© Journal of the Indian Academy of Applied Psychology
January 2011, Vol.37, No.1, 53-59.

Depression in Institutionalised and Non-Institionalized Elderly

S. Venkatesan
All India Institute of Speech and Hearing, Mysore.

Anupama Ravindranath
Sri Venkateswara Unversity, Tirupati

This cross sectional study seeks to map the ground trends of depression in institutionalized and non-institutionalized elderly in association with connected socio-demographic variables. A demographic data sheet and 28-item General Health Questionnaire was used to carry out individual interviews among the elderly. The results indicate satisfactory psychometric qualities for the GHQ-28 in this tested sample for reliability and inter-correlations of its sub-scales. The findings paint a rather grim picture of the most typical hypothetically affected senior citizen of this sample as one who is a widowed institutionalized female hailing from low socio economic status group with complaints of felt anxiety and sleeplessness along with severe depression. This contrasts the much better counterpart of the non-institutionalized aged familial male, preferably with the spouse, from a high socio economic status, who scores consistently better scores on all health dimensions as measured in this study. The results are discussed in the light of the need and their implications for improving the quality of life of the institutionalized elderly in the contemporary Indian society.

Keywords: Geriatric Depression, Institutionalized Elderly, Quality of Life

India is gradually turning into a graying nation. With increased life expectancy, there is more number of citizens above 60-65 age range now than at any other time before in the history of the country. Depressive symptoms are reported as prevalent over the age of sixty five (Ganatra, Zafar, Qidwai, & Rozi, 2008). Although depression in elderly is common, the ageing process itself is unlikely to be the cause of their depression. Studies have shown that people who have lived over ninety were no more likely to be depressed than young adults (Lepine & Bouchey, 1998). Bolla-Wilson and Bleecker (1989) examined the effects of age (young less than or equal to 60 years, old greater than 60 years) and sex on Beck Depression Inventory (BDI), Minnesota Multiphasic Inventory (MMPI)-Scale 2 (Depression), and Geriatric Depression Scale (GDS). No age effects were found on any of the depression scales. On BDI, the older group reported more somatic complaints than the younger group. Psychological complaints were reported equally by young and old groups. Women reported more depressed items on MMPI-2 and a greater number of symptoms of physical malfunctioning than men for both age groups. No age by sex interaction reached levels of significance.

According to available literature, the concept of 'quality of life' comprises several dimensions (Spilker 1990, Bowling, 1992). The most commonly evaluated are its physical, psychological and social dimensions. The physical dimension refers to the individual's physical condition as a consequence of disease or treatment. The social aspect reflects the person's satisfaction

with participation in social roles and social activities. The psychological facet refers to emotional evaluation of a particular situation. This is frequently expressed as measures of anxiety and depression (Blalock, Devellis, Brown, & Wallston, 1989; Krol, Sanderman, & Suurmeijer, 1993). In the present study, following the lines of Goldberg and Hillier (1979), Sanderman and Stewart (1990) and Krol et al (1994) the psychological component of quality of life is proposed to be considered as an outcome measure for the quality of life and well being of the elderly.

Institutionalized living for the elderly is increasingly becoming the order of the day. The stigma attached to the elderly being left to the custody of 'homes for aged' is gradually waning. Still, the thought or word invokes mixed feelings or reactions. It is viewed with hate and loathing as it symbolizes 'horrors of poverty, disgrace, loneliness, humiliation, abandonment and degradation' (Epstein, 1929). Many of the institutions are viewed as rendering sub-standard care. Many factors can contribute to greater depression in the institutionalized elderly. The setting, behavior or routines of the attending staff, abuse or neglect, restrictions on mobility, privacy or personal possessions, etc are some institutional factors that are alleged to contribute towards depression symptoms in the elderly. However, studies in this direction are few and far in between in our country (Satapathy et al., 1997; Kumar & Khetarpet, 1993; Rajkumar, Rangarajan, Padmavathi & Swaminathan, 1988; Venkobarao & Madhavan, 1982; Venkobarao, 1981). Therefore, it was the aim of this study to ascertain the degree or extent of reported symptoms of depression in institutionalized and non-institutionalized sample of elderly persons in relation to associated variables like gender, marital status, available social supports, socio-economic status, etc.

