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Happiness
The Evidence Behind
the Emotion
CE633 :: 1.00 Hours

Author:**Cynthia Saver, RN, MS**

Cynthia Saver, RN, MS, is president of CLS Development Inc., in Columbia, Md. The author has declared no real or perceived conflicts of interest that relate to this educational activity.

Objectives

The goal of this program is to provide nurses with information about the science of happiness, including evidence-based strategies for improving well-being. After studying the information presented here, you will be able to —

- Define happiness, positive psychology and well-being.
- State three physiological and three psychological benefits of happiness.
- Describe four evidence-based strategies for increasing happiness.

A search on PubMed Central finds 117,952 articles with depression in the title compared to a 9,080 for happiness, seeming to indicate that researchers are more interested in what makes us sad than what makes us happy.¹ The disparity would likely be larger without the efforts of those in the field of positive psychology. Positive psychology, a relatively new field, is “the scientific study of the strengths and virtues that enable individuals and communities to thrive.”² It focuses on three main areas: positive emotions, positive individual traits and positive institutions. Positive psychology complements, not replaces, traditional psychology.

Happiness is a positive emotion, making it an important area of study for positive psychologists.³ It’s an important area for nurses, too, because they promote well-being in patients, families and communities. Research and evidence can help answer questions about what happiness is and how we might attain it. In recent years articles about happiness have exploded in consumer publications, with the topic showing up as a cover story in such varied publications as Time magazine and Spirit, Southwest Airline’s inflight magazine.^{4,5}

People may want to be happy, but only 34% of those in a survey were “very happy.”⁶ Half said they were “pretty happy,” and 15% said they were “not too happy.” This module reviews the latest research on happiness, explains physiologic changes associated with happiness and provide strategies to promote happiness.

What is Happiness?

Happiness as we conceive it dates back to the Enlightenment movement of the 18th century, the time frame of the U.S. Declaration of Independence, which states that we have a right to "life, liberty, and the pursuit of happiness."⁷ Until then, happiness was viewed as achievable by only a few — limited to those who were worthy of great reward for a life of virtue. With the Enlightenment came the belief that all humans could achieve happiness in their lifetime.

Happiness isn't about always smiling, nor about maintaining a sunny façade when the chips are down. Psychologists differentiate between transitory happiness, such as the pleasure of a great hot fudge sundae, and enduring happiness.³ Transitory happiness brings momentary pleasure, but enduring, or "authentic," happiness, as positive psychologist Martin Seligman calls it, manifests as deep satisfaction with how you live your life.³ It depends on living a meaningful, values-based life in a community you feel part of. Another perspective is to think of happiness as having two dimensions: pleasure, which refers to the present benefit, and meaning, which has future benefit.⁸

Happiness plays a crucial role in our psychological well-being. A comprehensive meta-analysis of experimental, longitudinal and correlational studies found happy people are more likely to have fulfilling marriages and relationships, high incomes, superior work performance, community involvement, robust health and a long life.⁹ The authors of the study state that positive emotions and sustained happiness are often associated with characteristics that parallel success, including sociability, optimism, energy, originality and altruism.

How Is Happiness Measured?

Various techniques have been used to measure happiness; most involve questionnaires. University of Pennsylvania's Authentic Happiness website has several, including the Authentic Happiness Inventory Questionnaire, which measures overall happiness, and the General Happiness Questionnaire, which measures enduring happiness.¹⁰

Happiness is often measured by assessing subjective well-being. The concept of subjective well-being includes people's emotional feelings, such as happiness, satisfaction with life and satisfaction in various domains such as work, family and self. It is generally defined as a person's self-report of global life satisfaction or happiness.¹¹ In essence, subjective well-being looks at life satisfaction, the presence of positive emotional experiences and the absence of negative emotional experiences.¹²

A tool that reflects subjective well-being is the Oxford Happiness Questionnaire.¹³ Another is the Satisfaction With Life Scale, a short (five-item) instrument, available at <http://internal.psychology.illinois.edu/~ediener/SWLS.html>.¹⁴ These tools are helpful for measuring changes over time.

Other examples of measuring aspects of happiness are the Flourishing Score, which reflects self-report of success in key areas such as relationships and optimism, and the Scale of Positive and Negative Experience, a 12-item scale that asks for responses based on experience during the previous four weeks.¹⁵

Physiology of Happiness

Happiness produces physiological changes. When people are happy, positron emission tomography and functional MRI show activity in the left prefrontal cortex.¹⁶ When that area

of the brain is stimulated, people feel more positive.

