

Community Wellness Plan

Many people from all around the world struggle to fit the different domains of wellness into their daily lifestyles. Many times it can be very difficult to focus on incorporating wellness domains into different socioeconomic factors such as education opportunities, current housing location, income, occupation, etc. Focusing on a specific community, such as a college campus like UVM, could be a more achievable way to measure different domains of wellness. Focusing on a college community is important because a large university like UVM has a lot of people who could be positively impacted if everyone across campus were to focus on wellness domains. Three important wellness domains a university campus could focus on is exercise, nutrition and sleep.

One way a large community such as a college campus could incorporate wellness into their daily lifestyle is by focusing on exercising. Currently The UVM is addressing the domain of exercise by having an accessible gym on campus and in the residence dorms, along with having group fitness classes accessible to UVM staff and students all for a small fee.

According to **Angulo-Barroso, Ferrer-Uris, and Busquets** cited Roig and Thomas' (2019) research:

Previous adult research (Roig et al., 2012; Thomas et al., 2016a, b) proposed that exercise characteristics (e.g., exercise timing, intensity, and duration) play an important role in the modulation of the exercise-induced benefits on motor adaptation and memory consolidation. (p. 2)

This is important because exercise will help the students of UVM remember information they have learned from classes that they will now be responsible for retaining. One thing in the community that I think should change, is the price to exercise. It isn't fair to those who are not as wealthy to not be able to exercise because they can't afford it. In the future the UVM community could decide to offer free gym membership passes to all UVM students and staff so everyone can have an equal opportunity to workout and exercise at their convenience. While the group fitness classes could still be offered at a price in order to the fitness instructors and the gym to make some profit.

Another way the community of UVM could incorporate domains of wellness into their daily lifestyle is by focusing on the nutrition of food in the dining halls. Currently The UVM is providing a variety of many different types of food in the dining halls, along with having different food shops located all around campus. According to Rajaram, Jones, and Lee (2019), "Dietary patterns that emphasize plant foods can exert neuroprotective effects" (pgs. 422-436). This is important because these agents protect a person from small brain injuries caused by diseases or neurodegeneration which occurs in the brain which is then followed by chronic neurodegenerative diseases. One thing that I think the UVM can prioritize to change is having a larger variety of more healthy food options accessible, more food groups could be incorporated into the dining halls instead of consisting of for say maybe only one food group. In the future the UVM dining halls could also focus on incorporating foods from other cultures into the dining hall menu. Having more diverse and healthy food options could inspire UVM students and staff to eat a healthier diet, and this would be a good thing because it would be beneficial to one's health.

One last way the community of UVM could incorporate the domains of wellness into their daily lifestyle is by getting an efficient amount of sleep every night. The community UVM is mainly split into three main groups; the students, professors, and staff, and among the three groups we are all doing different things to fit in an efficient amount of sleep into our daily schedules. As for the UVM students, most if not all are probably lacking the recommended 8 hours of sleep a night, but to compensate for the lost hours of sleep many students take naps in the middle of the day. As for the professors and staff at UVM a decent amount probably get the recommended 8 hours of sleep a night, and they achieve this by going to bed around 10pm if they have an 8:30am lecture the next morning. According to Yang et al. (2015):

Neurons activated during learning of a motor task are reactivated during subsequent non-rapid eye movement sleep, and disrupting this neuronal reactivation prevents branch-specific spine formation. These findings indicate that sleep has a key role in promoting learning-dependent synapse formation and maintenance on selected dendritic branches, which contribute to memory storage. (p.1)

This is important in understanding how crucial sleep is for promoting learning maintenance. My goal for the community of UVM is that all students and staff get the recommended 8 hours of sleep every night, so everybody has the opportunity to learn/ teach to the best of their ability. In the future, as for the students, we can learn to become more efficient in prioritizing our time so we are studying during the day or between classes as much as possible versus studying late at night in order to achieve the 8 hours of sleep per night. For the professors and staff at UVM who do not achieve the 8 hours of sleep per night, perhaps they can try to utilize the time between lectures or shifts to do paper-work so they are able to go to bed at a decent hour.

