International Journal of Science and Research (IJSR)
ISSN: 2319-7064
Index Copernicus Value (2016): 79.57 | Impact Factor (2017): 7.296

Analysis of Achenbach Self-Report Forms among Geriatric Populations

Dr. Suneetha Kumari[1], Rajita Panditharadhyula[2]

Abstract: ***The non experimental study was conducted to analyze how geriatric population perceive themselves, among stratified random sample of 302 populations (153 male, 149 female) between 60-85 years of age, in the Urban, town and rural areas in and around Vishakhapatnam. Standardized Achenbach's Older Adult Self Report (OASR) forms were used to collect data individually. T-test, f-test and correlation was conducted on obtained data shows that age, marital status, religion and caste of the individual significantly influence the various domains of self evaluation.***

Keywords: Geriatric population, Achenbach Older Adult Self Report Form

1. Introduction

"*Viewed as a whole, the problem of ageing is no problem at all. It is only the pessimistic way of looking at a great triumph of civilization." – Notestein*, 1954.

Ageing is experiencing childhood again for the people who are over 60 years. In 1989, sociologist and demographer Alfred survey predicted, *"The 21st century will be the century of the ageing of mankind."*Across the world, countries are experiencing population ageing. The growth rate of the elderly population is more rapid in developing countries like India than developed countries. The expectancy of life in India is much less than 60 years. Psychologically too, most Indians appear to consider themselves old earlier than the chronological age of 60 years and the Indian women regard themselves to be old even much earlier (Montross et al. 2006). According to Mayor (2006), "Some people use their chronological age as a criterion for their own aging whereas others use such physical symptoms as failing eye-sight or hearing, tendency to increase fatigue, decline in sexual potency etc. Still others assess their aging in terms of their capacity for work, their output in relation to standards set in earlier years, their lack of interest in competing with others, lack of motivation to do things or a tendency to reminisce and turn their thoughts to the past rather than dwell on the present or the future." The acceptance of the fact that they are old develops in the aged an "old age complex" (Antonelli et al. 2000). Consequences and Management of Physical Health Problems in the Elderly despite the increase in human life expectancy (Oeppen&Vaupel, 2002) continues to place older adults at risk for experiencing depressive symptoms.

Apart from demographic transitions, socio-economic and political changes, increased individualism have altered living conditions of the elderly. In this era of fast forward world, where nuclear families are the order of the day, old-age is considered as a non productive phase of life.

The huge gap between satisfied and unsatisfied aged lives has to be reinforced with the spirit of harmony. We strongly believe that there must be an increasing social responsibility to be shown and provide finest facilities to put the last touches on aged people. Our society need to work strongly and honestly to focus on policy matters to form great society to bring the power in our aged ones to get prepared to defeat old age and stand side by side and hand in hand with the younger generation shining and proud.

Anxiety
Anxiety is distinguished from fear, which is an appropriate cognitive and emotional response to a perceived threat and is related to the specific behaviors of fight-or-flight responses, defensive behavior or escape. David Barlow defines anxiety as "a future-oriented mood state in which one is ready or prepared to attempt to cope with upcoming negative events,"

Depression
Depression is a state of low mood and aversion to activity that can affect a person's thoughts, behavior, feelings and sense of well-being. Depressed people can feel sad, anxious, empty, hopeless, helpless, worthless, guilty, irritable or restless.

Somatic Complaints
Somatization disorder is a somatoform disorder characterized by recurring, multiple, and current, clinically significant complaints about somatic symptoms. Symptoms often include reports of pain, gastrointestinal distress, sexual problems, and pseudo-neurological symptoms such as amnesia or breathing difficulties.

Memory
Age-related decrements in memory performance are not attributed to impaired memory processes per se, but to a generalized age difference in speed of processing. In one study (Rahhal et al., 2002), subjects listened to multiple spoken statements that were identified as either true or false. Older adults were impaired at later recalling which speaker stated each item, but did not differ from younger adults in labeling statements as true or false.

Cognitions
In science, cognition is the set of all mental abilities and processes related to knowledge: attention, memory & working memory judgment & evaluation, reasoning & "computation', problem solving & decision making, comprehension &production of language, etc.

Thoughts Problems
Thought underlies many human actions and interactions, understanding its physical and metaphysical origins, processes, and effects have been a longstanding goal of

many academic disciplines including psychology, neuroscience, philosophy, artificial intelligence, biology, and sociology.

2. Literature Survey

Greenleigh and Lawrence (1952) studies about of the mental health of elderly people should be longitudinal because the problems of the aged are the outgrowth of earlier periods. The relationship of anatomical and physiological changes to mental health in old age is considered. In general it appears "that those who have adapted most successfully to their life situations during their early years adapt best to the stresses of the later years, including moderate and in some cases severe, brain changes."

Bengt- Arnetz, Töres-Theorell and Arnetz (1983) research study deals with psychological, sociological and subjective health aspects of social isolation and under stimulation in institutional elderly people. In a controlled study over a 6 month period, a programme was devised in collaboration with residents of a senior citizens apartment building and its staff. The aim of the programme was to increase social activation and to encourage among the elderly an enhanced control over their daily lives. It was agreed that the programme implemented should involve no extra costs, overtime work or external resources. Most psychological and sociological variables were stable over the 6 month period. However, social activity level increased 3-fold in the Experimental group compared with the Control group. The E-group also started to attend activities outside the actual programme, and in general spent more time out of doors. *Seasonal* variations were found in feelings of depression, visits to the country/summer houses, as well as visits by children and neighbors. There were no changes in psychosomatic or psychological complaints *indices*. However, feelings of restlessness decreased significantly in the E-group over the 6 month period compared with the C-group. There was also a non-significant decrease over time in complaints of heart palpitations in the E-group.

Krause and Neal (1987) conducted research study on effect of chronic financial strain and social support of the elderly people. The purpose of this study is twofold: one, to determine whether chronic financial strain is related to depressive symptoms among a random community sample of older adults, and two, to assess whether social support counterbalances or buffers the deleterious effects of financial strain. The findings suggest that elderly people suffering from financial strain are more likely to be depressed than are older adults with fewer financial problems. In addition, the data support the stress-buffering hypothesis, that is, that older people who have more informational support and who provide support to others, more often report fewer symptoms of depression as a result of financial strain than do elderly respondents who have less informational support and who do not provide support to others. Tangible and emotional support is found to be less effective coping resources when financial strain is present.

