Humor as a Correlate of Psychological Strengths among Elderly

Madhurima Pradhan¹| Shiksha Anand²| Preeti Bala Mishra³| Bhanu Pratap Yadav⁴

Abstract

The present study aims at exploring the gender differences in humor, psychological strengths and their relationship among elderly. Humor was assessed by Multidimensional Sense of Humor Scale (*Thorson, Powell & Brdar 1997*). As measures of psychological strengths, General Self Efficacy scale (*Sherer et al 1982, revised by Bosscher et al 1992*), Life Orientation Test-R (*Sherer & Carver 1994*), and Adult Hope Scale (*Snyder et al 1996*) were used. The sample comprised of 60 elderly comprised of 30 males and 30 females aged 60 to 89 year. Results reveal elderly males to have more sense of humor and self efficacy than females, whereas females were found to have higher level of optimism. No significant gender difference was found in hope. Moreover, humor was found to be positively correlated with self efficacy and hope for both males and females. No relationship of humor was found with optimism. The findings imply that humor may help to enhance self efficacy and hope of elderly people.

Keywords: Humor, Psychological strengths, Self Efficacy, Hope, Elderly.

Introduction

Aging is the process of becoming older. As a result of advancement in medical facilities, the life span of elderly people has been expanded. It has been anticipated that this would increase at the rate of 3 percent per year till 2050. The time will come when there will be maximum old aged people in Asia especially in India. Such a huge population cannot be ignored. As the average age of the elderly is increasing, it is an important issue for many nations of the world (*Masoro and Austad*, 2006).

Old age is neither a divine crisis nor an accidental event. It is just a stage in developmental sequence. But the truth of old age is that this stage is marked by a decline in physical, cognitive and psychological capacities resulting into dependency on others. Humor is an important mechanism elders may use to cope with physiological and psychological changes in their lives that inevitably

^{1.} Dr.Madhurima Pradhan, Associate Professor, Department of Psychology, Lucknow University, Lucknow.

^{2.} Dr. Shiksha Anand, Post Doctoral Fellow, Department of Psychology, Lucknow University, Lucknow.

^{3.} **Preeti Bala Mishra** Assistant Professor. Amity Institute of Behavioral and Allied Sciences Amity University, Uttar Pradesh, Lucknow Campus.

^{4.} **Bhanu Pratap Yadav**, Research Scholar, Department of Psychology, Lucknow University, Lucknow.

must be faced by those who age in our culture *(Fry, 1986)*. Usually people want to defy and fight against aging as long as possible. The impact of aging on quality of life of elderly people depends on their physical, social and psychological strengths to thrive despite their debilitating condition.

Some elderly 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 kinds of people tend to become more "present focused" and start living their remaining life with optimism, hope and a sense of self efficacy. Building human strengths is Psychology's forgotten mission (*Seligman, 1998*). 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 a character strength which comes under the virtue of Transcendence. Scholars have also been interested in developing an understanding with aged persons, communicating and commiserating with them (*Huyck and Duchon 1986; Kimberly and Russell, 1996*).

Humor is the tendency to provoke laughter and provide amusement. People are considered to have a sense of humor if they are able to perceive the lighter side of things, to be amused, to laugh or smile at something funny, express humor and to make other people laugh. Sense of humor is a universal, multifaceted concept and thus has many definitions. *Martin* (1998) defines it as trait-like individual differences in the perceptions, expression, or enjoyment of humor. *Martin* (2001) describes sense of humor as "habitual individual differences in all sorts of behavior, experiences, affects, attitudes, and abilities relating to amusement, laughter, jocularity and so on." *Lefcourt*, (2002) defines humor as an individual difference variable, with potential for development. Individual with a greater sense of humor are motivated, cheerful, trustworthy, and have a higher self esteem. They are also likely to develop close, social relationships.

Individuals adjust and adapt to the demands of social interaction in a variety of ways that may be more or less adaptive. 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 enhance or protect the self as a defense or coping mechanism, as a way to relieve tension, and as a way to assert feelings of control in the face of adversity. Self-enhancing humor is closely related to the concept of coping humor

(Martin et al., 2003) and is positively related to interpersonal adjustment and emotional well-being. 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) show social conformity at the expense of self. The use of self-defeating humor involves excessive denigration of the self in an effort to gain or maintain acceptance by others. This style of humor has been associated with interpersonally undesirable traits such as anxiety, hostility, and low self-esteem (Martin et al., 2003), suggesting others may find this type of humor inappropriate or unappealing. Several studies (Kuiper et al., 2004; Martin et al., 2003; Yip & Martin, 2006) have found particular humor styles to be related to various aspects of social competence. For example, Martin et al. (2003) found the beneficial humor styles (affiliative and self-enhancing) to be positively correlated with measures related to high social competence, such as global and social self-esteem, social intimacy, and psychological well-being.

Hope is the emotional state which promotes the belief in a positive outcome related to events and circumstances in one's life. Hope is the act of "looking forward to something with desire and confidence" or "feeling that something desired may happen". According to Snyder (2000) hope is cultivated when we have a goal in mind, determination that a goal can be reached, and a plan on how to reach those goals. Snyder defines hope as goal directed thinking in which the person utilizes pathway thinking and agency thinking.

