

Laughter Therapy as an Intervention to Promote Psychological Well-Being.

Michael Mbiriri Ph.D

Department of Psychology
Kisii University, Kenya.

ORCID number: 0000-0003-2037-5806
mikembiriri2020@kisiiversity.ac.ke

Abstract

Laughter might be thought of as an audible expression or appearance of inward, positive feelings of happiness and joy. Laughter is physical reaction to human consisting of rhythmical and audible contraction of the diaphragm and other parts of respiratory systems. Laughter is a response to external or internal stimuli or both. It is sometimes seen as contagious in that laughter from one person can provoke laughter to others.

Laughter is beneficial to the human body. It produces endorphin chemical in the body which works in the brain to bring feeling of contentment. Laughter provides an outlet for negative emotions and provides effective coping mechanism for distress. It stimulates physiological system that decreases levels of stress hormones such as cortisol and epinephrine and increasing activation of dopamine rewards system of the brain.

Laughter is a positive sensation and seems to be an effective way of overcoming social-economic stress in our modern competitive society.

Laughter therapy, as a non-pharmacological, alternative treatment has a positive effect on physiological well-being.

The article examines research evidence for the notion that laughter has beneficial effects on psychological and physiological well-being. Theoretical mechanism for such effects will be discussed as well. Empirical evidence for the benefit of humour and laughter will be summarized.

Key Words: *Laughter therapy, stimulated laughter, spontaneous laughter, joy, happiness humour*

Introduction

Laughter therapy uses humor to help relieve pain and stress and improve a sense of psychological well-being. Laughter falls into five main categories spontaneous (external), stimulated (reflex), induced (chemical), pathological (brain damage), simulated (self - induced). Laughter have shown a quantifiable physiological and psychological positive effects on certain aspects of health (Mora – Ripoll, 2011)

Therapeutic laughter can be used in mental health with preventive intent or complementary alternative approach to other established therapeutic strategies. (Martin, 2007). There is scientific evidence that human brains produce morphine like- molecules known as endorphin and laughter helps to activate the release of these endorphin. Endorphin are produced by central nervous system and pituitary gland. Laughter stimulates endorphin production, (Dunbar. R, Baron, F. Pearcel, N. 2011). When one is laughing the brain releases endorphins which lead to reduction of stress hormones such as cortisol and epinephrine.

Laughter can be defined as vocal- respiratory behaviour response that involves set of muscles, specific movements, facial and vocal expression. In psychology, laughter is seen as the marker of positive effect and as a response that promotes good effects. It is usually not involuntary but

it can be long (Van 2006). Laughter appears to be ubiquitous in human interactions. It occurs everywhere in all cultures and in all people of all ages. Laughter appears early in human development. At Four months of age the child can respond to laughter by tickling, something which is true for children who are born blind.

Laughter is something strongly tied to social interactions. It occurs more often in social than in solitary interactions. (Schaeffer, 1981). Laughter has been viewed as an evolutionary behaviour that contributed to the formation and maintenance of positive emotions among those who were not related to each other. Laughter serves as a vocalization of a state of positive emotions and also induces positive emotions in other people (Meyer, 2000). It is an expression of joy and happiness most of the time (Builzen & Valkenburg, M. 2004)

THEORIES OF LAUGHTER

They are many theories of laughter which attempt to explain what laughter is, what social function it serves, and what would be considered as humorous. Although various classical theories of humour and laughter may be found in contemporary academic literature, three theories of humour appears repeatedly; relief theory, superiority theory and incongruity theory (Buijzen & Valkenburg, 2004)

Among the current humour researchers there is no consensus about which of these three theories of humour is most viable. Proponent of each one originally claimed their theory to be capable of explaining all cases of laughter (Meyer, 2000). However, they now acknowledge that although each theory generally covers its own area of focus, many instances of humour can be explained by more than one theory. (Berger, 1993)

RELIEF THEORY

One of the main proponents of relief theory is Herbert Spencer (Schaeffer, 1981). Relief theory maintains that laughter is homeostatic mechanism by which psychological tension is reduced. (Meyer, 2000). Humour may thus for example serve to facilitate relief of tension caused by one's fears. Laughter and mirth according to relief theory results from release of nervous energy, (Buijzen & Valkenburg, 2004). Humour according to relief theory is used mainly to overcome socio-cultural inhibitions and reveal suppressed desires. It is believed that this is the reason we laugh while being tickled, due to build of tension as the tickler "strikes". According to Herbert Spencer laughter is a phenomenon whose function is to release psychic energy that has been wrongly mobilized by incorrect or false expectations. The relief theory is also supported by Sigmund Freud, who argued that people normally laugh when they reveal their suppressed desires.

