

**Is Laughter the best medicine?**

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### Abstract

The famous saying laughter is the best medicine may not always be taken seriously; however the saying is very accurate. There are many facts, statistics, and studies that provide evidence to support the theory. Laughing can have many positive effects on a person, such as improving their physical health, mental health and relationships. Because laughing has many positive effects on a person, it is the best form of medicine. The neurotransmitter dopamine has a significant dominance on why health benefits occur. When laughing transpires, dopamine, also known as the body's happy hormone, is released and causes happiness. Laughter can improve mood, create joy, and improve memory. A conducted study proved more people retain information if it is taught humorously, rather than seriously (Coronel, et al. 2020; White 2021). Laughter makes it easier to cope in certain situations, improve communication, and improve romantic relationships. With that said, laughter is the best form of medicine. Moreover, laughter can lead to a better, happier, and healthier quality of life.

*Keywords:* neurotransmitter, dopamine, hormone, cope

### **Benefits of Laughter: The Best Medicine For the Mind and Body**

The famous saying “*Laughter is the Best Medicine*” may be thought of as a myth by many people; however there is truth to the saying. Many facts state the positive benefits laughing can have on mental and physical health. When a person laughs, their body releases endorphins, a natural feel-good chemical. When endorphin chemicals are released, the brain reduces the perception of pain. Endorphin chemicals are the reason individuals can have memories of laughing so hard it leads to tears. Many facts provide an answer to the question, is laughter the best medicine? Laughter has many physical health benefits, such as increasing the immune system, relieving pain and keeping the heart healthy. There are also many mental health benefits such as a decline in stress, better mood, and greater memory. Laughter provides many social benefits, it improves relationships and can be used as a coping mechanism. Because laughing has many positive effects on a person it is therefore, the best form of medicine since it can lead to a happier and healthier quality of life.

Laughing is an action that most individuals, on average, do every day. Laughing has many health benefits that include increasing the immune system, relieving pain, and helping the heart. When a person engages in a humorous activity, their immune system increases. Laughing increases the number of natural killer cells and cytotoxic helper T and B cells. Natural killer cells can engage in cytolytic activity against tumor cells. T and B cells are necessary for the body’s immune response (Pattillo & Itano, 2001). Studies show that levels of salivary IgA, which is an antibody that helps fight upper respiratory disease, were elevated after the subjects watched a comedy film (Pattillo & Itano, 2001). Laughter also allows levels of antibodies IgM and IgG to grow, which builds up inflammation, chemotaxis, and lysis of target cells. An immune system that has weakened by disease and treatment may be redeveloped due to laughing. Laughter

decreases stress hormones and increases immune cells and infection-fighting antibodies (Robinson, Smith & Segal, 2021).

Humor can help the body recover from disease. Reported by Himizu Akira, a psychiatry and psychophysiology professor at Kansas University, American journalist Norman Cousins had a complete recovery of his disease by laughing. Cousins was diagnosed with ankylosing spondylitis, an inflammatory disease that can cause the bones to fuse. However, Cousins discovered laughing made him feel better; therefore he would read humorous books and watch movies to ease the pain. As a result of his optimism, he made a complete recovery and returned to work again (Akira, 2022). Laughing can cause the human body to fight off disease, and it can also increase the immune system. Not only does laughing enhance the immune system, but it also helps reduce pain. Endorphins, the body's natural painkillers, are released when laughing occurs. Laughter can distract from the pain, which allows for a temporary pause from the discomfort (Pattillo & Itano, 2001). A survey of the non-pharmaceutical management of pain rated laughter as the most effective way of coping with discomfort (Pattillo & Itano, 2001). It is proven from different experiences that laughter eases pain.

