Humor as a Complementary Therapy: A Narrative Review

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ABSTRACT
Background: Research on the subject of laughter commenced on the 20th century. In recent decades researcher demonstrated that humor and laughter has positive impact on physical body same as psychological aspect. This study was conduct for integrate knowledge about humor as complementary therapy through the narrative review.

Evidence Acquisition: The keywords humor, laughter, joking and humor therapy and humor sense were used. Data was collected from PUBMED, Ovid, ProQuest, Science Direct electronic databases. Literatures that were published in English or Persian between 1970-2015 that were addressed humor were included. 181 literatures were collected. Based on the in clouding criteria 52 articles were included for review and finally 33 articles were selected after critical reviewing.

Results: Humor reduces acute and chronic pain, decrease stress hormone and depression, boost self-esteem, increased encephalin and endorphins, decreased blood pressure through increasing nitric oxide, decreasing catecholamine and regulating vascular wall function, increased cardiac output, improve pulmonary ventilation and prevent diabetic nephropathy.

Conclusion: Humor could be helpful for patient and it improve quality of life but it needed more research especially meta-analysis. We must don’t forget that lough with others not to each other's.

Implications of key findings: Humor gives patients the opportunity to forget about their anxiety and pain, if only for a brief period of time.

Key words: Humor, Laughter, Complementary Therapy, Quality Of Life

CONTEXT
Researches of laughter were initiated on the 20th century [1]. The positive emotions received little attention in the past, but on other hands, negative emotions was considered for research [2] and researchers have demonstrated that stressful life events have an adverse impact on individuals’ psychological and physical well-being [3].

Norman Cousins was the first author who reported the relationship between laughter and health [4]. The first interest in the relationship between laughter and body function was the effect of laughter on the immune system. In 1989, Berk and colleges reported that laughter improved natural killer (NK) cell activity related to tumor immunity. It was reported that laughter also caused lowering of the stress-reactive blood cortisol levels [5].

Berk and colleges on 2001 calmed that humor therapy and the related mirthful laughter have preventive and healing effects. Although these effects may be mediated by
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1 - What is its indication and contraindication?
2 - Has it side effect? If yes what is its side effect?

Evidence Acquisition

Study design

This study was conducted to integrate knowledge about humor as complementary therapy through the narrative review.

Sample and setting

The keywords humor, laughter, joking, and humor therapy and humor sense were used. Data was collected from PubMed, Ovid, ProQuest, Science Direct electronic databases. Literature that was published in English or Persian between 1970-2015 that were addressed humor were included.

Data collection Procedure

Data was collected from PubMed, Ovid, ProQuest, Science Direct electronic databases. 181 Literatures were collected. 52 articles were included for review based on the inclusion criteria and 33 articles were selected after critical reviewing (figure 1).

Data Analysis

Thematic analysis was used for distinguishing advantage and disadvantage of the humor as complementary therapy. Data analysis was delayed until the end of the data collection to avoid premature data saturation [14].

RESULT
In clinical contexts, ‘laughter therapy’ is used to increase pain tolerance [15] and immune function [16]. Humor has been associated with improved psychological, cardiovascular, and immune functioning among healthy adults [13]. Laughter has benefits attributed to reduced muscle tension, increased oxygenation of blood and exercising of the heart.[17].

Humor is a hallmark of human discourse. People use it to relieve stress and to facilitate social bonding [18]. Humor may serve as a coping mechanism that decreases stress, depression and anxiety and also improves well-being and self-efficacy [19]. On a psychological level, humor promotes relationships, increase self-esteem and relieve stress and anxiety. Sense of humor was associated with fewer symptoms of depression and anxiety and an enhanced quality of life [20]. Evidence supports numerous positive physiological effects on several bodily systems including musculoskeletal, respiratory, cardiovascular, endocrine, immune and nervous systems [19]. Mora-Ripoll noted that scientific research has shown that laughter may have both preventive and therapeutic values and Laughter has numerous effects involving the muscular, cardiovascular, respiratory, endocrine, immune, and central nervous systems. The physiological effects of humor include: (1) exercises and relaxes muscles, (2) improves respiration, (3) stimulates circulation, (4) decreases stress hormones, (5) increases immune system’s defenses, (6) elevates pain tolerance, and (7) enhances mental functioning. The psychological effects include: (1) laughter reduces stress, anxiety, tension and counteracts depression symptoms; (2) elevates mood, self-esteem, hope, energy and vigor; (3) enhances memory, creative thinking and problem-solving; (4) improves interpersonal interaction, relationships, attraction and closeness; (5) increases friendliness, helpfulness and builds group identity, solidarity, and cohesiveness; (6) promotes psychological well-being; (7) improves quality of life and patient care; and (8) intensifies mirth and is contagious. [21].