Optimism, a contributing factor for happiness, is also linked to brain function: The rostral anterior cingulate cortex, part of the frontal cortex, and the amygdala both become more active when we imagine positive events.¹⁷ The neurotransmitter dopamine may play an important role in happiness because it mediates the transfer of positive emotion signals between the left prefrontal areas and the limbic area of the brain.¹⁸

Happiness is also associated with lower levels of cortisol and, therefore, a stronger immune system.¹⁸ Additional evidence comes from a study that measured antibody titers at several points after vaccination. People with greater left-sided prefrontal activation had greater antibody titers, suggesting “more robust immunity” in response to vaccination.¹⁹ Another study found that those with a “positive emotional style” were less likely to become ill after exposure to a few drops of a rhinovirus or influenza virus.²⁰

A study of 1,739 adults who were followed for up to 10 years found that “increased positive affect,” defined as pleasurable emotions such as happiness, reduced the incidence of coronary heart disease.²¹ Happiness and health were further linked in a review article, which concluded that high subjective well-being leads to better health and a longer life and that “positive feelings predict longevity and health beyond negative feelings.”²²

Born Happy?

Some say people are “born happy” and, indeed, there is evidence of genetic influence. In a study of 2,574 people, those with the more efficient version of the serotonin transporter gene 5-HTTLPR reported significantly higher levels of life satisfaction.²³ A classic study of twins found that genetics accounts for about 50% of our satisfaction with life, or happiness. This is called the “happiness set point” and is the point to which we tend to return if something disrupts our happiness.²⁴

- If genetics doesn’t fully explain happiness, what are other contributing factors? Seligman created a happiness “formula”: $H = S + C + V$.³ In this formula, enduring happiness (H) depends on the sum of —
- S, the genetic happiness set point (50%)
- C, the circumstances of a person’s life, such as health
- V, factors under our voluntary control, such as engaging in a meaningful life.

A group of researchers proposed a similar “equation” as part of their sustainable happiness model. In this case the three factors that contribute to sustained happiness are —

- Set point (50%)
- Life circumstances (10%)
- Intentional activities (activities that we choose to do, such as keeping a journal of what makes us grateful) that are varied and episodic (40%).^{25,26}

The point is that a good bit of our happiness is under our own control. However, psychologist Daniel Gilbert and others caution that we humans are not very good predictors of what will make us happy.^{27,28} For example, we think landing that dream job or buying a retirement home will bring happiness, only to find that ultimately, there isn’t much long-term effect. Gilbert says the best predictor of what will make us happy is to ask others about their

experience in similar situations.²⁷ Yet we are reluctant to do so because we think of ourselves as unique.

Gilbert also says that we recall the beginnings and ends of events more intensely than the middles, a fact that can color our experiences.²⁷ For example, if a patient received a caring attitude before and after a painful procedure, he or she will have a more positive memory of the procedure than someone who doesn't have a positive experience pre- and postprocedure.

What Makes Us Happy?

Researchers have examined several possible factors that contribute to happiness, (including age, religiousness and spirituality, money and marriage) with sometimes surprising results.

Age. Contrary to what you might think, people become happier with age.²⁶ A longitudinal study found that aging is associated with more overall emotional well-being and greater emotional stability.²⁹ And a Gallup telephone survey of 340,847 people ages 18 to 85 found that happiness decreased gradually until age 50 and then trended upward while worry after this age declined. At about age 70, happiness leveled off or declined slightly.³⁰

Religiousness and spirituality. Some, but not all, research studies show a correlation between religiousness and happiness.^{31,32} A Pew survey found that people who attend religious services weekly or more are happier than those who attend less often.⁶ However, researchers are unsure of the reason for this effect. Is it that religious people often attend church, where traditionally there is a support network? Or does religion promotes happiness by reducing stress and providing meaning to one's life? Spirituality, without associated religious rituals, also increases well-being in both adults and children.³²

Money. As many lottery winners will tell you, money doesn't necessarily deliver on its promise of happiness. The link between money and happiness is complicated. Some researchers have found that your happiness depends on how your income compares with that of your peers as opposed to an absolute number.³³

Data from the Gallup World Poll showed that a person's satisfaction with his or her standard of living is associated with more positive evaluation of life, but positive feelings came from psychosocial factors such as using one's skills and autonomy.³⁴ This difference in the type of happiness money produces was confirmed by an analysis of responses to the Gallup-Healthways Well-Being Index that showed income improves overall life satisfaction, but not daily happiness. The effect dissipated once annual income reached \$75,000.³⁵ Low income was associated with low life satisfaction and low daily happiness.