Laughing is proven to help specific health issues. For example, laughing releases endorphins that protect the heart and reduce blood pressure. Lower blood pressure reduces the risk of a heart attack and stroke. Laughing also causes the inner lining of blood vessels to enlarge by releasing nitric oxygen. Nitric oxygen helps reduce inflammation and prevent plaque from forming on arteries. Dilated blood vessels increase blood flow throughout the body which means the heart, muscles, arms, and legs are getting an adequate flow of oxygen-rich blood. Increased blood flow can lead to a healthy endothelium and can prevent the hardening of blood vessels (Providence, 2021). A study conducted at the University of Austin, Texas asked 17 healthy

adults to watch either a humorous video of their choosing for 30 minutes or a documentary for 30 minutes. Blood flow tests were taken on each participant before and after watching the video. There was improvement in artery function and flexibility from participants that watched a comedy, these results lasted for 24 hours after the test. The artery function and flexibility decreased in participants that watched a documentary (Skerrett, Harvard University, 2010). Engaging in a humorous activity such as watching a video or laughing with friends leads to many health benefits.

Although laughing has many positive outcomes for an individual's health, some people choose to abstain from laughing because they believe laughing and smiling will lead to wrinkles. An example would be a lady who did not smile for 40 years due to the idea that smiling and laughing would cause wrinkles on her face. Laughing, nevertheless, does not cause wrinkles. Wrinkles are caused from fat loss, muscle atrophy, and ultraviolet radiation, which comes from sun ray exposure. The more the skin soaks up the sun, the more connective tissue breaks down, leaving the face less firm and less elastic (Heid, n.d). Therefore, sunscreen would be a better treatment for preventing wrinkles rather than refusing to smile or laugh.

Laughing has many positive mental health benefits. Laughter can improve life and happiness due to the psychological benefits that occur from it. Laughing can increase then decrease heart rate and blood pressure, which as a result, creates a relaxed feeling. By laughing, circulation stimulates, which can aid in muscle relaxation and reduce stress (Mayo Clinic, 2021). Individuals with a good sense of humor cope more effectively with stress than others, which means they might also experience fewer adverse effects of stress on their physical health. A study conducted tested the level changes of cortisol and catecholamine in a group of 16 healthy males. The males split into two groups which included a control group and an experimental

group. The experimental group attended an exciting and humorous event. Blood was drawn from both groups before the event, during, and after the event. Analysis showed the blood levels in the anticipatory phase decreased stress hormones cortisol, epinephrine, and DOPAC in the experimental group. As a result, the study suggests that anticipation for an exciting event can decrease stress hormones (American Physiological Society, 2008). Laughter is proven to reduce stress and depression, and improve self-esteem and happiness (Mayo Clinic 2021).

An individual's mood and quality of life are found to be better after laughing more often. It is proven that individuals with a sense of humor tend to have a longer lifespan than those that do not. An example would be a study that focused on individuals at the age of 12. The individuals who possessed a sense of humor and optimism had a significantly higher life span rate throughout the ensuing decades (Martin, 2002). Having a sense of humor can lead to a better quality of life because it allows for longer life. In a survey of 15 people being asked eight questions, with one of the questions being: Do you find you are happier when you laugh? All 15 participants said they felt happier when laughing, which is shown in Appendix A. Therefore, laughing is proven to improve happiness.

Another instance where humor can increase the quality of life is through medical interactions such as the relationship between a nurse and patient. A nurse that brings joy to the patient will make the patient more comfortable. A study performed in a Dutch Comprehensive Cancer Centre included four short conversations between a patient and medical specialist. Almost all specialists reported using humor 97% of the time and reported laughing during consultations, which allowed for a positive experience (Mack & Brekel, 2022). Although the patient is going through a difficult time, having humor built into the conversation helps add some

joy to the situation. Having a humorous occurrence will cheer up the patient and allow them to have a better quality life while in the hospital (Pattillo & Itano, 2001).

Laughing can also improve memory. Many shows or newscasts will use humor as a strategy to release information to the public. Information is easier to digest when humor is involved. By using humor, others are more likely to spread the information. In elementary school, many lessons are taught using a funny mnemonic device that allows the kids to remember the information better. A conducted study told participants to watch a news anchor read headlines seriously, and another news anchor to read them with humor. After the new lines were each read, the participants remembered more information from the news anchor that used humor. Therefore, information is more retainable when humor is involved (Penson, et al. 2005).

