

Weight Training Builds Confidence, Grit, and Satisfaction in Adolescents

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ABSTRACT: Teenagers from the ages of 13 through 19 enter puberty, and their interests and body changes due to hormonal fluctuations. They become more concerned with their appearance and also get more sensitive about how they are perceived, especially regarding their reputation. The purpose of this study is to examine the impact of weight training on the mental health of adolescents within this age group. A survey of 21 students, including 12 weight trainers and 9 non-weight trainers, indicated that weight training significantly improves confidence, grit, and satisfaction. Engaging in weight training during this critical developmental period provides a great foundation for teenagers during puberty, and prepares them for the future. Rather than getting distracted and consumed by video games, social media, alcohol, and other bad habits to feel better about themselves during this stressful life phase, weight training provides a healthy way to cultivate one's mindset, self-affect, and physical health—a gamechanger for teenagers' well-being.

KEYWORDS: style weight training, strength training, gym, working out, teenagers, adolescents, puberty, mental health, confidence, grit, satisfaction, consistency, routine, habit, behavioral change, mindset, diet, health, physical health, well being, emotional, and mental health

1. Introduction

From a young age, exercise was always encouraged as a healthy daily activity. Starting young adolescence, I began weight training in a focused way. I noticed a few changes to my psyche: my confidence, 2) grit, and overall 3) satisfaction of myself and in life increased. This grew my curiosity of whether weight training has the same effect for others, especially those in my age range – adolescents from the ages of 13 through 19. As an international student, I also knew that my mental well being was at risk and important to keep strong when living away from my family to pursue an education. My goal is that this research will bring awareness to others, especially adolescents who are seeking a healthy hobby that enhances mental health. I also hope this research can be used for physical activity related initiatives to help others overall with mental health but especially for adolescents.

The primary reason I started lifting was because I had a big complex about being a skinny person. When entering puberty, this mental complex grew and affected my mental health. However, right at that time I found out about lifting, I saw many people who were skinny like me who turned into well-rounded, strong looking individuals. So I decided to start weight training and showed other people that I can work on my physique too. What I started to notice was that I felt more confident as I was able to work on self improvement not only in my physical appearance but also in other areas of my life. For example, when I was weight training, I thought the weights were really heavy before until it wasn't anymore. Also I compared myself with an old picture, and I looked more robust. With my increased self-esteem, I started to work harder in school and to make friends even through difficulties. Researching this topic to see if there were patterns of increase in confidence was interesting to me in aim to help others boost their self-esteem.

I decided to conduct this study to garner support for weight training. I want other people to lift as well. Secondly I wanted to know how working out affects people, specifically when it comes to mental health. There were a total of 21 students – 12 of them weight trained and 9 of them didn't. I was pleased to learn the results and see that there was evidence behind positive mental health results after weight training.

2. Literature Review

In starting this research, we conducted a general search and review of the academic literature regarding the positive effects on mental health of weight training. Our review of the public academic research revealed that weight training has consistently been found to have a positive overall impact on mental health on adolescents. However, while other research papers explored curing mental diseases, for example depression, anxiety and stress related symptoms, this research will focus on the positive effects to mental characteristics of weight training, specifically confidence, grit, and satisfaction with oneself and in life. For example, here are some key findings of what was learned thus far about the positive impact of weight training on adolescents' mental health:

First, Costigan et. al.'s 2016 study shows how exercise can have positive effects for adolescents. Specifically, this study aimed to see how high-intensity interval training (HIIT) protocols are improving cognitive and mental health outcomes, such as executive function, psychological well-being, psychological distress, and physical self-concept in adolescents.

Next, Camero et. al.'s 2012 study review the effects of a physically active lifestyle intervention on determinants of mental health among children and adolescents. The result was promoting physical activity appears to improve determinants of mental health, such as depression, global self-worth, and self-efficacy.

Finally, Barahona-Fuentes et. al.'s 2021 study was to analyze the effects of training with different modes of strength intervention on anxiety, stress, and depression in adolescents. In conclusion, training with different modes of strength intervention have shown control over anxiety and depression in adolescents. However, conventional strength training seems to have better results than other modes of strength intervention.

3. Methodology

This study surveyed a random pool of 21 adolescents (ages 13 through 19) that I befriended and ran into from my school. All but two of them were males who agreed to take my survey.

Questions Asked

On a scale of 1 through 5 (5 is being the highest score of "Yes," and 1 being the lowest score of "No"), participants were asked to answer the following questions in completion:

Identifying Question

1. Do you weight train at least 3 times a week for 1 hour?

Confidence

2. Do you feel confident in your appearance, personality, or self-esteem?
3. Do you feel confident when you are with your friends?
4. Are you proud of yourself?
5. Are you happy or satisfied with yourself?
6. Are you active and energetic?

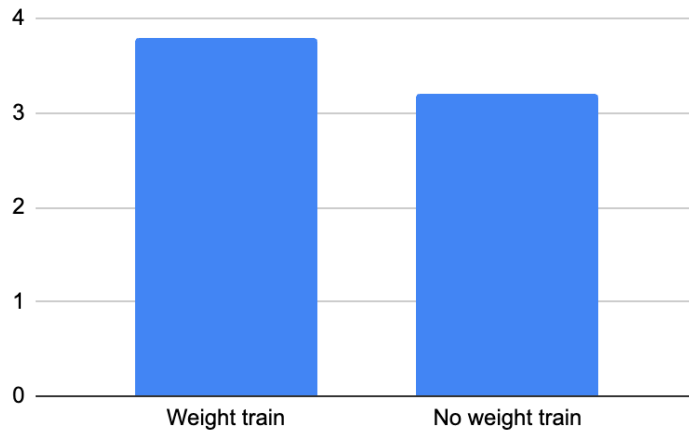
Grit

7. Did your grades get better after you started weight training?
8. Do you feel you worked harder than usual?
9. Do you feel accomplished?
10. Do you focus better than before?
11. Do you feel you're in a consistent routine?

