# Does Exercise Improve Mental Health in College Students?

<u>Wittenberg RN-BSN Senior Students</u> Sarah Albaugh, RN Nathan Andorfer, RN Jake Andorfer, RN Betsy Cadwallader, RN Taylor Dean, RN

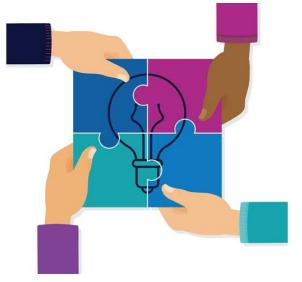


# Did You Know?

- <u>One in four young adults (18-24) live with</u> mental illness
- Suicide is the second leading cause of death among 15 to 29-year-olds
- People with depression are at higher risk for chronic health conditions such as cardiovascular disease, stroke, and diabetes
- 40 percent of college students experienced more than the average amount of stress in the past year

# What is Mental Health?

The WHO defines mental health as "a state of well being in which an individual realizes his or her owr abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community"



Common Mental Health Disorders **Depression**- a mood disorder that negatively affects the way a person feels and acts. It causes feelings of sadness and a lack of interest in activities that lasts longer than two weeks.

**Generalized anxiety disorder**- a disorder that involves "persistent and excessive worry that interferes with daily activities." Physical symptoms are often accompanied by this such as fatigue, insomnia, restlessness, and feelings of tension.

# **PICOT** Question

How does exercise 3 times per week improve the mental health and sleep of college students age 18-24?

### **Benefits of exercise**

- A session of moderate-to-vigorous physical exercise reduces short-term feelings of anxiety right after the workout
- Participating in moderate-to-vigorous exercise over long durations reduces symptoms of anxiety
- Engaging in regular physical activity reduces the risk of developing depression in adults and can improve many of the symptoms experienced by people with depression.



### What is exercise?

- What is considered exercise? Any physical activity that increases heart rate
  - Perceived exertion: how hard you feel your body is working
    - Based on physical sensations experienced during physical activity including increased heart rate, increased respirations, increased sweating, and muscle fatigue



# Types of exercise

#### • Yoga

- Shown to reduce depression scores
- Modules stress response systems by reducing perceived stress and anxiety
- Is beneficial in the treatment of obsessive-compulsive disorder (OCD), a type of anxiety
- Weight-lifting
- Aerobic exercise
  - Includes aquatic therapy, brisk walking, hiking, swimming laps
  - 2 hours and 30 minutes a week of moderate intensity (brisk walking), or
  - $\circ$  1 hour and 15 minutes a week of vigorous intensity (jogging),  $\underline{or}$
  - A mixture of both (1 minute of vigorous intensity is about the same as 2 minutes of moderate intensity)

### **Sleep and Mental Health**

- Lack of sleep (less than 7 hours), has been shown to affect the mental health of a person negatively. It can cause or worsen depression, hallucinations, paranoia, and other types of symptoms related to mental health.
- Too much sleep (more than 9 hours) can also be an issue and be correlated to negative mental health.
- Being around noisy environments or heavy traffic-prone areas is correlated to negative mental health issues also.



### Ways to Improve Sleep and Mental Health

- Get outside and exercise in the sunlight.
  - Studies have shown that people who go outside and exercise get better sleep and have better mental health than those who do not participate in these activities.
- Limit phone usage especially 1-2 hours before sleep time.
  - Studies have shown correlation between high phone usage and mental health disorders and low sleep quality.



## Limitations to exercise

- The CDC recommends a variety of activities to keep individuals challenged with new exercises.
  - It is recommended to have at least 150 minutes of moderate intensity aerobic activity or 75 minutes of vigorous intensity physical activity a week
- Individuals may feel that they are limited physically and mentally to exercising; these reasons can include:
  - Lack of time, social influences, lack of energy, lack of willpower, fear of injury, lack of skill and lack of resources
- There are many ways to overcome these issues
  - Set a schedule, workout with a friend/trainer, look up online workouts, find the right gym for you, find a gym that is not too expensive, ignore people who discourage you due to your body type or health

MYTH: "But people with health issues don't belong in the gym..."

TRUTH: Exercise is important for any individual. Mild to vigorous exercise is recommended whether you are a healthy adult or if you have chronic health conditions.



#### What fitness programs are offered at Wittenberg?

Get Fit Witt is a program that was created to allow students to be able to attend exercise classes and compete in intramural events

The two exercise classes offered include Yoga and Zumba

Club Sports include:

- Basketball, Ice Hockey, Rugby, Soccer, Volleyball, Wrestling
- Cheerleading, Color guard, Fishing, Kayaking, Outdoors
- Swing Dance, Water Polo, Knights of Witt, and Caving

### Health, Wellness and Athletics Complex

In 2019, Wittenberg opened its new HWA complex, the "Steemer".

