

# Stress as a Predictor of Emotional Health among Older Males: Comparison between Laughter & Non Laughter Group



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## Abstract

Stress arises when demands are placed on an individual and due to lack of resources, person feels constrained. If the similar condition persists, it reduces the coping ability and the person starts experiencing emotional distress. The state of emotional distress has deteriorating effect on older people because it limits their physical, cognitive, emotional and social functioning. Present study explores the relationship between stress and emotional health among male older belonging to laughter and non-laughter groups. The sample of 60 male older was chosen between the age group of 61-75 yrs. Self constructed measure of stress and C.M.I. questionnaire (Wig, Prasad & Verma, 1983) were used. The data was analyzed using SPSS 20 package. The results revealed significantly better emotional health of male older belonging to laughter group as compared to non-laughter group. Moreover, the standardized regression coefficients revealed that stress is a stronger predictor of emotional health in non-laughter group. The findings suggest that attending laughter activities on routine basis might help to enhance emotional health of male older.

**Keywords:** Health, Stress, Laughter, Older.

## Introduction

Aging is a natural and inevitable phenomenon. It is the reflection of reduced psychological and behavioral resources that the person has been possessed in earlier years and now affecting the state of health and quality of life. Aging refers to the time-sequential deterioration of physical and cognitive ability that occurs in humans characterized by weakness, increased vulnerability to disease, reduced mobility and reproductive capacity, mental health issues as well. Despite deteriorating physical status, older people have to face different kinds of mental stressors like change in life style, financial crises after retirement, caring of grandchildren or sick spouse, death of spouse and relatives, coping with chronic illness, not being able to live an independent life and worries of institutionalization etc.

The above mentioned stressors pose a great threat to the emotional health of older. They may be compelled to live a life full of anxiety, fear, frustration, depression, restlessness, poor concentration and forgetfulness. Their impaired emotional health may have ill consequences to further deteriorate their physical health.

Stress is described as a feeling of being tense and worried. Person may be de-motivated to perform due to stress. Stress can be harmful if one becomes over-loaded and unable to lead normal life. Hans Selye coined the term 'Stress' in 1936, as "non-specific response of the body to any demand for change."

According to Lazarus (1966), "Stress arises when individuals perceive that they cannot adequately cope with the demands being made on them or with threats to their well-being."

Stressful situation can be viewed as harmful and threatening which result in experiencing distressed relationship. While so many factors contribute to stress ranging from difficult situation to positive events, few people bother to define stress in clear-cut way (Selye, 1982). Selye described three stages of stress through which one passes if demanding situations persists, viz. stage of alarm reaction, stage of resistance and stage of exhaustion.

WHO (1998) has defined mental health as a positive sense of well-being, a belief in our own worth and the dignity and worth of others, the ability to deal with the inner world of thinking, feeling, managing life and taking risks, the ability to initiate, develop and sustain mutually satisfying personal relationship; the ability of the mind to heal itself after shock or stress. Mental health includes subjective well-being, perceived self-efficacy, autonomy, competence, intergenerational dependence and recognition of the ability to realize one's intellectual and emotional potential (WHO, 2003).

#### **Review of Literature**

Experience of different emotions like sadness grief, anxiety etc. is normal and healthy that helps to alert and protect from threats and cause us to act. But when these feelings become excessive, irrational, ongoing, distressing or interfere with daily life it becomes unhealthy. Emotional health is equally important as physical health. While physical health helps keep our bodies strong and fit, mental health helps to keep us sane, rational and headstrong (Williams, 2008).

Stress and emotional health have been found to have negative relationship. People with negative affect feel worse than other people when they are ill and they pose them in poor health which in turn makes them prone to depression (Pearsons & Rao, 1985) however the people's appraisal of an event, their vulnerability and perceived ability to cope may affect the feeling of depression (Lazarus & Folkman, 1984). Stress and depression have complex relationship; depression upsets the immune function (Herbert & Cohen, 1993a) and sleep disorders occur frequently (Cover & Irvin, 1994).

Feeling of loneliness among older adults lead to poor sleep quality which is exaggerated by perceived stress (McHugh & Lawlor 2013). Bosse, Aldwin, Levenson & Workman-Daniels, (1991) conducted a study on 1516 male elderly and found poor health and family finances as predictors of retirement stress. Social support & home based physical activity was associated with reduced levels of mental health problems whereas perceived stress was found to be related to mental health problems among elderly of rural area as compared to their urban counterparts (Kwag, Peter, Daniel, Warren & Kohut, 2011; Ziembroski & Breiding, 2006).

Frias & Whyne (2015) studied 134 healthy community- dwelling adults aged between 50- 85 years and found that life stress was inversely related to physical and mental health whereas mindfulness was positively related to mental health. Stress was identified as vulnerability factor for cognitive health among elderly (Smith, 2003). Older adults reported greater number of negative life events, showed poor decision making & problem solving skill (Klein & Barnes, 1994), poor memory performance (Klein & Boals, 2001; Resnick et. al. 2007; Stawski et al. 2006; Caswell et al. 2003; Neupert et al. 2006) as well as reduced overall cognitive functioning (Lee et. al., 2004). The enhanced level of oxytocin among women was found to lead to many health effects of stress such as reduced blood pressure (Light et al., 2000),

low perceived stress level (Mezzacappa & Katlin, 2002), less felt anxiety (Turner et al., 1999), low depressive symptom (Anderberg & Uvnas - Moberg, 2000) and improved attention span and memory related to social events (Brett & Baxendale, 2001; Ferguson et al, 2002).