Method

Sample:

A cross sectional survey design combined with purposive sampling technique was used in this investigation. The overall sample consisted of 120 elderly or senior citizens. The operational definition of elders in this study refers to individuals between age group of 60-75 years. Half of the included sample was derived from registered 'homes for senior citizens' with a minimum stay-in period of three months. The other half of the sample was elders residing in their natural homes either by themselves, with their spouse and/or children. Elders who were bed ridden, temporary guests in the households of their friends or relatives, or those who required assistance in their activities of daily living were excluded from the study.

Tools:

A socio-demographic data sheet exclusively prepared for the purpose of this study was used to gather information on the age, gender, residence, education, socio-economic status, and other family details of the respondents. In case of institutionalized elderly, additional details were taken on length of stay in the residential setting. To assess the psychological aspect of quality of life of the elderly respondents, the 28-item version of General Health Questionnaire (GHQ-28) was used (Goldberg, 1981). It can serve as an indicator of psychological well being (Goldberg & Hillier, 1979; Goldberg & Williams, 1988; Sanderman & Stewart, 1990; Krol et al., 1994). As a self report instrument, it is designed for detection and assessment of individuals with an increased likelihood of current psychiatric disorder (Mc Dowell & Newell, 1987; Goldberg & Williams, 1988). The original questionnaire consists of 60 items from which shorter versions of 30, 28, 20 and 12 items were developed. The GHQ-28 scale was derived by factor analysis of the original 60-item version and prepared

mainly for research purposes. The GHQ-28 incorporates four sub scales: somatic symptoms, anxiety and insomnia, social dysfunction and severe depression. The existence of the four sub scales permits analysis within the sub scales and this is an additional advantage of this scale over the other versions (Bowling, 1992). In GHQ-28, the respondent is asked to compare his recent psychological state with his or her usual state. For each item four answer possibilities are available (1-not at all, 2-no more than usual, 3-rather more than usual, 4-much more than usual). In this study the Likert scoring procedure (1,2,3,4) is applied and the total score ranges from 28-112. The higher the score, the poorer is the psychological well being of the patient. The psychometric properties of GHQ are severally established (Goldberg & Hillier, 1978; Banks, 1983; Vieweg & Hedlund, 1983; Goldberg, Oldehinkel & Ormel, 1998).

In this study, a variation in scoring was introduced. Each item was scored 0 if the response choice was 'not at all' and 'no more than usual'; and, scored 1 if the response choice was 'rather more than usual' and 'much worse than usual'. The maximum score possible on this questionnaire is 28. Any score equal or more than five for an individual is deemed a positive case or as being affected. Further, a score was also derived from all the all four sub-scales and total score on the GHQ-28. In this inquiry, the questionnaire was given as self-report instrument to respondents who could read and respond on their own. For others, each test item was read and marked on their behalf. In case of subjects unable to understand English, its Kannada version was given. The Kannada version of the tool was prepared using standard translation-retranslation methods by requesting an expert faculty to translate the items from English to Kannada before re-translating into English once again. The final English version was matched by another blind expert on a 4- point rating scale viz., extreme agreement (4), quite a bit (3), a little (2) and not at all (1). The Kappa coefficient for agreement between translated versions was estimated at 0.87. All analysis was performed by using SPSS/PC (Nie et al., 1973).

Results and Discussion

The results of the study indicates a mean well being score for overall population (N: 120) of institutionalized and non-institutionalized elderly is 5.00 (SD: 5.49). This means that the well being of the respondents in this sample are affected.

Gender

In terms of gender variable, elderly males (N=47; Mean=4.02; SD=4.45) report less problems in well being than elderly females although these differences are not statistically significant (N=73; Mean= 5.63; SD= 6.01) (F= 2.490; p< 0.117) (Table 1). Hale and Cochran (1987) examined gender differences in health attitudes among the elderly. Illness or loss of health was found to be associated with higher levels of anxiety, depression and other forms of psychological distress-especially more pronounced for males than females. The gender differences were attributed to the

Table 1. Distribution of GHQ Scores in relation to various variables

Variable	N	Mean	SD	Probability
Overall	120	5.00	5.49	
Male	47	4.02	4.45	F: 2.490;
Female	73	5.63	6.01	P: 0.117
Institutional	60	6.62	5.99	F: 11.348;
Familial	60	3.38	4.43	P: 0.001; S
Married	54	3.44	4.59	F: 6.684;
Single	19	3.83	3.01	P: 0.002; S
Widowed	47	7.11	6.47	
Low	32	7.31	5.99	F: 4.442;
Medium	64	4.45	5.26	P: 0.014; S
High	24	3.38	4.56	

