Life Satisfaction Among Undergraduate Students: Correlates with Body Appreciation, Athlete Self-Identification, and Exercise Frequency

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Abstract

Personal identity, body perceptions, and lifestyles have been researched and documented for decades. However, several athlete versus non-athlete lifestyles and characteristics have yet to be documented. Low life satisfaction is extremely common on college campuses today. With clinical depression (resulting from low life satisfaction) being the leading mental illness among college students. The current study uses a self-report questionnaire to examine how college students' life satisfaction is impacted by athlete self-identification, body appreciation, and exercise frequency. From this research, implications, such as exercise interventions can be implemented to improve life satisfaction and mental health. The following research used bivariate correlations and a multiple regression analysis to examine these variables. Body appreciation was found to be significantly correlated with life satisfaction. Meanwhile, body appreciation and life satisfaction were individually associated with athlete self-identification. Further research is needed to confirm results of the study across different populations.

Life Satisfaction: What does it have to do with Body Appreciation, Athlete Self-Identification, and Exercise Frequency?

What happens when an active person discontinues exercise? How does it impact their mental health? We understand that exercise is good for us, but how does the identification of being an athlete impact that athlete? Personal identity, body perceptions, and lifestyles have been researched and documented for decades. However, several athlete versus non-athlete lifestyles and characteristics have yet to be tested. The current study examines how life satisfaction is impacted by athlete self-identification, body appreciation, and exercise frequency.

Self Discrepancy Theory

The foundational theory for this study examines self-beliefs, which tend to lay the groundwork for how a person perceives oneself. Therefore, self-beliefs could be considered foundational for influencing the numerous variables in the current study. Examining specific self-beliefs in athlete and non-athlete lifestyles can give us more understanding about how to keep athletes mentally healthy and how to use prevention applications around mental health. The self-discrepancy theory (Higgins, 1989) classifies three types of self-beliefs: 1) The *actual* self, when you or another individual believes you truly possess specific characteristics 2) The *ideal* self, the belief that you or another individual would prefer you to have specific characteristics that you do not presently have 3) The *ought* self, the belief that you or another individual believes you should have specific characteristics. As previously mentioned, *actual* self-beliefs help set the foundation for the current research. The variables chosen for this study (life satisfaction, body appreciation, exercise frequency, and athlete self-identification) represent forms of *actual* self-beliefs.

Importance and Development of Athlete Mental Illness

Furthermore, the self-discrepancy theory provides a probable cause for self-developed emotional vulnerability (Higgins, 1989) through self-beliefs. Emotional vulnerability can be a positive thing; however, if it leads to negative emotions that aren't resolved, distress and mental illness may occur. When an active person experiences emotional distress over time, it can negatively impact their exercise performance (Schinke, R. J., Stambulova, N. B., Si, G., & Moore, Z., 2017) and potentially cause them to discontinue competition. The struggle doesn't end there. Athletes, especially those at the collegiate or professional level, can develop serious mental health disorders such as: anxiety, depression, and substance abuse/misuse. A 2018 study concluded an athlete is more or less likely to develop specific mental health disorders depending on the sport they play. For example, after discontinuing a combat sport (i.e., boxing) the athlete is three times more likely to develop substance use/misuse, compared to a runner (Mannes, Z., Waxenberg, L., Cottler, L., Perlstein, W., Burrell, L., Ferguson, E., Edwards, M., & Ennis, N., 2018). This is helpful to examine because if an active person discontinues exercise they may be at higher risk for specific mental health disorders. With this in mind, results may increase awareness of specific mental illnesses and interventions for those high-risk sports (i.e., dancing, running) related to this study's variables (i.e., body appreciation, life satisfaction). Although this study examines active people instead of athletes, our results may be applicable to athletes.