Optimism is the characteristic of people to believe the best possible outcome from any given situation. *Michael and Charles Carver (1985)* define "Optimism as the stable tendency to believe that good rather than bad things will happen". Martin Seligman, father of positive psychology, discovered that the optimistic explanatory style acted as a protective factor against the development of depression when faced with difficult circumstances. Developing an optimistic explanatory style may be an important strategy for securing the well-being of elderly. Studies reveal that Optimists are also more likely to engage in problem solving when faced with difficulties, which is itself associated with increased psychological well-being (*Taylor et al., 1992*). Optimists also tend to accept the reality of difficult situations while also framing them in the best possible light (*Carver et al., 1993*). While pessimists tend to cope through denial and abandoning impeded goals, optimists rely on acceptance and the use of humor. Optimism may even play a role in the well-being of caregivers for people with chronic illnesses. Caring for a loved one with a severe, terminal illness can have serious negative effects on psychological well-being. However, optimism

appears to protect against the worst of these effects, as optimism has been associated with less depression and greater well-being in studies of people caring for others with cancer (*Given et al., 1993*), Alzheimer's (*Hooker et al., 1992*), and mental disorders (*Singh et al., 2006*).

Bandura (1995) defined self-efficacy as, "the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations". Self efficacy is best understood in the context of social cognitive theory- an approach to understanding human cognition, action, motivation and emotion that assumes that we are active shapers of rather than simply passive reactors to our environment (Bandura 1986, 1997, Baron, Maddux & Snyder 1997). According to Bandura's (1986) social cognitive theory, individuals possess a self system that enables them to exercise a measure of control over their thoughts, feelings, motivation, and actions. This self system provides reference mechanisms and a set of sub functions for perceiving, regulating, and evaluating behavior, which results from the interplay between the system and environmental sources of influence. As such, it serves a self-regulatory function by providing individuals with the capability to influence their own cognitive processes and actions and thus alter their environments.

The construct of perceived self efficacy reflects an optimistic self-belief (*Schwarzer*, 1992). This is the belief that one can perform novel and difficult tasks or cope with adversities in various domains of human functioning. Self-efficacy beliefs influence the course of action people choose to pursue, the effort they put into a given endeavor, and their capacity to be resilient in the face of obstacles and adversities .These beliefs also influence their thought patterns, experience of stress and depression in coping with taxing environmental demands, and the level of accomplishments they realize (*Bandura*, 1991&1997; *Bandura*, *Barbaranelli*, et.al, 2001; *Bandura* and *Caprara*, et. al., 2001).

Self –efficacy is a multidimensional construct that varies according to the domain of demands (Zimmerman, 2000) and is therefore considered a domain specific concept as no person feel competent at all tasks (Bandura, 1997; Maddux, 1995; Valentine, DuBois, & Cooper, 2004). High self-efficacy in one area may not coincide with high self- efficacy in another area. Just as high confidence in snow skiing may not be matched with high confidence in baseball. Self-efficacy is specific to the task being attempted. The concept of self efficacy as domain or task specific has been proven to be a better predictor of actual behavior (Bandura, 1986, 1997; Multon, Brown, & Lent, 1991; Valentine et.al., 2004) than a general self efficacy concept.

Humour has been found to produce several physical, emotional, cognitive and social benefits. It has been found in different studies that humor helps in enhancing immune system of the body (Tomasi, T.B., 1971). Few significant correlations have been found between trait measures of humor and immunity, pain tolerance, or self reported illness symptoms (Martin, R. A., 2001). Sense of humor is associated with a variety of positive outcomes not limited to coping (Masten, 1982). There is considerable experimental and correlational evidence for stressmoderating effects of humor, at least with regard to the effects of stress on moods such as anxiety and depression (Martin, Kuiper, Olinger, and Dance, 1993; Newman and Stone, 1996); A number of studies have shown the use of humor to be positively associated with high social competence (Bell, McGhee, & Duffey, 1986; Masten, 1986), to be important in influencing social outcomes and achieving interpersonal goals (Chapman, Smith, & Foot, 1980; McGhee, 1989; Nezlek & Derks, 2001), and to be a useful skill in the development of relationships and the effective promotion of successful social interactions (Kane, Suls, & Tedeschi, 1977), humorous material was found to receive both increased attention and rehearsal relative to non humorous material (Schmidt, S. R., 1994). But it has to be noted that Martin (2001) observed that many of these positive effects of humor and/or laughter still needed to be conclusively established by research (and are still in need after almost 15 years).

One of the biggest methodological problems in the research on humor is the failure to differentiate between humor and laughter. Humor is a construct, while laughter is a physiological event (*Mahony et al., 2002*). The effects of humor are cognitive (e.g., the recognition of some incongruity and perhaps an increase in perceived control), the effects of laughter are physical (e.g., increasing your circulation and exercising your skeletal muscles). Humor is a stimulus, and laughter is one of several possible behavioral responses to that stimulus (*Fry, 1992*). When this distinction is made, it is easier to see that humor and laughter are distinct (although often associated) events. Humor can occur without laughter, and laughter can occur without humor.