SUPERIORITY THEORY

The superiority theory of humour traces back to Plato, Aristotle and Thomas. (Beadsley, 1966) The general idea is that a person laughs about misfortune of others, because this misfortune asserts the person superiority on the background shortcomings of others. Socrates argued that laughter was characterized by display of self-ignorance (Schaeffer, 1981). Aristotle argued that we laugh at inferior or inadequate individuals because we are superior to them.

INCONGRUOUS JUXTAPOSITION THEORY

The first formulation of incongruous theory is attributed to the Bealtie, J. (Larrie, T. & Hickey, A. 2017). The incongruous theory states that humour is perceived at the moment of realization of incongruity between a concept involved in a certain situation and the real objects thought to be in some relation to the concept.

Humour frequently contains unexpected, often sudden, shift in perspective which get assimilated by incongruity (Brian, 2014). This view had been defended by Latta (1998). Latta

views the shift as from seriousness to play. Humour generally results when two different frames of reference are set up and a collision is engineered.

THERAPEUTIC BENEFITS OF LAUGHTER

Recently, there has been increased interest in non-pharmacological therapy (Cho and Oh 2011). Moreover, laughter therapy does not require specialized preparations such as suitable facilities and equipment; is not prohibited by cost, does not depend on when or where it happens and is easily accessible and acceptable. The medical field has also introduced it into treatment programme (mora –Ripoll, 2010)

Laughter therapy physiologically reduces the level of stress hormones, increases the level of health promoting hormones such as endorphins and strengthens the immune systems (Bennett & Langacher, 2007). As for the mental effects of laughter therapy, it helps reduce unpleasant feelings such as tension, anxiety, hatred and anger. Laughter alleviates stress and depression, aids better interpersonal relationships and improves insomnia, memory failure and dementia. (Ko and Youn, 2011)

Laughter therapy is a kind of communication that arouses laughter, smiling, and pleasant feelings and enables interaction. According to American Association for Therapeutic Humour (AATH), laughter therapy refers to an activity that improves a client health and welfare using humour. Laughter helps people endure stressful proceeds or situation, reduces depression, help people judge their problems objectively and increase problem solving activity by increasing insight.

Laughter therapy may decrease anxiety, stress and depression. It increases quality of life in cancer patients (Ong and Van, 2006). Cancer affects patient's physiological, social and psychological levels. Treatment for cancer persists for long periods after diagnosis and causes many side effects such as pain, stress, depression and decreased quality of life (Mercid & Moran, 2004). Laughter has positive, quantifiable physiological and psychological effects on certain aspects of health. (Choe and Hoe, 2011)

Martin (2007) emphasis that health humour (non-aggressive, not self-deprecating) is an important component of general mental health. Martin argues that research supports the view that humour is a mechanism that regulates emotions. Martin suggests that it is possible that humorous interventions would be more profitable if they were to increase the frequency of humorous situation and laughter spontaneously during every day interactions, influencing the way people react to current experiences, thus affecting more effective regulations of emotions. It would be beneficial for people to adopt a more humorous outlook on their daily lives and to create humour in their interactions with others.

HISTORY OF THERAPEUTIC LAUGHTER

Many scholars have contributed to the history of modern therapeutic laughter. William, F. began to examine the physiological effects of laughter in the late 1960's and is considered to be the father of "gerontology" and "the science of laughter". He demonstrated that most of the body's major physiological systems are stimulated by mirthful laughter. He showed laughter causes our body to produce endorphins ('natural pain killer') Beadsley, 1966

Berk, B and his team of researchers from the field of psycho-neuro immunology (PNI) studied the physical impact of mirthful laughter. In one study heart attack patients were divided into two groups, while one was placed under standard medical care, the other half watched humorous video for thirty minutes each day. After one year the "humour experimental group had lower blood pressure, lower levels of stress hormones and required lower doses of medication.