**DISCUSSION**

Riley wrote about the use humor in nursing interactions [22]. That is one way of communication between nurses and patients [23] and humor is one way to establish communication and facilitate patient education [24]. Humor can be an important coping mechanism with stress of disease [25]. Hostler wrote that humor reduces blood pressure, strengthen the immune system, reduce anxiety, pain, and it is muscle relaxation, abdominal movements in laugh lead to empty air from the lungs, it is similar to deep breathing practice [26]. This advantage specifically is useful for people with asthma and other respiratory diseases. Humor reduces acute [23] and chronic pain [27], reduced stress hormones, boost self-esteem, decreased depression[16, 28], increased encephalin and endorphins [15], increased cardiac output [29]. Bennett and colleagues calmed that humor reduces stress hormones [16] and prevent diabetic nephropathy [10]. Miller and Fry calmed that humor decreased blood pressure through increasing nitric oxide, decreasing catecholamine and regulating vascular wall function [11, 29] and Brutsche et al resulted that humor improve pulmonary ventilation [30]. McCreaddie and Wiggins categorized humor effects in two groups: direct and indirect. Direct effect creates physiological changes in the body which are positive and conducive to health such as pain and cardiovascular effect. Indirect effect may assist in moderating stress or enhance social competence and empathy. Specific aspects such as empathy have been positively correlated with sense of humor [31]. Sense of humor among patients with COPD is associated with positive psychological functioning and enhanced quality of life, but laughing aloud may cause acute deterioration in pulmonary function secondary to worsened hyperinflation [13].

The side effects of laughter are very few [21] and humor has the potential to relieve stress in patients and medical professionals. Humor gives patients the opportunity to forget about their anxiety and pain, if only for a brief period of time [32]. But we must don’t forget people...
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across cultures enjoy it with smiling, laughing, and mirth[33], and Some of these contradictory results may be due to the different humor styles that may be more or less beneficial [34].

Humor style is the way in which individuals tend to express their sense of humor in the social situations. It can be divided into four distinct types. Affiliative humor (adaptive other-focused) is described as the benign use of humor to enhance relationships with others by reducing conflicts and strengthening relationships. Self-enhancing humor (adaptive self-focused) acts to protect the self as a defense or coping mechanism, as a way to relieve tension. Aggressive humor (maladaptive other-focused) is described as the use of humor to enhance the self at the expense of others, typically by the excessive use of sarcasm or disparagement humor. Self-defeating humor (maladaptive self-focused) is the use of humor to enhance relationships with others at the expense of self and is characterized by the excessive use of self-disparaging humor [35].

Zhao and colleagues found that their Results of structural equation modeling showed that social support and self-esteem fully mediated the relationship between affiliative humor, self-enhancing humor and life satisfaction. Their final model also revealed a significant path from affiliative humor, self-enhancing humor through social support and self-esteem to life satisfaction [34].

Cut Diff and McKenna didn’t confirm the therapeutic effects of humor on physiology because of a few numbers of researches in this field [24] and Wolter and his colleagues in 2007 didn’t found significant difference between depression of humor therapy and drug therapy with just drug therapy drug [36]. Therefore need more research to distinguish therapeutic effect of humor.

**CONCLUSION**

Humor gives patients the opportunity to forget about their anxiety and pain, if only for a brief period of time. Humor could be helpful for patient and improve quality of life but it needed more research especially meta-analysis. We must don’t forget that laugh with others not to each other's.

**ACKNOWLEDGE**

Present study was conduct under supervision Student Research Committee of IUMS and we acknowledge all staff of there.

**REFERENCE**