Life Satisfaction

According to the American Psychological Association (2020) life satisfaction is defined as "the extent to which a person finds life rich, meaningful, full, or of high quality". Several previous studies have found correlations between life satisfaction levels and exercise (An, H. Y., Chen, W., Wang, C. W., Yang, H. F., Huang, W. T., & Fan, S. Y., 2020; Moreno-Murcia, J. A., Belando, N., Huéscar, E., & Torres, M. D., 2017; Rodrigues, F., Faustino, T., Santos, A.,

Teixeira, E., Cid, L., & Monteiro, D., 2021; Baştuğ, G., & Duman, S., 2010). Exercise is a lifestyle choice that has several positive consequences, some yet to be discovered. It has the power to impact multiple systems in the human body (i.e., skeleton, circulation, respiration) in addition to psychological situations (Baştuğ, G., & Duman, S., 2010). As previously mentioned, life satisfaction has a strong relationship with exercise, but how do other variables such as exercise *frequency*, body appreciation, and athlete self-identification interact with life satisfaction? The current study will examine the relationship between life satisfaction and exercise frequency with regard to body appreciation and athlete self-identification. Additional life satisfaction background will be discussed in the following paragraphs.

Body Appreciation

Body appreciation has minimal research background, thus it is more important to examine. However, much of the background research on body appreciation will regard body satisfaction, body dissatisfaction and body image. These variables relate to body appreciation and can provide evidence for the examination of it in the present study. The only difference between body appreciation and other body-perception variables is that body appreciation focuses on appreciating one's health and function of one's body.

Previous research has concluded several Americans are concerned with at least one area of their body (Buhlmann, U., Glaesmer, H., Mewes, R., Fama, J. M., Wilhelm, S., Brähler, E, & Rief, W., 2010). If an active person views their body in a negative way (producing a negative *ideal* self-belief), over time they may be more likely to experience emotional distress which can potentially lead to low body appreciation, decreased life satisfaction levels, or increased mental illness. How one views their own body is prevalent when discussing an active person's mental

health. All of these possibilities regarding one's body perception can produce negative consequences within or without competition.

Additionally, life satisfaction is positively correlated with body dissatisfaction (LePage & Crowther, 2010). In other words, as one exercises more, their body dissatisfaction surprisingly increases. This could be due to a variety of reasons (included but not limited to): insecurities, self-efficacy, feeling "out of shape", or experiencing chronic pain. Thus, the current study predicts a negative association between exercise frequency and body appreciation. Results may be stronger among women than men due to the relatively increased risk of eating disorders and body dysmorphia in women (Anderson & Yager, 2009). As previously mentioned, body dissatisfaction was shown to have a positive correlation with exercise frequency (LePage & Crowther, 2010) and had more significant results in women rather than men. The current study does not examine the difference between genders. However, it is important to know previous relevancy between genders when looking to apply knowledge from the current study.

After controlling for Body Mass Index (BMI), age, and personality factors, previous research (Davis, L. L., Fowler, S. A., Best, L. A., & Both, L. E., 2020) found that body appreciation was significant when predicting life satisfaction. This study is unique in that it examines an active person's body appreciation, exercise frequency, and athlete self-identification regarding life satisfaction. In addition to active people, the general population can also benefit from the results of the current study. If body appreciation is shown to have a positive relationship with life satisfaction, then by implementing more body appreciation interventions and awareness it is likely that the general population would produce increased life satisfaction levels.

Exercise Frequency

On average, only 23% of Americans exercise for over one hour every week (Blackwell & Clarke, 2018). Exercise has been associated with numerous physical health benefits such as a lower risk for conditions like: hyperglycemia, hypertension, dislipidemia, and visceral obesity (Ruegsegger & Booth, 2017). Exercise has also been significantly correlated with decreased anxiety and depression and increased self-esteem and cognitive function (Callaghan, 2004). Physical activity has a clear impact on the human body and mind, and it is predicted that exercise frequency will have an effect on life satisfaction, body appreciation, and athlete self-identification.

The current study examined exercise frequency as a means to quantify physical activity among the population. The purpose of this was to see if exercise frequency played a significant role in the correlation between life satisfaction and body appreciation. Thus, exercise frequency acted as a moderator in a multiple regression analysis. See Figure 1 for the model of the regression. Being able to examine the regulation exercise frequency has on the relationship between life satisfaction and body appreciation is critical to understanding the specific aspects of the relationship.

Athlete Self-Identification

Previous research has strong associations between personal identity and life satisfaction among graduate students (Fatma & Imtiaz, 2018) (i.e., a student with stronger athlete self-identification is more likely to have high life satisfaction). However, this association has yet to be studied with a younger population (undergraduate students) with a specific type of personal identity (athlete) in regard to other variables such as exercise frequency and body appreciation.