Hart, Siobhan (1990) study give priority of understanding more about the health needs and health behaviour of elderly people is spelled out / considers some general problems surrounding health research and interventions with the elderly / these include the problem of defining this group of individuals as well as those arising from the common negative expectations and stereotypes regarding their health and their behavior looks at the epidemiology of health problems, the utilisation of health care resources, health and illness behaviour, and the different possibilities for primary, secondary and tertiary preventive initiatives.

Brenda, et. al. (1996) study focused on Psychological status, including depressive symptoms, anxiety, and mastery, was measured in a community-based sample of 3,076 persons aged 55 to 85 with various chronic diseases. Strong, linear associations were found between the number of chronic diseases and depressive symptoms and anxiety, indicating that psychological distress among elderly people is more apparent in the presence of (more) diseases. Furthermore, in contrast to general assumptions that mastery is a relatively stable state, our results indicate that mastery is affected by having chronic diseases. The 8 groups of chronically ill patients (with cardiac disease, peripheral atherosclerosis, stroke, diabetes, lung disease, osteoarthritis, rheumatoid arthritis, or cancer) did differ in their associations with psychological distress. Psychological distress is most frequently experienced by patients with osteoarthritis, rheumatoid arthritis, and stroke, whereas diabetic and cardiac patients appear to be the least psychologically distressed. Differences in disease characteristics, such as functional incapacitation and illness controllability, may partly explain these observed psychological differences across diseases.

Chadha (1996) made a comparative study between male and female elderly on life satisfaction, loneliness, health, social support network, leisure time activities and on selected demographic variables. The sample size was 120 elderly. 60 years and above in which males and females were equally represented. The study found no significant difference between males and females in terms of loneliness. However, in the area of life satisfaction and social support network, a significant difference was observed between males and females. In both cases, the elderly males occupied a favoured position. It may be commented that the study was an attempt to combine both psychological and social aspects of the problem of aging in the Indian context.

Karen L. Dahlman, Teresa A. Ashman, Richard C. Mohs. (1999) study explores psychological assessment of elderly people and presents the context to understand the cognitive impact that occurs as a process of aging. At the time of assessing older adults, the concepts of normal aging versus degenerative decline should be considered. Some aged people change very little as they age, others a great deal, and still to others the changes occur in only a few areas. The assessment evaluation has been estimated by Mr. T.'s premorbid level of cognitive functioning to have been in the Superior range. It shows evidence on testing of impairments in memory and executive functioning relative to pre morbid cognitive functioning. However, brief passive attention and concentration, verbal functioning, and perceptual-motor functioning are consistent with estimated pre morbid cognitive functioning. Meanwhile, on a mood

assessment scale, Mr. T. acknowledged mild feelings of depression, particularly in connection with the death of his wife and the increasing physical frailty. Finally the overall clinical picture is most consistent with "pseudo dementia," cognitive deficits secondary to depression.

3. Methodology

The methodology adopted for the present study is detailed in this chapter. The study was conducted on psychological health and general health of the old age people. Data was obtained from person's age group between 60-85 years of dwellers of Visakhapatnam urban, rural and tribal areas in Visakhapatnam district.

ASEBA (Achenbach System of Empirically Based Assessment)

Older Adult Self-Report For Ages 60 and Above

The OASR obtains older adults' self-reports of diverse aspects of adaptive functioning and problems. Greatly improve assessment in contexts such as: psychiatric and psychological evaluations; medical care, including routine care and evaluation of functioning following events such as strokes, falls, and illnesses; following significant life changes, such as loss of a loved one, moves to retirement communities, assisted living, and nursing homes; and evaluations before and after planned changes and interventions. Especially helpful to have forms completed at regular intervals, such as 2 months, to determine if functioning is improving, worsening, or stable.

The OASR obtains self-reports of diverse aspects of adaptive functioning and problems. The OABCL is a parallel form for obtaining reports from people who know the person being assessed, including spouse, partner, family members, friends, caregivers, home health aides, residential staff, and health care providers.

The profiles for scoring the OASR and OABCL include normed scales for adaptive functioning empirically based syndromes, DSM-oriented scales, critical items, and total problems. The critical items scale consists of items of particular concern to clinicians.

The eight subscales are the following:

A. Personal Strengths. The twenty items in this subscale indicate the extent to which a person experiences his personal strengths. *Example items: I make good use of my time*
I take care of my appearance

B. Anxious/Depressed. The twenty items in this subscale indicate the extent to which a person experiences his anxious / depressed. *Example items: I can't get my mind off certain thoughts*
I am nervous or tense
I think about the past too much

C. **Worries.** The eight items in this subscale indicate the extent to which a person experiences his worries. *Example items:*
I worry about my appearance
I worry too much about my health

D. **Somatic Complaints.** The fourteen in this subscale indicate the extent to which a person experiences his somatic complaints.
Example items: I use too much medication
I feel sick a lot of the time

E. **Functional Impairment.** The eleven in this subscale indicate the extent to which a person experiences his functional impairment. *Example items: I have difficulty getting things done*
I am too dependent on others

F. Memory/Cognition Problems. The nine in this subscale indicate the extent to which a person experiences memory / cognition problems. *Example items: I have trouble concentrating or paying attention.*
I feel confused or in a fog

G. **Thought Problems.** The fifteen in this subscale indicate the extent to which a person experiences thought problems. *Example items: I am jealous of others*
My relations with neighbors are poor

H. **Irritable / Disinhibited.** The twenty in this subscale indicate the extent to which a person experiences irritable / disinhibited. *Example items: I argue a lot*
I am mean to others

Reliability

Reliability refers to agreement between repeated assessments of characteristics when the characteristics themselves are expected to remain constant. The test-retest reliability of ASEBA older adult forms was supported by 8-day test-retest *r*s that were in the .80s and .90s for most scales. The mean *r*s ranged from .88 for the OASR DSM-oriented scale adaptive functioning and empirically based scales.

Good internal consistency was found for most scales, with mean alpha coefficients on the OASR of .84 for the empirically based problem scales, .76 for the DSM-oriented scale, .73 for the adaptive functioning scale.

Cross-informant *r*s between OASR and OABCL scores averaged .51 for the empirically based problem scales, .44 for the DSM-oriented scales, and .48 for the adaptive functioning scales. The mean *Q* correlation between OASR and OABCL Personal Strengths items = .37 and between problem items =.38. Consistent with findings from other instruments, the modest size of the cross-informant correlations indicates the need to obtain data from multiple informants whenever possible. OASR scores were significantly higher than OABCL scores on the Spouse/Partner and Personal Strengths scales, as well as on all but one problem scale. OASR scores were significantly lower than OABCL scores on the Friends scale.

