The contribution of humor in our lives
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Abstract
Humor is a perceptual event connected with one’s sense of self, an expression of a uniquely human capacity to adapt to experiences and situations that may be possible sources of humor. Humor seems to be a powerful coping mechanism used to decrease fear, anxiety, and psychological stress. The appreciation of humor requires a wide area of neural circuits covering attention, working memory, flexible thinking, extraction of word meaning, and positive mood. The cognitive component of humor, which is probably mediated by the dorsolateral cortex, may deteriorate with aging. Laughter and smiling as communication tools may be lost in the early stages of dementia, when the clinical symptoms of dementia appear. The use of humor therapy appears to be an effective non pharmacological intervention contributing to significant increases in happiness and life satisfaction for the elderly people

Key words: humor therapy, laughter, aging, dementia
Humor is a perceptual event connected with one’s sense of self, an expression of a uniquely human capacity to adapt to experiences and situations that may be possible sources of humor. Humor has been described as a sudden shift in cognitive perspective (Martin, & Lefcourt, 1983). The following are three major theories of humor: (a) the superiority theory, which claims that people laugh at the misfortune of others to feel superior; (b) the incongruity theory, which claims that a sudden shock or conflict can provoke laughter; and (c) the release theory, which claims that the purpose of humor is to provide relief from tension and social conflict (Wilkins, & Eisenbraun, 2009). People can experience humor and pleasure even when facing adversity and humor can distract our attention from stressful events. Cognitive shifts produced by humor help people to return to previous negative thoughts with a fresh new look. Moreover, Talbot and Lumden (2000) suggested that the use of humor could prevent burnout and create resiliency to stress, thus reducing its negative impact. Nilsen (1993) indicated that a positive change could be promoted in the work space, using humor. Promoting the well-being of employees should increase organizational productivity and profitability (Keyes, Hysom, & Lupo, 2000).

Peterson and Seligman (2004) introduced a classification of 24 strengths of character (with humor being one of them) that are composed to six universal virtues. The strengths are thought to be the underlying processes and mechanisms that are needed to exert or display a virtue. A potential strength is transcendence that forges connections to the larger universe and provides meaning in life. The virtues yielding from transcendence are: Appreciation of beauty and excellence (noticing and appreciating beauty, excellence, and/or skilled performance in all domains of life), Gratitude (being aware of and thankful for the good things that happen), Hope (expecting the best and working to achieve it), Humor (liking to laugh and joke; bringing smiles to other people), and Religiousness (having coherent beliefs about the higher purpose and meaning of life). Humor is present in every day social life, and what is amusing varies widely among individuals, societies, and cultures. Everyone enjoys laughing, but a misjudged humorous comment can cause offense, so although laughter is almost always positive, humor itself can provoke mixed or unexpected emotional reactions.

Miller’s study (2000) confirmed three predictions derived from a sexual selection model of humor: 1. intelligence predicts humor ability, 2. humor ability predicts mating success, and 3. males show higher average humor ability. Further analysis identified that humor ability affecting intelligence contributes to mating success, suggesting that intelligence accompanied by verbal humor could be sexually attractive (Smith, Waldorf, & Trembath, 1990. Sprecher, & Regan, 2002).

Wooten (1992) divided therapeutic humor into three categories: hoping, coping, and gallows humor. Hoping humor enables us to hope for something better in spite of difficult circumstances. Coping humor helps to change the way we think and regain a sense of control on our life. Gallows humor recognizes intolerable aspects of a situation and helps us to transform it into something tolerable.

Although much has been written about the use of humor as a therapeutic tool, humor physiology is a young science (Berk, 2001. Fry, 1992). Physical benefits of humor have been
compared to aerobic exercise (Berk, 2001). It is suggested that humor enables people to have a stronger tolerance of pain (Weisenberg, Tepper, & Schwarzwald, 1995). It is a powerful coping mechanism used to decrease fear, anxiety, and psychological stress. Moreover, it seems that it has the power to improve the ability to cope with disease (Berk, 2001. Johnson, 2002. Kuiper, Grimshaw, Leite, & Kirsh, 2004) and to produce hope in stressful situations (Westburg, 2003).