In the research that examines the hypothesis that laughter is beneficial to one's health, there are several purported pathways that link laughter with healthy outcomes (*Martin, 2001; Salovey et al., 2000*). First, laughter may lead to direct changes in physiological systems, and this may have a beneficial effect on health. Second, laughter may lead to more positive emotional states, which in turn may have a beneficial effect on health. Third, laughter may lead to more effective strategies for coping with stress, which may decrease the negative impact that stress can have on

health outcomes. Finally, laughter may increase one's social support, which in turn may improve health. There is some evidence to support these pathways, although most studies fail to separate out the effects of humor and laughter. Scientists have attempted to demonstrate the physiological benefits of laughter in the management of pain and discomfort (Cogan et al., 1987; Rotton & Shats, 1996; Weisenberg et al., 1998), the control of blood glucose levels in people with diabetes (Hayashi et al., 2003), the functioning of the immune system in normal subjects (Dillon et al., 1985; Labott et al., 1990; Lefcourt et al., 1990), the reduction of allergic responses in patients with atopic dermatitis (Kimata, 2001), and the functioning of blood vessels in healthy volunteers (Miller, 2005). While some of these research attempts have been successful, others (for example, the immune system studies) have raised great controversy because of the failure to control for other experimental effects such as distraction (Provine, 2000). Critics have warned that the research on laughter and physical health does not acknowledge the complexity of physiological systems and the individual differences in the experience of laughter (Martin, 2001; Saper, 1988). Nor does the research differentiate between laughter's unique physiological profile and the profile of other active vocalizations such as shouting or cheering (*Provine, 2000*). Researchers have examined the impact of humor and laughter not only on physical health, but also on emotional health. More specifically, researchers have focused on aspects of emotional health such as perceived control, optimism, and acceptance of limitations. For example, Solomon (1996) assessed the propensity to use humor and laughter, satisfaction with the aging process, and the perceived control of 155 adults. The instrument that measured perceived control was comprised of three scales: personal efficacy, interpersonal relationship control, and sociopolitical control. The results of the study showed that laughter and humor affected participants' satisfaction with the aging process through the variable of perceived control. Solomon speculated that being able to laugh gave participants a sense of control over their situation, and it is known that people who have a sense of control over their daily lives are more satisfied with their housing arrangements, lives, and selves, all of which are important to the process of aging well. In addition, having a sense of self-efficacy allows people to be capable of laughter. Or, as Solomon explained it, "People who believed they could make their plans work also believed that it is better to laugh than cry and that people are not too serious than is good for them..." (p.265).

The above review outlines that self efficacy, optimism and hope can be the psychological strengths for achieving and maintaining the well- being of elderly people. Humor can help to

59

develop these psychological strengths in elderly. The present study has been planned to find out whether humor is associated with self efficacy, optimism, and hope of elderly? Are there gender differences in humor and its relationship with self efficacy, optimism and hope?

Objectives:

- i. To explore the sense of humor of elderly people.
- ii. To study the psychological strengths (self efficacy, optimism, hope) of elderly people.
- iii. To see the relationship between humor and psychological strengths.
- iv. To find out the gender differences in humor and psychological strengths and their relationship.

Hypotheses:

- i. There will be significant gender differences with regard to humor and psychological strengths.
- ii. Humor will be positively related with self efficacy
- iii. Humor will be positively related with hope
- iv. Humor will be positively related with optimism

Nature of Study: Co-relational study

Variable:

Variables are as follows:

i. Predictor Variable: Humor.

ii. Criterion Variable: Self-Efficacy, Optimism and Hope.

iii. Background Variable: Gender

Sample Details:

The present study was conducted on 30 males and 30 females elderly people aged from 60 to 89 years living with their families. Educational qualification ranged from illiterate to Ph.D in males and in females it ranged from illiterate to M.A. and M.Sc.

Tools:

Quantitative data

- i. The Multidimensional Sense of Humor Scale by *Thorson, Powell & Brdar, 1997*.
- ii. Life Orientation Test by *Sherer & Carver (1994).*
- iii. Adult Hope Scale by *Snyder et al (1996).*
- iv. General Self Efficacy Scale by *Sherer et al (1982)* and revised by *Bosscher et al (1992*).
- v. Since all the scales were in English language, they were adapted in Hindi language by the method of back translation in order to make it more under stable, simple and concrete.

Method of Data Analysis:

Statistical analysis was done to analyze the data. t testing was applied to find out the significance of gender difference with reference to the variables studied. Coefficient of Correlation was calculated to find out the relationship between Humor and different variables such as Self Efficacy, Hope and Optimism.

Results and Discussion:

Table 1: Showing Descriptive Statistics of Different Variables

S.	variables	no. of	scale	scale	obtained	obtained	t
No		Items	Range	Mean	Range	Mean	
1	Humor	24	0 - 96	48	m=66-96	m=82.0	3.20**
					f=56-93	f=73.4	
2	Self Efficacy	12	12 - 60	36	m=38-58	m=49.7	3.39**
					f=27-60	f=42.4	
3	Норе	6	6 - 48	27	m= 20-48	m=38.2	1.12
					f = 20-42	f=35.3	
4	Optimism	10	0-40	20	m= 16-36	m=19.3	8.69**
					f= 18-34	f=26.9	

df =60; t value at 0.01 level = 2.66; and at 0.05 level = 2.00

m = male; f = female

Table 2: Showing Correlation Coefficients between Humor and different Variables among Males and Females

	Self Efficacy	Норе	Optimism
	(r)	(r)	(r)
Male	0.50**	0.42**	0.09
Female	0.67**	0.58**	0.13

^{**} Significant at 0.01 level; r at 0.01=.325

On the basis of significance testing it can be inferred that elderly males were found to have more sense of humor than elderly females (t= 3.20,p<.01). It was found that elderly males have greater self efficacy (t= 3.39,p< .01) than elderly females. Interestingly elderly females are more optimistic than elderly males (t=8.69,p<.01).No gender difference was found in hope (t= 1.12, NS). So the hypothesis that there will be significant gender difference with regards to humor and psychological strengths is accepted. In addition, having a sense of self-efficacy allows people to be capable of laughter or as Solomon explained it, "People who believed they could make their plans work also believed that it is better to laugh than cry and that people are not too serious than is good for them..."

