possible that this influence may be magnified outside of a controlled environment. Thus, future research should seek to explore the influence of repeated exposure to social media on daily health-related behaviors. Further, in terms of interventions, results suggest that social media platforms meant to improve daily leisure physical activity and health-related behaviors may be beneficial for certain individuals; however, they should be wary of promoting reactance. Additionally, future research among individuals with an external locus of control is needed to determine intervention strategies, as the current study primarily emphasized those with an internal locus of control. Perhaps investigating locus of control as three categories (i.e., low, medium, and high) would reveal different results, rather than simply dichotomizing the continuous variable. Further, comparisons made toward those deemed similar to the individual evoke modeling more so than comparisons to strangers. The Facebook profile employed in this study was indeed intended to be viewed as a peer, suggesting that results stem from comparisons made to someone whom may be unknown to the participant, but still viewed as similar. As such, it's likely that social media platforms intended to reach audiences of similar characteristics would likely be the most beneficial.

Additionally, social physique anxiety was surprisingly not supported as an important factor in determining immediate behavior, despite prior research providing strong evidence for its role in exercise-related behaviors (Brunet & Sabiston, 2009; Hart, et. al., 1989; Salovey, Rothman, Detweiler, & Steward, 2000; Strong, Ginis, Mack, & Wilson, 2006). It is possible that SPA is more directly linked to exercise and health-related behavior in fitness-related settings, rather than in daily settings such as an

academic building. It is also possible that there is less perceived pressure and anxiety regarding comparisons when one is not in a fitness setting. Further, this study investigated remote comparisons (i.e., via social media), rather than direct comparisons (i.e., in person). It is possible that SPA is more salient and influential when direct comparisons to the target, in regard to body composition and health choices, can be made. That is, when comparisons are made in person, the individual is arguably vulnerable to immediate and visible judgment by the comparison source. When comparisons are made via remote sources, the source of comparison is likely not present during the time of the health-related behavior, thus minimizing any anxiety and subsequent effect on behavior.

The three subsequent hypotheses regarding the individual's intent to exercise or drink alcohol in the near future were unsupported. Viewing a "Fit" profile was not associated with greater intent to exercise or drink alcohol in the near future. Viewing a "Pro-Alcohol" profile was not associated with greater intent to drink in the near future nor was it associated with greater intent to exercise. These results suggest that the type of social media profile viewed did not influence planned behavior. These findings may be a result of the social comparisons that were made. Norms displayed by close friend groups (proximal) are more influential than those of individuals' who are deemed similar but not particularly close, such as other college students (distal). As such, understanding the influence on intention to engage in exercise and health-related behaviors may lie in this conceptual difference. That is, individuals' report greater intent to exercise and engage in health-related behaviors when exposed to descriptive norms pertaining to close friends, rather than similar college students (Yun & Silk, 2011). The results of the current study

could result from this difference in comparison, as the Facebook profile employed was intended to be a more distal comparison. Because college students tend to have large online networks, it is useful to understand how both proximal and distal norms influence behavior. Results of the current study suggest that, at least in regard to health-related intentions, distal peer norms hold little influence. Further, this understanding can also help explain the lack of significance in intent to drink alcohol. That is, perhaps social media posts that are viewed as displaying proximal norms would influence intent to drink. Lastly, because intent to engage in behavior is subject to social desirability and wishful thinking on the part of the participant, real-time assessment of behaviors may convey more realistic information. As such, individuals may be more inclined to *plan* on exercising and abstaining from alcohol; however, the behavior that follows is possibly different from the individual's original intent. Employing a study in which fitness trackers are used may provide useful data in determining the actual fitness behaviors/activity level of each participant following exposure to these differing social media profiles. Further, while retrospective analyses have their limitations, obtaining information on participants' actual alcohol consumption or food intake is likely difficult to obtain in any other format, and may prove beneficial in understanding future consumption information. Lastly, it is very possible that the measure intended to gauge intent was not sensitive enough to detect differences.

Limitations

The current study's first limitation is that its sample size ($n = 89$) is relatively small, which may have reduced the likelihood of finding significant results; however, the

effects found in testing one of the primary hypotheses were robust. Future research should seek out larger sample sizes in order to increase generalizability of findings.

