

## **Impact and Need of Laughing Medicine for Sound Mind and Body- An Analysis Study**

**Prem Knowles S , Guide : Dr. Mohan Kumar**

*Assistant Professor, TJohn Institute of Management & Science, Bangalore*

*Research Scholar, Annamalai University, Chidambaram.*

*Corresponding Author: Prem Knowles S*

---

Date of Submission: 20-05-2018

Date of acceptance: 02-06-2018

---

### **I. Introduction**

Increase in number of laughing clubs itself denote the awareness of laughing medicine among the people. The people who have the regular practice of laughing and free minded, they are the actual healthy people .And the life span increases for the people who smile regularly.

In the modern era, all the medical care professionals and patients accept the concept of laughing theory. If our daily life has the practice of laughing, this habit will improve our immune system, it will makes our cheeks sore and it will improve our intellectual.

Historically, the gains of laughter have been renowned . Laughter has been observed as advantageous for human fitness for a long time, with some of the benefits developmental patterns. Laughter has a exclusive point in CAM. Laughter has been regarded as beneficial for human health for a long time, with some of the benefits attributed to laughter including improved endocrinological and immunological responses and amplified pain tolerance . Humor therapy, Laughter therapy, laughter clubs and laughter meditation all have exclusive effects as group programs and as self-management techniques.

### **II. Review Of Literature**

**“A merry Heart Does Good, like Medicine”-** The Bible (Proverbs 17:22)

The Bible itself specifies the importance of happiness and merry heart. The person who is happy within himself, will be healthy.

Ten Minutes of mind free and loud laugh will lead for two hours of pain-free sleep (‘Anatomy of Illness ,‘The new England Journal of Medicine, ,1976,Normal Cousin). Humor may act as like the defense mechanism which helps the human to face his decisive situations and it will impose positive thinking (Fraud’s psychodynamic viewpoint). The days which we spent without laughing could be tend as the wasted day (Kitan B Kotade,2011). It is the must to begin the laughing therapy, before we get sick.

Humor affects the factors of socialization, bonding , stress and employee morale to creativity, productivity and performance(eg.Romero and cruthirds ‘2006’, Mesmer- Megus et.al 2013). Humor has great impact in the retention of workplace relationships(Coper 2008).As other therapies are more time consuming and expensive, laughter techniques can be easily implemented as it is cost effective in traditional clinical setting for patient care and health. In certain aspects of health, laughter has psychological, physiological and positive effects ( R.Mora-Ripoll,2013).

Naturally, Humor is delicate and sensitive. Humor can be properly appreciated when it is expressed in the right place, right time and on the right occasion (Holland, 1982).Developmentally, first essential sign of interaction in infant is smile(P.Berger,1997).

The respiratory system, circulatory system and central nervous sytem will get stimulate because of a good laugh. A relaxation response could be identified after the laugh (Dean,1997). Laughter has a role to maintain normal blood pressure and to enhance the digestion(Masatoshi Takeda(2010)). In Complementary and Alternative medicine(CAM), laughter has a unique position. Humor is an effective tool in psychiatric weakness and psycho therapy, stated by Bertrend Russel. The advantages of humor in business, education, Management and clinical health settings are broadly recognized.

According to R. Mora Ripoll(2013), Therapeutic laughter is the combination of mind, body and can be lumped into the following groups: (a) stimulated laughter; (b) simulated laughter and (c) genuine or spontaneous laughter. Berk(1998),The relationship between the student and teacher could be improved in means of humor approach and because of this, there will be the improvement in learning process of the students. Humor makes

the student to remember more, learn better, improve problem solving, quick absorb of information and reduce their lack of interest in subjects like Maths and science.

In a case control study of Nishigandha R Supekar, he stated that, 'Laughter club plays a great role in promotion of health in aspect of respiratory function and improved quality life. Also he stated that, the role of laughter club is limited in terms of mental component.

