

**Audio - video assisted humour on reduction of perceived stress among elderly**

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ABSTRACT— *The present study was conducted to assess the perceived stress among elderly. The research design for the study was one group pre-test post-test design. A sample of 200 elderly persons were selected by using non-probability convenient sampling technique at Navajeevan Old age home, Tirupati. The tools used for conducting the study were a set of demographic variables and Standardized Cohen (1983) Perceived Stress Scale. The subjects were administered audio video assisted humor for 30 days with pre and post assessment of perceived stress levels. Data were analyzed with the help of descriptive and inferential statistics.*

Among 50 elderly, majority 140(70%) had moderate stress, 48 (24%) had severe stress and 12 (6%) had mild stress in the pre assessment of perceived stress levels. After the administration of audio video assisted humor, majority 136 (68%) had mild stress, 64 (32%) had moderate stress and 0(0%) had severe stress in the post assessment of perceived stress levels. It represents that audio video assisted humor was effective in reduction of perceived stress levels among elderly people.

There was no statistically significant association between post assessment of perceived stress levels and the demographic variables such as age of elderly persons, gender, religion, marital status, education, occupational status, residence, number of children, residence area of children, duration of stay in old age home and elderly persons suffering with illness. . There was statistically significant association between post assessment of perceived stress levels and the demographic variables such as financial assistance and frequency of visitors to the participant at $p < 0.01$ level of significance.

I. INTRODUCTION**“If you can laugh at it, you can survive it”**

Great Indian saint Gautam Buddha had said your body is precious. It is our vehicle for awakening. Treat it with care.

The last century has witnessed a rapid increase in the population of the elderly people in the developed and industrialized countries. This phenomenon is not restricted to the western world only, but many countries such as India are now feeling the impact of this transaction. This situation could be attributed to a combination of factors such as increase in age, longevity and decreased death rates due to advancements in the field of medicine, improvement of life expectancy at birth and enhancement in the average span of life. India ranks 4th in terms of absolute size of elderly population (Aruna Dubey, Seema Bahasin, Neelima Gupta, and Neeraja Sharma, 2011).

Old age means reduced physical ability, declining mental ability, the gradual giving up of role playing in socio-economic activities and a shift in economic status moving from economic independence to economic dependence upon other's for support (Aruna Dubey, Seema Bahasin, Neelima Gupta, and Neeraja Sharma, 2011).

The reduction in fertility level, reinforced by steady increase in the life expectancy has produced fundamental changes in the age structure of the population, which in turn leads to the aging population. India has the second largest number of elderly (60+) in the world as of 2001. The analysis of historical patterns of mortality and fertility decline in India

indicates that the process of population aging intensified only in the 1990's. The older population of India, which was 56.7 million in 1991, is 76 million in 2001 and is expected to grow to 137 million by 2021 (Dr. Daizy Kujur, Rajesh Prakash Ekka, 2010).

Anything that causes change in the life causes stress. There are many changes going on in the lives of elderly. The way which illness is conceived has undergone a revolution consisting in the recognition of the interaction between mind and body, and in the admission that the emotions and the personality have a substantial impact on functioning and health (Sapolsky, R.M. Madrid, 2008).

Stress may drain a person's reserve capacity physiologically, socially and economically, increasing vulnerability to illness and injury (Gail W. Stuart, 2005).

The major sources of stress are life changes, hassles, job settings, home life and acculturation.

LIFE CHANGE: Refers to change in life that one will have to adjust to.

HASSELS: These are the frustrating everyday situations and events that interfere with the ability to function efficiently or to attain goals.

JOB STRESS: Job will influence on stress.

HOME LIFE: Inability to cope up situations at home.

ACCULTRATION: The process of adapting to and becoming integrated with a new cultural environment.

The 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 nor epinephrine, many other messengers are influenced by exposure by stressors. Production and release of

prolactin, growth hormone, insulin, glucagon, thyroid hormone and gonadotrophin can be affected by stress. Levels of neurotransmitters, neurohormones, cytokines and various cells in the immune system can also be affected by stress (Mary P.B, Cecile A.L, 2006).

Chokkanathan S (2009) conducted a study on Resources, stressors and psychological distress among older adults in Chennai. Data was collected from 400 older adults of 65 yrs and above by using epidemiological Studies Depression Scale and Geriatric Depression scale. Results showed that resources had an indirect, negative relationship with psychological distress, and stressors had a direct, positive effect on distress (Chokkanathan S.Resources, 2009).