Table 2. Domain Wise Distribution Of Mean & SD GHQ Scores

Variable	Cronbach's Alpha		Inter-item Correlation				Residence	Probability
			Institutionalized		Non-Institutionalized			
			Mean	SD	Mean	SD		
Somatic Symptoms	0.81	0.43	1.15	1.58	0.83	1.26	T: 1.211; df: 118; p: 0.228	
Anxiety & Insomnia	0.89	0.52	1.92	2.05	1.18	1.80	T: 2.081; df: 118; p: 0.040; S	
Social Dysfunction	0.74	0.34	0.97	1.30	0.72	1.08	T: 1.147; df: 118; p: 0.254	
Severe Depression	0.84	0.40	2.63	2.50	0.67	1.42	T: 5.301; df: 118; p: 0.001; S	
Total	0.92	0.29	6.62	5.99	3.38	4.43	T: 3.363; df: 118; p: 0.001; S	

Table 3 Inter-correlations between the GHQ-28 subscales and total scale

Variable	Somatic	Anxiety Symptoms	Social & Insomnia	Severe Dysfunction
Depression				
Somatic Symptoms	-			
Anxiety & Insomnia	0.63	-		
Social Dysfunction	0.46	0.57	-	
Severe Depression	0.40	0.54	0.53	-
TOTAL	0.83	0.89	0.72	0.71

(p: <0.001 for all correlation coefficients)

greater likelihood of males holding maladaptive or dysfunctional beliefs about the causes or consequences of ill health. Also note that the life time prevalence of depression between sexes shows that 5-12 % of men and 10-25 % of women experience depression. The discrepancies on the scoring of GHQ-28 scale due to gender are not surprising. According to Goldberg and Williams (1988) the scoring on GHQ-28 is not influenced by age, marital status and living situation, as opposed to gender. Women usually score higher on GHQ-28 scale than men. So far, the results of correlation analyses and figures of internal consistency support the presumption about adequate psychometric properties of the scale in this sample.

Area of Residence:

With respect to area of residence, elders from home or staying with their families (N=60; Mean=3.38; SD=4.43) reported fewer problems and hence better well being scores than institutionalized adults (N=60; Mean=6.62; SD=5.99) (F=11.348; p<0.001). In a related western study, the elderly living in a nuclear family system were found 4.3 times more likely to suffer from depression than those living in a joint family system (Taqui, Itrat, Qidwai & Qadri, 2007). The specific type of test items wherein institutionalized elders report problems include anxiety related symptoms like sleeplessness, constant feeling of strain, feeling edgy, scared and panicky for no reason and so on.

Zemore and Eames (1979) obtained BDI scores from 48 elderly who had been residing in homes for the aged for more than one year, 31 elderly residing in the community and waiting to enter an old-age home, and 424 young adults enrolled in a fist-year psychology course. The residents of old-age homes reported no more symptoms of depression than the waiting-list controls, a finding that provides no support for the hypothesis that the institutional nature of old-age homes increases depression in the

elderly. Both institutionalized and non-institutionalized aged reported more somatic symptoms of depression than the young adults, but no greater cognitive or affective symptoms of depression. These results were interpreted as providing no support for the widely belief that the aged are more depressed than any other age group. Finally, it was argued that somatic complaints can be valid indicators of depression in the elderly if normative differences between young and old are taken into account

Marital Status:

The marital status of the elder appears to be a major variable in influencing their reported well being status as evidenced by higher scores for widowed respondents (N=47; Mean=7.11; SD=6.47) than single elders (N=19; Mean=3.83; SD=3.01) and married elders (N=54; Mean=3.44; SD=4.59) (F=6.684; p<0.002). Thus, marriage and a living spouse appears to be the source for greater social support and hence better subjective well being in elders of this sample. The specific type of test items wherein especially widowed institutionalized elders report almost double the score in problems related to severe depression symptoms including hopelessness and helplessness, ideas of worthlessness, and use of leisure.