Sample

The study was conducted on psychological health and general health of the old age people of Visakhapatnam district, Andhra Pradesh, India. The data was collected randomly from 302, elderly people in the age group 60 to 85 years who are living in Visakhapatnam city, different urban, rural towns and tribal areas of Visakhapatnam district. In this sample, 153 male and 149 females were included. The particulars of age, duration of practice, health status and

medication are provided in the results section.

Procedure and Data Collection
First, consent was obtained from the participants in the study from different parts of urban, rural and tribal areas of the Visakhapatnam district. The researcher has explained the purpose of study and also explained about each measure. Subsequently, psychological scales were distributed and collected at a later date. Data was collected over the period of 6 months. Unfilled and missing data forms were not considered for the analysis.

All the questionnaires were provided with Telugu translated version along with the Standard English questionnaires for enabling for better understanding.

Data Analysis
The data obtained from the sample of respondents was analyzed to achieve the objectives. Statistical analyses included descriptive statistics with regard to Older Adult Self-Report Inventory and General Health Questionnaire; comparison of the different categories of the sample (gender, age, educational qualifications and so on) with regard to general health questionnaire and Older Adult Self-Report scores for the different categories of participants from urban, rural and tribal areas of Visakhapatnam district.

Data analysis was carried out by using the following statistical techniques.
Data obtained from the samples was analyzed using the SPSS.
Descriptive statistics were used to describe the data and find the mean values.
't-test' and One Way Analysis of Variance (ANOVA) was used to find significant difference among the groups.

4. Result and Discussion

The results of the study are presented in 2 sections dealing with the Self report and mental health status of older adults. A profile of the sample is provided initially.

4.1. Profile of the Sample

The study was done on a sample of 302 old age people that includes 153 males and 149 females (see table 1). The majority of the old age people are married (266; 88.1%). More than one third of the sample (109, 36.1%) is uneducated, those who are educated up to 12th class are 93 (30.8%), Degree holders are 51 (16.9%) and those who are higher qualifications are 49 (16.2%). The religious information indicates that the Hindus are 156 (51.7%) and Christians are 146 (48.3%). With regard to caste it is observed that the sample includes scheduled caste persons (n=69; 22.1%), scheduled tribes (n=104, 34.4%), other backward classes (n=79, 26.2%) and forward classes (n=50, 16.6%). The information relating to place of residence tribal area persons 110 (36.4%), towns residence holders are 109 (36.1%) and city dwelling people are 83 (27.5%) old age people majority living in nuclear family 176 (58.3%) and joint family holder 126(41.7%).

Table 1: Sample Profile

Variable	Category	Frequency	%
Gender	Male	153	50.7
	Female	149	49.3
Age Group	60 to 65 years	155	51.3
	65 years above	147	48.7
Education	Uneducated	109	36.1
	Below Inter	93	30.8
	Degree	51	16.9
	Above Degree	49	16.2
Place of Residence	Tribal Area	110	36.4
	Town Area	109	36.1
	City Area	83	27.5
Family Type	Nuclear Family	176	58.3
	Joint Family	126	41.7
Marital Status	Married	266	88.1
	Unmarried	22	7.3
	Divorced	14	4.6
Religion	Hindu	156	51.7
	Christian	146	48.3
Caste	SC	69	22.8
	ST	104	34.4
	BC	79	26.2
	OC	50	16.6

4.2. Section I: Adult Self-Report

The results regarding the influence of gender, age, educational qualifications, type of family, religion, place of residence and caste background on their Adult Self-Report are presented in the following pages.

1) Age and Self-Report
The findings regarding the influence of the age of the old people on self-report are presented in table 2. A significant influence of age is noted with the age group above 65 years reporting significantly higher scores on the anxious/depressed, somatic complaints, memory/cognition problems, thought problems and irritable/disinhibited dimensions.

Table 2: Age and Self-Report

Dimension		60-65 years (N=155	Above 65(N=147)	t-value
Personal Strengths	Mean	19.57	20.68	1.86
	S.D.	5.71	4.56	
Anxious/Depressed	Mean	16.54	18.85	4.04**
	S.D.	5.09	4.83	
Worries	Mean	7.05	7.41	1.27
	S.D.	2.54	2.31	
Somatic Complaints	Mean	4.72	5.19	2.23*
	S.D.	1.77	1.8	
Functional Impairment	Mean	9.72	10.23	1.42
	S.D	3.13	3.07	
Memory/Cognition Problems	Mean	7.23	8.1	2.81**
	S.D.	2.78	2.53	
Thought Problems	Mean	12.46	13.79	2.572**
	S.D.	4.57	4.4	
Irritable/Disinhibited	Mean	16.14	18.12	3.611**
	S.D.	4.71	4.81	

Note: *p≤.05 level; **p≤.01 level

2) Gender and Self-Report
The findings regarding the influence of the gender of old age

people on their self-report are presented in table 3. It can be noted that there is no significant differences between male and female old people on any of the dimensions of adult self-report.

Table 3: Gender and Self-Report

Dimension		Male (N=153)	Female (N=149)	t-value
Personal Strengths	Mean	20.1634	20.0671	0.16
	S.D.	5.14712	5.28085	
Anxious/Depressed	Mean	17.52	17.81	0.48
	S.D.	5.28	4.91	
Worries	Mean	7.33	7.12	0.73
	S.D.	2.37	2.51	
Somatic Complaints	Mean	4.83	5.07	1.14
	S.D.	1.77	1.83	
Functional Impairment	Mean	9.81	10.13	0.9
	S.D	3.06	3.15	
Memory/Cognition Problems	Mean	7.78	7.53	0.81
	S.D.	2.76	2.62	
Thought Problems	Mean	13.22	13	0.42
	S.D.	4.63	4.45	
Irritable/Disinhibited	Mean	17.18	17.04	0.25
	S.D.	4.89	4.83	

3) Family type and Self-Report

The findings regarding the influence of the type family of the old people on adult self-report are presented in table 4. It can be noted that though differences in self-reported problems among the two groups of old people are present, the differences are not statistically significant.