Athlete self-identification can contribute knowledge toward the development of prevention studies surrounding the improvement of an active person's life satisfaction. For

example, further research could determine that an intervention in a group-therapy setting, surrounding personal identity and confidence claiming one's physical activity is beneficial. These specific implementations can be beneficial to our society, especially among athletes experiencing low life satisfaction.

Overall, athlete self-identification may help prevent the development of mental health disorders. Additionally, if athlete self-identification shows significant associations with life satisfaction, then results could be implemented among the general population by encouraging those that exercise to identify as an athlete (even if they don't qualify under the definition of an 'athlete').

Contributions to Depression

Decreased life satisfaction is adversely associated with depression, the leading mental health diagnosis among college students (Blanco C, Okuda M, Wright C, Hasin DS, Grant BF, Liu SM, Olfson M., 2008). Previous research has shown that consistent exercise can decrease clinical depression overtime (Craft & Perna, 2004). With that in mind, it is reasonable to presume that any correlations with life satisfaction (including exercise frequency) may also have an impact on depression, making the study even more relevant for today's college students.

A lack of body satisfaction (a separate but similar classification compared to body appreciation) is positively associated with depressive symptoms (Iannantuono & Tylka, 2012), therefore, further research could indicate associations between increased body satisfaction and decreased depressive symptoms. In the present study we focus on body appreciation instead of body satisfaction and ask: can exercise frequency impact body appreciation? Overall, it is reasonable to predict that depressive symptoms can be negatively correlated with exercise frequency, body appreciation, and life satisfaction levels.

If we can measure a variable that has been shown to increase life satisfaction, such as exercise frequency, body appreciation, or athlete self-identification, we have the potential to improve depression as well (Craft & Perna, 2004). Therefore, it's plausible to examine what influences life satisfaction while keeping in mind an implementation of results regarding depression. Previous research has used several other variables and compared them to life satisfaction with specific populations. The current study has the opportunity to change one's overall day-to-day life satisfaction levels.

This study examines life satisfaction in regard to body appreciation, exercise frequency, and athlete self-identification among active college students.

Methods

The study used a survey correlational method to find specific relationships between the following variables: life satisfaction, body appreciation, exercise frequency, and athlete self-identification. The self-report correlational method was utilized for the study due to time-efficiency and conservation of energy expenditure. Additionally, it is rare for a study that focuses on variables regarding self-perception and psychological well-being to use a different research method (i.e., naturalistic observation, meta-analysis, experiment). Therefore, the survey correlational method was the most appropriate choice for this study.

Participants

The sample met the following criteria: above 18 years of age, attending a 4-year university, and exercising regularly at least once per week. Please note that we did not define what 'exercise' requirements were (intensity, duration, etc.). Students were encouraged to have their own perspective of exercise. They determined what exercise is to them. The study included

all forms of exercise and all perspectives of physical activity instead of excluding any form of exercise, including lower-intensity workouts (i.e., yoga, light swimming, light jogging, etc.).

Participants were recruited through email advertisements, professor distribution, coach distribution (at universities), and fliers around campuses. The recruitment flier contained a QR code link to the survey, criteria needed to complete the survey, brief statement of purpose, and the head investigator's contact information. The flier was displayed inside two buildings at one campus. The primary form of recruitment was through email distribution with coaches and professors at 3 campuses. In every email sent, a PDF and .pptx format of the flier was attached. Over 200 coaches and professors were contacted via email; less than 100 responded and offered assistance.

Overall, the study collected 174 responses. 50 of these were deleted due to a variety of reasons including: not meeting exercise criteria, not answering all of the questions, lack of consent, outside of the study's preferred age range (18-30 years). In total, 124 participants' responses were used in this study. Prior to data collection, a power analysis was performed through G*Power that recommended a minimum sample size of 107.

Participants were not compensated for their participation.

Design

The study used Qualtrics to design the 21-item questionnaire. The following variables were measured in the survey: life satisfaction, body appreciation, exercise frequency, and athlete self-identification. There were five sections to the questionnaire including: informed consent, demographics, exercise autonomy and personal identity (including self-directed v. coach-directed exercise, exercise frequency, and athlete self-identification), the Satisfaction With Life Scale, and the Body Appreciation Scale 2. Estimated completion time was approximately five minutes. A

copy of the questionnaire (see Appendix A) is shown below. There were no manipulated variables in this study due to its correlational nature and the multiple regression intent.

