

Effect Of Laughter On The Psychological Well-Being Of Hospitalized Patients

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Abstract

The quality of life of hospitalized patients is usually affected by a lot of psychological experiences such as pain, distress, anxiety, and depression, which reduce their quality of life. Laughing therapy in the media has grown and many researchers have conducted a variety of studies on laughing. The main aim of this research is to know the effect of laughter on psychological well-being of hospitalized patients. The participants used for this research were hospitalized patients from both general and private hospital in Anambra State. 15 participants were sampled using convenient sampling method via personal permission. A 20-item modified version of the ryff (1972) psychological well-being scale with Cronbach alpha of .96 and content validity.77 and four 3-minute comedy skits were used. Within-group design was adopted for this research. It was observed that the treatment effect was not statistically significant, in other words, hospitalized patients did not improve significantly on their psychological well-being after watching the four 3-minutes comedy skits. Nevertheless we recommend that laughter therapy should be adopted as part of treatment given to hospitalized patients.

Key words: *laughing therapy, psychological well-being, distress, pain, anxiety, depression, quality of life.*

Introduction

Laughter is a universal aspect of human non-verbal communication. It occurs naturally and plays a big role in social interactions; however, it is only recently that laughter is becoming the subject of research. Laughter has been suggested to have many functions and benefits. It serves as a sign of social interest, as a way to induce positive attitude, as a way to induce positive affect that can broaden a person's capacity to learn

and as a way of social bonding, facilitating pro-social behaviors and cooperation. Positive affect can be described as the extent to which an individual subjectively experiences positive moods such as joy, interest, and alertness (Froh, 2014), also Laughter can trigger the endorphin system that can buffer the organism against pain and stress, as well as play a role in positive emotions and social bonding (Dunbar et al., 2011). Laughter is associated with positive

emotions. It has been linked to amusement; however, there is evidence to suggest that laughter reflects a more basic positive social emotion. It suggests friendly interactions with intent to play (Provine, 2013).

Laughter therapy in the media has grown and many researchers have conducted a variety of studies on laughter (Cho & Oh, 2011). Moreover, as 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 world has also introduced it into treatment programs (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 system by increasing the number of T-lymphocytes through activation of natural killer cells, which multiplies white blood cells in the body, as well as raises immunity in the body (Bennett & Lengacher, 2009). In addition, it also has an effect of reducing blood pressure by controlling vasoconstriction by lowering the degradation of the vasorelaxant substance, nitric oxide, and reducing cortisol thus raising blood sugar (Bennett & Lengacher, 2008; Hasan & Hasan, 2009). As for the mental effects of the laughter therapy, it helps reduce unpleasant feelings such as tension, anxiety, hatred, and anger, alleviates stress and depression, aids better interpersonal relationships, and improves insomnia, memory failure, and dementia (Ko & Youn, 2011).

In modern society, high levels of stress are caused by fierce competition and socioeconomic stressors. As this stress has a negative impact on self-esteem, which affects quality of life and personal motivation, it increases depression and leads to a harmful influence on a person's mental

health. Furthermore, a potential mental health problem may lead to the affected person having many difficulties in maintaining a good lifestyle at home and work life (Bast_ & Berry 2014). Moreover, there are many problems related to the elderly in society due to the nature of an aging society. In particular, problems regarding the mental health of elderly people are being magnified. Depression, secondary to loneliness and physical discomfort due to aging, is a most important emotional problem in old age and requires social attention and positive intervention. In addition to depression, another remarkable change in the mental function of the elderly is the loss of intellectual ability (Takeda *et al.* 2010).

Categories of Laughter

Five large categories can be summarized from a medical and therapeutic point of view: (1) genuine or spontaneous laughter; (2) simulated laughter; (3) stimulated laughter; (4) induced laughter; and (5) pathological laughter. Spontaneous laughter, unrelated to one's own free will, is triggered by different (external) stimuli and positive emotions. It has been reported that spontaneous laughter causes typical contractions of the muscles around the eye socket (Ekman *et al.*, 1990). Simulated laughter is triggered by oneself at will (self-induced), with no specific reason (purposeful, unconditional), and therefore not elicited by humor, fun, other stimuli, or positive emotions. Stimulated laughter happens as a result of the physical contact or action (reflex) of certain external factors (i.e. to be ticklish, specific facial or bodily motions, by pressing laughter bones) (García, 2007). Induced laughter is a result of the effects of specific drugs or substances (i.e. alcohol, caffeine, amphetamines, cannabis, lysergic acid diethylamide or

LSD, nitrous oxide “laughing gas”, and more). Lastly, Pathological laughter is secondary to injuries to the central nervous system caused by various temporary or permanent neurological diseases and may also occur with certain psychiatric disorders. Pathological laughter is developed with no specific stimulus, is not connected with emotional changes, has no voluntary control of its duration, intensity or facial expression, and sometimes comes with “pathological crying” (Wortzel *et al.*, 2008).

Physiological and Psychological Effects of Laughter

Laughter has numerous effects involving the muscular, cardiovascular, respiratory, endocrine, immune, and central nervous systems. The effects of laughter on certain physiological outcomes are as follows: laughter (1) exercises and relaxes muscles, (2) improves respiration, (3) stimulates circulation, (4) decreases stress hormones, (5) increases the immune system’s defenses, (6) elevates pain threshold and tolerance, and (7) enhances mental functioning (Ripoll & Roderer 2008).

The psychological effects of laughter relate primarily to both its use as a coping mechanism and, to a lesser extent, its enhancement of interpersonal relationships. The research reviewed in this area, greater in volume and strength than the evidence for physiological health benefits, can be summarized as follows: laughter (1) reduces stress, anxiety, and tension, and counteracts symptoms of depression; (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 and 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 (Arminen & Halonen, 2007).