The second limitation of the current study concerns research methodology. Specifically, the use of self-reported intent measures, coupled with the presence of researchers, may have led participants to respond in a manner perceived as more socially desirable/acceptable, skewing data. More specifically, many participants reported intending to exercise and a lack of intent to consume alcohol. The presence of the researcher while the participant completed the questionnaires may have played a key role in these results. Implementing methodology in which the researcher is not directly present with the participant may result in greater variability

Lastly, the study used four researcher-created Facebook profiles intended to be presented as a peer to each participant. It is unclear the extent to which each participant viewed the profile as belonging to someone similar to them. Future research should collect pilot data regarding perceived similarity and perhaps also employ a screen for content validity with a sample of target participants.

Implications

The present study builds on the growing body of literature assessing the impact of social media on health-related behaviors. This study uniquely investigated the direct impact on immediate behavior, an area that has not yet been investigated. Of importance is the finding that the impact of social media on health-related behaviors may largely be dependent on independent factors, namely, locus of control. The present data may be used to understand, as well as potentially improve health-related behaviors of college students by providing some insight into the influence of exposure to social media.

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APPENDIX A

Facebook Profile Descriptions

Fit/Pro Alcohol: The F/P profile contained 10 total “posts” regarding exercising and eating healthy. It also contained 10 posts about drinking alcohol. Examples of exercise posts are “Hitting the gym!” and pictures of weight lifting equipment. Examples of healthy eating posts are those with pictures of salads and vegetable dishes, and statuses such as “Protein pancakes game on point! Eat right, feel right, lift right, and live right! Nutrition holds the key.” Examples of the pro alcohol posts will exhibit pictures of solo cups and status updates stating “happy hour.”

Fit/Neutral Alcohol: The F/N profile contained the 10 posts regarding exercise and healthy eating, but no posts regarding alcohol use. Instead, the profile contained 10 unrelated posts such as pictures of animals and nature.

Sedentary/Pro Alcohol: The S/P profile contained 10 total “posts” regarding physical inactivity and unhealthy eating. For example, it included posts of pictures of fast food restaurants such as Whataburger, as well as status updates relating to inactivity such as “Watching Netflix all day.” It also contained the same 10 posts about drinking alcohol described above.

/Neutral Alcohol: The S/N profile contained the same 10 unhealthy posts and same 10 neutral posts described above.

APPENDIX B

Demographics

Instructions: Please read each question carefully and select the most accurate response.

1. Are you at least 18 years of age?

☐ Yes (1)

☐ No (0) (If participant marks “No,” they will be sent out of the survey as they do not meet participation requirements)

2. Age: _____ years

3. Gender: ☐ Male (1) ☐ Female (2)

4. Ethnic Background:

☐ Hispanic/Latino (1) ☐ Nonhispanic (2)

5. Racial Background:

☐ White/Caucasian (1)

☐ American Indian/Alaskan Native (2)

☐ Black/African American (3)

☐ Asian (4)

☐ Native Hawaiian/ Pacific Islander (5)

☐ Multi-Ethnic (6): _____

☐ Other (7) (please specify): _____

6. What is your year in school?

☐ 1st year (1)

☐ 2nd year (2)

☐ 3rd year(3)

☐ 4th year (4)

☐ 5th year (5)

☐ 6th year(6)

☐ 7th year(7)

☐ more (8)

7. Class Standing:

☐ Freshman (1)

☐ Sophomore (2)

☐ Junior (3)

☐ Senior (4)

8.Student Status:

☐ Part-time (1-11 credits) (1)

☐ Full-time (12+ credits) (2)

9. Most recent Semester's GPA (Write N/A if this does not apply to you):_____

10. Where you are living this semester:

- ☐ Residence Halls/Dorm Room (1)
- ☐ Fraternity/Sorority House (2)
- ☐ Off-Campus Housing/Apartment/House (3)
- ☐ With Parents (4)

11. Are you currently a Fraternity or Sorority Member?

- ☐ Yes (1) ☐ No (2)

12. Work Status:

- ☐ I do not work (1)
- ☐ Working part-time (2)
- ☐ Working full-time (3)

13. On average, about how many Facebook friends do you have? (N/A if you do not have a Facebook)

14. On average, about how much time in total do you spend on Social Media sites such as Facebook, Instagram, and Twitter? (N/A if you do not have a Facebook)

_____ minutes / hours (please indicate either minutes or hours)?

15. Which Social Media apps/sites do you use the most?

Please rank 1-7 (1 being the site you use the most, 7 being the site you use the least).