It has been found that the quality relationship between leader and follower has improved in positive aspects because of laugh and humor, for instance, job performance (Greguras and Ford 2006); employee job satisfaction (Eisenberger et al. 1997), commitment (Randall et al. 1999), Kinicki and Vecchio 1994; Xu et al. 2012), and creativity (Volmer et al. 2012). Eric Rietchel(2014) in his article, 'Humor styles, similarity and relationship quality', stated that laughing has a substantial benefit on the quality of interpersonal relationships. This would also apply to leader follower relationships: humorous interaction, jokes and laughter could strengthen or weaken social bonds. Humor develops high LMX relationship between leader and followers(Cooper,2008). Hughes and Avey(2009) narrated that humor nature of the leader positively related with effective commitment, follower trust and identification.

### **LAUGH AS MEDICINE**

Tammie S. Diggs seems Laughter as like a good exercise; Laughter could be a coping mechanism for stress. William B Stream, PHD(2009) remarks that, "the medical sector embraces and supports laughter for health". Lars Ljungadahl, the Swedish researcher(1989) Concluded that, "Quality of life could be increased for the patients with chronic problems by a humor therapy program and laughter has an speedy relieving effect on these patients.

Zajonc R B(1985), Laughter mobilizes powerful neurodynamic and neuromolecular resources of the individual; Alternative therapies (March 2001), the article specifies that, new era medicine has integrative preventive and therapeutic modalities in patient care. Large number of studies support the advantages of laugh and humor in the areas of a) discomfort thresholds b) Cardiac rehabilitation c) coping with stress d) Pain perception and e) immune enhancement in children and adults. Melike Demic(1948) concluded that laugh therapy modules would decrease depression, stress, anxiety and increase the quality life of cancer patients. Masahiro Toda & Shinsuke Kusakabe(2007) conducted a study by the saliva samples collected from 11 males who were healthy and a comic film showed to them. Both before and after watching the comic film, sample saliva had collected from them. The determination of salivary cga levels were done by enzyme – linked immunosorbent assay(ELISA). An increased levels of cga had found in the sample saliva collected after watching comic film. This is the study of effect on laughter on salivary endocrinological stress marker chromogranin A(CgA).

Mary P Bennet, Janice & Lisa Rosenberg(2009) proclaimed that laughter has a great role in improving NK cell activity and to reduce stress. Low NK cell activity may decrease disease resistance and increase morbidity in persons. K Blomquist(2007) proclaimed that genuine voiced laughter increases ten percentage to twenty percentage of EE and ten to fifteen minutes of laugh per day could increase total EE by 40-170KJ(10-40cal).

Khadervali Nagoor and Raziya Dudekula(2015) concluded in their research that laughter therapy has most positive effects on the diseases like depression, loneliness, immune system, diabetes, micro vascular-diseases and dementia. Miller & Fry have stated that, laughing acts as anti-inflammatory, which decrease the level of risk and prevents cardio vascular diseases.

Laughing also releases beta-endorphin, which also helps to prevent cardio-vascular diseases. Mirthful laughter may act as important tool for the promotion of vascular related health. Thus, for the prevention of diabetic micro vascular complications laughter therapy can be used as non- pharmacological treatment. Robert R Provine, a scientific investigator says that the most benefit of laughter is that, it helps to dull the pain. A good laugh can release neuropeptides and beta endorphin, which act as pain reducers. Hirsch, Junglas and Konradt(2010), laughter therapy helps to elicit positive thinking and eliminating negative strains. This has a greater impact on the physiological health of the elderly people. Humor therapy helps to create positive effect on depressed elderly people. Richard Kasenda in his research 'Effect of Laughter on Quality and hours of sleep and blood pressure among elderly in Indonesia' concluded that, laughter therapy helps to improve the a) quality of sleep b) increase the hours of sleep and c) decrease the value of systolic and diastolic blood pressure among the elderly. Mimi M Y Tse(2010), Research article, the humor therapy program helps in a) enhancing happiness b) relieving chronic pain c) life satisfaction, and reduce loneliness among older persons.

Mary Payne Bennette(2006), in means of empirical research, the effects of humor in the outcomes such as immune functions, health and stress have been well documented. Relaxation therapy and exercise requires time and commitment; Herb therapy and massage therapy are expensive; But use of humor is cost effective and could easily implemented. Cecile Lengacher (2007), laughter is equivalent to any other standard aerobic exercise. It stimulates blood circulation and functions of the heart.