Marriage. Married people tend to be happier, but researchers are unsure whether they are happier because they are married or if happy people tend to get married.³⁶ Certainly, divorced people may be happier than those who are in unhappy marriages.

Strategies to Get Happy

Not everyone thinks pursuing happiness is a good idea. Some researchers have noted that if engaging in an activity designed to produce happiness doesn't make you happy, you will feel more disappointed than if you didn't have expectations of happiness.³⁷ And too much

happiness can lead people to engage in dangerous behavior such as driving too fast.³⁷

Rather than pursue happiness, it's better to engage in behaviors associated with happiness. Doing so establishes an environment where happiness can flourish. Here are a few of those behaviors:

Connect socially. The single most important strategy in creating an environment where happiness can thrive is to spend time with family and friends.³⁷ In fact, happiness may be contagious because it is, in essence, a network phenomenon. A 20-year study of 4,793 participants in the Framingham Heart Study found clusters of happy and unhappy people in social networks and reported that a person is 15% more likely to be happy if he or she is connected to a person who is happy.³⁸ This effect reaches up to three degrees of separation, when a person is 5.6% more likely to be happy. In addition, people at the core of their social network are usually happier than those on the periphery.³⁸ ([Level B](#))

Creating that social network has another benefit: longevity. A meta-analysis of 148 studies with 308,849 participants found people with adequate social relationships have a 50% greater likelihood of survival compared to those with poor or insufficient relationships.³⁹ The average age of participants at initial evaluation was 63.9 years.

The benefits of social connection was further demonstrated in a study that showed making purchases that resulted in experiences such as concert tickets produced greater well-being than simply purchasing items like furniture.⁴⁰

Connecting also provides you with the opportunity to be kind. Performing five random acts of kindness boosted happiness according to one study,²⁶ and another study found that happiness and self-esteem improved six months after practicing compassion toward others for five to 15 minutes a day over one week.⁴¹

Psychologist Sonja Lyubomirsky recommends varying the types of acts that you do to avoid getting "stale."²⁶ She suggests picking a day to do a large act of kindness or three to five small ones. You don't want to make the act of being kind become a chore. Variety is useful for any type of happiness intervention you try.

Keep a positive attitude. Optimism has been linked not only to better subjective well-being but also to better health.⁴² One caveat: the strategy of looking for the positive in life doesn't work well for everyone. Psychologist Julie Norem found that pessimism can motivate people to get things done and states the value of "defensive pessimism."⁴³

If you want to mitigate your pessimistic tendencies, you might try a strategy developed by Laura King at the University of Missouri-Columbia. For four consecutive days, she asked people to spend 20 minutes writing a description of their "best possible future selves," where they imagined the best possible future in several parts of life. Those who did this were more positive and happier and had fewer physical problems.²⁶

The good news is that humans are more resilient than we think we are; for example, people who become disabled often end up with levels of happiness comparable to those of nondisabled individuals.²⁷

Be grateful. Another component of a positive attitude is gratitude. In a classic series of three

studies, researchers showed the value of gratitude.⁴⁴ The first two studies involved healthy college students who kept journals. Participants who recorded positive thoughts and experiences and satisfaction with life had the highest level of well-being. In the third study of people with neuromuscular disease, participants assigned to express gratitude had a more positive affect. In addition, those in the gratitude intervention group had more and better quality sleep.⁴⁴

Another study gave adults a week to write a letter of gratitude and deliver it in person to someone who had been kind to them but not thanked. Participants experienced increased happiness for a month, but by three months, the effect had dissipated. This same study showed that writing down three things that went well each day and their causes every night for one week increased happiness and reduced depressive symptoms for six months.⁴⁵

Tend to your body. You only have one body, so it's important to take care of it. A study of 100 adults found that happiness significantly enhanced health protective behaviors and correlated with lower body mass index, or BMI.⁴⁶

Exercise has been shown to be powerful. A classic study of 156 people 50 years or older found that aerobic exercise was as effective as antidepressants.⁶ Several factors may contribute to the psychological benefits of exercise, including its serving as a distraction from worry, feeling in control of your body and health, being in social contact with others who are exercising and experiencing physiological changes in the body.²⁶

Interestingly, research has shown that "acting happy" by assuming a positive affect can lead to happiness. It's not the intensity but rather the time spent in a positive state that is the key.⁹

Leave baggage behind. Building on the work of renown psychologist Albert Ellis, Seligman developed the ABCDE approach to reducing negative thoughts that contribute to unhappiness.³

1. Adversity: What is the problem? Describe it.

2. Beliefs: How do you feel about the situation? Do you feel silly, embarrassed, something else?

3. Consequences: What are you likely to do because of what happened? You might avoid similar situations or be worried you are going to encounter the same problem.