Johnson (2002) described humor’s positive influence on spirituality and coping in breast cancer. As survivors searched for meaning in their illness, some felt that humor helped them to laugh at themselves and at life. A new field of science is Psychoneuroimmunology (PNI). It started from a multifactorial model of illness, which included stress, coping and disease formation. This theory was further developed by Solomon (1987) to include the impact of stress on the immune system in disease formation. Later, the term ‘psychoneuroimmunology’ was coined by Ader and Cohen to describe the basic phenomena of this theory: interactions between the nervous system and the immune system, and the subsequent effects of these interactions upon disease development/progression.

PNI researchers have repeatedly identified that increased stress levels can lead to changes in psychological and physiological functioning. In addition to changes in the usual stress hormones such as ACTH, cortisol, epinephrine and norepinephrine, many other messengers are influenced by exposure to stressful events. Production and release of prolactin, growth hormone, insulin, glucagon, thyroid hormone and gonadotrophin can be affected by physical and emotional stress (Curtis, 1979). Levels of neurotransmitters, neurohormones, cytokines and various cells in the immune system can also be affected by stress. However, more research is needed to determine how these neurological changes subsequently affect the physiological response to stressors, and possibly improve immune functioning.

The laughter is the physical product of humor perception and recognition. There is a growing body of evidence that supports the health benefits of laughter (Berk, 2001. Mahoney, Burroughs, & Lippman, 2002. Martin, 2001), such as increases in the number and activity of natural killer cells, activated T cells, IgA antibodies, and gamma interferon and a decrease in stress hormones. Significant increases in mood have been demonstrated even when the laughter was forced without any preceding humorous stimuli (Foley, Matheis, & Schaefer, 2002). Humor has been shown to increase lung capacity and strengthen abdominal muscles.

The appreciation of humor requires a wide area of neural circuits covering attention, working memory, flexible thinking, extraction of word meaning, and positive mood. Good humor makes people laugh just like pain makes people cry, but humor requires complex neural circuits. Humor is perceived at the beginning as surprise or disharmony, then the paradox is solved, and, finally, the punch line is understood in association with a pleasant feeling (Takeda, et al., 2010).

The “frontal aging hypothesis” suggests that the prefrontal cortex is particularly vulnerable to the effects of aging (Tisserand, & Jolles, 2003) and implies that functions
supported by the frontal lobes will be disproportionately impaired. This hypothesis is based on age-related alterations in the volume of the frontal cortex (Tisserand, et al., 2002). The cognitive component of humor, which is probably mediated by the dorsolateral cortex, may deteriorate with aging. Mentalizing refers to the ability to reason about mental states, including beliefs and intentions, and may be mediated by medial frontal structures (Stuss, et al., 2001). Mentalizing may thus provide a separate route to humor processing, independent of executive skills. Studies investigating mentalizing in normal aging have produced mixed findings, with some suggesting it to be unaffected (Saltzman, et al., 2000), and others indicating age-related decline (Sullivan, & Ruffman, 2004).

Humor is delicate and sensitive by nature. It can be properly appreciated when it is expressed in the right time, right place, and on the right occasion. Confidence, or trust, between the sender and receiver is an important aspect of humor. Establishing this trust is a prerequisite for the introduction of appropriately timed humor. No humor can be appreciated by patients with dementia, when there is no trust between the patient and care staff (Takeda, et al., 2010. Chapple, & Ziebland, 2004). Dementia patients lose the ability to laugh and smile as the disease progresses. Laughter and smiling as communication tools may be lost in the early stages of dementia, when the clinical symptoms of dementia appear. Of the different forms of laughter and smiling associated with pleasant feelings, those induced by disharmony may be lost in early stages of dementia because of the cognitive impairment that may limit a patient's understanding. However, laughter and smiling induced by feelings of superiority, fulfillment of expectations, and fulfillment of instinctive needs are preserved until the advanced stages of dementia. Laughter and smiling in response to a release of tension are preserved in most dementia patients (Takeda, et al., 2010).

Wooten (2005) explored humorous communication within the lives of older adults by testing the relationships among humor, coping efficacy, age, and life satisfaction. Results overall indicate these four variables function through complex paths of communication in the elderly. As predicted, humor-oriented individuals were more likely to use humor as a coping mechanism and reported greater coping efficacy. As predicted by Folkman and Lazarus's transactional theory of coping and emotion, the relationship between self-reported humor orientation and life satisfaction was mediated by coping efficacy. In attempting to determine which variables best predicted life satisfaction, coping efficacy and health status explained unique variance in life satisfaction scores. The use of humor therapy appears to be an effective non pharmacological intervention (Mimi, et al., 2010) contributing to significant increases in happiness and life satisfaction for the elderly people.

References