### **III. Laughter Benefits**

In the article, 'Laughter: A Scientific Investigation', Robert R Provine says, "The most benefit of merriment is its capacity to reduce pain". It is proved in many studies that the laughter therapy has many interesting insights into the emotional and physical benefits.

**Immune Response** : Stress may reduce the function of immune system. Good sense of humor will increase the level of antibodies in the body which will fight against the infection, and the level of immune cells may increase by humor.

**Blood Circulation** : Few researches were made by University of Maryland on Laughter and its effects. People made to watch either drama or comedy to check the variations in blood vessels. Restricted level of blood flow found in the people who watched drama and constant level of blood vessels found in the people who watched comedy.

**Blood Sugar Levels** : A study on diabetic patients did to find the effects of laughter on blood sugar levels. First day, the group ate a meal and then they attended a lecture. On the second day, the same group ate a similar meal and then they watched a comedy. Lower blood sugar level found in the people who watched comedy after meal.

#### **Physical workout:**

Laughter a) exercises the diaphragm,

b) contracts the abdominal muscles and

c) even provides a workout for the heart.

d) Additionally, a good laugh will provide i) movement in the neck, ii) shoulders and arms, thus relaxing those muscles.

**Stress reduction:** Laughter is one of the most fun ways to relieve from stress. Laughing will take away the negative feelings, such as pain, fear, anger, stress and guilt.

**Social Interaction** : Laughter plays a tool as universally understand language that could connects people. This common connection with other people could help to reduce stress.

**Weight loss** : Individuals who laugh regularly could reduce the harm of overeating : loneliness, depression, stress and boredom. The importance of laughter and healing is quickly embraced by the medical community with laughter therapy.

#### **a. Laugh as Medicine for Stress**

There are two kinds of stress.

- 1) Distress – negative kind of stress
- 2) Eustress – Positive kind of stress

Instead of increasing the activity of natural killer(NK)cells that help to fight diseases, distress increases stress hormones such as corticotrophin ,beta-endorphin, cortisol, prolactin, growth hormone, and the catecholamines(Berk and Tan, 1996). Stress depletes the ability of immune system to fight against diseases. Distressful events may impact our bodies negatively. Abundance of research in psychoneuroimmunology(PNI) has done by Dr.Lee Berk and Dr.Stanley Tan of the Loma Linda University medical center. According to PNI Statement,immune system is directly connected to the brain, therefore it has its own role in affecting the emotions. It is stated in a experiment of Berk and Tan that immunosuppressive hormones such as epinephrine and cortisol are low in people who are practicing laughter(Wooten,1995). Another experiment performed by Berk and Tan,1996 concluded that, the laughing increases the amount of NK cells while watching a humorous video(Presented their results at a conference on April 18,1996).

Stress seems as a killer as it affects physically and mentally and cause more susceptible to sickness and disease. We are trying to treat the disease instead to treat the cause. Many a times stress become permanent fixtures and cannot be removed from a persons life; Generous usage of laugh can help to drain the stress. Mark Twain said,"That is laughter, the only one effective weapon in the human race".

#### **b) LAUGH AND ELDERLY**

Humor

a) increase lung capacity,

b) strengthen abdominal muscles,

c) and increase immunoglobulin A, which is one of the major antibodies produced by the immune system . .

d) increase natural killer cell activity, immunoglobulin G and immunoglobulin M levels for as long as 12 hours , and these evaluations bring about beneficial health outcomes.

e) The use of humor consistently results in improvements in pain thresholds. Humor also leads to the release of endorphins in the brain, which help to control pain.

A humor therapy program for the elderly people who suffers from chronic disease may helps them in relieving chronic pain, enhancing happiness and reducing loneliness.

### **c) LAUGHTER IN LEARNING**

In higher education, teacher and student relationship is more important for the quality education (Lowman,1995). Humor engages the students in learning process with satisfaction and retention(Berk,1998). The students who have the humor sense will have the tendency to learn better , can improve problem solving, remember more and can retain information more quickly. Humor method is a way to reduce classroom management problems.