The non humour control group had high levels of blood pressure and stress. (Calisher, 2008)

The American Association for Therapeutic humour was founded in 1987 and the formation of the international society for humour studies based in Europe followed in 1988. Both of these organizations initiated several hundreds of articles on the health benefits of laughter and their members have written many books and spoken at numerous conferences. The public work they have done is simply phenomenal. (Laurie & Hickey, 2017)

EMPIRICAL RESEARCH

Kuru & Kublay (2016) carried out a study on effects of laughter therapy on the quality of life of nursing home residents in Ankara city, Turkey. The objective of this study was to carry out laughter therapy and evaluate its effects on the quality of life of nursing home residents. The study was conducted between March 2 and May 25, 2015. They used Quasi-experiments design. The experimental group was composed of 32 nursing home residents from one nursing home while the control group consisted of 33 nursing home residents. Laughter therapy was applied with nursing home residents of the experimental group two days per week (21 sessions in total). After the laughter therapy intervention, (physical function, bodily pain, general health, vitality, social function and spiritual health) quality of life-scores of residents in experimental group significantly increased in comparison to control group. Kuru and Kublay concluded that laughter therapy should be provided as routine nursing intervention. The result indicated that laughter therapy programme had a positive effect on the quality of nursing home residents' $P < 0.005$. Therapist and nurses can use laughter therapy as an intervention to improve the quality of life of nursing home residents.

In 2017, Sumera, Ventiata, & Perugu carried out a cross-sectional study on the role of laughter therapy on regulation of blood pressure among Visakhapatnam population in India. The aim of this research was to study the role of laughter therapy on the regulation of blood pressure. A total of 100 healthy volunteers of both sexes male 65 and female 35 with an age group of 18-70 in Visakhapatnam population were utilized, to study the effects of laughter therapy in the regulation of blood pressure. The results indicated that a significant reduction in vital parameters such as pulse rate, systolic blood pressure was noted after laughter therapy $P < 0.01$. They observed reduction mean diastolic blood pressure in all age groups which was more significant among young age groups. (< 50 years) compared to the older age group (>50 years). They concluded that laughter has positive effects on certain aspects of health and has a significant role in the management of cardiovascular health. In summary, laughter can be considered as an alternative method to enhance good health and to prevent cardiovascular diseases.

In 2017, a study was done in Soweto, South Africa to explore the experiences of volunteer community care workers working with HIV –affected families, participating in laughter therapy. (Hatzipapas, & Visser, 2017) Laughter therapy was used as an intervention to positively influence individuals experiencing various forms of emotional distress. The purpose of the study was to explore the effects of working with orphans and vulnerable children (OVC) on community care workers and secondly to establish the impact that laughter therapy has to positively combat stresses of workers within the care worker's environment. All the community care workers from community based-organizations that provide care for HIV/AIDS infected and affected OVC and their families in Soweto, South Africa took part in daily laughter therapy sessions for one month to assess the experience of participants of laughter therapy. Seven community care workers agreed to participate on a stress and depression scale of participants was measured. Participants reported more positive emotions, positive coping, improved interpersonal relationship and improvement in their care work after exposure to laughter therapy. Quantitative result on stress anxiety, and depression for each participant confirmed observed changes. It was concluded that laughter therapy as self-care technique has a potential

as a low-cost intervention strategy to reduce stress and counteract negative emotions among people working in highly emotional environment.

BENEFICIAL EFFECT OF LAUGHTER THERAPY ON PHYSIOLOGICAL AND PSYCHOLOGICAL FUNCTIONS IN ELDERS IN ASAKA CITY, JAPAN

Yoshikawa, Ohmaki, Kawahata, & Maekawa carried out a research in 2017 based on the above study. The aim of the study was to investigate the effects of laughter therapy on physiological and psychological function in older people. Descriptive and survey design was used. Seventeen people who regularly attended an elderly day care center were recruited. Standup comedy as laughter therapy was performed once a week for 4 weeks. Parameters of physiological and psychological function were evaluated before and after laughter therapy. Results indicated that laughter therapy intervention resulted in a significant reduction in Systolic blood pressure and heart rate accompanied by a significant increase in plasma concentration of serotonin and a significance decrease in salivary concentration of chromogranin. A questionnaire survey and vitality index demonstrated alleviation of depression and improvement of sociability and activity in older people. Researchers recommended that laughter therapy could be expected to become a practical treatment to improve quality of life of older people in an elderly day care center.