One of the probable reasons of higher sense of humor in males can be given in terms of greater likability of humorous males as compared to non-humorous ones by females. *Force* (2011) cited a research conducted by psychology professor Robert R. Provine at the University of Maryland in 1996 who found that women who posted personal ads sought a partner who could make them laugh twice as frequently as they offered to be the source of humor. Men, however, offered to be the provider of humor a third more than they sought it in a partner.

Lewis, (2000) also acknowledges that men are funnier than women. Hitchens (2007) asserts that men's humor advantage, if such it be, is not part of any general intellectual superiority. A study by Westburg (2003) depicted a relationship between hope and laughter among elderly. A difference was found between more hopeful and less hopeful respondents in regards to sources of laughter, benefits of laughing and playing more and the last time they laughed.

Presuming a reliable gender difference in humor production, various theories have been offered, including suggestions that humor is done to impress potential mates (*Bressler, Martin, & Balshine, 2006*). Consistent with such a notion, females indicate a preference for mates who makes them laugh, whereas males prefer a mate who laughs at their humor (*Li, et al., 2009*). There is also evidence that both genders comply, with women laughing more, and men making people laugh more (*Provine, 2000; Kothoff, 2006*).

The findings of the present study are consistent with several other findings. In an Indian study elderly males have been found to score higher on the measure of perceived self efficacy (Singh et.al., 2010). In domain specific efficacy also males have been found to be higher. Lee, Chen and Chang (2011) found gender differences in polydrug abusers in Taiwaan regarding perceived self efficacy in adopting HIV prevention practices.

Scheier, Carver and Bridges (1994) found "difference in correlations between men and women to be negligible". Shukla (2010) conducted a study to assess the level of optimism of male and female students belonging to two different settings. Results revealed that male students have higher level of optimism than female students. Pradhan, Samal and kumar (2008) had compared the level of optimism of 30 HIV infected and 30 healthy people. They found that male participants from both groups (HIV infected and healthy) have higher level of optimism than female participants. Even in the absence of systematic gender difference and in the levels of dispositional optimism and pessimism, Chang (1998) and Räikkönen, Matthews, Flory, Owen and Gump (1999) argued that they may exist in the developmental path. Lennings (2000) revealed an age-related increase in dispositional optimism in samples aged 55 to 99 years.

In a study on Brazilian students by *Pacico et al (2011)*, no gender differences in hope-self [t (390) = 1.5, p > .05] was found. However, women (M=88.4; SD=31.4) had a significantly greater mean value than men (M=80.3; SD=34.8) in hope-other (t(411) = 2.5, p < .02). Although these findings are similar to the findings of the present study but in our study Snyder's hope scale has been used but the study of *Pacico et al (2011)* Hope Index, developed by *Staats (1989)* was used.

With the help of coefficient of correlation it can be inferred that Humor is significantly and positively related with self efficacy (r=.50 and .67 for males and females respectively) and hope (r=.42 and .58 for males and females respectively). The coefficient of correlation of humor with optimism is non significant(r=.09 and .13 for males and females respectively) so the hypothesis

stating that Humor will be positively related with self efficacy and hope is accepted while the hypothesis stating positive relationship between humor and optimism is not accepted.

The obtained significant positive relationship between humor and self efficacy get support from

a study by *Marziali et.al.(2008)* who examined the associations among coping humor, other personal/social factors (spirituality, self-efficacy, social support), and the health status of community-dwelling older adults. Correlations across all variables showed coping humor to be significantly associated with social support, self-efficacy, depression, and anxiety. Forward stepwise regression analyses showed that coping humor and self-efficacy contributed to outcome variance in measures of mental health status. Correlations among coping humor, self efficacy, and social support suggest that a sense of humor may play an important role in reinforcing self-efficacious approaches to the management of health issues in elderly.

Although research concerning hope among elderly people is scant, studies have shown that significant others and healthcare providers may influence older adults' hopefulness (*Resnick*, 1996; *Westburg*, 1999a). In assisted living environments, maintaining hope-enhancing relationships among elderly women and their caregivers was particularly important (*Westburg*, 2001).

Therefore, promotion of hope is very important for old aged people to combat their hopelessness and loneliness. Findings suggest that people who are more hopeful, when compared to their less-hopeful peers, recuperate more quickly from physical injury and adjust better to chronic disease or illness (Elliott, Witty, Herrick, & Hoffman, 1991; Tennen & Affleck, 1999); experience less pain (Snyder, Brown, Hackman, & Odle, 1999); feel less depressed (Irving, Crenshaw, Snyder, Francis, & Gentry, 1990) and less anxious (Snyder, Harris, et al. 1991); cope better through increased problem solving (Snyder, Harris, et al. 1991); experience less burnout at work (Sherwin et al., 1992); have excellent social support networks (Snyder, 2000); rely on inner determination to cope with life's stressors (Westburg, 1999a); and use humor to cope with life's stressors (Snyder, 1994).