_____ Facebook

_____ Twitter

_____ Instagram

_____ LinkedIn

_____ Pinterest

_____ Google Plus+

_____ Tumblr

APPENDIX C

Intent to Exercise

1. I intend to exercise in this coming week

completely disagree disagree neutral agree completely agree

2. I plan to exercise in this coming week

completely disagree disagree neutral agree completely agree

3. I want to exercise in this coming week

completely disagree disagree neutral agree completely agree

4. I expect to exercise in this coming week

completely disagree disagree neutral agree completely agree

APPENDIX D

Intent to Drink Alcohol

1. I intend to drink alcohol in this coming week

completely disagree disagree neutral agree completely agree

2. I plan to drink alcohol in this coming week

completely disagree disagree neutral agree completely agree

3. I want to drink alcohol in this coming week

completely disagree disagree neutral agree completely agree

4. I expect to drink alcohol in this coming week

completely disagree disagree neutral agree completely agree

VITA

Maddison C. Schiafo

Education:

Doctor of Philosophy, Clinical Psychology Expected 2020
Sam Houston State University, Huntsville, TX.

Master of Arts, Clinical Psychology Expected 2017
Sam Houston State University, Huntsville, TX

Thesis Title: #Healthy Living: Social media comparisons regarding physical activity and alcohol use among college students

Committee: Craig Henderson Ph.D. (Chair), Rowland Miller, Ph.D., & Donna Desforges, Ph.D.

Master of Arts, Psychology 2012
Marist College, Poughkeepsie, NY

Bachelor of Arts, Psychology 2011
Marist College, Poughkeepsie, NY

Paper Presentations:

Henderson, C., Yenne, E., Sledd, M., Schiafo, **M.**, Mena, C., Missimo, C., Goodson, A., Langemeier, D., Figueroa, M., November 2016. *Don't Drink and Exercise: New Research on Exercise and Alcohol Use among College Students*. Symposium Presented at Texas Psychological Association (TPA), Austin, TX.

Poster Presentations:

Schiafo, M., Ball, E., Waymire, K., Ryan, L. & Henderson, C. *Explaining the relation between aggression and delinquency: Individual and peer factors*. Poster to be presented at the American Psychology-Law Society in Seattle, WA. March 2017.

Waymire, K., Varela, J., **Schiafo, M.**, Holdren, S., Miller, R., Lawrence, J., Ibarra, D., & Camins, J. *Do Race and Ethnic Identity Influence Perceptions of Law Enforcement Officers After Traffic Stops?* Poster to be presented at American Psychology-Law Society in Seattle, WA. March 2017.

Schiafo, M., Henderson, C., Falgout, R., Goodson, A., Smith, T., Barrow, C., Waymire, K., & Missimo, C. *#HealthyLiving: Social Media Comparisons among College Students*. Poster to be presented at the American Psychological Association, Washington, DC, August 2017.

Formon, D., Schmidt, A., Maloney, K., **Schiafo, M.**, & Schrantz, K. *Differences in Job Hunting Efforts Between Offender and Non-Offender Completers of a Community-Based Employment Program*. Poster presented at the American Psychological Association, Toronto, Canada, August 2015.

Research Positions:

Graduate Research Assistant 11/16 – Present

Sam Houston State University, Huntsville, TX
Supervisor: Amanda Venta, Ph.D.

- Develop a study investigating comprehensive psychosocial assessment of detained juveniles

Graduate Research Assistant 10/16 – Present

Sam Houston State University, Huntsville, TX
Supervisor: Jaime Anderson, Ph.D.

- Assist in the development of a semi-structured clinical interview measure for personality traits
- Assist faculty member in the development of multiple studies

Graduate Research Assistant 02/15 – Present

Sam Houston State University, Huntsville, TX
Supervisor: Craig Henderson, Ph.D.

- Manage a study of behavioral economic perspectives on alcohol use and physical activity
- Assist on multiple studies, collected data in-person, collected body measurements, and conducted literature reviews

Contract Researcher 07/16 – 12/16

LoneStar Project Sam Houston State University, Huntsville, TX
Supervisor: David Pyrooz, Ph.D.

- Conducted computer-assisted interviews of state prisoners immediately prior to release
- Interviewed Texas Department of Criminal Justice offenders on a range of topics

Research Assistant/Clinical Assistant Intern

01/13 – 07/14

Columbia University/ New York State Psychiatric Institute
New York, NY.
Supervisor: Christina Hoven, Ph.D

- Assisted on multiple NIH, CDC and NIOSH funded research studies in the Child Psychiatric Epidemiology Group.
- Screened, recruited, and scheduled participants over the phone, in the community and in the courts.
- Administered computerized interviews and assessments to children and adults, including the KBIT-2, Intertemporal Choice Task and Columbia Card Task.
- Collected DNA and cortisol samples from participants.
- Maintained organization of IRB and HIPAA consent forms, office materials and other participant information in databases.
- Monitored and documented all participant clinical issues to ensure proper handling procedures are implemented. Aided in literature reviews and final paper composition. Began as an internship and now is a paid position.