Satisfaction

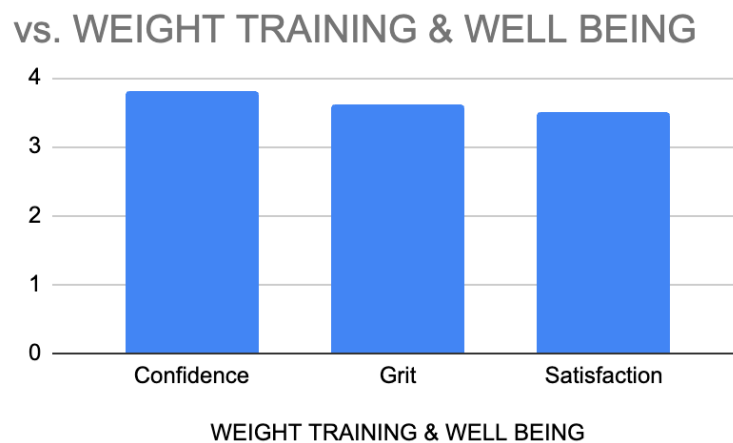
- 12. Are you satisfied with how you feel and look than before?
- 13. Do you feel strong?
- 14. Are you satisfied with your progress in different areas of life?
- 15. Are you satisfied with your life overall?
- 16. Do you feel emotionally stable?

Bar Graph 1. Mental Health Benefits of Weight Trained and Not Weight Trained



As can be seen in Bar Graph 1, among the participants, out of a score of 5 being the highest of what one felt as far as mental health, 12 who weight trained averaged a score of 3.7 in the area of mental health while 9 who didn't weight train averaged a score of 3.1.

Bar Graph 2. How Weight Training Specifically Confidence, Grit, and Satisfaction



As one can see from Bar Graph 2, the adolescents who weight trained had averaged the most benefit in the areas of confidence (3.8), then grit (3.6), and satisfaction (3.5) respectively. 5 was the highest score one could mark on how they felt about each category's impact through weight training. Overall, weight training has a positive impact overall. Respectively, weight training has a positive impact foremost on confidence, grit, and satisfaction in that order.

4. Discussion

As evidenced by the data above, weight training (3.7 versus 3.1) helps mental health. Specifically it helps with 1) confidence (3.8), 2) grit (3.7), and 3) satisfaction (3.6). This data allowed me to ponder how many teenagers must struggle with mental health. Data shows that weight training is helpful to build overall well being, which is why it's helpful for adolescents especially during this challenging period of their lives. Furthermore the act of lifting weights goes against the grain of gravity which is symbolic of the naturally disappointing downward spirals of life. However lifting against gravity and increasing the weight strengthens the mind to push back against the hardships that one may face especially mentally.

In Seguin, et al.'s 2015 study on the impact of strength training for elderly women, it states that strength training was associated with significant improvements in several dimensions of body image, health-related quality of life, and physical activity behaviors, satisfaction, and comfort among rural aging women—an often underserved population that stands to benefit considerably from similar programs. There are actually no consequences towards strength training besides monetary and time costs and potential injuries if there was already a prior weakness or precautions weren't taken during the exercise. The benefits far outweigh the cost, so it begs the question why one wouldn't strength train.

Furthermore, in Hall and Noonan's 2023 research paper shows how regular physical activity can prevent obesity and improve mental health. "Gym-based resistance training" positively impacted five themes of mental health and wellbeing: (1) self-acceptance, (2) personal growth, (3) flow state, (4) social affiliation and (5) autonomy. Adults around the world are recommended to participate in muscle-strengthening activities at least two days per week to benefit their health. It is evident from both research papers that underserved communities such as those in rural areas of lower socioeconomic levels and women would exponentially benefit from strength training to boost their mental state.

Finally, the Ramirez and Kravitz 2010 study presents that there are many health-related benefits including a lower risk to all causes of mortality. It improves body composition, better glucose metabolism and insulin sensitivity, and lower blood pressure in persons with pre-hypertension and hypertension by working out. This study also shows that resistance training can alter the way one processes their anxiety.

Weight training is challenging and not common, so to be able to start, attempt, and to say one is weight training is a huge accomplishment, and there should be both mental and financial support for it in schools.

5. Conclusion

Overall, this research has been both enlightening and confirming in that my hypothesis in weight training's significant, positive impact were beyond just me, a single individual. I was able to confirm that with data. According to my research, teenagers who are weight lifting have a better quality of life. For example, their high confident mindset, discipline and endurance, and satisfaction of their appearance, self, and their life had a consistent positive correlation among all individuals surveyed under those who weight trained.

What is more impressive is that weight lifting doesn't only help in teenager's lives, it also helps elderly people and other populations as well. Especially for middle aged women. Seguin's et al. 's 2015 study on the impact of strength training for elderly women shows that strength training was associated with significant improvements in several dimensions of body image, health-related quality of life, and physical activity behaviors, satisfaction, and comfort among rural aging women. People can have a better quality of life by starting weight lifting. Other studies show similar benefits for those in impoverished communities and sick populations. Overall weight training has a positive impact.

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