Aruna Dubey , Seema Bhasin , et al (2011) conducted a study on Elderly living in Old Age Home and within Family set up in Jammu. Data was collected from 30 elderly women aged above 60 years from old age homes as well as a similar number from the family setups by using a specially designed interview schedule and observation technique. Results of the study revealed that most of the elderly felt the attitude of the younger generation is unsatisfactory towards them especially those who were in old age homes in terms of getting respect, love and affection which leads to stress in old age (Aruna Dubey, Seema Bahasin, Neelima Gupta, and Neeraja Sharma, 2011).

Researchers at Edinburgh University have found that stress is the major cause of depression and Alzheimer’s disease in old age. They have identified an area of the brain which shrinks in old age resulting in depression and Alzheimer’s disease. The shrinkage of a region of the brain called the anterior cingulate cortex result in the release of high levels of stress hormones.

II. BACKGROUND

Aging can be associated with physical, cognitive and / or social loss. Older people, however cope well with this loss, perhaps by using humor. In older people there is a correlation between humor on one hand and well being and morale on the other. So in the health care of older people humor is sometimes used as therapy (Beullens J, 2000).

Humor is a universal phenomenon that is practiced across different countries, religions, ethnic groups, nationalities, and tribes across the world. Humor creates a positive mental state that serves as social lubricant (Romero E.J. Alsu A.C, Hindrika K, Pearson.T, 2007).

Humor involves cognitive, emotional, behavioral, psycho-physiological and social aspects. The term humor can refer to a stimulus which is intended to produce a humorous response (such as humorous video), a mental process (perception of amusing incongruities) or a response (laughter, exhilaration). Humor is defined as a stimulus that helps people laugh and feel happy (Martin R, 2001).

Humor is like a social lubricant that facilitates interpersonal interaction and creates a positive environment. Humor may be applied with in a group to ease tension resulting from stressful events because it creates a collective atmosphere so that stress causing factors are shared and managed by all members. Therefore, humor creates a “we are in this together” mentality, which is constructive when responding to stress. Self- enhancing humor can be

particularly beneficial in reducing stress (Eric. J, Kevin W, 2006).

Humor is “any communicative instance which is perceived as humorous” and consists of non verbal and verbal communications which produce a “positive cognitive and affective response from listeners” Martineau W.H, 2002).

Humor is something positive that should bring mutually shared enjoyment and pleasure (Olson.H, 2004).

Using humor to decrease stress, diminish pain, improve quality of life and even attempt to improve immune functioning has recently become very popular. Laughter in response to humorous stimulus is a natural occurrence and does not require large amounts of time or money in order to implement. While therapies such as relaxation and exercise require significant time and commitment, and therapies such as herbs or massage can be expensive, use of humor can be easily implemented and cost effective (Balick M, Lee R, 2003).

Marziali E et al., (2008) conducted study on role of coping humor in the physical and mental health of older adults. Data was collected from 73 older adults who included the measures of coping humor, spirituality, self efficacy, social support and physical and mental health status. This study showed that coping humor and self efficacy are important factors for explaining health status in older adults. Correlations among coping humor, self efficacy and social support suggested that a sense of humor may play an important role in reinforcing self efficacious approaches to the management of health issues (Marziali E et al., (2008).

Martin R.A, Kupier N.A,(2006) conducted a study on Humor, coping with stress, self-concept and psychological wellbeing which stated that individuals who scored high in humor experienced less stress, responded with optimistic emotions, and had a more positive self concept Martin R.A, Kupier N.A,(2006).

People with a high sense of humor were likely to reframe stressful situations so that they were perceived as manageable (Abel M.H, 2002).

One of the most popular beliefs regarding humor is that they are good for the health. There are many extraordinary claims regarding the health benefits associated with humor. Many people believe that humor and laughter can help to heal from almost any ailment from severe pain to heart diseases and even cancer. Other common perceptions are that humor helps to boost the immune system, or provides similar benefits as physical exercise. So in short, humor and laughter are like a magical pill that can help you with any conceivable disease or illness (Gil Green gross, 2012).

Humor and a good- humored attitude are not only approaches in therapy but part of a life. Humor can be present no matter what the person’s physical or mental state. However, the affirmation of life is especially tested in the presence of pain, loss, depression, suicide and illness. It is important to remember that the elderly in a state of hopelessness and despair may be down but not out. Humor reflects a positive view towards life, designed to replace disgust and despair by ego integrity and affirmation (Gil Green gross, 2012).