- Beginning in academic year 2020-2021, the strength and conditioning staff will host group workout classes to instruct students and staff on personal workout routines
- Students and staff have access to all facilities when scheduled events and practices do not conflict
- The Rosencrans Fitness Center is open to all students, faculty, and staff year-round
- Facility hours are available on Wittenberg Tigers website

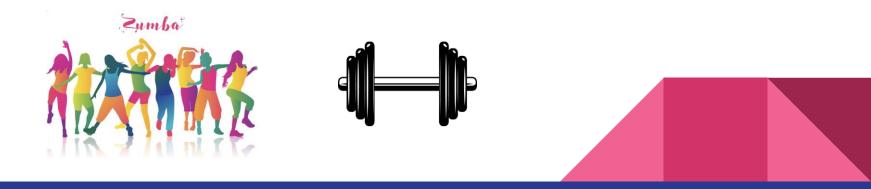


## **Online Classes**

Because of the coronavirus pandemic, all fitness classes and facilities have been closed

Zumba is now being hosted virtually through Zoom

Virtual Yoga and strength training on Zoom is coming soon



#### Links for Wittenberg fitness programs:

#### **Get Fit Witt:**

https://www.wittenbergtigers.com/information/facilities/Get\_Fit\_Witt

#### **Wittenberg Athletic Facilities:**

https://wittenbergtigers.com/information/facilityhours

#### List of Club Sports & Recreation:

https://www.wittenberg.edu/student-life/studentinvolvement/student-organizationclub-directory





# **To Conclude:**

- Regular exercise and adequate sleep can improve the mental health of college students
- Mental health affects one's physical health
- There are free resources available to improve physical and mental health
- ANYONE can start the journey to a healthier mind and body

#### References

Blackstone, S. R., Johnson, A. K., & Sutton, D. (2019, June 3). Perceptions of weight-conscious drinking and the role of mental health: A mixed-methods approach. *American Journal of Health Education*, 50, 225-235. <u>http://dx.doi.org/https://doi-org.proxy.library.ohio.edu/10.1080/19325037.2019.16160</u>

Centers for Disease Control and Prevention. (2020a). "Benefits of Physical Activity." www.cdc.gov/physicalactivity/basics/pa-health/index.htm

Centers for Disease Control and Prevention. (2020b). Centers for Disease Control and Prevention. www.cdc.gov/physicalactivity/basics/measuring/index.html.

Centers for Disease Control and Prevention. (2020c). Perceived Exertion (Borg Rating of Perceived Exertion Scale). www.cdc.gov/physicalactivity/basics/measuring/exertion.htm

Chadron State College. (n.d.). College Student Mental Health Statistics. https://www.csc.edu/care/resources/statistics/index.csc

Chekroud A., & Trugerman, A. (2019). The opportunity for exercise to improve population mental health. JAMA Psychiatry. 2019;76(11):1206–1207.

Freeman, D., et al. (2017, September 6). The effects of improving sleep on mental health (OASIS): A randomised controlled trial with mediation analysis. https://www.sciencedirect.com/science/article/pii/S2215036617303280#cesec90

Harvard Health Publishing. (2018). "Yoga for Anxiety and Depression." www.health.harvard.edu/mind-and-mood/yoga-for-anxiety-and-depression

Jonathan Wojciechowski, Assistant Athletic Director Wittenberg University, (personal communication, April 7, 2020).

Kaneita, Y., et al. (2007, September 17). Association Between Mental Health Status and Sleep Status Among Adolescents in Japan: A Nationwide Cross-Sectional Survey. <u>https://www.psychiatrist.com/JCP/article/Pages/2007/v68n09/v68n0916.aspx</u>

#### References (con't.)

McCurry, S. M., et al. (2011, July 28). Increasing walking and bright light exposure to improve sleep in community-dwelling persons with Alzheimer's Disease: Results of a randomized, controlled trial. <u>https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1532-5415.2011.03519.x</u>

Physical Activity Guidelines for Americans (2nd Edition). (2018).

https://health.gov/sites/default/files/2019-09/Physical\_Activity\_Guidelines\_2nd\_edition.pdf#page=31.

Sygna, K. M., et al. (2014, March 14). Road traffic noise, sleep and mental health. https://www.sciencedirect.com/science/article/abs/pii/S0013935114000371

Thomée, S., Härenstam, A. & Hagberg, M. (2011). Mobile phone use and stress, sleep disturbances, and symptoms of depression among young adults: A prospective cohort study. *BMC Public Health 11*, 66. <u>https://doi.org/10.1186/1471-</u> 2458-11-66

Volkov, S. (n.d.). Mental Health. Retrieved from https://www.who.int/health-topics/mental-health

World Health Organization. (n.d.). Mental health: Strengthening our response. https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response

#### References cont.

Walking: Why walk, why not. (2019). Retrieved April 10, 2020 from https://www.cdc.gov/physicalactivity/walking/idnex.htm

What Are Anxiety Disorders? (2017, January). Retrieved March 16, 2020, from https://www.psychiatry.org/patients-families/anxiety-disorders/what-are-anxiety-disorders

What is Depression? (2017, January). Retrieved April 2, 2020, from https://www.psychiatry.org/patients-families/depression/what-is-depression