The exercise portion of this study encapsulated four questions. First, a question was asked regarding what proportion of the participant's exercise was self-directed (the participant chooses what exercise to do and when) versus coach-directed (the coach chooses what exercise to do and when). This question utilized objective responses with percentage responses ranging from 0% self-directed and 100% coach-directed to 100% self-directed to 0% coach-directed. This question was added to examine an autonomy component among participants. However, this was eventually dropped from results because every correlation run with this variable was insignificant. Next, participants were asked, "On average, how many times do you exercise per week?" This was an open-ended question and participants were encouraged to answer with a number. Lastly, participants were asked if they identify themselves as an athlete. Objective responses were limited to "yes" or "no."

This study used two different questionnaires. The first was The Body Appreciation Scale 2 (BAS-2) (Avalos, L., Tylka T. L., & Wood-Barcalow N. L, 2005). This questionnaire was a 10-item 5-point likert scale ranging from 1 (never) and 5 (always). Scoring entailed averaging scores from each response. Thus, a higher score on the BAS-2 represents a higher body appreciation level. The second questionnaire used was the Satisfaction With Life Scale (SWLS) (Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. 1985). This scale was a 5-item 7-point Likert Scale ranging from 1 (strongly disagree) to 5 (strongly agree). Therefore, a higher score on the scale represents a higher life satisfaction level. Diener et. al. (1985), classifies scores (from adding responses together) into the following categories: extremely satisfied (31 - 35) , satisfied (26 - 30), slightly satisfied (21 - 25), neutral (20), slightly dissatisfied (15 - 19),

dissatisfied (10 - 14), extremely dissatisfied (5 - 9). Both questionnaires were found to be reliable. The BAS-2 had a higher reliability than the SWLS (9 items; $\alpha = 0.92$) while the SWLS was lower, yet still reliable (5 items; $\alpha = 0.85$).

Procedure

This research was approved by the Institutional Review Board at University of Colorado Boulder. The procedure began with participants being briefed on the purpose of the study, procedure, voluntary participation/withdrawal, and risks of the study. Then participants continued by filling out a consent form followed by a 21-item survey containing a variety of questions. All of which was completed using the Qualtrics system. The entire procedure was estimated to take about five minutes to complete.

Results

Data analysis consisted of multiple bivariate correlations and both moderating and mediating multiple regressions.

Demographics

Participants were between the ages of 18 and 30, with the majority being between 18 and 21 (73.3%). The mean for age was 20.233 (*SD* = 2.212).

The sample (n = 124) was female-dominated with 75.8% (n = 94) female, 21.8% (n = 27) male, and 2.4% (n = 3) non-binary responses.The ethnicity of participants were 75% (n = 93) Caucasian, 12% (n = 15) Hispanic, 4% (n = 5) African American, 2.5% (n = 3) Asian, and 6.5% (n = 8) consisted of other ethnicities not listed.

Furthermore, 60.4% (n = 75) of participants identified as an athlete while 39.6% (n = 49) of participants did not. Regarding exercise, 11.2% (n = 14) of participants regularly exercised one to two times per week, 33.8% (n = 42) of participants exercised three to four times per week,

43.5% (n = 54) of participants exercised five to six times per week, and 11.2% (n = 14) of participants exercised seven or more times per week, respectively.

Descriptive Findings

Descriptive statistics were run for three variables in the study: body appreciation (BAS-2), life satisfaction (SWLS), and exercise frequency (EF). Body appreciation and life satisfaction had higher central tendencies (See Figure 4). Meaning, the majority of participants scored relatively high on the BAS-2 and SWLS. The standard deviation shows us that BAS-2 had a relatively low distribution with many participants scored closer to the mean (See Figure 2). Meanwhile, the standard deviation of SWLS shows a wide distribution with more participants scoring differently on life satisfaction (See Figure 3). The average participant exercised four to five times every week with a relatively average distribution among participants. See Table 1.