Table 4: Family type and Self-Report

Dimension		NF (N=176)	JF (N=126)	t-value
Personal Strengths	Mean	20.83	19.11	**2.87****
	S.D.	5.28	4.93	
Anxious/Depressed	Mean	17.68	17.65	0.052
	S.D.	5.4	4.65	
Worries	Mean	7.41	6.97	1.544
	S.D.	2.38	2.49	
Somatic Complaints	Mean	5.03	4.83	0.982
	S.D.	1.91	1.62	
Functional Impairment	Mean	10.1	9.78	0.872
	S.D	3.2	2.97	
Memory/Cognition Problems	Mean	7.8	7.46	1.083
	S.D.	2.9	2.37	
Thought Problems	Mean	13.03	13.22	0.355
	S.D.	4.76	4.22	
Irritable/Disinhibited	Mean	17.34	16.79	0.965
	S.D.	4.93	4.75	

4) Religion and Self-Report

The findings regarding the influence of the religion on the old peoples self-report are presented in table 5. It can be noted that old people who are Christians recorded more functional impairment than their older counterparts who are Hindus. An analysis indicates that old age people of Christian religion background face problem with functional impairment of Older Adult Self-Report compare with Hindus, but there are no significant difference in the dimension of anxious/ depressed, worries, somatic complaints, functional impairment, memory/cognition problems, thought problems and irritable/disinhibited.

Table 5: Religion and Self-Report

Dimension		Hindus (N=156)	Christians (N=146)	*t-value*
Personal Strengths	Mean	20.48	19.72	1.26
	S.D.	5.23	5.15	
Anxious/ Depressed	Mean	17.53	17.81	.48
	S.D.	5.40	4.75	
Worries	Mean	7.22	7.23	.05
	S.D.	2.50	2.37	
Somatic Complaints	Mean	4.85	5.05	.94
	S.D.	1.76	1.84	
Functional Impairment	Mean	9.61	10.34	**2.06***
	S.D.	3.11	3.07	
Memory/Cognition Problems	Mean	7.62	7.69	.24
	S.D.	2.79	2.60	
Thought Problems	Mean	13.12	13.09	.06
	S.D.	4.89	4.14	
Irritable/ Disinhibited	Mean	17.07	17.15	.13
	S.D.	5.39	4.22	

Note: *p≤.05 level; **p≤.01 level

5) Educational status and Self-Report

The results regarding the influence of educational qualifications of old age people on their older adult self-report are presented in table 6. It can be seen from the table that educational background old age people significantly influenced all the dimensions of adult self-report, except the somatic complaints dimension. An analysis showed that uneducated old people reported significantly lower scores on the dimensions of anxious/depressed, worries, functional impairment, memory/cognition problems, thought problems and irritable/disinhibited.

Table 6: Educational status and Self-Report

Dimension		Educated (N=109)	Below Inter (N=93)	Degree (N=51)	Above Degree (N=49)	f-value
Personal Strengths	Mean	18.20	22.02	20.12	20.12	10.15**
	S.D.	5.37	5.51	3.38	4.36	
Anxious/ Depressed	Mean	16.55	18.10	18.62	18.32	2.90*
	S.D.	4.78	5.72	4.67	4.60	
Worries	Mean	6.45	7.65	7.45	7.91	6.33**
	S.D.	2.59	2.28	2.10	2.30	
Somatic Complaints	Mean	4.92	4.91	5.05	4.97	.08
	S.D.	1.84	1.82	1.62	1.88	
Functional Impairment	Mean	9.14	9.84	10.62	11.34	6.94**
	S.D.	2.89	2.97	3.30	3.07	
Memory/Cognition Problems	Mean	6.88	7.70	8.88	8.00	7.12**
	S.D.	2.43	2.64	2.35	3.17	
Thought Problems	Mean	11.94	12.35	15.50	14.65	10.86**
	S.D.	4.28	4.96	4.07	3.23	

Note: *p≤.05 level; **p≤.01 level

6) Place of residence and Self-Report

Table 7 shows the results regarding the influence of the

place of residence of the old age people on their adult self-report. It can be noted that old people residing in tribal areas as compared to those living in towns and cities have significantly lower scores on all the dimensions of self-report. An analysis of the individual items showed that old age people from the town and city areas report significantly more personal strength, anxious/ depressed, worries, somatic complaints, functional impairment, memory/cognition problems, thought problems and irritable/disinhibited than those living in tribal areas.

Table 7: Place of residence and Self-Report

Dimension		Tribal Area (N=156)	Town (N=146)	City	f-value
Personal Strengths	Mean	17.36	21.92	21.38	28.98**
	S.D.	5.24	4.37	4.63	
Anxious/ Depressed	Mean	15.32	19.07	18.92	20.67**
	S.D.	4.21	5.21	4.93	
Worries	Mean	5.86	8.00	8.02	32.98**
	S.D.	2.22	2.18	2.24	
Somatic Complaints	Mean	4.55	5.13	5.24	4.41*
	S.D.	1.65	1.86	1.83	
Functional Impairment	Mean	8.80	10.41	10.93	14.04**
	S.D.	2.46	3.53	2.81	
Memory/Cognition Problems	Mean	6.21	8.22	8.81	30.91**
	S.D.	1.94	2.73	2.69	
Thought Problems	Mean	10.75	13.97	15.10	29.53**
	S.D.	3.60	4.47	4.41	
Irritable/ Disinhibited	Mean	14.63	18.43	18.66	26.30**
	S.D.	3.77	4.85	4.86	

Note: *p≤.05 level; **p≤.01 level

7) Marital Status and Self-Report

The table 8 provides the findings regarding the influence of the marital status of the old people on their adult self-report. The table shows that there is no significant difference between the married and unmarried the old people on their adult self-report. In other words, old persons, regardless of being married or unmarried have more or less same level of problems with regard to the dimensions of personal strengths, anxious/depressed, worries, somatic complaints, functional impairment, memory/cognition problems, thought problems and irritable/disinhibited.

Table 8: Marital status and Self-Report

Dimension		Married (N=226)	Unmarried (N=22)	Divorce (N=14)	t-value
Personal Strengths	Mean	20.25	18.77	19.5	0.93
	S.D.	5.34	4.31	3.45	
Anxious/Depressed	Mean	17.6	17.36	19.28	0.76
	S.D.	5.2	4.45	3.72	
Worries	Mean	7.26	7.04	6.85	0.25
	S.D.	2.49	1.88	2.1	
Somatic Complaints	Mean	4.9	5.13	5.5	0.83
	S.D.	1.77	2.12	1.82	
Functional Impairment	Mean	9.95	10.04	10.21	0.05
	S.D	3.15	2.64	3.16	
Memory/Cognition Problems	Mean	7.52	7.5	9.21	2.47
	S.D.	2.7	2.85	1.67	
Thought Problems	Mean	13.02	13.18	14.71	0.92
	S.D.	4.59	3.98	4.14	
Irritable/Disinhibited	Mean	16.99	18.22	17.64	0.742
	S.D.	4.93	3.89	4.87	

8) Caste background and Self-Report

Table 9 shows the results regarding the influence of the caste background of the old age people on their older adult self-report. It can be noted that scheduled caste, backward class, and open caste old age people experience significantly higher level all dimension of older adult self-report than those from tribal areas. An analysis of the individual items showed that old age people from the town and city areas report more personal strengths, anxious/ depressed, worries, somatic complaints, functional impairment, memory/cognition problems, thought problems and irritable/disinhibited than compare with the tribal peoples. It's showed that the caste shows lesser importance of tribal area old age compared with scheduled caste, backward class, and open caste old age people.