However, many people suffer from mental health disorders that make it difficult to smile or laugh. Although many people suffer from mental health disorders, there are many engaging activities that can increase laughter. Using laughter as therapy is very common and can help people overcome mental illnesses. Laughter yoga is an efficient way to bring joy to an individual and decrease depression symptoms. A recent study published in the *Journal of Affective Disorders*, assigned 50 participants diagnosed with a depressive disorder into two groups. The groups were a laughter yoga intervention group and a treatment as usual group. The laughter yoga group partook in two yoga sessions each week that consisted of warm up exercises, deep breathing exercises, and childlike laughter. The treatment group received a general routine of mental health care that included medication and therapy. The results of this study show that there is a significant decrease of depression in the yoga group than in the treatment as usual group (Psychiatry Advisor, 2019). Therefore, laughter yoga is more beneficial than taking medicine. Many participants in laughter yoga report feeling happier and looser after participating in the

activity (Ayan, 2004). Humor therapy is also a way to improve a patient's mood temporarily. A study out of the University of Basel in Switzerland reported that ten elderly, depressed patients who received humor training were more satisfied with their lives than the patients who received just medication (Ayan, 2004). With proper practice and implementation of certain activities, it is proven that laughter can improve mental health.

Laughter is known to have many social benefits, including better connections and relationships with others. Laughter enhances communication, improves romantic relationships and makes it easier to cope in certain situations. According to psychiatrist Barbara Wilde of the University of Tübingen in Germany, having a sense of humor can be an essential coping strategy (Ayan, 2004). An example is when medical staff joke with patients. If doctors joke about themselves, it humbles them which results in the patient feeling more relaxed, and makes the appointment seem not as rushed (Penson, et al. 2005). Having a doctor joke with a patient allows a difficult situation to become more lighthearted and less cumbersome. An oncology nurse was interviewed and stated that “humor goes a long way in helping many patients cope,” (Penson, et al. 2005, pg. 654). She explained one instance when a patient diagnosed with cancer wanted to help her grandchildren cope with her being sick. Her grandchildren were concerned about her losing her hair, so she decided to make fun of it. To help them cope, she let them put press-on tattoos on her bald head. In doing this, her grandchildren were coping, and she was also getting to spend time with them (Penson, et al. 2005). Using humor as a coping mechanism can help when going through a difficult time.

Laughter can also increase social life. There is proof that being funny is an attractive trait. In a conducted study, 15 people of different age groups were surveyed and asked eight questions, as shown in Appendix B. 14 of the 15 participants said they felt closer with friends they laughed



with. Laughing with friends creates a closer relationship and better social life. Humor affects the way people interact with each other. Showing a sense of humor can make peers and friends attribute more perceptions of confidence. Laughter is 30 times more frequent in social situations than in solitary ones. When people are alone, they are more likely to talk to themselves or smile rather than laugh (Winerman, 2006). Therefore, laughing tends to occur in social settings, which allows for an expanded social life. At a special Library Association annual conference called *Laugh For the Health of It*, expert Elaine M. Lundberg stated, “Laughing with others builds confidence, brings people together, and pokes fun at our common dilemmas. Humor is laughter made from pain, not pain inflicted by laughter” (Butler, 2022, pg.2). Having confidence authorizes leadership roles and also cultivates a sense of trust. Being cheerful can create and encourage friendships. Cheerful people have a lighthearted interaction style that can facilitate bonding closely with others and build social support (Ayan, 2004).

In addition to increasing social life, laughter can improve romantic relationships. When choosing a partner, both men and women prefer and value a sense of humor (Ayan, 2004). Eric R. Bressler of Westfield State College and Sigal Balshine of McMaster University in Ontario reported that women are more likely to be attracted to a male in a photograph if the picture is accompanied by a funny quote attributed to the man (Ayan, 2004). There is also proof that men like it when women laugh at their jokes. When a woman laughs at a man's joke, the man will gain more confidence. A 1990 study suggests that when a woman and man chat, the amount of laughing done by the woman indicates her interest in dating the man (Ayan, 2004). A communications professor out of the University of Kansas stated, “If you meet someone whom you can laugh with, it might mean your future relationship is going to be fun and filled with good cheer” (University of Kansas, 2015, p.1). The human brain releases the hormone oxytocin and

receives cues to form an emotional bond with another person. Oxytocin is the same hormone that is released during sex and childbirth (Abrahams, 2020; Bagdonas, 2020). Humor is a pathway to longer-lasting relationships. When a man is trying to impress a girl, she will be more interested in him if he can make her laugh. If two people share the same type of humor, the future relationship will be better and full of more fun. A study brought together 51 pairs of single heterosexual college students who did not know each other. The students sat in a room and talked for ten minutes. The results of the study show the pairs that laughed at each other were more interested in the other person. Therefore, humor can help bring two individuals together and establish relationships (Hall, 2015; Metz, 2015).