Athlete self-identification was not run in descriptive statistics, because it is not a continuous variable. Data showed 60% of participants claimed they identified themselves as an athlete and 40% claimed they did not identify as an athlete. This was a relatively representative distribution of participants regarding athlete self-identification.

Table 1
Descriptive Statistics of Key Variables

Measures	*M*	*SD*	Range
BAS-2	3.70	0.73	1 - 5
SWLS	25.01	5.87	8 - 35
EF	4.66	2.10	0 - 12

Note: N = 124

Bivariate Correlations

For the purpose of examining the correlation between body appreciation and life satisfaction, a Pearson's R correlation was performed. Both of these variables were found to be

significantly correlated, (r = .49, p = < .01) supporting the notion that these variables are strongly related and concluding that as life satisfaction increases, body appreciation is likely to increase as well.

Another Pearson's R test was performed to examine the correlation between body appreciation and athlete-identification. Results showed a significant relationship between these variables, r = -.18, p = < .05. Due to the inverse coding of athlete self-identification, it can be concluded that body appreciation increases when people identify as athletes.

The same test was run with life satisfaction. Athlete-identification and life satisfaction showed statistically significant results, r = -.21, p = < .05. Therefore, due to inverse coding, life satisfaction increases when physically active people identify as athletes.

Finally, a bivariate correlation analysis was run with life satisfaction and exercise frequency (p = .065) and body appreciation and exercise frequency (p = .55); both were found to be insignificant.

Moderation

A multiple regression analysis with a moderation was run to determine if body appreciation predicts life satisfaction with exercise frequency as a moderator. The results of this regression indicated a variance of 24.81% (R^2 = .24.81, F(21.3, 2)=121, p <.01). Body appreciation was a very strong predictor in this model (β = 3.86, p = < .05), however, exercise frequency has little effect on these results. The relationship between exercise frequency and life satisfaction is not significant (β = 3.91, p = > .05) and exercise frequency is not a significant moderator for life satisfaction and body appreciation. Therefore, body appreciation is a valuable predictor of life satisfaction, however, exercise frequency does not significantly predict life

satisfaction. Therefore, it can be concluded that body appreciation and life satisfaction are significantly correlated no matter the frequency of exercise.

Discussion

Life satisfaction is a relevant issue in today's society, and more research is needed to further our knowledge of the concept. The current study investigated associations, such as body appreciation, athlete self-identification and exercise frequency with life satisfaction. This information can be applied and used to improve life satisfaction among the general population by encouraging higher exercise frequency, promoting body appreciation, and encouraging those that exercise to self-identify as an athlete.

Limitations

The current study used a self-report questionnaire to examine life satisfaction (SWLS), body appreciation (BAS-2), a single question regarding their identification as an athlete or non-athlete, and a single question regarding exercise frequency. There are five primary limitations to nearly any study that utilizes a self-report method, including, social-desirability bias, recall bias, selective memory, invalid operationalization of variables and demand characteristics.

Social-desirability bias occurs when a participant wants to come off as “socially desirable.”. For example, a participant might say they exercise to be seen as more productive and healthy, when in reality, they don’t exercise that often. This study put in effort to counter the likelihood of social desirability bias occurring by making it clear to participants that responses are anonymous. If they know their answers are completely anonymous, they may be more likely to be honest in their responses.

Recall bias occurs when the participant doesn't accurately or completely remember experiences from their past. For example, a participant might not remember the exact amount of times they usually exercise. They may end up making their best estimate, however, there is no guaranteed accuracy.

Selective memory occurs when a participant only remembers specific information. For example, a participant might only remember the weeks they exercised every day and forget the weeks they didn't exercise at all. Thus, resulting in inaccurate responses that alter results.

An invalid operationalization of variables occurs when a participant misinterprets or has a different meaning for a variable. For example, when a participant is asked openly about "exercise," what qualifies as exercise? One participant might think walking is exercise while another participant might think walking is not. The study countered this because it provided examples of exercise (including walking, jogging, and swimming) to the participant. This helps guide the participant to believe that exercise is not restricted to high-intensity workouts. Additionally, self-identifying as an athlete may be considered subjective in the current study. The perspective of what an athlete really is, is up for interpretation. Future research examining athlete self-identification may utilize The Athletic Identity Measurement Scale (Brewer et. al., 1993) for the purpose of quantifying the specific level of perceived athlete self-identification. This would be a beneficial way to objectively measure athlete self-identification and could result in more accurate or significant results. The current study chose to not utilize this scale to encourage participants to define "athletes" for themselves (whether they compete or not, train consistently or not, are injured or not, etc.) for the purpose of focusing on the *actual* self and one's own perception of characteristics they truly believe to have.