Table 9: Caste background and Self-Report

Dimension		ST (N=109)	SC (N=93)	BC (N=51)	OC (N=49)	f-value
Personal Strengths	Mean	16.82	21.15	22.46	21.80	**27.71****
	S.D.	4.48	4.99	5.02	3.60	
Anxious/ Depressed	Mean	15.86	18.56	18.67	18.60	**7.02****
	S.D.	3.92	4.53	6.03	5.47	
Worries	Mean	5.87	8.07	7.84	7.92	**19.49****
	S.D.	2.23	2.18	2.16	2.45	
Somatic Complaints	Mean	4.62	5.28	4.73	5.52	**4.11****
	S.D.	1.70	1.96	1.90	1.37	
Functional Impairment	Mean	8.99	10.86	10.39	10.10	**6.18****
	S.D.	2.37	3.39	3.28	3.30	
Memory/ Cognition Problems	Mean	6.88	7.70	8.88	8.00	**11.45***
	S.D.	2.03	3.01	2.57	2.85	
Thought Problems	Mean	11.22	14.62	13.43	14.46	**11.20****
	S.D.	3.31	4.45	4.86	5.03	
Irritable/ Disinhibited	Mean	15.06	18.88	17.51	18.28	**11.41****
	S.D.	3.64	4.68	4.85	5.85	

Note: *p≤.05 level; **p≤.0.01

5. Summary & Conclusion

"The golden age is before us, not behind us."-St. Simon

The World Health Organization (WHO) postulates three components in its definition of health - the mental, the physical, and the social components. While the physical component features both subjective dimension and objectively measurable basis, the social, and especially the psychological components of health in the mentally healthy population are primarily accessible through subjective assessment of a person. Therefore, the "psychological method" is vital to the assessment of the quality of health, including its conversion in the form of psychological well-being.

6. Major Findings of the Research Study

The findings of the study are presented separately for Self Report and Mental health status.

1) A significant influence of age is noted with the age group above 65 years reporting significantly higher scores on the anxious / depressed, somatic complaints, memory / cognition problems, thought problems and irritable/disinhibited dimensions.
2) That there is no significant difference between male and female old people on any of the dimensions of adult self-

report. It can be noted that though differences in self-reported problems among the two groups of old people, the differences are not statistically significant.

3) It can be noted that old people who are Christians recorded more functional impairment than their older counterparts who are Hindus, but there are no significant difference in the dimension of anxious/depressed, worries, somatic complaints, memory/ cognition problems, thought problems and irritable / disinhibited.
4) The analysis showed that uneducated old people reported significantly lower scores on the dimensions of anxious/depressed, worries, functional impairment, memory/cognition problems, thought problems and irritable/disinhibited.
5) The result shows that old age people from the town and city areas report significantly more personal strength, anxious/ depressed, worries, somatic complaints, functional impairment, memory / cognition.
6) The findings show that there is no significant difference between the married and unmarried the old people on their adult self-report. In other words, old persons, regardless of being married or unmarried have more or less same level of problems with regard to the dimensions of personal strengths, anxious/depressed, worries, somatic complaints, functional impairment, memory/cognition problems, thought problems and irritable/disinhibited.
7) It can be noted that scheduled caste, backward class, and open caste old age people experience significantly higher level all dimension of older adult self-report than those from tribal areas. It's showed that the caste shows lesser importance of tribal area old age compared with scheduled caste, backward class, and open caste old age people.

7. Future Scope

Further study is necessary to understand how the self- report of elderly is related to their physical health.

The larger population sample would lead to a more comprehensive and concrete results, hence the population size has be to expanded.

Besides self-report form information about quality of life would help connect dots of geriatric patients better.

References

[1] Ainsworth, Sarah, E.; Maner, Jon, K. (2014). Yunger moderates the activation of psychological disease avoidance mechanisms. *Evolutionary Behavioral Sciences*, Vol 8(4), Oct, 303-313.
[2] Akehsan, Dahlan., Margaret, Nicol., & Donald, Maciver. (2010). Elementsof Life Satisfaction Amongst elderly people Living in Institutions in Malaysia: A Mixed Methodology Approach. *Hong Kong Journal of Occupational Therapy*, Volume 20, Issue, December, Pages 71-79.
[3] Andrews, F. M. & Withey, S. B. (1976). *Social indicators of well-being: America`s perception of life quality*. New York: Plenum.
[4] Antonelli, E., Rubini, V & Fassona, C. (2000). The self-concept in institutionalized and non-institutionalized elderly people. *Journal of Environmental Psychology*, 20: 151-164.
[5] Aurima, Stankuniene. et.al. (2012). Somatic complaints and refrain from buying prescribed medications. Results from a cross-sectional study on people 60 years and older living in Kaunas (Lithuania). *DARU Journal of Pharmaceutical Sciences* 2012, **20**:78
[6] Batterham, Philip J.; Mackinnon, Andrew J.; Christensen, Helen. (2012). The association between change in cognitive ability and cause-specific mortality in a community sample of older adults. *Psychology and Aging*, Vol 27(1), Mar, 229-236.
[7] Bengt, B. Arnetz., Töres, Theorell., & Bengt, B. Arnetz. (1983). Psychological, sociological and health behaviour aspects of a long term activation programme for institutionalized elderly people. *Social Science & Medicine*, Volume 17, Issue 8, Pages 449-456.
[8] Bergeron, L.R. (2001). An elderly abuse case study: Case gives stress or domestic violence. *J. Gerontological Social Work*, 34(3): 47-63.
[9] Bhat, K. (2001). Ageing in India: Drifting international relations, challenges and option. *Cambridge Journal Online*, 21: 621-640.
[10] Birren, J.E. (1 965). *Age changes in speed of behavior: its central and neurophysiological correlates*. In A.T. Welford & J.E. Birren (eds), Behaviol; Aging and the Nervous System (pp. 191-216). Springfield, IL: Charles C. Thomas.
[11] Bisconti, T. L. & Bergeman, C. S. (1999). Perceived social control as a mediator of the relationships among social support, psychological well-being, and perceived health. *Gerontologist*, 39, pp 94-103.
[12] Boehm, Julia K.; Peterson, Christopher; Kivimaki, Mika; Kubzansky, Laura. (2011). A prospective study of positive psychological well-being and coronary heart disease. *Health Psychology*, Vol 30(3), May, 259-267.
[13] Bookwala, J. & Schulz, R. (1996). Spousal similarity in subjective well-being: The cardiovascular health study. *Psychology-and-Aging*, 11, 582-590.
[14] Bradburn, N. M. (1969). *The structure of psychological well-being*. Chicago: Aldine.
[15] Brenda, W.J.H. Penninx., Aartjan, T.F. Beekman., Johan, O. D. M.W., Kriegsman, A.,Joan, P., Boeke, J. T.M., Van, Eijk., Dorly, J.H. Deeg. (1996). Psychological status among elderly people with chronic diseases: Does type of disease play a part? *Journal of Psychosomatic Research*, Volume 40, Issue 5, May, Pages 521-534.
[16] Brown, E. S., Varghese, F. P., & McEwen, B. S. (2004). Association of depression with medical illness: Does cortisol play a role? *Biological Psychiatry*, *55*, 1–9.
[17] Burke, H. M., Davis, M. C., Otte, C., & Mohr, D. C. (2005). Depression and cortisol responses to psychological stress: A meta-analysis. *Psychoneuroendocrinology*, *30*, 846–856.
[18] Carsten, Wrosch., Richard, Schulz., Gregory, E. Miller., & Sonia, Lupien. (2007). Physical Health Problems, Depressive Mood, and Cortisol Secretion in

