



LAUGHTER THERAPY

(World laughter day- First Sunday of May)

Dumbre Satish P. *

* M.D. (Kayachikitsa); Professor and HOD Kayachikitsa,

Principal, Ashtang Ayurved Mahavidyalaya, 2062, Sadashiv Peth, Pune-30, India

Email: satish_dumbre@rediffmail.com

Received on: 24/04/12 Revised on: 22/05/12 Accepted on: 14/06/12

ABSTRACT

Laughter is a part of human behavior regulated by the brain, helping humans clarify their intentions in social interaction and providing an emotional context to conversations. Traditionally, it is considered a visual expression of happiness, or an inward feeling of joy. It may ensue from hearing a joke, being tickled, or other stimuli. In History Gelotology was first studied by psychiatrists, although some doctors in antiquity recommended laughter as a form of medicine. Several types of therapy have emerged which use laughter to help patients like Humor and Laughter Therapy, Laughter Meditation, Laughter Yoga. A link between laughter and healthy function of blood vessels was first reported in 2005 by researchers at the University of Maryland Medical Center with the fact that laughter causes the dilatation of the inner lining of blood vessels, the endothelium, and increases blood flow. Drs. Michael Miller (University of Maryland) and William Fry (Stanford), theorize that beta-endorphin like compounds released by the hypothalamus activate receptors on the endothelial surface to release nitric oxide, thereby resulting in dilation of vessels. Other cardioprotective properties of nitric oxide include reduction of inflammation and decreased platelet aggregation.

Laughter has also been shown to have beneficial effects on various other aspects of biochemistry¹. For example, laughter has been shown to lead to reductions in stress hormones such as cortisol and epinephrine. While laughing the brain also releases endorphins that can relieve some physical pain. Laughter also boosts the number of antibody-producing cells and enhances the effectiveness of T-cells, leading to a stronger immune system.

KEY WORDS: Laughter, Expression of happiness, Gelotology, Laughter yoga, Humor

INTRODUCTION

Laughing is a reaction to certain stimuli. Traditionally, it is considered a visual expression of happiness, or an inward feeling of joy¹. It may ensue from hearing a joke, being tickled, or other stimuli.

Laughter is a part of human behavior regulated by the brain, helping humans clarify their intentions in social interaction and providing an emotional context to conversations. Laughter is used as a signal for being part of a group — it signals acceptance and positive interactions with others³. Laughter is sometimes seen as contagious⁴, and the laughter of one person can itself provoke laughter from others as a positive feedback. This may account in part for the popularity of laugh tracks in situation comedy television shows.

Laughter is anatomically caused by the epiglottis constricting the larynx⁵.

The study of humor and laughter, and its psychological and physiological effects on the human body, is called 'gelotology'. **Gelotology**² derives from the Greek word *gelos*, meaning laughter. Gelotology is the study of laughter and its effects on the body, from a psychological and physiological perspective. Its proponents often advocate induction of laughter on therapeutic grounds in complementary medicine. The field of study was pioneered by William F. Fry of Stanford University.

HISTORY

Gelotology was first studied by psychiatrists, although some doctors in antiquity recommended laughter as a form of medicine⁶. It was initially deprecated by most other physicians, who doubted that laughter possessed analgesic qualities. One early study that demonstrated the effectiveness of laughter in a clinical setting showed that laughter could help patients with atopic dermatitis respond less to allergens. Other studies have shown that laughter can help alleviate stress and pain, and can assist cardiopulmonary rehabilitation.

TYPES OF THERAPY

Several types of therapy have emerged which use laughter to help patients.

- Humor and Laughter Therapy consist of the use of humorous materials such as books, shows, movies, or stories to encourage spontaneous discussion of the patients' own humorous experiences. This can be provided individually or in a group setting. The process is facilitated by a clinician. It can also be used in conversation between medical professionals and patients.
- Laughter Meditation possesses similarities to traditional meditation. However, it is the laughter that focuses the person to concentrate on the moment. Through a three stage process of stretching, intentional laughing, and a period of meditative silence. It is sometimes done in group settings.
- Laughter Yoga is somewhat similar to traditional yoga, it is an exercise which incorporates breathing, yoga, and stretching techniques, along with laughter. The structured format includes several laughter exercises for a period of 30 to 45 minutes facilitated by a trained individual. It can be used as supplemental or preventative therapy.

NATURE OF LAUGHTER

Children are known to laugh a great deal more than adults: an average baby laughs around 300 times a day compared to an average adult, who laughs around 20 times a day, however this can depend on a person's personality. According to some studies, the onset of adulthood causes a gradual change characterized by increased seriousness and a diminished engagement in laughter. Laughter is an audible expression or appearance of excitement, an inward feeling of joy. It may ensue from jokes, tickling, and other stimuli. Researchers have shown infants as early as 17 days old have vocal laughing sounds or laughter.

LAUGHTER AND THE BRAIN

Neurophysiology indicates that laughter is linked with the activation of the ventromedial prefrontal cortex that produces endorphins. Scientists have shown that parts of the limbic system are involved in laughter. This system is involved in emotions and helps us with functions necessary for humans'

survival. The structures in the limbic system that are involved in laughter: the hippocampus and the amygdala.