One complication that comes from laughing is that some people have different senses of humor, making it difficult to tell jokes to others. The audience may take offense to some jokes. An example would be when students use humor to bully other students in the classroom. This type of humor is considered unethical and offensive (Loomans & Kolbery; Jeder, 1993). Grade school teacher Daniela Jeder stated in her journal titled *Implications of Using Humor in the Classroom*, that irony, sarcasm, and insults are forms of inappropriate humor that create tension among students in the classroom (Loomans & Kolbery; Jeder, 1993). Patients and specialists also acknowledge that using humor is sometimes inappropriate. Although laughter is good and helps in difficult situations, specialists cautioned against patients using laughter with each other to avoid broaching complex topics (Mack & Berkel, 2022). However, although the use of laughter may be inappropriate in certain scenarios, it can also keep a situation light-hearted and help individuals through a tough time in their life. Therefore, there are more benefits from laughter than there are negatives.

As a result, because laughing has many positive effects on a person, it is therefore, the best form of medicine. Laughter has many physical health benefits and allows for a better immune system, pain relief, and a healthy heart. Laughing has many mental health benefits, such as decreased stress levels, improved mood, and enhanced memory. Laughing provides many social benefits and can build better and stronger relationships. Humor can make it easier to cope in certain situations and presents better communication skills. The saying laughter is the best medicine is accurate due to the positive effects laughter has on the body and the mind. The positive outcomes of laughter outweigh the negatives, therefore laughter is the best and most natural form of medicine. Many conducted studies prove laughing makes us happier and healthier. Laughter is what brings joy in life and creates memories that last a lifetime. In conclusion, there are many answers to the question, Is laughter the best medicine? In which there is proof that laughter is the best form of medicine.

**References****Scholarly References:**

Akira, S. (2022). Laughter-the perfect Prescription.

The argument of this article is to state that laughing is used to heal. The article is about how Norman Cousins was suffering from ankylosing spondylitis and recovered from laughing. This source is different from others because it tells Cousins' life and experiences. The goal of the source is to inform readers that laughing can heal diseases. This source fits into the research because it provides evidence that supports the argument. It helps shape the argument because it allows for personal experience to support the argument in the paper. The source provides additional verification that laughter can help heal suffering.

Ayan, S. (2009). Laughing Matters. *Scientific American Mind*, 20(2), 24-31. Doi.

The main arguments of this source discuss the benefits of laughing. Some of the key ideas mentioned in the article are how laughter can ease pain, change our perception of pain, impact overall wellness, and lower the risk of disease. This article is a valuable source because it states reliable facts with evidence. There are many studies explained in the article that deliver reliable information. It also contains many ideas and topics that support the claim. The goal of the source is to inform readers about the benefits of humor. The source fits into the research because it provides many facts that support the thesis statement and overall idea for the paper.

Bree, R., Mack, J. & Van Del Brekel, M. (2022). Humor and laughing in patients with prolonged incurable cancer: an ethnographic study in a comprehensive cancer Center.

The main argument of the source is to state that laughter is a holistic approach to caring for oneself. The article touches upon the benefits of humor and provides data from a recent study that shows the relation between humor and cancer patients. The goal of the source is to inform the readers about how cancer patients, for the most part, laugh even while dealing with having cancer. The source fits into the research because it provides a survey about the relation of laughter and cancer patients. This source helps shape the argument because it provides both points that relate to the argument and counterargument due to survey results. The source will provide the data that was collected from the survey in the paper.