It is important, therefore, to promote overall well-being and to enhance hopefulness through preventive, pro-active strategies (*Seligman, 2002*). Two such strategies are laughter and humor (*Lefcourt & Martin, 1986; Seligman, 2002; Vailliant, 1977*). Research suggests that laughter and humor strengthen relationships, reduce tension (*Seltzer, 1986*), elevate depressed mood (*Cann, Holt, & Calhoun, 1999*), improve physical well-being (*Fry, 1994*), and help people to relax (*Herth,*

1993). More specifically, cancer patients reported health-enhancing effects from participating in a humor support group (*Cousins, 1989*). Furthermore, those working in healthcare facilities use laughter and humor to cope with on-job stress and prevent burnout (*Hutchinson, 1987; Lemma, 2000; Lipson & Koehler, 1986; Peterson, 1992; Warner, 1991*).

In the present study, humor was not found to be related with optimism. The probable reason may be that optimism depends on explanatory style of the person which cannot be modified by simply humor or laughter. Various studies were conducted to change the explanatory style. The general theme of these studies was that optimism can be learned (*Gillham, Reivich, Jaycox, & Seligman, 1995*). The program, called the Penn Resiliency Program (PRP), operates under the idea that instilling optimism in young people might serve to protect them from developing depressive symptoms in the future as sort of a "psychological immunization". A study has been conducted to test the efficacy of these programs. This evidence seems to support the idea that optimism can be developed and nurtured in young people, though similar programs have not been developed for adults. More research is necessary, but it appears that optimism can be trained or learned.

Conclusion

Old age is marked by a decline in physical, mental and psychological capacities. But in spite of these challenges of old age; there are certain aged people who adjust effectively with life demands. Certainly, they have psychological strengths by being more efficacious, hopeful and optimistic about life. Humor is a skill of head and heart which may help to develop these psychological strengths.

The present study revealed that male elderly use humor to a great extent than females. They are more efficacious than females; but female elderly are more optimistic than male elderly. No significant difference was found in the level of hope between male and female elderly. Humor can help them to be more self efficacious and hopeful. Evidences reveal that with the use of sense of humor, elderly people can be made not only more physically healthy but this may also reduce their level of depression and enhance mental health. For making them more optimistic, their explanatory style needs to be modified through cognitive interventions.

Sometimes, elderly people leading a period of "empty nest" find themselves alone to meet the life challenges. As we know humor is positively related with self efficacy, hope and optimism, we hold the responsibility for their successful ageing. We are supposed to enhance sense of humor among them which may enhance the quality of their life.

References

Bandura, A. (1986). Social foundations of thought and actions. New York: Prentice Hall.

Bandura, A. (1991). *Self-efficacy mechanism in physiological activation and health promoting behavior*. In J. Madden IV (Ed.), Neurobilogy of learning, emotion and affect (pp. 229-270). New York:Rayen.

Bandura, A. (1995). *Manual for the construction of Self Efficacy scales*. Available from Albert Bandura, Department of Psychology, Stanford University, Stanford, CA 94305-2130.

Bandura, A. (1997). Self-efficacy: The exercise of control. New York: Freeman.

Bandura, A., Barbaranelli, C., Vittorio Caprara, G., and Pastorelli, C. (2001). Self-efficacy beliefs as shapers of children's aspirations and career trajectories. *Child Development*, 72, 187-206.

Barone, d., Maddux, j.E., and Snyder, C.R. (1997). *Social Cognitive Psychology: History and corrent domains*. New York: Plenum.

Bell, N. J., McGhee, P.E., and Duffey, N.S. (1986). Interpersonal competence, social assertiveness and the development of humor. *British Journal of Development Psychology*, 4, 51-55.

Bosscher, R.J., Laurijssen, L., and Boer, E., de. *Competence at later age: An explorative study*. (Competentie op latere leeftijd: Een exploratieve studie.) Bewegen & Hulpverlening, 1992, 9: 225-265. Dutch.

Bressler, E. R., Martin, R., & Balshine, S. (2006). Production and appreciation of humor as sexually selected traits. *Evolution & Human Behavior*, 27, 121-130.

Cann, A., Holt, K., & Calhoun, L. (1999). The roles of humor and sense of humor in responses to stressors. Humor: *International Journal of Humor Research* 12(2), 177-193.

Carver, C.S., Pozo, C., Harris, S.D., Noriega, V., Scheier, M.F., Robinson, D.S., et al. (1993). How coping mediates the effect of optimism on distress: A study of women with early stage breast cancer. *Journal of Personality and social Psychology*, 65, 375-390.

Chang, E. C. (1998). Dispositional optimism and primary and secondary appraisal of a stressor: Controlling for confounding influences and relations to coping and psychological and physical adjustment. *Journal of Personality and Social Psychology*, 74, 1109-1120.

Chapman, A. J., Smith, J. R., & Foot, H. C. (1980). Humor, laughter, & social interaction. In P. E. McGhee & A. J. Chapman (Eds.), *Children's humor* (pp.141–180). New York: Wiley.

Cogan, R., Cogan, D., Waltz, W., and McCue, M. (1987). Effects of laughter and relaxation on discomfort thresholds. *Journal of Behavioural Medicine* 10: 139-144.

Cousins, N. (1989). Head first: *The biology of hope and the healing power of the human spirit.* New York: Penguin Books.