For managing life stresses, older people may require the ventilation of emotions and learning of different skills and strategies for coping. Participating in an active social life, pursuing healthy life style & practicing relaxation exercises are all useful ways to handle stress.

Sense of humor is a judgmental skill and depends on mental and cognitive abilities of the person. Humor is more subtle and includes the ability of a person to see funny things or expressing something in a funny way while laughter is one of many expressions of humor. Laughter may or may not arise out of sense of humor. Laughter yoga helps the people to remove mental inhibition and shyness to laugh. This technique is effective even for those people who have lost their sense of humor by inculcating playfulness in them.

In laughter yoga, the physical act of laughter helps people to give away their inhibition and shyness, become more open and playful. It can be said that laughter club members may develop a sense of humor through laughter exercises. Since laughter is contagious, it stimulates others also to laugh and see the funny side of their lives.

Laughter exercises decreases stress hormones and act as an immunoenhancer (Brek, Tan, Napier & Evy (1989). Bast & Berry (2014) explored an overlap between nutrition and humor. The results revealed the role of humor in helping to overcome negative emotions that trigger eating behaviour as a means to improve moods. Humor influences endorphin and opioid system and the ability to de-stress individuals. Laughter therapy was found to reduce depressive symptoms & stress, increase blood circulation and enhance immune system (Seaward, 2007), enhanced quality of life & improvement in mood (Hanni, 2007), enhanced instrumental activities of daily living & reduced depression among Alzheimers's patients (Walter et al. 2007). The ability to sense and appreciate humor was found as buffer to stressful negative events (Lefcourt, 2006); reduces stress, depression (Deshpande., 2013; Wooten, 2002) increases ability of problem solving (Wooten, 2002). Such experiences can improve the resistance to disease; trigger the release of endorphins (natural feeling good chemical of the body). Endorphins have also been found to promote an overall sense of well being and can temporarily relieve pain

Some older people perceive old age as a challenge and try to face this period with a sporting spirit. They try to compensate their physical deficits and enhance their psychological strengths by transcending their physical condition. Such people tend to become more "present focused" and start living their remaining life with optimism, hope and a sense of self efficacy. Positive psychologists emphasize to build the resources and strengths of people for better living and flourishing. They outline

six core virtues (Wisdom and knowledge, Courage, Humanity, Justice, Temperance and Transcendence) and twenty four character strengths for developing psychological, social, emotional and spiritual resources of people. Humor is character strength under the virtue of transcendence under VIA Classification (Petereson & Seligman, 2004).

In view of the above the present study has been planned to answer few research questions:

1. Is there any difference in stress and emotional health of older males of laughter and non-laughter group?
2. How stress predicts emotional health of older males of laughter and non-laughter group?

**Objectives:**

1. To find out difference in stress and emotional health of older males of laughter & non laughter group.
2. To study stress as a predictor of emotional health of older males of laughter and non-laughter group.

**Hypotheses**

1. There will be significant difference in level of stress of older males of laughter and non-laughter groups.
2. There will be significant difference in level of emotional health of older males of laughter and non-laughter groups.
3. Stress will be positively related with emotional health (distress) of older males across groups.
4. Stress will predict emotional health of older males across groups.

**Method**

**Nature of study**

It is an Ex-post facto study co-relational in nature.

**Variables**

**Predictor Variable**

Stress: "Stress arises when individuals perceive that they cannot adequately cope with the demands being made on them or with threats to their well-being" (Lazarus1966).

**Criterion Variable**

Emotional Health includes individual's thoughts, feelings, and behaviors internally and externally. It requires managing emotions, actions and showing appropriate reactions to situations, stop unnecessary and unhealthy stress.

Emotional health is measured in terms of scores on C.M.I health questionnaire. Low scores on this questionnaire indicates score low this indicates emotional health where as high scores indicate emotional distress among older people.

**Sample**

The present study was conducted on 60 older male people aged between 61 to 75 years. The sample was chosen through purposive sampling. All the 60 respondents were living with their families. Thirty males were attending laughter group since past one year at least 5 days in a week and thirty males were not attending the laughter group. Their educational qualification ranged from high school to graduation. Only those older were selected for study

who were not suffering from any chronic physical or mental illness.

**Measures**

**Stress**

The scale was self-constructed by researcher to measure the stress of elderly. The scale consists of 41 items and 5 point Likert scale. The test-retest reliability of stress scale was found 0.68 which is satisfactory whereas the reliability by spilt-half method was found to be 0.73.

**Emotional Health**

Emotional health was measured by C.M.I. Questionnaire by *Wig, Prasad & Verma (1983)*.