Old Age: Buffer Effects of Health Engagement Control Strategies. *Health Psychology by the American Psychological Association*2007, Vol. 26, No. 3, 341–349

[19] Carstensen, L. L. (1995). Evidence for a life-span theory of socioemotional selectivity. *Current Directions in Psychological Science*, 4, 151 – 155.

[20] Carver, C. S. & Scheier, M. F. (1994). Situational coping and coping dispositions in a stressful transaction. *Journal of Personality and Social Psychology*, 66, 184 –195.

[21] Chadha, N. K. (1996). "*Life satisfaction of aged: Psychological and social network analysis*" In V. Kumar (Ed.). Aging : lndian Perspective : and Global Scenario. New Delhi : All lndia Institute of Medical Sciences.

[22] Cherian, J. (2003). Adjustment of the Elderly in Relation to Living Arrangement, Gender and Family Life Satisfaction. *Indian Journal of Gerontology*, Volume 17 (1&2).

[23] Claude, Ferrand., Guillaume, Martinent., & Neriman, Durmaz. (2014). Psychological need satisfaction and well-being in adults aged 80 years and older living in residential homes: Using a self-determination theory perspective. *Journal of Aging Studies*, Volume 30, August, Pages 104-111.

[24] Dalbert, C. (1998). *Belief in a just world, well-being, and coping with an unjust fate*. In L. Montada & M.J. Lerner (Eds.), Responses to victimizations and belief in a just world (pp. 87-105)**.** New York: Plenum Press.

[25] Dew, M. A. (1998). Psychiatric disorder in the context of physical illness. In B. Dohrenwend et al. (Ed.), *Adversity, stress, and psychopathology* (pp. 177– 218). New York: Oxford University Press.

[26] Diener, E., Emmons, R.A., Larsen, R.J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, 49, 71-75.

[27] Emmons, R. A., Cheung, C. & Tehrani, K. (1998). Assessing spirituality through personal goals: Implications for research on religion and subjective well-being. *Social Indicators Research*, 45, pp 391-422.

[28] Ferring, D. & Filipp, S. H. (1995). The structure of subjective well-being in the elderly: A test of different models by structural equation modeling. *European Journal of Psychological Assessment*, 11, 32. 17

[29] Forsyth, Duncan. (2013).*Physical assessment of older patients.*Dening, Tom (Ed); Thomas, Alan (Ed), Oxford textbook of old age psychiatry (2nd ed.). Oxford textbooks in psychiatry., (pp. 159-176). New York, NY, US: Oxford University Press, xviii, 841 pp.

[30] Greenleigh & Lawrence, F. (1952). *Psychological problems of our aging population.*Oxford, England: U. S. Public Health Service. 76 pp.

[31] Grundy, E. & Falkingham, J. (2006). *Demographic Aspects of Population Ageing, ESRC Seminar Series: Mapping the Public Policy Landscape*. Swindon: ESRC

[32] Hart, Siobhan. (1990).*Psychology and the health of elderly people*. Amsterdam, Netherlands: Harwood Academic Publishers, vi, 358 pp.

[33] Heim, C., Ehlert, U., & Hellhammer, D. (2000). The potential role of hypocortisolism in the pathophysiology of stress-related bodily disorders. *Psychoneuroendocrinology, 25*, 1–35.

[34] Henrik, Ekström., Synneve, D. Ivanoff., Sölve, Elmståhl. (2013). Does informal support influence social participation of fractured elderly people?**.** *Archives of Gerontology and Geriatrics*, Volume 56, Issue 3, May–June, Pages 457-465.

[35] Holm, Anne Lise; Lyberg, Anne; Berggren, Ingela; Cutcliffe, John; & Severinsson, Elisabeth, Crisis. (2014). Shadows from the past: The situated meaning of being suicidal among depressed older people living in the community. *The Journal of Crisis Intervention and Suicide Prevention*, Vol 35(4), 253-260.

[36] Irudaya Rajan, S. 2005. Emerging Demographic Scenario: Base for Concern. Paper presented at Consultative Meeting cum Workshop on Empowerment of Elderly, NIHFW, New Delhi, March 28-30.

[37] Jing-Jy, Wang., Hung-Fu, Tseng.,& Kuei-Min, Chen. (2007). Development and Testing of Screening Indicators for Psychological Abuse of Older People. *Archives of Psychiatric Nursing*, Volume 21, Issue 1, February, Pages 40-47.

[38] Kanwor, P. (1999). Psychosocial determinants of institutionalized elderly. *Indian Journal of Gerontology*, 12(3): 27-39.

[39] Karen, L. Dahlman., Teresa, A. Ashman., &Richard C. Mohs. (*1999*). Psychological Assessment of the Elderly. *Handbook of Psychological Assessment* (Third Edition), Pages 553-578.

[40] Kean, R. C., Van Zandt, S. & Miller, N. J. (1996).Exploring factors of perceived social performance, health and personal control among retired seniors and seniors owning home-based businesses in non-metropolitan counties. *International-Journal-of-Aging-and-Human-Development*, 43, 297-315.