Bellin and Hardt (1958) studied the relationship between marital status and mental health disorders among the aged. Steuer, Bank, Olsen, and Jarvik (1979) studied the relationships between depression, measured by Zung Self-Rating Depression Scale (SDS), somatic symptoms based on self-reports, and health based on medical evaluations in 60 depressed older persons (median age 64.5 years) in relatively good physical health. No relationship was found between health ratings and depression scores, but a significant association emerged between a Somatic Symptom subscale, specifically the single item of fatigability, physicians' ratings of health, and depression scores.

Socio Economic Status:

With respect to SES, elders from lower strata (N=32; Mean=7.31; SD=5.99) report greatest problems related to subjective well being as compared to those from middle strata (N=64; Mean=4.45; SD=5.26) and those from high layers (N=24; Mean=3.38; SD=4.56) respectively. These differences in reported subjective well being of the elder respondents are found to be statistically significant. (F=4.44; p<0.014). The specific type of test items wherein institutionalized elders from low SES report problems include poor health, feelings of stress and strain, fear of getting a bad temper, etc.

Domain Wise Analysis:

A domain wise analysis of the results was undertaken in this study to chiefly determine the specific areas of subjective well being especially in relation with institutionalized and non-institutionalized elders (Table Two). The results show statistically significant differences between the two groups in the overall scores (t: 3.363; p: 0.001) as well as especially in the domains pertaining to 'anxiety and insomnia' (t: 2.081; p: 0.040), and severe depression (t: 5.301; p: 0.001). The specific type of test items wherein institutionalized elders report moderate to severe anxiety related problems include feeling of worry over sleep, continual sense of strain, nervousness or high strung, sense of panic or being on the edge, being bad tempered, etc. Apart from this, the other domain wherein the elder respondents report severe subjective problems relate to depressive symptoms like ideas of worthlessness, hopelessness, lack of worth in living, suicidal ideas and/or wishing dead respectively.

Reliability-Validity

The internal consistency figures, inter-item correlations means and standard deviations derived on this sample are shown in tables 2 & 3. The Cronbach's alpha

correlation coefficients of reliability of the sub scales vary around 0.80 (range: 0.74-0.89) and internal consistency of the total scale is 0.92. This implies that the scales are not independent of one another. The correlation coefficients between the sub scales and GHQ-28 total scale ranges between 0.71 (severe depression) to 0.89 (anxiety and insomnia) indicating unidimensionality of the scale. These findings are in line with figures quoted by Goldberg and Hillier (1979) and support the assumption that anxiety is a core phenomenon of psychological distress (Goldberg and Williams 1988, Sanderman & Stewart 1990, Krol et al. 1994). The mean inter-item correlations, which can be regarded as indicator of homogeneity of the scale is rather high. The highest is for subscale anxiety/insomnia (i-i=0.52).

In sum, the results of the present investigation helps paint the grim picture of the most typical hypothetically affected senior citizen or an elderly individual as one who is a widowed institutionalized female hailing from a low socio economic status group with significant complaints of felt anxiety and sleeplessness along with severe depression. This contrasts the much better counterpart in the non-institutionalized aged familial male, preferably living with the spouse, from a high socio economic status, who scores consistently lower scores on the ill health and/ or dysfunction dimensions as measured in this study. This implies that it is not old age but the circumstances surrounding them that are critical factors or variables in determining the quality of life in these individuals.

References

Banks, M. (1983). Validation of the General Health Questionnaire in a Young Community Sample. *Psychological Medicine, 13*, 349-53

Bellin, S.S., & Hardt, R.H. (1958). Marital Status and Marital Disorders among the aged. *American Sociological Review, 28,* 155-162.

Blalock SJ, Devellis RF, Brown GK, & Wallston KA. (1989). Validity of the centre for epidemiological studies depression scale in arthritis populations. *Arthritis Rheum, 32*, 991-7.

Bolla-Wilson, K ., & Bleecker, M.L. (1989). Absence of Depression in Elderly Adults. *Journal of Gerontology, 44*, 53-55

Bowling, A. (1992). Measuring Health: A Review of Quality of Life Measurement Scales. Milton Keynes. Philadelphia: Open University Press.

Epstein, A. (1929). *The Challenged of the Aged*. New York: Alfred A Knopf.

Ganatra, H.A., Zafar, S.N., Qidwai, W., & Rozi, S. (2008). Prevalence and Predictors of Depression among an Elderly Population of Pakistan. *Aging and Mental Health, 12*, 349-56.