Furthermore, demand characteristics occur when a participant might look deeper into the study and want to fit the interpretation of the "perfect participant." Essentially, demand characteristics surround participants changing their answers to fit, what they perceive to be, the norm in responses. Participants want to go with the study/researchers, instead of on their own.

Future research may be able to examine these variables using an alternative method to decrease the limitations of the results.

Implications

The current research is critical to furthering the understanding of life satisfaction in today's society. The current study was able to conclude life satisfaction and body appreciation have a very strong relationship. Meaning, if one is experiencing high life satisfaction, they are likely to appreciate their body as well. Adversely, if one is experiencing a *lack* of life satisfaction, they are more likely to lack body appreciation as well. This can be implemented by encouraging supporters (i.e. coaches, family, peers) to look out for athletes or students that generally look down or depressed (possibly portraying poor life satisfaction) and encourage them to get help around life satisfaction, body appreciation, and personal identity. This can help decrease the severity of mental illness among young adults and athletes. Life satisfaction and body appreciation are both independently positively correlated with athlete self-identification. Meaning, those that claim they are an athlete, experience better mental health than those that don't. Encouraging active young people to call themselves an athlete when they workout may be a way to overcome any lack of body appreciation or life satisfaction.

Additionally, further research may indicate the need for interventions (for improving body appreciation and personal identity related to athlete self-identification) surrounding the improvement of life satisfaction. Thus, providing the opportunity to decrease mental illness

(especially related to body image and self love) in athletes after implementing these interventions. Additional interventions could be implemented to improve one's life satisfaction (i.e., using a group therapy program to increase life satisfaction). These interventions are yet to be tested and discovered, but they have the opportunity to make a significant impact in our society.

Lastly, further research may dig in deeper to populations with even higher levels of low life satisfaction. Foreign countries with the lowest life satisfaction include: Afghanistan, South Sudan, and Lebanon (Ortiz-Ospina, E., & Roser, M., 2013). Additionally, the age with the lowest life satisfaction and well-being levels peak at an average age of 48.2 (Blanchflower, 2020). Future research might examine similar variables in these populations and determine any significant differences.

Relevance

Low life satisfaction is extremely common on college campuses today. With clinical depression (resulting from low life satisfaction) being the leading mental illness among college students (Blanco et. al., 2008), this field of psychology is in dire need for further knowledge and implementation. If implementations can occur (previously mentioned), specifically within college campuses, we may be able to decrease the rate of clinical depression (through increasing life satisfaction via body appreciation and/or athlete self-identification) among students.

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Figure 1.

Model of Multiple Regression.

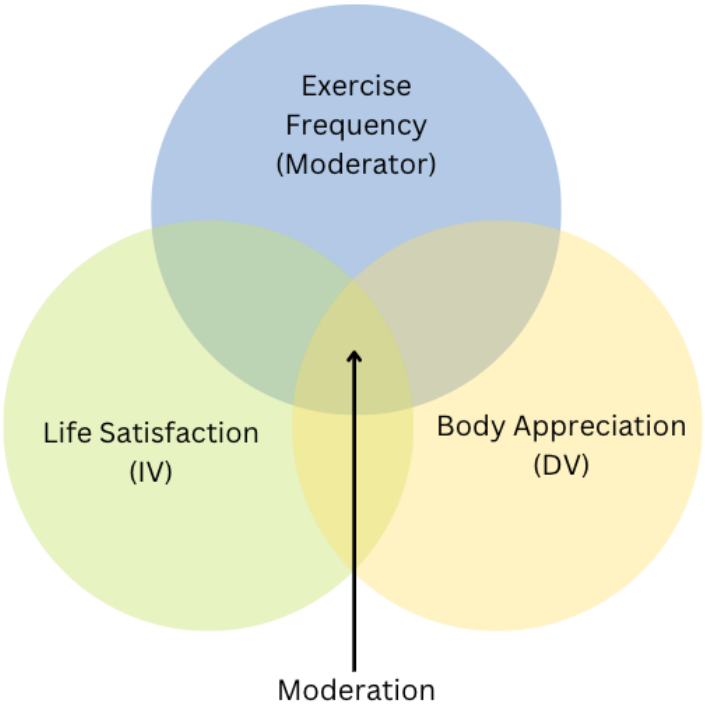


Figure 2.