### **d) LAUGHTER AS A CAM (COMPLEMENTARY AND ALTERNATIVE MEDICINE)**

Certain challenging diseases are there for the modern medical science such as cancer, hypertension, dementia, chronic pain etc. There is no effective treatment for these type of diseases. In case of chronic diseases, doctors refer CAM. CAM includes herbal medications, music therapy, horse riding, drama therapy, bathing, aromatherapy, animal-assisted therapy, gardening, exercise, acupuncture, shiatsu, yoga etc .Laughter is a unique factor in CAM. It improves the positive emotional behavior.

## **IV. Conclusion**

Numerous researches prove that laughter has a great impact in improving health, improving immune system and increasing positive attitude. But many of the authors quote a statement that, "Scientific means of results are not recorded and so laughter is treated as a alternative medicine". So valuable experiments should be made to make LAUGHTER as a medicine either than accepting it as a CAM."

## **Bibliography**

- [1]. Tammie S. Diggs ;Ethology and Sociobiology,Laughter: Is It Healthy?, Review Article. 1986, 7: 253-70.,
- [2]. LAUGHTER:THE BEST MEDICINE; Richard T. Penson, Rosamund A. Partridge, Pandora Rudd, Michael V. Seiden, Jill E. Nelson, Bruce A. Chabner, Thomas J. Lynch Jr.,2017
- [3]. Lars Ljungdahl, the Swedish researcher, "Laugh- If This Is a Joke." Journal of the American Medical Association published an article entitled (1989)
- [4]. Modulation of Neuroimmune Parameters During Laughter,Alternative therapies,March 2001, vol.7,no2.
- [5]. The Effects of Laughter Therapy on Anxiety, Stress, Depression and Quality of Life in Cancer Patients, an open access journal evidence- Cancer Science, ISSN: 1948-5956 JCST
- [6]. Masahiro Toda,shinsuke kusakabe , effect of laughter on salivary endocrinological stress marker chromogranin a, Biomedical Research 28(2)115-118,2007.
- [7]. Mary P Bennet,Janice,Lisa Rosenberg, The effect of mirthful laughter on stress and natural killer cell activity; Alternative Therapies Mar/apr1 2003,vol 9,no.2.
- [8]. Khadervali Nagoor1, Raziya Dudekula, Effect of Laughter Therapy on Blood Pressure and Pulse Rate in South Indian Population,Research-International Journal Of Health Science And Research, ISSN: 2249-9571,2015
- [9]. Kiran B. Dhamak1, Kiran B. Kotade2 Vinayak M. Gaware1, Atul N. Khadse1, Sachin B. Somwanshi,Ramdas T. Dolas3, Vikrant K. Nikam; Laughter Therapy And Its Benefits,Pharmacologyonline 2: 1335-1340 (2011)
- [10]. Anuja Deshpande, Vaishnavi Verma ; Effect Of Laughter Therapy On Happiness And Life Satisfaction Among Elderly; Indian Journal Of Positive Psychology , 2013,44(1),153-155,
- [11]. Richard Kasenda And Susy A Jael;Effect Of Laughter On Quality And Hours Of Sleep And Blood Pressure Among Elderly In Indonesia,
- [12]. William B. Streaan PhD ;Laughter prescription, ,2009, REPORT
- [13]. Marc Gelkopf;The Use of Humor in SeriousMental Illness: A Review
- [14]. William B. Streaan ; Evolving Toward Laughter in Learning;Evidence-Based Complementary and AlternativeMedicine,2009, hindawi publishing house
- [15]. Zajonc R.B ; Emotion and Facial Efference: A Theory reclaimed. Science ;THE BONDS OF LAUGHTER; 1985., 228, 15-21.
- [16]. MimiM. Y. Tse, Anna P. K. Lo, Tracy L. Y. Cheng,Eva K. K. Chan,Annie H. Y. Chan, andHelena S. W. Chung, Humor Therapy: Relieving Chronic Pain and Enhancing Happiness for Older Adults, Journal Of Ageing Research,2010
- [17]. Mary Payne Bennett and Cecile A. Lengacher; Humor and Laughter may Influence Health. I. History and Background;Advance Access Publication; 16 January 2006,
- [18]. MS Buchowski, KM Majchrzak, K Blomquist; Energy expenditure of genuine laughter ;International Journal of Obesity (2007) 31, 131–137;
- [19]. Mary Payne Bennett and Cecile Lengacher; Advance Access Publication; Humor and Laughter May Influence Health: III. Laughter and Health Outcomes; 17 May 2007.
- [20]. R Mora-Ripoll; Laughter techniques for therapeutic use in medicine; Alternative Medicine Open Access- OA Alternative Medicine 2013 Dec 30;1(3):25.
- [21]. Eric Rietzschel, Barbara Wisse;Humor in leader-follower relationships:Humor styles, similarity and relationship quality;Article in Humor - International Journal of Humor Research · May 2014,
- [22]. J.J.M.Askenasny ; The Functions And Dysfunctions Of Laughter;Journal of General Psychology,114(4).
- [23]. J K Aronson fellow ;Laughter and MIRTH (Methodical Investigation of Risibility, Therapeutic and Harmful): narrative synthesis, , BMJ 2013;347:f7274 doi: 10.1136
- [24]. R Mora-Ripoll ,Laughter techniques for therapeutic use in medicine, OA Alternative Medicine 2013 Dec 30;1(3):25.
- [25]. Nishigandha R Supekar1, Apurv P Shimpi ,Role of Laughter Clubs in Promotion of Health in Community (A Case Control Study), , DOI Number: 10.5958/j.0973-5674.8.2.070;
- [26]. Pathological Laughter and Crying, Delhi Psychiatry Journal Vol. 10 No.1,
- [27]. Masatoshi Takeda, Ryota Hashimoto; BMC Complementary and Alternative Medicine, Laughter as complementary and alternative medicines for dementia patients; 2010
- [28]. Albert L. Porterfield; Does Sense of Humor Moderate the Impact of Life Stress on Psychological and Physical Well-Being?;Journal Of Research In Personality 21, 306-317 (1987)