The world's population has been rapidly ageing in recent decades. The United Nations reported that the population aged 60 or above comprised 12% of the global population in 2015 and is growing at a rate of 3.2% a year (Yuki, Etsuko, Hirohisa, Yoshihiro, Toshio, Ryuichi & Motokuni, 2019). Under this situation, some developed countries are already reaching a super ageing society. Ageing is associated with progressive degenerative changes in not only organ functions but also both physiological and psychological function resulting in decline in quality of life. Promotion of the physical and mental health of older people to improve quality of life is becoming a more important issue in an ageing society.

Laughter (humour) therapy has been focused as an easily accessible, non-pharmacological treatment among the ageing population (Bennett, Zeller, Rosenberg & McCann, 2003)

It is possible that pleasurable feeling induced by laughter or humour could reduce stress and anxiety and have an effect on psychological functions of patients with dementia or depression. Previous clinical studies demonstrated that psychotherapeutic intervention of laughter resulted in beneficial effects of stress dementia and depression (Bennett, et al, 2003). A study which was carried by Yuke et al, 2019 demonstrated that intervention of laughter therapy once a week for four weeks in an elderly day care centers resulted in a significant reduction in blood pressure, geriatric depression and bodily pain and improvement in sociability activity. The results of this study strongly suggest beneficial effects of laughter therapy on physiological and psychological functions. In addition, this study supported the therapeutic advantage of laughter therapy and raises opportunity for a new approach to promote physical and mental health in older people.

The findings for this study are in line with previous research in the sense that they show a positive effect associated with laughter. It also confirms the idea that laughter therapy is a viable solution for stress. On the physiological side, it was seen that laughter exercise could have a positive effect on the individual's heart rate and breathing. Laughter exercises appear to be promising strategy for increasing motivation and other aspects. It seems to be a potentially cost effective and useful strategy that can be applied in a variety of setting that can promote different positive aspects. Laughter is strongly tied to social interactions. It occurs often in social than in solitary situations. Laughter can lead to positive emotional response to those who listen to laughter, which would further make it as an aspect of human interactions. Laughter contributes to the formation and maintenance of positive emotions among humans who are not related to each other. Laughter serves as both a vocalization of a state of positive emotions and

also induces positive emotions in other people. (Bachorowshi & Owren, 2004) Laughter is also expression of joy and happiness most of the time (Dumbre, 2012). Laughter has been linked on a biological level, with reduction in stress and pain as well as healing improvement in its physiology level, Laughter has been linked to increase in heart rate, respiratory depth and oxygen consumption. After these increases the person experiences a period of muscle relaxation and decreases in heart rate, respiratory rate and blood pressure (Strean, 2009). Laughter is able to decrease chronic pain. It improves happiness and life satisfaction significantly and reduces the perception of loneliness (Ko & Youn, 2011). Laughter therapy has also been linked to reduced depression and better sleep quality (Ko & Youn, 2011) This could be related to laughter having even more positive effects. The high prevalence of chronic diseases, multi-morbidity and psychosocial issues in older people necessitates action including prioritizing well-being according to world Health Organization. (WHO, 2015). Well-being index according to WHO include feeling cheerful, active, relaxed and interested in life, is thought to buffer physical and mental disease. Laughter intervention can have a positive effect on well-being in adults aged 60 and above. Calisher,(2008)

CONCLUSION

Using humour to decrease stress, diminish pain improve quality of life and even attempt to improve immune functioning has recently become a popular topic in psychology (Kura & Kublay, 2016) Laughter in response to a humorous stimulus is a natural occurrence and does not require large amount of time or money in order to implement. While therapies such as relaxation and exercise require a significant time and commitment and therapies such as massage can be expensive, use of humour can easily be implemented and cost effective. Clinical benefits must still be documented before this therapy can be widely supported by health care community

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