

"sleep improves
memory: the effect of
sleep on long



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Journal Article Critique of " Sleep Improves Memory: The Effect of Sleep on Long Term Memory in Early Adolescence" Comprehension Purpose The Purpose of " Sleep Improves Memory: The Effect of Sleep on Long Term Memory in Early Adolescence" by Katya Trudeau Potkin, William E. Bunney, JR was to assign the selected students to sleep and no sleep conditions and compare tested results about adolescents on how getting sleep and not enough sleep could affect the memory. The results were an increase of 20. % in long-term memory (Figure 1) was found as measured by the number correct in the paired-associate test following sleep, compared to the groups which was tested at the same time interval, but without sleep.

Results/Conclusion The study showed that older adults performance did not improve following sleep. Sleep dependent memory consolidation decreases with age. Lack of sleep can cause the subject to not be able to reach his or her full potential on " cognitive performance" which was not observed in the sample (4). Analysis and Evaluation

Strengths One of the strengths was that the groups tested were divided into two groups, " Twenty females and twenty male adolescents" (1). I feel that it was evenly distributed to find out if it affected male or female differently. Each subject had a better experience of testing with the comfort of his or her home and was able to eat a good meal before testing. Subjects were asked about how good of nights rest did they get and most of the answers were good to very good which made the testing a little bit more accurate.

The students were also given the test over the weekends and school breaks inside a quiet room, away from all distractions. The sleep group's mean age was 12. 9 compared to 12. 4 for the non-sleep group ($t = (1.52)$, $df (1, 38)$, p

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= 0.14). (See Table 1 for demographic characteristics and performance scores). There was no statistically significant sex difference in performance for either task (2). The test used to test memory on the subjects is called the paired-associate test. This test is the standard way to monitor memory. The memory is measured by using this scale (2).

The results that were given were compared to another outside study group and after comparing the two, the outcomes were consistent. The studies showed that it didn't matter what time of day, but periods of sleep helped enhance the declarative memory. Taking a nap at different times of the day is just as good as getting a full night's rest, not saying that it's better than a full night's rest but it helps to build and repair memory. Weaknesses The author stated that "It is important to have data on the effects of normal sleep" (4). There are so many different types of sleep disorders that can keep someone from getting a good night's rest.

One paragraph states "Sleep disorders are even more prevalent in adolescents with psychiatric disorders and developmental disabilities" (4). Twenty five to forty percent of adolescents have sleep disorders. It's very important to get data on the effects of normal sleep. There are consequences from having lack of sleep and bad sleep patterns, none of these things were talked about in the studies of the subjects. All of the subjects that were chosen were healthy and didn't have any health issues. If there were to be someone with these issues, then the numbers would be different.

Some other studies of sleep that effects other types of memory wasn't used in this article, for example visual, procedural and emotional memory. The <https://assignbuster.com/sleep-improves-memory-the-effect-of-sleep-on-long/>

chart used in this article is very hard to understand but this is the standard chart to use for documenting memory. This chart is hard to understand when looked at for the first time; it just looks like numbers on a page. Another issue that I had with the article is the studies ended with using adolescents. Synthesis and Evaluation One of the major changes that I feel should be done is to create a longer sample. One paragraph stated " Our study was limited as the sample was pportune" (4). There were a lot of sources that could have been used but wasn't. Memory would be more understandable if there were more included. People with sleep disorders could have been included to show how that affects memory. Another thing that could help understand memory is if adults, middle age and the elderly were used. The older you get, your memory starts to taper off and remains the same then it declines as you grow even older. Memory is at its greatest when you are an adolescent and memory is at its worse when you are elderly. Alzheimer is a big factor when dealing with the elderly.

The mind can deteriorate if rest is needed over a long time period. If the body continues to go without rest over the years then it will be hard for the mind to repair itself. This topic would have been something to help us understand memory as we age. I would have added a formula to the chart to show how the numbers come about. The bar graph was something good as a visual but how did we get those numbers? I would have shown step by step process on how to make these calculations. The research results were compared to another study from an outside source, on the same subject and the outcomes matched.

We can't come to conclusion that these answers are right because it is simply not enough information to say these results are true. I think that if the results were compared to even more outside sources to see how the results compare would give us a wider range and more accurate results. These are just a few ways that I think would have made this article stronger and better to understand. Works Cited Potkin KT, Bunney WE Jr. " Sleep Improves Memory: The Effect of Sleep on Longterm Memory in Early Adolescents". Plos one 7. 8 (August 2012): 1-4. Academic Search Complete PsycINFO. EBSCO. Wake Technical Community College, Raleigh, NC. 28 Feb 2013