[41] Kellard, K., Middleton, S., Hancock, R., Beckhelling, J., Phung, V. & Perren, K. (2006). *Needs and Resources in Later Life Technical Report*, Working Paper 537, Centre for Research in Social Policy, Loughborough University

[42] Krause & Neal. (1987).Chronic financial strain, social support, and depressive symptoms among older adults. *Psychology and Aging*, Vol 2(2), Jun, 185-92.

[43] Krause & Neal. (1996). Neighborhood deterioration and self-rated health in later life. *Psychology and Aging*, Vol 11(2), Jun, 342-352.

[44] Ladusingh, L. & Bijaya, O. 2004. *Loneliness: A Psychological Illness. Ageing and Society*, Volume 14 (1&2).

[45] Lam, C. W & Boey, K. W. (2005). The psychological well-being of the Chinese elderly living in old urban areas of Hong Kong: A social perspective.*Aging & Mental Health*, Vol 9(2), Mar, 162-166.

[46] Lenze, E. J., et al. (2001). The association of late-life depression and anxiety with physical disability: A review of the literature and prospectus for future research. *American Journal of Geriatric Psychiatry, 9*, 113–135.

[47] Levin, J. S. & Chatters, L. M. (1998). Religion, health, and psychological well-being in older adults - Findings from three national surveys. *Journal of Aging and*

Health, 10, pp 504-531.

[48] Li-Fan, Liu., Wei-Hua, Tian., & Hui-Ping, Yao. (2014).The heterogeneous health latent classes of elderly people and their socio-demographic characteristics in Taiwan. *Archives of Gerontology and Geriatrics*, Volume 58, Issue 2, March–April, Pages 205-213.

[49] Lipkus, I. M. & Siegler, I. C. (1993). The belief in a just world and perceptions of discrimination. *Journal of Psychology*, 127, 465-474.

[50] Manjit, Talwar., and Gaurav, Malik. (2013). Oral health considerations for the elderly-problems and management strategies. *Indian Journal of Dentistry*, Volume 4, Issue 3, September, Pages 145-151.

[51] Mayor, R. (2006). Significance of grandparents: Perceptions of young adult grandchildren. *Gerontologist*, 16(1): 137-140.

[52] McMullin, J. A. & Marshall, V. W. (1996). Family, friends, stress, and well-being: Does childlessness make a difference? *Canadian-Journal-on-Aging*, 15, 355-373.

[53] Mishra, S. (1996). "*Coplng with aging at Individual and societal levels*". In V. Kumar (Ed), Aging: Indian Perspective and Global Scenario. New Delhi : All India Institute of Medical Sciences.

[54] Montross, L., Depp, C., Daly, J., Golshan, S., & Moore, D. (2006). Correlates of self-rated successful ageing among community dwelling other adults. *The American Journal of Geriatric Psychiatry*, 14 (1): 43 – 51.

[55] Mookherjee, H. N. (1997). Perception of well-being among older persons in nonmetropolitan America. Perceptual-and-Motor-Skills, 85, 943-946.

[56] Morris, L. E. H. (1996). A spiritual well-being model: Use with older women who experience depression. *Issues-in-Mental-Health-Nursing*, 17, 439-456. 19

[57] Murrell, S. A., Meeks, S., & Walker, J. (1991). Protective functions of health and self-esteem against depression in older adults facing illness or bereavement. *Psychology and Aging, 6*, 352–360.

[58] Nair, S.B. (1990). *Social Security and the Weaker Sections: A Study of Old Women Agricultural Workers in Kerala*. Delhi: Renaissance Publication.

[59] Nair, T.K. (1980). *Older People in Rural Tamil Nadu. Madras:* Madras School of Social Work.

[60] Oeppen, J., & Vaupel, J. W. (2002, May 10). Broken limits to life expectancy. *Science, 296*, 1029–1031.

[61] O'Hara, Michael W.; Hinrichs, James V.; Kohout, Frank J.; Wallace, Robert B.; & Lemke, Jon, H.(1986). Memory complaint and memory performance in the depressed elderly. *Psychology and Aging*, Vol 1(3), Sep, 208-214.

[62] Oishi, S., Diener, E., Suh, E. & Lucas, R. E. (1999).Value as a moderator in subjective well-being. *Journal of Personality*, 67, pp 157-184.

[63] Otte, C., Hart, S., Neylan, T. C., Marmar, C. R., Yaffe, K., & Mohr, D. C. (2005). A meta-analysis of cortisol response to challenge in human aging: Importance of gender. *Psychoneuroendocrinology, 30*, 80–91.

[64] Prakash, Indira, Jai. (2000). *Issues in Mental Health and Psychological Well-Being of Older Persons*. In Murli Desai & Siva Raju (Eds) *Gerontological Social Work in India: Some Issues and Perspectives*. New Delhi: B.R Publishing Corporation.

[65] Prasad, R. (1991). Reflection on the Problems of Aged in India. Indian Journal of Social Research, Volume 32 (4).

[66] Pruchno, R. A., Burant, Ch. J. & Peters, N. D. (1997). Understanding the well-being of care receivers. *Gerontologist*, 37, 102-109.

[67] Rabia Hacihasanoğlu, Arzu Yildirim, Papatya Karakurt. (*2012*). Loneliness in elderly individuals, level of dependence in activities of daily living (ADL) and influential factors. *Archives of Gerontology and Geriatrics*, Volume 54, Issue 1, January–February, Pages 61-66.

[68] Rahhal ,T.A., May, C.P., & Hasher, L. (2002). Truth and character: sources that older adults can remember. *Psychol Sci*. ;13(2):101–105.

[69] Report of Elder Abuse. (2003). Elder Abuse in India: Summary of Research Reports. Research and Development Journal, Volume 9 (3). New Delhi: HelpAge India.

[70] Rossi, A. S. & Rossi, P. H. (1990). *Of human bonding: Parent-child relations across the life course*. New York: Aldine de Gruyter.

[71] Ryff, C. D.(1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069 – 1081.

[72] Salthouse, T.A. (1991). *Theoretical Perspectives on Cognitive Aging*. Hillsdale, NJ: Erlbaum.

[73] Salthouse, T.A. (1996). General and specific speed mediation of adult age differences in memory. *Journals of Gerontology*: *Series B: Psychological Sciences and Social Sciences*, SIB, P30-P42.

[74] Sati, P.N. (1988). *Retired And Ageing People – A Study of Their Problems*. Delhi: Mittal Publications.

[75] Schulz, R., & Heckhausen, J. (1996). A life span model of successful aging. *American Psychologist, 51*, 702–714.