LAUGHTER AND HEALTH

A link between laughter and healthy function of blood vessels was first reported in 2005 by researchers at the University of Maryland Medical Center with the fact that laughter causes the dilatation of the inner lining of blood vessels, the endothelium, and increases blood flow. Drs. Michael Miller (University of Maryland) and William Fry (Stanford), theorize that beta-endorphin like compounds released by the hypothalamus activate receptors on the endothelial surface to release nitric oxide, thereby resulting in dilation of vessels. Other cardioprotective properties of nitric oxide include reduction of inflammation and decreased platelet aggregation. Laughter has also been shown to have beneficial effects on various other aspects of biochemistry. For example, laughter has been shown to lead to reductions in stress hormones such as cortisol and epinephrine. While laughing the brain also releases endorphins that can relieve some physical pain⁷. Laughter also boosts the number of antibody-producing cells and enhances the effectiveness of T-cells, leading to a stronger immune system.

HUMAN LAUGH STRUCTURE AND ANATOMY

A normal laugh has the structure of “ha-ha-ha” or “ho-ho-ho.” It is unnatural, and one is physically unable to have a laugh structure of “ha-ho-ha-ho.” The usual variations of a laugh most often occur in the first or final note in a sequence—therefore, “ho-ha-ha” or “ha-ha-ho” laughs are possible. Normal note durations with unusually long or short “inter-note intervals” do not happen due to the result of the limitations of our vocal cords. This basic structure allows one to recognize a laugh despite individual variants.

It has also been determined that eyes moisten during laughter as a reflex from the tear glands.

WORLD LAUGHTER DAY

World Laughter Day takes place on the first Sunday in May. The first celebration was on January 11, 1998, in Mumbai, India, and was arranged by Dr. Madan Kataria, founder of the worldwide Laughter Yoga movement.

Laughter Yoga says: *Laughter is a positive and powerful emotion that has all the ingredients required for individuals to master themselves and to change the world in a tubular way.* The day is now celebrated worldwide. The celebration of World Laughter Day was meant to be a positive manifestation for world peace and to build up a global consciousness of brotherhood and friendship through laughter. Its popularity has grown exponentially with that of the Laughter Yoga movement (which is now counting over 8,000 Laughter Clubs worldwide on all 7 continents).

LAUGHTER YOGA METHOD

Laughter yoga was made popular as an exercise routine developed by Indian physician Madan Kataria. Kataria writes about the practice in his book *Laugh For No Reason*.

Laughter Yoga sessions start with gentle warm-up techniques which include stretching, chanting, clapping and body movement. These help break down inhibitions and develop feelings of childlike playfulness. Breathing exercises are used to prepare the lungs for laughter, followed by a series of ‘laughter exercises’ that combine the method of acting and visualization techniques with playfulness. These exercises, when combined with the strong social dynamics of group behavior, lead to prolong and hearty unconditional laughter.

Laughter exercises are interspersed with breathing exercises. Twenty minutes of laughter is sufficient to develop full physiological benefits.

A Laughter Yoga session may finish with "Laughter Meditation." This is a session of unstructured laughter whereby participants sit or lie down and allow natural laughter to flow from within like a fountain. This is a powerful experience that often leads to a healthy emotional catharsis and also a feeling of release and joyfulness that can last for days. This can be followed by guided relaxation exercises.

NEGATIVE ASPECTS

Laughter is not always a pleasant experience and is associated with several negative phenomena. Excessive laughter can lead to cataplexy, and unpleasant laughter “spells”, excessive elation, and fits of laughter can all be considered negative aspects of laughter. Unpleasant laughter spells, or “sham mirth,” usually occur in people who have a neurological condition; including patients with pseudobulbar palsy, multiple sclerosis and Parkinson’s disease. These patients appear to be laughing out of amusement but report that they are feeling undesirable sensations “at the time of the punch line”. Excessive elation is a common symptom associated with manic-depressive psychoses and mania/hypomania. Those who suffer from schizophrenic psychoses seem to suffer the opposite- they do not understand humor or get any joy out of it. A fit describes an abnormal time when one cannot control the laughter or one’s body- sometimes leading to seizures or a brief period of unconsciousness. Some believe that fits of laughter represent a form of epilepsy.

CONCLUSION

Laughing is a reaction to certain stimuli. Traditionally, it is considered a visual expression of happiness, or an inward feeling of joy. Doctors in antiquity recommended laughter as a form of medicine⁶. It was initially deprecated by most other physicians, who doubted that laughter possessed analgesic qualities. One early study that demonstrated the effectiveness of laughter in a clinical setting showed that laughter could help patients with atopic dermatitis respond less to allergens. Laughter has also been shown to have beneficial effects on various other aspects of biochemistry. For example, laughter has been shown to lead to reductions in stress hormones such as cortisol and epinephrine. While laughing the brain also releases endorphins that can relieve some physical pain⁷. Laughter also boosts the number of antibody-producing cells and enhances the effectiveness of T-cells, leading to a stronger immune system.

REFERENCES

1. Camazine, Deneubourg, Franks, Sneyd, Theraulaz, Bonabeau, Self-Organization in Biological Systems, Princeton University Press, 2003.
2. "Do Children Laugh Much More Often than Adults Do?". Retrieved 2011-09-23.
3. Cousins, Norman, The Healing Heart : Antidotes to Panic and Helplessness, New York : Norton, 1983.
4. Cousins, Norman, Anatomy of an illness as perceived by the patient : reflections on healing and regeneration, intro. by René Dubos, New York : Norton, 1979.
5. Why Laughter Feels So Good 13 September 2011 New York Times science section.
6. "Why Laughter May Be the Best Pain Killer". Scientific American. Retrieved 11 October 2011.
7. Fry, W.F. (1963). Sweet Madness: A Study of Humor. Palo Alto, Ca: Pacific Books Publishers.