III. METHODOLOGY

The research design for the study was one group pre-test post-test design. A sample of 200 elderly persons were selected by using non-probability convenient sampling technique at Navajeevan Old age home, Tirupati. The tools used for conducting the study were a set of demographic variables and Standardized Cohen (1983) Perceived Stress Scale. The subjects were administered audio video assisted humor for 30 days with pre and post assessment of perceived stress levels. Data were analyzed with the help of descriptive and inferential statistics.

The tools used for the study were categorized into 2 sections. The tool consists of two sections:

SECTION-I: It consists of 15 questions to collect the demographic data of elderly people such as age, gender, religion, marital status, education, occupational status, residence, financial assistance, number of the children, residence of children of respondents, channel to join in old age home, duration of stay in old age home, frequency of visitors, health status and treatment.

SECTION-II: It consists of standardized Perceived Stress Scale which was developed by Cohen et al., (1983). It consists of 14 statements which were scored based on 5 point Likert scale. Among 14 statements 7 are reverse scored. (Question No.4, 5, 6, 7, 9, 10, 13)

- 0 Never
- 1 Almost Never
- 2 Sometimes
- 3 Fairly Often
- 4 Very Often

INTERPRETATION OF SCORES:

The score was interpreted in the following manner

- A score between 0 – 18 (0% - 32%) – Mild stress
- A score between 19 – 37 (33% - 66%) – Moderate stress
- A score between 38 – 56 (67% - 100%) – Severe stress

IV. EXPERIMENTS AND RESULTS

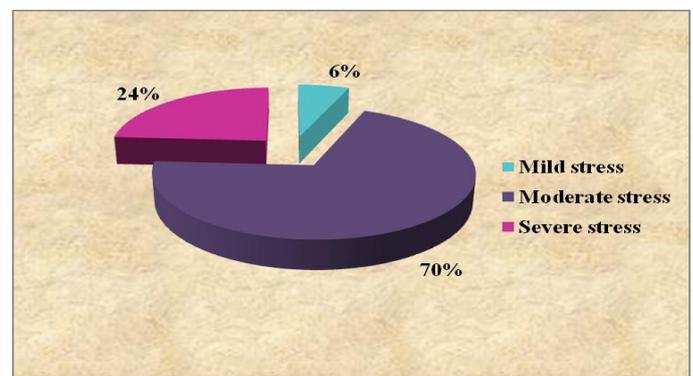
The results of the study done among elderly (N=200) on their levels of perceived stress was depicted under the following tables:

- Among 200 selected elderly, majority 140(70%) had moderate stress, 48 (24%) had severe stress and 12 (6%) had mild stress in the pre assessment of perceived stress levels.
- After the administration of audio video assisted humor, majority 136 (68%) had mild stress, 64 (32%) had moderate stress and 0(0%) had severe stress in the post assessment of perceived stress levels. It represents that audio video assisted humor was effective in reduction of perceived stress levels among elderly people.
- The present study also revealed that there was no statistically significant association between post assessment of perceived stress levels and the

demographic variables such as age of elderly persons, gender, religion, marital status, education, occupational status, residence, number of children, residence area of children, duration of stay in old age home and elderly persons suffering with illness. . There was statistically significant association between post assessment of perceived stress levels and the demographic variables such as financial assistance and frequency of visitors to the participant at $p < 0.01$ level of significance.

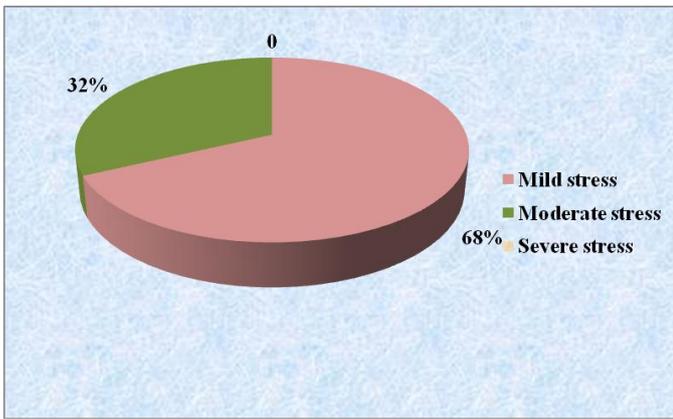
Mild stress (0-33%)		Moderate stress (34-66%)		Severe stress (67-100%)	
F	%	F	%	F	%
12	6%	140	70%	48	24%

The data presented in the Table –1 shows the perceived stress levels among elderly persons 140(70%) had moderate stress, 48(24%) had severe stress and 12(6%) had mild stress.