- [29]. Peace, Literature, And Art – Vol. II - Peace Humor - Christopher A. Leeds
- [30]. Richard T. Penson, Rosamund A. Partridge, Pandora Rudd, Michael V. Seiden, Jill E. Nelson, Bruce A. Chabner, Thomas J. Lynch Jr ;Laughter:The Best Medicine;2017
- [31]. Bernie Siegel, "Peace, Love and Healing". Walker & Co., New York City, 1990
- [32]. Norman Cousins. "Anatomy of an Illness". W. W. Norton, New York City, 1976.
- [33]. Barbara Mackoff, "The Business of Laughter," New Woman, October 1991,74-75.
- [34]. Vera Robinson, "Humor and Health," in P. McGhee and J. Goldstein, eds., Handbook of Humor Research, Springer-Verlag, New York City, 1983, (2): 45-48
- [35]. Christine Flannigan, "Humor as a Coping Strategy for Cancer Patients" American University, Washington, DC, November 13, 1990.
- [36]. Hall S, Barr W, Lie JT, et al. "A study of 32 North American patients. Medicine". 1985; 64:89-99.
- [37]. Kerr GS, Hallahan CW, Giordano J, et al.. Ann Intern Med. 1994; 120:919-929.
- [38]. Shelhamer JH, Volkman DJ, Parrillo JE, et al. "Laughter and its therapy". Ann Intern Med. 1985; 103:121-126.
- [39]. Alexander, R.D. "Ostracism and indirect reciprocity: the reproductive significance of humor".
- [40]. Finnerty, Amy (1995, September)."Send in the Clowns American Health.68-69+.
- [41]. Gelkopk, Marc, M.A., Kreitler, Shulamith, Ph.D. & Sigal, Mircea, M.D. (1993) "Laughter in a Psychiatric Ward." The Journal of Nervous and Mental Disease,
- [42]. Kalat, James W. (1995). "Synapses, Drugs, and Behavior". Pat Gadban & Richard Flyer (Eds.), Biological Psychology (87). California: Brooks/Cole.
- [43]. Ljungdahl, Lars (1989). "Laugh If This Is a Joke" Journal of the American Medical Association, 558.
- [44]. "Proverbs 17:22."(1989) Bible: King James Version. Republic of Korea: Thomas Nelson, Inc.

Prem Knowles S "Impact and Need of Laughing Medicine for Sound Mind and Body- An Analysis Study. IOSR Journal of Business and Management (IOSR-JBM) 20.5 (2018): 49-53