Theoretical Framework

There are three categories in the theories of laughter: arousal, discrepancy, and superiority (Apte, 1985; Lefcourt & Martin, 2012). First, the arousal theory is concerned with the cognitive aspects of laughter; stress increases arousal, while laughter is able to reduce stress by easing arousal and tension. This theory says if people laugh in a stressful situation their physical arousal state declines and the stressful situation is no longer as negative or detestable. That is to say, the theory suggests that laughter shows a complicated interaction of mind and body between cognition and emotion, rooted in the brain and nervous system. Freud (1928) also considered laughter as a mechanism that can block the attacks of another, and stated that it reduces negative emotional responses or unpleasant feelings (Freud, 1928).

Second, discrepancy theory is concerned with the cognitive aspect, and how people process a situation, using previous knowledge. This theory says people laugh when they realize there is discrepancy between the actual situation and their general knowledge of it. The theory has a viewpoint emphasizing logical, linguistic, and cognitive aspects. Laughter happens at the moment misunderstanding and bewilderment arouse in communication, deviating from the smooth course of the cognitive process. Laughter occurs at the moment cognitive imbalance — that is, the point of discrepancy or disharmony — disappears and balance recovers. Laughter at this moment is an expression of pleasant enlightenment. According to the discrepancy theory, people can laugh not only when they meet something different from their

expectation but also when they meet something in discord with their expectation (Keith-Spiegel 1972).

Third, the superiority theory says that laughter occurs when people look down on others more than who they are actually, or when they have a feeling or thought that they are superior to others. The theory says laughter restricts the external environment and raises confidence (MacGhee & Pistolessi, 1979). By raising contentment without going against the grain, laughter allows people to take adequate action against stress and increases confidence (Martin, 2010).

Aims and Objectives

The main aim of this research is to know the effect of laughter on psychological well-being of hospitalized patients.

Hypotheses

There will be no statistical difference between the score of hospitalized patient before the laughter therapy and after the laughter therapy on psychological well-being scale.

Methods

Participants: the participants used for this research are hospitalized patients from both general and private hospital in Anambra State. 15 participants were sampled using purposive sampling methods.

Instruments: The instruments used for this research are the ryff psychological well-being scale by ryff(1972). The author of the instrument reported a test-retest reliability of

.96 and content validity of .77. Also, a four minutes' comedy skirt was also used to elicit some laughter and exciting behaviour of the patients.

Procedures: we approached the hospitals and requested for their permission to allow us conduct the research using their patients. After their approval we were directed to different wards where the patients are and we enlightened the patients on what we want to do and told them their confidentiality is assured. We presented the psychological well-being scale to them for them to respond to each items on it to the best of their knowledge. After they had been done filling the questionnaire we made them watch about four different comedy skits and when they were done we presented the psychological well-being scale to them again to know if there will be difference in their opinions.

Design and statistics: The design used for this research is the within-group design. According to Kelly (2004), the within-group design is the design in which each participant is tested under each condition. In within-group design each participants serves as a member of both control group and also as experimental group (that is same participants are used for control group and experimental group). The statistical method used for this research is the repeated measure t-test, this because we are interested in know if there will be statistical differences in the scores of the patients on the psychological well-being scale both before and after the comedy skits.

RESULTS

TABLE 1: descriptive statistics

		Paired Samples Statistics			
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	before laugh therapy	63.6667	15	6.96590	1.79859
	after laugh therapy	64.8667	15	7.70776	1.99013

TABLE 2: Paired sample test table showing the statistical difference between the scores of hospitalized patients on psychological well-being scale before and after the comedy skits

condition	Mean	Std deviation	Std error mean	T	df	Sig(2-tailed)
Before laugh therapy-after laugh therapy	-1.20000	4.73890	1.22358	-.981	14	.343

From table 2 above the result shows that's there is no significant difference statistical difference in the score of hospitalized patient both before and after the laughter therapy. $t(14) = -.981, P = .343$.

Discussion

This research investigates the effect of laughter on psychological well-being of hospitalized patients. The result of the hypotheses which states that "there will be no statistical difference between the score of hospitalized patient before the laughter therapy and after the laughter therapy on psychological well-being" showed that there is no statistical difference on the score of hospitalized patients both before and after the laughter therapy $t(14) = -.981, P = .343$. One possible explanation for this could be the limited number of participants used for the study and as such further research should increase the number of participants used in other to have a significant difference in the before and after laughter therapy on psychological well-being. Also, the length of this research was very brief. The video duration was only 2 minutes. Although past research indicates that video clips lasting

only a few seconds are enough to elicit a positive effect on the general function of an individual (Uhrig *et al.*, 2016), the same may not be true for laughter. Not only may participants need longer exposure to stimuli to induce a positive outcome on their well-being, they may need to spend more time laughing to experience the benefits of laughter on them. This study was also brief in that participants were only followed for 5 minutes following the presentation of the stimuli. There may have been delayed effects of the stimuli that were not accounted for in this design. Future research should examine longer term effects of laughter.

Conclusion

Our study looked at the quality of life of hospitalized patients who are typically aggrieved by a lot of psychological experiences such as pain, distress, anxiety,

and depression, which exacerbates their illness. The findings revealed that there was no statistical significant difference in the before and after laughter therapy on psychological well-being of hospitalized patients, meaning that the psychological well-being of hospitalized patients did not improve significantly. Nevertheless there was a mean difference, likely indicating that after the laughter experience the patients showed improvement in their psychological well-being. As such, we advocate and recommend that laughter therapy or laughter experience be adopted as part of the treatment given to hospitalized patients.

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