4. Disputation: Are your beliefs true? Argue with yourself as to whether your beliefs are valid and dispute those that aren't. On further consideration, you'll likely find that your beliefs are not correct.

5. Energy: Do you notice how when you change negative thoughts and feelings, you have more energy?

A person not treating us properly is one source of negative thoughts. When this happens, it can be hard to forgive, but doing so benefits us. Adults who participated in a six-week forgiveness training program reduced their negative thoughts and feelings about the transgression two to three times more effectively than those who weren't part of the program.⁴⁷ Other studies have shown that those who forgive become less angry and more compassionate.⁴⁸

Of course, forgiveness doesn't mean the person wasn't wrong in his or her behavior; it simply allows you to move on with your life. Forgiveness is the feeling of peace that emerges as you take your hurt less personally, take responsibility for how you feel and become a hero instead

of a victim in the story you tell.⁴⁸

Be kind to your mind. One way to be kind to your mind is to meditate. Researchers at the University of Wisconsin have extensively studied the effects of meditation. For example, they found that people in an eight-week training program in mindfulness meditation significantly increased their antibody titers to influenza vaccines compared to those who did not undergo training and had higher levels of prefrontal cortex activation, which is associated with positive affect.⁴⁹ Meditation also results in lower cortisol and cholesterol levels, and lower blood pressure.

Even if you don't meditate, you can engage in mindfulness.²⁶ Living in the moment is easier said than done, but a beginning step is to enjoy the simple pleasures in life by focusing on what we take for granted, for example, sunshine after days of rain.

In an innovative approach, two researchers who used smartphone technology to assess happiness found that it was linked to concentrating on a task as opposed to thinking of something else, concluding that "a wandering mind is an unhappy mind."⁵¹ ([Level B](#))

Pursue goals. "Committed goal pursuit" may be an important part of happiness.²⁶ It's not attaining the goal that's important, it's the pursuit.^{8,26} Benefits include a sense of purpose, increased self-esteem, addition of structure and meaning to our daily lives, ability to better manage time and engagement with other people.

Goals need to have intrinsic meaning as opposed to simply specific items that will make us happy.⁸ These have been called "self-concordant goals" and the ones "we pursue out of deep personal conviction and/or strong interest."⁸ For example, nurses who choose nursing as a career more because their parents wanted them to rather than an intrinsic interest are less likely to be happy than those who value what they can accomplish as a nurse.

The most benefit may come from goals that involve approaching a desirable outcome, for instance, making three new friends, instead of avoiding a desirable outcome, such as preventing an argument with a friend.²⁶

Live a meaningful life. Finally, focus on living a meaningful life.³ One way to live a meaningful life is to identify character strengths and virtues, which allows someone to focus on his or her strengths instead of weaknesses. Two researchers developed a taxonomy of six broad virtues — wisdom, courage, humanity, justice, temperance and transcendence — with 24 specific character strengths.⁵² A study showed that participants who identified their character strengths and used one of the strengths in a new and different way every day for a week experienced increased happiness for six months.⁵⁴

The Path to Happiness

Although everyone has a happiness "set point", research-based strategies can create an environment in which happiness can flourish. Strategies include pursuing a meaningful life, expressing gratitude and creating a positive social network. Patients and nurses who want to be happier may want to try some of the ideas discussed in this module.

One way to start is to track your time for a week or two and then create a table that lists your activities, the meaning and pleasure (on a scale of 1 to 5) you assign to the activity, how much time you spent on it and whether you want to spend more or less.⁸

Keep in mind that an eight-month long study that reported positive effects of expressing optimism and gratitude also found that the interventions were most successful when participants knew about and endorsed the intervention and were committed to it.⁵³ So, be committed. You may want to pair up with someone to help keep yourself on track.

Remember that it takes time to change behavior. As many people point out: "Happiness is a journey, not a destination."

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