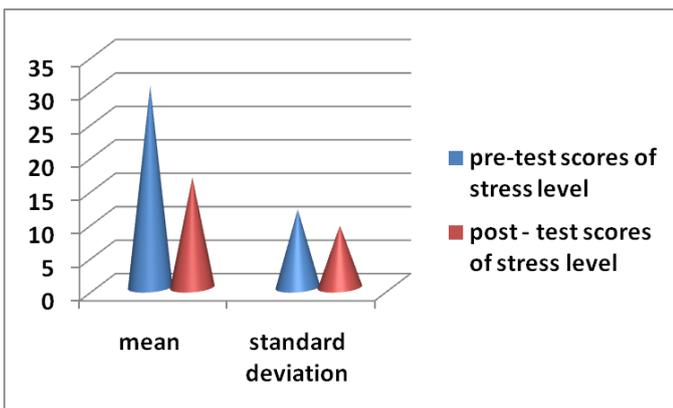
Mild stress (0-33%)		Moderate stress (34-66%)		Severe stress (67-100%)	
F	%	F	%	F	%
136	68%	64	32%	0	0%

The data presented in the Table 2 shows that the stress levels among elderly are majority 136 (68%) had mild stress, 64(32%) had moderate stress and 0(0%) had severe stress. It represents that audio-video assisted humor is effective in reduction of perceived stress levels of elderly people.



The mean score 30.155 and standard deviation 11.659 obtained in the pre- test and a mean score 16.435 and standard deviation 9.239 were obtained in the post test for the perceived stress levels among elderly persons showed that there was a decrease in mean and standard deviation after the administration of audio video assisted humor for elderly persons.

	Mean	Standard deviation	T value
Pre-test scores of stress level	30.155	11.659	19.539
Post-test scores of stress level	16.435	9.239	



V. CONCLUSION

The research study was done to assess the effectiveness of audio-video assisted humor on reduction of perceived stress among elderly at a selected old age home, Tirupati. The study was done with 200 elderly (60 years and above) in the Navajeevan Old age home, Tiruchanoor, Tirupati.

The tool used for the study consisted of two parts:

1. Demographic variables
2. Cohen perceived stress scale.

A total number of 200 elderly were selected by using non probability convenient sampling technique. Perceived

stress was assessed by using standardized Cohen perceived stress scale.

The **first objective** of the study was to assess the level of perceived stress among elderly persons. Table 1 showed that 12(6%) of the elderly had mild stress, 140(70%) had moderate stress and 48(24%) had severe stress.

The result of the present study was supported by earlier study conducted by Chokkanathan S (2009) on Resources, stressors and psychological distress among older adults in Chennai. Data was collected from 400 adults among 65 yrs and above by using epidemiological Studies Depression Scale and Geriatric Depression scale. Results showed that resources had an indirect, negative relationship with psychological distress, and stressors had a direct, positive effect on distress.

The **second objective** of the study was to evaluate the effectiveness of audio video assisted humor on reduction of perceived stress among elderly persons. Table 2 showed that 136(68%) had mild stress, 64(32%) had moderate stress and 0(0%) had severe stress. It represents that audio video assisted humor was effective in the reduction of perceived stress levels among elderly.

The results of the study were supported by earlier study conducted by **Bennett M P et al., (2003)** on the “effect of mirthful laughter on stress and natural killer cell activity”. Data was collected from 33 healthy adult women by stress arousal check list. Humor response scale and chromium release natural killer cell cytotoxic assay before and after which experimental subjects viewed a humorous video while subjects in the distraction control group viewed a tourism video. Results were showed that stress decreased for subjects in the humor group compared with those in the distraction group. The study concluded that humor shows reduce stress and improve natural killer cell activity.

There was no statistically significant association between post assessment of perceived stress levels and the demographic variables such as age of elderly persons, gender, religion, marital status, education, occupational status, residence, number of children, residence area of children, duration of stay in old age home and elderly persons suffering with illness. . There was statistically significant association between post assessment of perceived stress levels and the demographic variables such as financial assistance and frequency of visitors to the participant at p<0.01 level of significance.

VI. REFERENCES

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Short Biodata for the Authors



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