Butler, B. (2005). *Laughter: The Best Medicine??. The University Of Oregon.*

<https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/7422/laughter.pdf>

The main argument of the source is to state that laughter is the best medicine. The article is about the health benefits of laughing and how humor can improve health. The source includes information from expert Dr. Fry, in which he provides reliable facts, studies, and explanations. The goal of the source is to explain that there are many benefits that come from laughing, which fits into the research because it lists many ways humor is good for a person. The source shapes the argument because it has many facts that support the thesis.

Gayle, C. & Itano, J. (2001). "Laughter is the Best Medicine." *Wolters Kluwer.*

The main argument is to show how laughter is beneficial and how it specifically helps cancer patients. This article is about how laughter can help cancer patients improve their health and spirits. The source stands out from other sources because it provides information on how patients use humor to help them cope during a hard time in life. The

goal of this source is to state that laughter is the best medicine. The source fits into the research because it provides argumentative support for the thesis. It helps shape the argument because many facts support the idea of the research paper. The source uses facts and evidence from studies conducted on cancer patients.

Jeder, D. (2015). Implications of Using Humor in the Classroom. *Procedia - Social And Behavioral Sciences*, 180, 828-833. DOI: 10.1016/j.sbspro.2015.02.218.

The main arguments of the article state that humor is good to use in a classroom setting. The article is about how humor can have a positive impact on teachers and students in the classroom. The source focuses explicitly on humor being used in a school, which is not mentioned in any other sources. The goal of the source is to inform readers of the positive and negative outcomes of humor in the classroom. The source has facts that support the argument and the counterargument. The article helps shape the argument because it provides data and examples that support the thesis. The source not only states the benefits humor has in the classroom but also provides facts to support the counter-argument since the source touches upon ethical issues with laughter.

Martin, R. A. (2022). Is Laughter the Best Medicine? *Sage Association For Psychological Science*.

The main argument of this article is to state that laughter is good for the body. The article explains how humor is good for health and touches upon topics such as immunity and blood pressure. The source provides a great deal of evidence that other sources do not have therefore this evidence can be used to support the idea of the research topic. The goal of the source is to inform the readers of the health benefits that happen from laughing. The source fits into the research because it explains how laughter can help both

physical and mental health. The article helps shape the argument because it provides the evidence needed to support the facts that relate to the topic.

Penson, Ri., et al. (2005). Update: Laughter: The Best Medicine?. *The Oncologist*, 10(8), 651-660. DOI: 10.1634/theoncologist.10-8-651.

The main idea of this source is to list the benefits and consequences of doctors joking with patients. The article is about how humor can make difficult situations in the medical field more lighthearted, and explains the problematic aspects of using humor. The goal of the source is to show how humor is used between patients and their medical caregivers. The source fits into the research because it explains how laughter can be used to make a difficult situation better. It shapes the argument because it explains the benefits of laughter and indicates that joking may also have negative consequences which support the counter argument. The source shows how humor is used in real-life circumstances to make difficult situations more lighthearted.

The University of Kansas. (2015) Laughter, then love: Study explores why humor is important in romantic attraction.

<https://news.ku.edu/2015/08/27/first-comes-laughter-then-love-study-finds-out-why-humor-important-romantic-attraction>

The main arguments are to convince the readers that laughing is beneficial in many social situations. The article explains how humor can help build social and romantic relationships. This resource is different from others because it has a specific topic of how humor can attract friends and also romantic partners. The goal of the source is to inform the readers of how having a sense of humor can attract others and lead to better relationships. The source fits into the research because one of the topics touched upon is

how humor can benefit social and romantic relationships, which will be used as evidence in the research paper.

Winerman, L. (2022). A laughing matter. <https://www.apa.org/monitor/jun06/laughing>

The main arguments are to show that there are many reasons behind a person laughing.

The article is about the psychological reasons behind laughing and what causes a person to laugh. The source stands out because it states the psychological reasoning behind laughing and other articles do not. It is also the only source written by a psychology professor. The goal of the article is to inform the readers about the benefits of laughing.

The article fits the research because it provides facts and evidence that relate to the research. The source helps shape the argument because it provides factual information and studies that support the thesis statement. The source will provide data that support the claim.