Dillon, K., Minchoff, B., and Baker, K. (1985). Positive Emotional states and its Enhancement of the Immune System. *International Journal of Psychiatry in Medicine*, 15 (1): 13-17.

Elliott, T. R., Witty, T. E., Herrick, S., & Hoffman, J. T. (1991). Negotiating reality after physical loss: Hope, depression, and disability. *Journal of Personality and Social Psychology*, 61, 608-613

Force, N. (2011). How and Why Humor Differs Between the Sexes. *Psych Central*. Retrieved on July 19, 2014, from http://psychcentral.com/lib/how-and-why-humor-differs-between-the-sexes/0007851

Fry, W. F. (1994). The biology of humor. Humor: *International Journal of Humor Research* 7, 111-126.

Fry, W.F. (1992) The physiologic effects of humor, mirth, and laughter. *Journal of the American Medical Association*, 267(13), 1857-1858.

Fry, W. F., Jr. (1986). Humor, physiology, and the aging process. In L. Nahemow, K. Me Ciuskey-Fawcett, & P. E. Me Ghee (Eds.), *Humor and aging* (pp.81-98). Orlando, FL: Academic Press.

Gillham, J.E., Reivich, K.J., Jaycox, L.H., and Seligman, M.E.P.(1995). Prevention of depressive symptoms in school children: Two year follow-up. *Psychological Science*, 6, 343-351.

Given, C. W., Stommel, M., Given, B., Osuch, J., Kurtz, M.E., and Kurtz, J. C. (1993). The influence of cancer patients' symptoms and functional states on patients' depression and family caregivers' reaction and depression. *Health Psychology*, 12, 277-285.

Hayashi K., Hayashi T., Iwangaga S., Kawai K., Ishii H., Shoji S.I. & Murakami K. (2003) Laughter lowered the increase in postprandial blood glucose. *Diabetes Care* 26(5), 1651–1652.

Herth, K. A. (1993). Humor and the older adult. *Applied Nursing Research*, 6, 146-153.

Hitchens, C. (2007, January). Why women aren't funny. Vanity Fair, p. 54. Retrieved from http://www.vanityfair.com/culture/features/2007/01/hitchens200701

Hooker, K., Monahan, D., Shifren, K., and Hutchinson, C. (1992). Mental and physical health of spouse caregivers: The role of Personality. *Psychology and Aging*, 7, 367-375.

http://en.wikipedia.org/wiki/Humor

Huyck, M. & Duchon, J. (1986). Over the miles: Coping, communicating and comics erating through age – theme greeting cards. In L. Nahemow, K. McCluskey-Fawcett, and P. McGhee (eds.). Humor and aging (pp- 161-172). Newyork: Academic Press, SanDiego, California.

Hutchinson, S. (1987). Self-care and job stress. IMAGE: *The Journal of Nursing Scholarship*, 19(4), 192-196.

Irving, L.M., Crenshaw, W., Snyder, C.R., Francis, P., & Gentry, G. (1990). Hope and its correlates in a psychiatric setting. Paper presented at the Midwestern Psychological Association, Chicago.

Kane, T. R., Suls, J. M., & Tedeschi, J. (1977). *Humor as a tool of social interaction*. In A. Chapman & H. Foot (Eds.), It's a funny thing, humour (pp. 13-16). Oxford: Pergamon.

Kimata H. (2001) Effects of humor on allergen-induced wheal reactions. JAMA 285(6), 737.

Kimberly J. Dodson and Russell W. Belk (1996). "The Birthday Card Minefield", in NA- Advances in Consumers Research in Volume 23, eds. Kim P. Corfman and John G. Lynch G. Lynch Jr. Prove, VT – Association for Consumer Research, Page 14-20.

Kothoff, H. (2006). Gender and humor: the state of the art. Journal of Pragmatics, 38, 4-25.

Kuiper, N.A., Grimshaw, M., Leite, C., and Kirsh, G. (2004). Humor is not always the best medicine: Specific components of sense of humor and psychological well-being. Humor: *Internetional Journal of Humor Research*, 17, 135-168.

Labott, S.M., Ahleman, S., Wolever, M.E., and Martin, R.b. (1990). The physiological and Psychological effects of the expression and inhibition of emotion. *Behavioural medicine*, 16, 182-189.

Lee, T.S., Chen, Y. and Chang, C. (2011). Gender differences in perceived self efficacy of safer HIV practices and polydrug abusers in Taiwan, *Comprehensive Psychiatry*, 52,763-768.

Lefcourt H.M. (2002). *Humor: The Psychology of Living Buoyantly*. Kluwer Academic, New York. Lefcourt, H., Davidson-Katz, K., & Kueneman, K. 1990, Humor and immune system functioning. *International Journal of Humor Research*, 3 (3), 305-321.

Lefcourt, N. M., & Martin, R. A. (1986). *Humor and life stress: Antidote to adversity*. New York: Springer-Verlag.

Lemma, A. (2000). *Humor on the couch: Exploring humor in psychotherapy and everyday life*. London: Whurr.

Lennings, C. J. (2000). Optimism, satisfaction and time perspective in the elderly. *International Journal of Aging and Human Development*, 51, 167–181.

Lewis, J. (2000, June 8). Aspen's U.S. Comedy Arts Festival. Aspen, CO.