Though for some communities it can be difficult to incorporate the domains of wellness into a community, it can be done by focusing on small and specific goals within a given domain. Three important goals a community, such as UVM, should focus on is exercise, nutrition, and sleep because all three are beneficial to the body and brain's health and they are also achievable. Exercise is achievable because it can be done anywhere with the right motivation. Maintaining a healthy and balanced diet is achievable if there is healthy food available. Lastly sleep is very achievable if one balances in prioritizes studying/ paperwork and sleep together. Different domains of wellness within a community are manageable if all people within the community are willing to make an effort to live healthier lifestyles.

References

- Angulo-Barroso, R., Ferrer-Uris, B., & Busquets, A. (2019). Enhancing Children's Motor Memory Retention Through Acute Intense Exercise: Effects of Different Exercise Durations. *Frontiers in psychology, 10*, 2000. 2. doi:10.3389/fpsyg.2019.02000
- Rajaram, S., Jones, J., & Lee, GJ. (2019). Plant-based dietary patterns, plant foods, and age-related cognitive decline. *Advances in Nutrition, 10*(4), S422.
10.1093/advances/nmz081
- Yang, G., Lai, C. S., Cichon, J., Ma, L., Li, W., & Gan, W. B. (2014). Sleep promotes branch-specific formation of dendritic spines after learning. *Science (New York, N.Y.)*, 344(6188), 1173–1178. doi:10.1126/science.1249098

Exercise Citations

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6722207/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6722207/pdf/fpsyg-10-02000.pdf>

The actual APA citation: Angulo-Barroso, R., Ferrer-Uris, B., & Busquets, A. (2019). Enhancing Children's Motor Memory Retention Through Acute Intense Exercise: Effects of Different Exercise Durations. *Frontiers in psychology, 10*, 2000. doi:10.3389/fpsyg.2019.02000

- Previous adult research ([Roig et al., 2012](#); [Thomas et al., 2016a, b](#)) proposed that exercise characteristics (e.g., exercise timing, intensity, and duration) play an important role in the modulation of the exercise-induced benefits on motor adaptation and memory consolidation.
- Exercise intensity and its timing seem to be important modulators in the exercise-motor learning relation for adults. It has been suggested that moderate intensity exercise presented before the practice of the task facilitates motor adaptation ([Statton et al., 2015](#); [Snow et al., 2016](#)). On the other hand, many studies have found improvements in motor memory consolidation when an intense exercise (IE) bout has been presented either

before or after the adaptation of the motor task ([Roig et al., 2012](#); [Mang et al., 2014, 2016](#); [Ferrer-Uris et al., 2017](#)).

Nutrition Citations

<https://www.ncbi.nlm.nih.gov/pubmed/31728502>

https://academic.oup.com/advances/article-abstract/10/Supplement_4/S422/5624068?redirectedFrom=fulltext

- Dietary patterns that emphasize plant foods can exert neuroprotective effects.

Sleep Citations

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4447313/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3768102/>

Actual citation: Yang, G., Lai, C. S., Cichon, J., Ma, L., Li, W., & Gan, W. B. (2014). Sleep promotes branch-specific formation of dendritic spines after learning. *Science (New York, N.Y.)*, 344(6188), 1173–1178. doi:10.1126/science.1249098

- Neurons activated during learning of a motor task are reactivated during subsequent non-rapid eye movement sleep, and disrupting this neuronal reactivation prevents branch-specific spine formation. These findings indicate that sleep has a key role in promoting learning-dependent synapse formation and maintenance on selected dendritic branches, which contribute to memory storage.

- Over more than a century of research has established the fact that sleep benefits the retention of memory. In this review we aim to comprehensively cover the field of “sleep and memory” research by providing a historical perspective on concepts and a discussion of more recent key findings. Newer findings characterize sleep as a brain state optimizing memory consolidation, in opposition to the waking brain being optimized for encoding of memories. Consolidation originates from reactivation of recently encoded neuronal memory representations, which occur during SWS and transform respective representations for integration into long-term memory. Ensuing REM sleep may stabilize transformed memories. While elaborated with respect to hippocampus-dependent memories, the concept of an active redistribution of memory representations from networks serving as temporary store into long-term stores might hold also for non-hippocampus-dependent memory, and even for nonneuronal, i.e., immunological memories, giving rise to the idea that the offline consolidation of memory during sleep represents a principle of long-term memory formation established in quite different physiological systems.