Goldberg, D.P., & Hillier, V.F. (1979). A scaled version of the General Health Questionnaire. *Psychological Medicine, 9*, 139-145.

Goldberg, D, & Williams, P. (1988). A User's Guide to General Health Questionnaire. Windsor: NFER Publishing.

Goldberg D.P., & Hillier, V.F. (1978). Manual of General Health Questionnaire. Windsor: NFER Publishing.

Goldberg D.P., & Hillier, V.F. (1979). A Scaled Version of General Health Questionnaire. *Psychological Medicine, 9*. 139-45.

Goldberg, D.P. (1981). *The General Health Questionnaire-28*. London: GL Assessment Limited

Goldberg, D.P., Oldehinkel, T., & Ormel, J. (1998). Why GHQ Threshold varies from one place to another. *Psychological Medicine, 28*. 915-21.

Hale, W. D., & Cochran, C. D. (1987). The relationship between locus of control and self-reported psychopathology. *The Journal of Social Psychology, 127*, 38-49.

Krol, B., Sanderman, R., & Suurmeijer, T. (1993). Social support, rheumatoid arthritis and quality of life: concept, measurement and research. *Patient Educ Couns, 20*, 101-120.

Krol, B., Sanderman, R., Moum, T., Suurmeijer, T., Doeglas, D., Krijnen, W, Robinson, I., Briançon, S., Bjelle, A., & Heuvel van den, W. (1994). A Comparison of General Health Questionnaire-28 between patients with Rheumatoid Arthritis from The Netherlands,

France, Sweden, and Norway. *European Journal of Psychological Assessment, 10*, 93-101.

Kumar, V., & Khetarpal, K. (1993). Research and training in gerontology in developing countries. *Quarterly Journal of International Institute of Ageing. Malta, 4*. 17-23.

Lepine, J.P., & Bouchey, S. (1998). Epidemiology of Depression in the Elderly. *International Clinical Psychopharmacology. Suppl. 5*, 57-12.

McDowell, I, and Newell, C. (1987). *Measuring Health*. Oxford: Oxford University Press.

Rajkumar, S., Rangarajan, N., Padmavathi, R., & Swaminathan, R. (1988). Diagnosis and management of depression in the elderly. *Indian Journal of Psychological Medicine, 11,* .201-213.

Sanderman, R., & Stewart, R. (1990). The Assessment of Psychological Distress: Psychometric Properties of the General Health Questionnaire (GHQ). *International Journal of Health Sciences, 1,* 195-202.

Satapathy, R., Kar, N., Das, I., Kar, G.C., & Pati, T. (1997). A study of major physical disorders among the elderly depressed. *Indian Journal of Psychiatry, 39.* 278-281.

Spilker, B. (1990). Quality of Life Assessments in Clinical Trials. New York: Ravens Press.

Steuer, J., Bank, L., Olsen, EJ., & Jarvik, L.F (1979). Depression, Physical Health and Somatic Complaints in the Elderly: A Study of the Zung Self-Rating Depression Scale. *Journal of Gerontology, 34,* 716-22.

Taqui, A.M., Itrat, A., Qidwai, W., & Qadri, Z. (2007). Depression in Elderly: Does Family System play a role? A Cross Sectional Study. BMC Psychiatry, 25, 57.

Venkobarao, A. (1981). Mental health and ageing in India. *Indian Journal of Psychiatry, 6,* 53-58.

Venkobarao, A., & Madhavan, T. (1982). A geropsychiatric morbidity survey in a semi-urban area near Madurai. *Indian Journal of Psychiatry, 24,* 258-267.

Vieweg, B.W., & Hedlund, J.L. (1983). The General Health Questionnaire: A Comprehensive Review. *Journal of Operational Psychiatry, 14,* 74-81.

Zemore, R., & Eames, N. (1979). Psychic and Somatic Symptoms of Depression among Young Adults, Institutionalized Aged and Non-institutionalized Aged. *Journal of Gerontology, 34,* 716-22.

Received: December 29, 2009
Revision received: April 30, 2010
Accepted: October 10, 2010

S. Venkatesan, PhD, Professor in Clinical Psychology, All India Institute of Speech and Hearing, Mysore: 570 006 (Karnataka). Email: psyconindia@gmail.com

Anupama Ravindranath, Research Scholar, Department of Psychology, Sri Venkateswara University, Tirupati