Li, N. P., Griskevicius, V., Durante, K. M., Jonason, P. K., Pasisz, D. J., & Aumer, K. (2009). *An evolutionary perspective on humor: Sexual selection or interest indication?*

Lipson, J. G., & Koehler, S. L. (1986). The psychiatric emergency room: Staff subculture. *Issues in Mental Health Nursing*, 8, 237-246.

Maddux, J.E. (Ed.). (1995). *Self-efficacy, adaptation and adjustment: theory, research, application.* New York: Plenum.

Mahony D.L., Burroughs W.J. & Hieatt A.C. (2002) The effects of laughter on discomfort thresholds: does expectation become a reality? *Journal of General Psychology* 128(2), 217–226.

Martin, R. A. (1998). Approaches to the sense of humor: A historical review. In W. Ruch (Ed.) *The sense of humor: Explorations of a personality characteristics* (pp. 15-60). Berlin, Germany: Walter de Gruyter.

Martin, R. A. (2001). Humor, laughter, and physical health: Methodological issues and research findings. *Psychological Bulletin* 127 (4), 504–519.

Martin, R.A., Kuiper, N.A., Olinger, L.J., & Dance, K.A. (1993). Humor, coping with stress, self concept, and psychological well-being. Humor, 6,89-104.

Martin, Rod A., Patricia Puhlik-Doris, Gwen Larsen, Jeanette Gray, and Kelly Weir (2003). Individual di¤erences in uses of humor and their relation to psychological well-being: Development of the Humor Styles Questionnaire. *Journal of Research in Personality* 37 (1), 48–75.

Marziali, E., McDonald, L., Donahue, P. (2008). The role of Coping humour in the physical and mental health of older adults, *Aging Mental Health*, Nov., 12(10).

Masoro, E.J. and Austad, S.N.(2006). *Handbook of the Biology of Ageing*. Sixth Edition, Academic Press, San Diego, CA USA.

Masten, A.S. (1982). Humor and creative thinking in stress-resistant children (Doctoral dissertation, University of Minnesita). *Dissertation Abstracts International*, 43, 3737B.

Masten, A.S., (1986). Humor and competence in school-aged children. *Child Development*, 57,461-473.

McGhee, P. (1979). *Humor, it's orgin and development.* San Francisco: W.H. Freeman and Company.

Multon, K. D., Brown, S. D., & Lent, R. W. (1991). Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. *Journal of Counseling Psychology*, 18, 30–38.

Nahemow L., McCluskey-Fawcett K., McGhee P. (1986) (Ed.), *Humor and Aging*, Academic Press, San Diego.

Newman, M.G, & Stone, A.A. (1996). Does humor moderate the effects of experimentally induced stress? Annals of Behavioral Medicine, 18,101-109.

Nezlek, J. B., & Derks, P. (2001). Use of humor as a coping mechanism, psychological adjustment, and social interaction. Humor: *International Journal of Humor Research*, 14, 395-413.

Pacico, J.C., Zanon, C., Bartianello, M.R., Hutz, C.S. (2011). *Adaptation & validation of the Hope Index for Brazilian Adolescents*, Psicologia: Reflexao e Critica, vol. 24, no 4, Porto alegre.

Personali Provine, R. R. (2000). Laughter: A Scientific Investigation. New York: Viking. *Personality and Social Psychology Bulletin*, 35, 923-936

Peterson, K. E. (1992). The use of humor in AIDS prevention, in the treatment of HIV-positive persons, and in the remediation of caregiver burnout. In M. R. Seligman & K. E. Peterson (Eds.), *AIDS prevention and treatment: Hope, humor, and healing* (pp. 37-57). New York: Hemisphere.

Pradhan, J., Samal, A., & Kumar, A. (2008). Attitudinal measurement of HIV/AIDS patients through psychological measurement. *Indian Journal of Preventive and Social Medicine*, 39, 53-56. Räikkönen, K., Matthews, K. A., Flory, J. D., Owens, J. F., & Gump, B. B. (1999). Effects of optimism, pessimism, and trait anxiety on ambulatory blood pressure and mood during everyday life. *Journal of Personality and Social Psychology*, 76, 104-113.

Resnick, B. (1996). Motivation in geriatric rehabilitation. Image: *Journal of Nursing Scholarship*, 28, 41-45.

Rotton, J., & Shats, M. (1996). Effects of state humor, expectancies, and choice on postsurgical mood and self-medication: A 1eld experiment. *Journal of Applied Social Psychology, 26,* 1775–1794.

Salovey, P., Rothman, A., Detweiler, J. B., & Steward, W. T. 2000, Emotional states and physical health. *American Psychologist*, 55(1), 110-121.

Saper, Bernard (1988). Humor in Psychiatric Healing, Psychiatric Quarterly, 59 (4): 306-319.

Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, 67, 1063-1078.

Scheier, M.F., and Carver, C.S. (1985). Optimism, coping and health: Assessment and implications of generalized outcome expectancies. *Health Psychology*, 4, 219-47.

Scheier, M.F., and Carver, C.S., and Bridges, M.W. (1994). Distinguishing optimism from neurotism(and trait anxiety, self-mastry, and self-esteem): A reevaluation of the Life Orientation test. *Journal of Personality and Social Psychology*, 67, 1063-78.

Schmidt, S. R. (1994). Effects of Humor on Sentence Memory. Journal of Experimental Psychology; Learning, Memory and Cognition, vol. 20, No. 4, 953-967.