**Other References:**

Abrahams, M. (2020) Make 'Em Laugh: How Humor Can Be the Secret Weapon in Your Communication. <https://www.gsb.stanford.edu/insights/make-em-laugh-how-humor-can-be-secret-weapon-your-communication>

The source provides an interview with a professor at Stanford, and she explains the benefits of humor. The reliable information stated by the professor will provide facts for the paper.

Amazing Ways Laughter Improves Your Heart Health. (2022).

<https://blog.providence.org/archive/amazing-ways-laughter-improves-your-heart-health>

The source explains how laughter is beneficial to one's health, specifically for the heart. The source will be used in the paper to provide evidence and facts for how laughing can improve the heart's health.

Anticipating A Laugh Reduces Our Stress Hormones (2008), Study Shows, *Science Daily*.

<https://www.sciencedaily.com/releases/2008/04/080407114617.htm>

The source explains how humor can result in less stress. There are multiple studies provided that include evidence that support the claim.

Heid, M. (n.d.). You Asked: Can Smiling A Lot Really Cause Wrinkles? *Time*.

<https://time.com/collection/guide-to-happiness/3665763/does-smiling-cause-wrinkles/>

The source provides information about how the face attains wrinkles. This information will help support the counterargument.

Laughter Yoga Shows Promise as Alternative Therapy in Depression 2019, *Psychiatry Advisor*:

<https://www.psychiatryadvisor.com/home/depression-advisor/laughter-yoga-shows-promi>

[se-as-alternative-therapy-in-depression/#:~:text=Most%20laughter%20yoga%20study%20participants,the%20Journal%20of%20Affective%20Disorders](#)

The source explains what laughter yoga is and the benefits of participating in it. Laughter yoga provides support that opposes the counterargument.

Skerrett, P. J. (2010) Laugh and be thankful—it's good for the heart - Harvard Health.

*Harvard Health Publishing.* (2022).

<https://www.health.harvard.edu/blog/laugh-and-be-thankful-its-good-for-the-heart-2010124839>

The source explains how humor is good for the heart. The source supports the argument by providing a study that can be used in the paper.

Stress relief from laughter? It's no joke. (2022).

<https://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/stress-relief/art-20044456>

The source lists many benefits of laughing and how it has mental and physical health benefits. The source will prove facts throughout the paper.

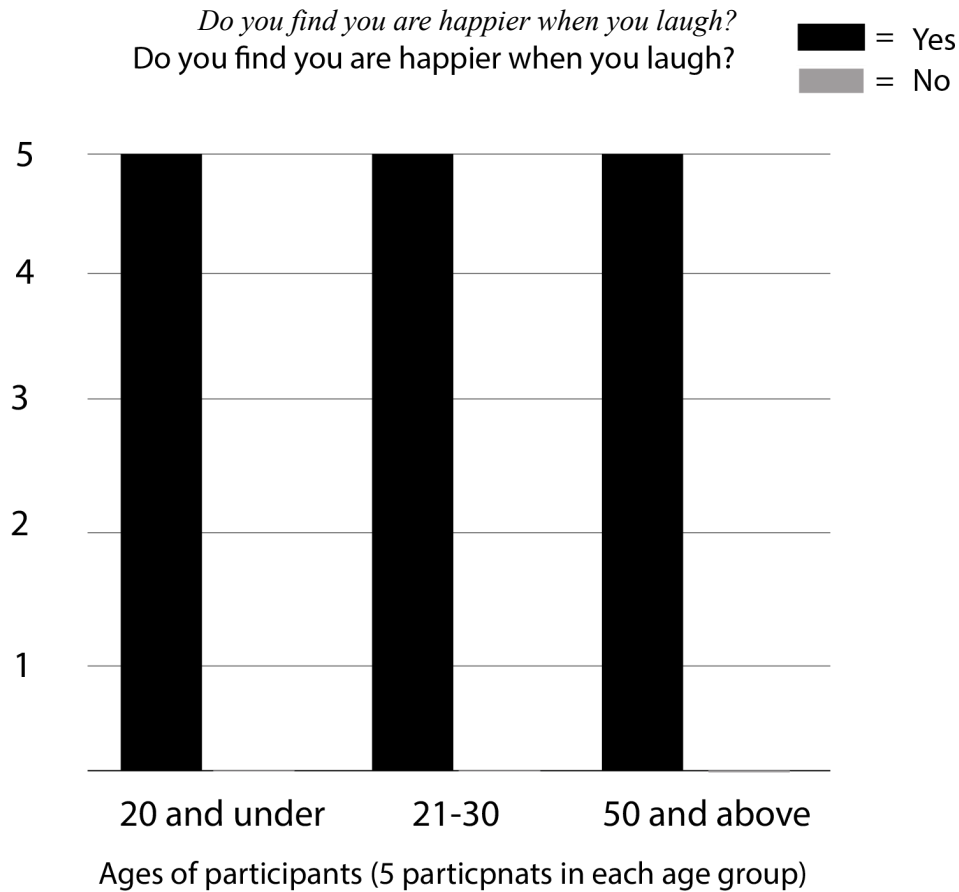
White, T. (2021) Humor Promotes Spread and Retention of News, Study Finds. *Very Well*