Histogram of BAS-2 Distribution.

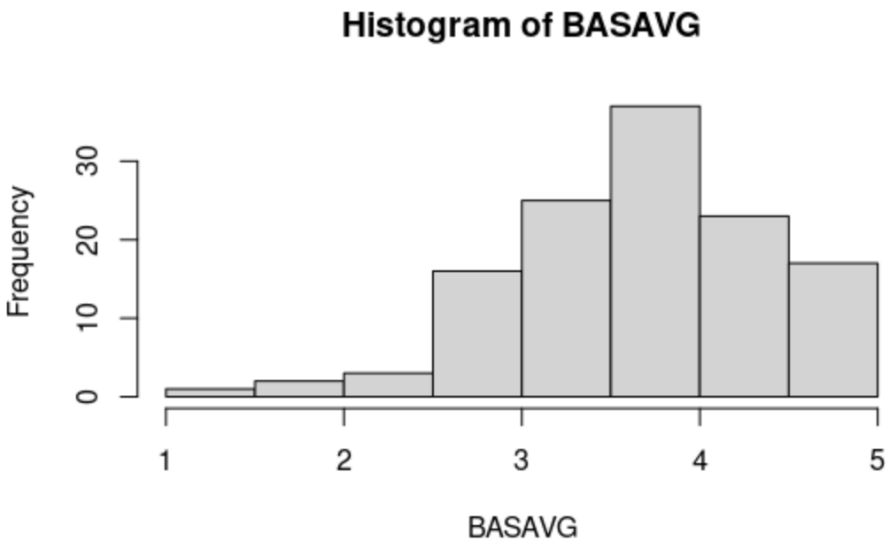


Figure 3.

Histogram of SWLS Distribution.

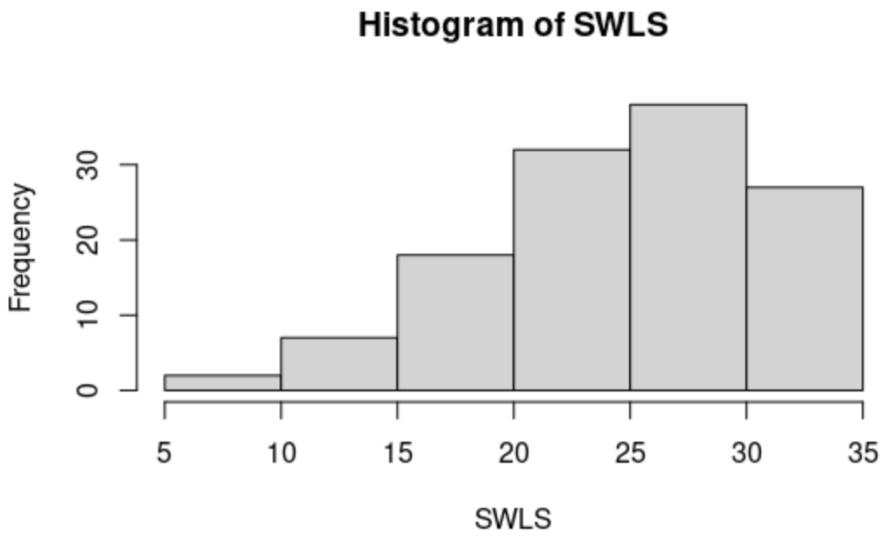
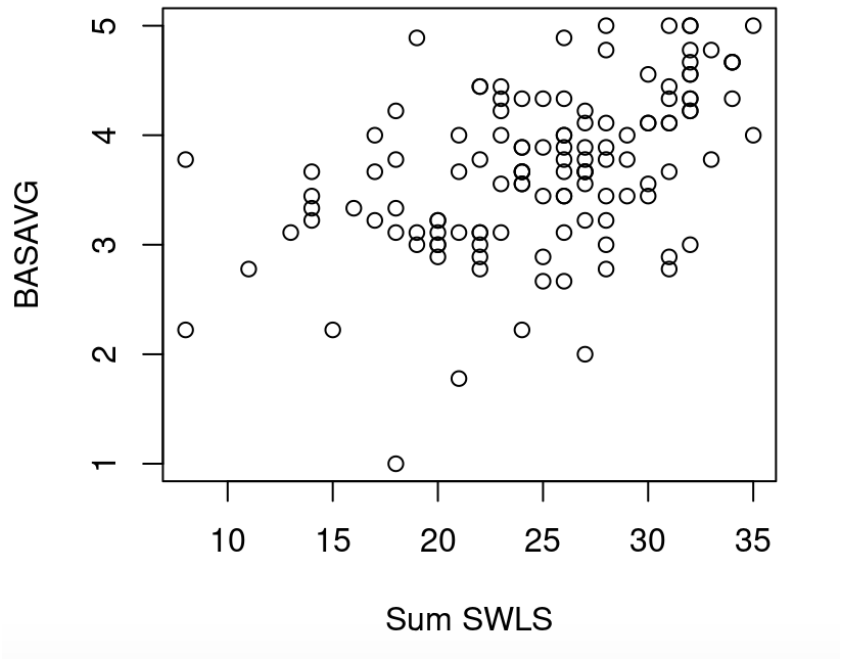