[76] Schulz, R., Martire, L. M., Beach, S. R., & Scheier, M. F. (2000). Depression and mortality in the elderly. *Current Directions in Psychological Science, 9*, 204–208.

[77] Sharma, K.L. (1971). A Survey of the Happiness and Unhappiness in Old Age. *Indian Journal of Gerontology*, Volume 3 (3&4).

[78] Silverstein, M., Chen, X. & Heller, K. (1996). Too much of a good thing? Intergenerational social support and the psychological well-being of older parents. *Journal-of-Marriage-and-the-Family*, 58, 970-982.

[79] Siva Raju, S. (2000). *Ageing in India: An Overview*. In Murli Desai and Siva Raju (Eds) *Gerontological Social Work in India: Some Issues and Perspectives*. New Delhi: B.R. Publishing Corporation.

[80] Siva Raju, S. (2002). *Health Status of the Urban Elderly*. Delhi: B.R. Publishing Corporation.

[81] Siva Raju, S. (2004). Situational Analysis of Older Persons in Mumbai. Mumbai: Family Welfare Agency. (Mimeo).

[82] Siva, Raju, S. (2005). Employment and Income Security for the Elderly: A Study in Mumbai. Paper Presented at International Conference on Employment and Income Security in India, Institute of Human Development, New Delhi, April 6-8.

[83] Smith, J. & Baltes, P. B. (1993). Differential psychological aging: Profiles of the old and very old. *Ageing and Society*, 13, 551 – 587.
[84] Spencer, K. A., Tompkins, C. A., & Schulz, R. (1997). Assessment of 348 Wrosch, Schulz, Miller, Lupien, and Dunne depression in patients with brain pathology: The case of stroke. *Psychological Bulletin, 122,* 132–152.
[85] Stein, Judith, A., Andersen, Ronald. M., Robertson, Marjorie; & Gelberg, Lillian. (2012). Impact of hepatitis B and C infection on health services utilization in homeless adults: A test of the Gelberg-Andersen behavioral model for vulnerable populations. *Health Psychology*, Vol 31(1), Jan, 20-30.
[86] Stone, A. A., Schwartz, J., Smyth, J., Kirschbaum, C., Cohen, S., Hell hammer, D., & Grossman, S. (2001). Individual differences in the diurnal cycle of salivary free cortisol: A replication of flattened cycles for some individuals. *Psychoneuroendocrinology, 26,* 295–306.
[87] Streiner, David L.; Cairney, John; Veldhuizen, & Scott. (2006). The Epidemiology of Psychological Problems in the Elderly. *The Canadian Journal of Psychiatry*,Vol 51(3), Mar, 185-191.
[88] Sumangala, P.R. (2003). *Retired People and their Participation in Family Activities. Man in India*. Volume 83 (1&2).
[89] Suzuki, Mizue., Ohyama, Naomi., Yamada, Kiyomi.,&Kanamori, Masao. (2002). The relationship between fear of falling, activities of daily living and quality of life among elderly individuals. *Nursing & Health Sciences*, Vol 4(4), Dec, 155-161.
[90] Timberlake, N., Klinger, L., Smith, P., Venn, G., Treasure, T., Harrison, M., & Newman, S. P. (1997). Incidence and patterns of depression following coronary artery bypass graft surgery. *Journal of Psychosomatic Research, 43,* 197–207.
[91] Tomás, J. M.; Meléndez, J. C.; Sancho, P.; & Mayordomo, T. (2012). Adaptation and initial validation of the BRCS in an elderly Spanish sample.*European Journal of Psychological Assessment*, Vol 28(4), 283-289.
[92] Van Eck, M., Berkhof, H., Nicolson, N., & Sulon, J. (1996). The effects of perceived stress, traits, mood states, and stressful daily events on salivary cortisol. *Psychosomatic Medicine, 58,* 447–458.
[93] Vaux, A. & Meddin, J. (1987). Positive and negative life change and positive and negative affect among the rural elderly. *Journal of Community Psychology*, 15, 447 – 458.
[94] Villeneuve, L., Dargis, L., Trudel, G., Boyer, R., Préville, M.,& Bégin,J. (2014).Daily hassles, marital functioning andpsychological distress among community-dwelling older couples. *European Review of Applied Psychology*, In Press, Corrected Proof, Available online 1 July.
[95] Vora, R.S (1997). Developing programs to monitor ecosystem health and effectiveness of management practices on lakes state national forests USA, *Biol. Conserv*., 80, 289-320.
[96] Wei-Hua, Tian., Tsai-Ching, Liu., Chin-Shyan, Chen., Li-Fan, Liu., &Joseph, J. Tien. (*2012*).The relationship between depressive symptoms and health service utilization for elderly people in Taiwan. *Health Policy,* Volume 108, Issues 2–3, December, Pages 256-267.
[97] Weiner, H. (1992). *Perturbing the organism: The biology of stressful experience*. Chicago: University of Chicago Press.
[98] Wrosch, C., Schulz, R., & Heckhausen, J. (2004). Health stresses and depressive symptomatology in the elderly: A control-process approach. *Current Directions in Psychological Science, 13*, 17–20.
[99] Wrosch, Carsten; Schulz, Richard; & Heckhausen, Jutta. (2002). Health stresses and depressive symptomatology in the elderly: The importance of health engagement control strategies. *Health Psychology*, Vol 21(4), Jul, 340-348.
[100] Zhang, Z.; Shi, Z.; Wang, L.; & Liu, M. (2011). Mental health problems among survivors in hard-hit areas of the Wenchuan earthquake. *Public Health*, Vol 125(5), May, 293-300.

Author Profile

S. Suneetha Kumari, A Psychologist with specialization in Psychopathology. She worked as Psychologist cum Asst. Prof in prema free polio research and educational institutions Visakhapatnam. She did her Doctoral Degree on geriatrics and psychological problems. She is currently working as a guest faculty in Andhra University at Visakhapatnam.

Rajita. P, A psychologist with specialization in educational and social psychology. She worked as the coordinator and research associate at LSR (Linguistic Research Society). She has recently finished her masters in psychology from Andhra University at Vishakhapatnam. She authored a research article on Emotional Intelligence among adolescents in International Journal of Science and Research (IJSR). She had published books on Stress Management Handbook-A Narrative Remedy and APSET paper-1 Guide. She is currently working as a family counselor in navy family health centre at Vishakhapatnam. **National Internships:** Indian Academy of Sciences 2015 summer internship program, she worked on Resistance Exhibited and Inherited in Drosophila melanogaster at IISER, Mohali Punjab.