Independent Researcher

09/11 – 12/11

Marist College, Poughkeepsie, NY
Supervisor: Patricia Simon-Phelan, Ph.D.

- Proposed and conducted original research on rape myth acceptance, homophobia, and sexism among various demographic variables in an undergraduate sample.

Independent Researcher

01/10 - 05/10

Marist College, Poughkeepsie, NY
Supervisor: Ryan Kinlaw, Ph.D.

- Proposed and conducted original research investigating the relationship between semantic distances and handedness in a college sample.

Independent Researcher

09/09 – 12/09

Marist College, Poughkeepsie, NY
Supervisor: Ryan Kinlaw, Ph.D.

- Proposed and conducted original research investigating the relationship between the gender of names and the stereotypes applied to social roles.

Supervisory Positions:**Peer Supervisor**

01/17 – Present

Theory & Research in Psychotherapy Course, Huntsville, TX
 Supervisors: Craig Henderson, Ph.D.

- Supervised first-year clinical psychology doctoral student on mock therapy sessions
- Provided supervision on therapy techniques specific to various theoretical orientations

Peer Supervisor

10/16 – Present

Doctoral Capstone Course, Huntsville, TX
 Supervisors: Darryl Johnson, Ph.D. & Wendy Elliot, Ph.D.

- Supervised assessment and report writing for juvenile psychodiagnostic evaluations
- Provided supervision on all aspects of psychological assessment during second year course

Teaching, Tutoring Positions:**Graduate Teaching Assistant**

09/14 – 05/15

Sam Houston State University
 Supervisor: Chris Wilson, Ph.D.

- Designed and taught Introduction to Psychology course for undergraduate students

Tutor

01/10 – 12/10

Marist College, Poughkeepsie, NY

- Tutored undergraduate students in Statistics and Research Methods courses.

Clinical Positions:**Psychology Intern (Psychological Assessment Position)**

05/16 - present

Montgomery County Juvenile Probation Department, Huntsville, TX
 Supervisor: Darryl Johnson Ph.D.

- Conduct court-and probation-ordered integrated assessments on juvenile offenders
- Provide recommendations for treatment and post- adjudication/probation placement

Assistant Forensic Evaluator

10/15 - present

Psychological Service Center, Huntsville, TX

Supervisor: Mary Alice Conroy, Ph.D., ABPP & Wendy Elliott, Ph.D.

- Conduct court-ordered forensic evaluations for 8 counties in Texas
- Conduct adult competency and sanity evaluations for the court

Student Clinician

08/15 - present

Psychological Services Center, Huntsville, TX

Supervisors: Darryl Johnson, Ph.D., Craig Henderson, Ph.D., & Jorge Varela, Ph.D.

- Provide adults low-cost individualized therapy
- Conduct a range of psychodiagnostic and psychoeducational assessments

Residential Counselor Extern

01/12 – 05/12

River Haven Youth Shelter, Poughkeepsie, NY.

Supervisor: James Regan, Ph.D

- Coordinated day to day activities for up to 12 runaway/homeless youth.
- Created and ran daily psycho-educational groups on topics ranging from basic organizational skills to anger management and social skills
- Provided general and crisis counseling to both residents and callers in need.
- Worked with case managers to complete intakes and discharges, to develop treatment and service plans and to help youth obtain necessary community resources such as potential housing or psychiatric services

Counseling Intern

01/11 - 05/11

Mid-Orange Correctional Facility, Warwick, NY

Supervisor: James Regan, Ph.D

- Provided assistance to multiple counselors in a medium security prison through assisting on intakes, quarterly reviews, needs assessments, and discharge planning.

- Helped run daily activities in the substance abuse unit, including assisting group counseling and relapse prevention groups.
- Shadowed and assisted counselors in running Aggression Replacement Therapy and Transitional Services programs for inmates preparing to leave the facility and reintegrate into society.

Professional Affiliations:

American Psychological Association 2015 – present
 American Psychology-Law Society (Division 41) 2015 – present
 Association for Psychological Science 2016 – present

Awards and Certificates:

Magna Cum Laude	2011
Dean's List	2007-2011
Marist Academic Scholarship Recipient	2007-2011
Emerging Leaders Certificate Recipient	2010