Schwarzer, R. (Ed.) (1992). *Self-Efficacy: Thought Control of Action*. Washington, DC: Hemisphere.

Seligman, M. E. P. (2002). Positive psychology, positive prevention, and positivetherapy. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 3-9). New York: Oxford University.

Seligman, M.E.P. (1998). Building Human Strength: Psychology's forgotten mission. *APA Monitor*, 29(1).

Seltzer, M. M. (1986). *Timing: The significant common variable in both humor and aging.* In L. Nahemow, K. A. McCluskey-Fawcett, & P. E. McGhee (Eds.), Humor and aging (pp. 121-137). Orlando, FL: Academic Press.

Sherer, M., Maddux, J.E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., and Rogers, R. (1982). The self-efficacy scale: Construction and Validation. *Psychological Reports*, 51, 663-671.

Sherwin, E. D., Elliott, T. R., Rybarczyk, B. D., Frank, R. G., Hanson, S., & Hoffman, J. (1992). Negotiating the reality of caregiving: Hope, burnout and nursing. *Journal of Social and Clinical Psychology*, 11, 129-139.

Shukla, A. (2010). Impact of gender and residential setting on personality profile: A developmental study. *Indian Journal of Social Science Researches*, 7(1), 65-68.

Simons, C.J.R., McCluskey – Fawcett, K.A., And Papini, D. R. (1986). Theoretical and functional perspective on the development of humor during infancy, childhood and adolescence. In Nahemow L., McCluskey-Fawcett K., McGhee P. (1986) (Ed.), Humor and Aging, Academic Press, San Diego, pp-53 -77.

Singh N, Lancioni G, Winton A, Fisher BC, Curtis W, Wahler R, et al. (2006). Mindful parenting decreases aggression, noncompliance, and self-injury in children with autism. *Journal of Emotional and Behavioral Disorders*. 14:169–177. doi: 10.1177/10634266060140030401.

Singh, A.P., Shukla, A. and Singh, P.A. (2010). Delhi Psychiatry Journal, vol. 13, number 2.

Snyder, C. R. (1994). *The psychology of hope: You can get there from here*. New York: Free Press.

Snyder, C. R. (2000). *Handbook of hope: Theory, measures, and applications*. San Diego, CA: Academic Press.

Snyder, C. R., Brown, J., Hackman, A. E., & Odle, C. (1999, August). Hope and the perceived severity and tolerance of physical pain. Paper presented at the *American Psychological Association Convention*, Boston.

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., et al. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology*, 60, 570-585.

Snyder, C.R., Sympson, S.C., Ybasco, F.C., Borders, T.F., Babyak, M.A., and Higgins, R.L. (1996). Development and validation of the State Hope Scale. *Journal of Personality and Social Psychology*, 2, 321-335.

Solomon, J. C. (1996). Humor and aging well. American Behavioral Scientist, 39, 249.

Staats, S.R. (1989). Hope: A comparision of two self-report measures for adults. *Journal of Personality Assessment*, 53, 366-375.

Taylor, S.E., Kemeny, M.E., Aspinwall, L.G., Schneider, S.G., Rodriguez, R., and Herbert, M. (1992). Optimism, coping, psychological distress, and high-risk sexual behavior among men at risk for acquired immunodeficiency syndrome (AIDS). *Journal of Personality and Social Psychology*, 63, 460-473.

Tennen, H., & Affleck, G. (1999). *Finding benefits in adversity*. In C. R. Snyder (Ed.), Coping: The psychology of what works (pp. 279-304). New York: Oxford University.

Thorson, J. A., Brdar, I., & Powell, F. C. (1997). Factor-analytic study of sense of humor in Croatia and the USA. *Psychological Reports*, *81*, 971–977.

Tomasi, T.B. (1971). The immune system of secretions. Englewood Cliffe, NJ: Prentice Hall.

Vailliant, G. E. (1977). *Adaptation to life. Boston*: Little, Brown.

Valentine, J. C., Dubois, D. L., & Cooper, H. (2004). The relation between self-beliefs and academic achievement: A meta-analytic review. *Educational Psychologist*, 39, 111-133.

Warner, S. L. (1991). Humor: A coping response for student nurses. *Archives of Psychiatric Nursing*, 5(1), 10-16.

Weisenberg, M., Raz, t., and Hener, T. (1998). The influence of film-induced mood on pain perception. *Pain*, 76, 365-375.

Westburg, N. G. (1999a). Older women: Hope and approaches to life. *Adultspan Journal*, 1, 79-90.

Westburg, N. G. (2001). Hope in older women: The importance of past and current relationships. *The Journal of Social and Clinical Psychology*, 20, 354-365.

Westburg, N.G. (2003). Hope, Laughter and Humour in Residents and Staff at an Assisted Living Facilit. *Journal of Mental Health Counselling*, VOI 25, No. 01, 16-32.

Yip, J. A., and Martin, R. A. (2006). Sense of humor, emotional intelligence, and social competence. *Journal of Research in Personality*: 40, 1202-1208.

Zimmerman, B.J. (2000). Self-Efficacy: An essential motive to learn. *Contemporary Educational Psychology*, 25, 82-91.

Martin, R.A. (2001). Humor, Laughter and Physical health: Methodological Issues and Research Findings. Psychological Bulletin, Volume 127, No. 4, 504-519.