**Method of Data Analysis**

The data was analyzed using SPSS version 20. Descriptive statistics, Correlation coefficient and linear regression analysis was carried out.

**Results and Discussion**

**Table no 1: Showing the significance of mean difference is stress & emotional health of laughter and non-laughter group.**

Variables	Laughter Group		Non-Laughter Group		T
	Mean	SD	Mean	SD	
Stress	26.80	13.31	28.72	8.49	0.77
Emotional health	14.55	1.61	21.62	2.62	15.04**

\*\*significant on 0.05 level

Table no 1 shows the mean and SD values of score on stress and emotional health measures across two groups (laughter & non- laughter) scores. The t-test has been calculated to find out the significant difference between means of different variables. The mean values are 14.55 and 21.62 for laughter and non-laughter group respectively on emotional health. The t-value is 15.04 which is significant at df 58(p, < 0.01). This indicates that laughter group older people had better emotional health as compared to their non-laughter counterparts who were found to experience emotional distress. The finding are empirically supported by Rosenheim & Golan (1986) and Epstein (1997) who found that laughter has positive effect on the emotional and cognitive function of dementia patients and help to cope with their illness, improve immune function, increase pain tolerance and decrease stress response. Bennett, Parsons Ben-Moshe et al. (2014) found a positive effect of laughter therapy on physiological & psychological health among dialysis patients. Konradt, Hirsch, Jonitz & Junglas (2013) conducted a study on older patients with depressive symptoms, 49 were receiving treatment and 50 were in no treatment group. In treatment group, humor intervention showed improvement in reduction for depression, suicidal tendency and cheerfulness. Humor was described as important virtues for successful aging (Bowling & Dieppe., 2005). Humors is related with psychological well-being and assist in successful aging (Celso, Ebener, & Burkhead, 2003; Westburg, 2003; Sparks-Bethea, 2001; Houston et al., 1998; Richman, 1995). Richman (1995) describes the "lifesaving" function of humor for severely depressed and suicidal elderly. As a therapist he found that

encouraging patients to laugh helps to cope, may relieve depressive affective states.

The findings of present study provide an empirical base for better emotional health among those older male participants who engage in laughter activities at least 3 to 5 days in a week as compared

**Table no. 2: Showing results of regression analysis.**

Group	R	R square	Adjusted R Square	Std. Error of the estimate	Beta coefficients	T	p-value
Non-Laughter	0.513	0.263	0.244	1.40	0.513	3.68	0.001
Laughter	0.140	0.020	.006	2.65	0.140	0.87	0.388

Table 2 reveals the result of regression analysis. Where, stress has been taken as a predictor of emotional health. It is clear that R- value for non-laughter group elderly is 0.513 and R square value reveals that there is 26.3 % variability in emotional health attributed to negative effect of stress in non-laughter group. Whereas, In laughter group, R- value is 0.140 and R-square is showing only 2 % variability. This implies that stress predicts greater emotional distress in non-laughter group whereas it does not result into distress in laughter group. Perhaps, laughter enhances the resources of participants to reduce the negative impact of stress.

The beta coefficient value for stress is 0.513 among non- laughter group older male. It can be further validated by t-value i.e. 3.68 and p-value of non-laughter group is less than 0.05 so stress emerged as stronger predictor of emotional health (distress) of non-laughter group as compared to laughter group. It is necessary to mention here that low score indicates emotional health while high score shows emotional distress which was measured by C.M.I. questionnaire (Wig, Prasad & Verma, 1983) used in the present study. The finding of present study gets empirical support from various studies- Frias & Whyne (2015) studied 134 healthy community- dwelling adults aged 50- 85 years and found that life stress was inversely related to physical and emotional health. According to Carlson, Specca, Faris, Patel, (2007) Mindfulness – based stress reduction program was found effective in enhancing quality of life and decreased stress, low mood disturbance and decreased blood pressure. Perhaps laughter exercises promote mindfulness by engaging in group laughing activities.

**Implications:** Findings of present study implies stress as stronger predictor of emotional health in non-laughter group as compared to laughter group. Stress if managed is used for motivation but if not coped or managed may deteriorate emotional health. Laughter can moderate the relationship between stress and health among older people. So, laughter intervention can be used to promote health of aged people.

**Limitations:** A study with large sample size can be done for better generalization. Gender differences in moderating role of laughter in stress- health relationship can be explored. Although respondents were attending the laughter since past one year, for sustained effect of laughter on their emotional health follow up study can be conducted after few months/years. In addition co-relational research designs as used in the present study cannot help us to draw causal inferences from the relationships

to those who do not engage in laughter activities. However, no significant difference was found on the level of stress in laughter and non-laughter group. This indicates that laughter activities increase health but does not affect the level of stress of respondents.

among the variables concerned. Future research can use path analysis for caused inferences by using some more variables like personality, social support and coping strategies etc. Culture can be an important variable affecting emotional health. To ascertain the negative effect of stress on emotional health, cross-cultural studies are required in future.

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**Remarking An Analisation**

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