Figure 4.

Scatterplot of SWLS and BAS-2 Distributions.



Appendix A.

Copy of questionnaire after consent form.

Section I: Demographical

1. How old are you? _____

2. How do you identify yourself?

A. female

B. male

C. non-binary

3. What is your ethnicity?

A. Caucasian

B. Asian

C. Hispanic

D. African American

E. Other: _____

Section II: Qualifications and Exercise

1. Do you consider yourself an athlete?

A. Yes

B. No

2. Are you currently attending a four-year university?

A. Yes

B. No

3. Of these exercises, how many of them are coach-directed versus self-directed? Give your best estimation.

A. About 0% are directed under a coach; 100% of my workouts are self-directed.

B. About 25% are directed under a coach; 75% of my workouts are self-directed.

C. About 75% are directed under a coach; 25% of my workouts are self-directed.

D. About 100% are directed under a coach; 0% of my workouts are self-directed.

4. How many times have you exercised (i.e., walking, running, practicing a sport, swimming, lifting, etc.) in the last week?

Please give one number for your answer: "3"

_____

Section III: Satisfaction With Life Scale (SWLS)

1. In most ways, my life is close to ideal.

Strongly disagree
Disagree
Somewhat disagree
Neutral
Somewhat agree
Agree
Strongly agree

2. So far, I have gotten the important things I want in life.

Strongly disagree
Disagree
Somewhat disagree
Neutral
Somewhat agree
Agree
Strongly agree

3. I am satisfied with my life.

Strongly disagree
Disagree
Somewhat disagree
Neutral
Somewhat agree
Agree
Strongly agree

4. The conditions in my life are excellent.

Strongly disagree
Disagree
Somewhat disagree
Neutral
Somewhat agree
Agree
Strongly agree

5. If I could life my life over, I would change almost nothing.

Strongly disagree
Disagree
Somewhat disagree
Neutral
Somewhat agree
Agree
Strongly agree

Section IV: Body Appreciation Scale 2 (BAS-2)

1. I am attentive to my body's needs.

Never
Seldom
Sometimes
Often
Always

2. My behavior reveals my positive attitude toward my body; for example I hold my head high and smile.

Never
Seldom
Sometimes
Often
Always

3. I am comfortable with my body.

Never
Seldom
Sometimes
Often
Always

4. I feel like I am beautiful even if I am different from media images of attractive people (e.g., models, actresses/actors).

Never
Seldom
Sometimes
Often
Always

5. I appreciate the different and unique characteristics.

Never
Seldom
Sometimes
Often
Always

6. I feel that my body has at least some good qualities.

Never
Seldom
Sometimes
Often
Always

7. I take a positive attitude toward my body.

Never
Seldom
Sometimes
Often
Always

8. I feel good about my body.

Never
Seldom
Sometimes
Often
Always

9. I respect my body.

Never
Seldom
Sometimes
Often
Always