*Mind* (2022).

<https://www.verywellmind.com/humor-key-in-helping-young-adults-pay-attention-to-news-5097144>

The source provides information about how humor can improve retention and memory.

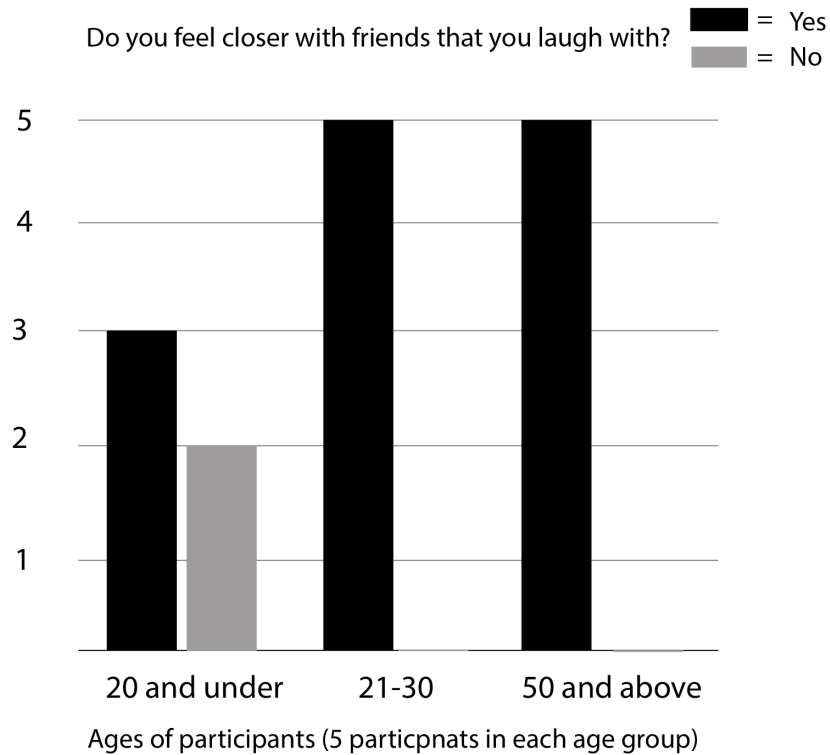
The source supports the argument because it provides facts about how laughing can improve one's memory.

**Appendix A**

The bar graph shows the answers to a survey that consisted of 15 people of different ages, 20 and under, 21-30, and 50 and above. The black bars represent the yes answers, and the gray bars represent the no answers. Five people were surveyed in each age group, therefore the 1-5 on the left side of the graph stands for each person. Out of all the participant's everyone said yes; therefore more individuals are happier when they laugh.

## Appendix B

*Do you feel closer with friends that you laugh with?*



The bar graph shows the answers to a survey that consisted of 15 people of different ages, 20 and under, 21-30, and 50 and above. The black bars represent the yes answers, and the gray bars represent the no answers. Five people were surveyed in each age group, therefore the 1-5 on the left side of the graph stands for each person. Out of all the participants, only two people said no, and they were both from the under 20 age range.