

Original Research Article

# A Comparative Study of Psychiatric Morbidity, Quality Of Life (QOL), Coping Skills among Elderly People Living in Old Age Homes (OAH) and in the Community

Sireesha Srinivasa Rao<sup>1</sup>, Siva Kumar Chennamsetty<sup>2</sup>, Srinivas K Rao<sup>3</sup>

<sup>1</sup>Associate Professor, <sup>2</sup>Assistant Professor, Department of Psychiatry, IMH, Osmania Medical College, Hyderabad. <sup>3</sup>Civil Surgeon Specialist, Department of Orthopaedics, ESI Hospital,Sanathnagar,Hyderabad

Corresponding Author: Sireesha Srinivasa Rao

Received: 03/07//2014

Revised: 04/08/2014

Accepted: 04/08/2014

#### ABSTRACT

**Background:** With a rapidly ageing society geriatric mental health is emerging as an important public health concern. Disorders such as depression, anxiety, cognitive disorders and psychotic disorders have a high prevalence among elderly .There is some preliminary evidence that life in old age homes is perceived by inmates as more supportive, other studies say contrary. Aim: To study and compare psychiatric morbidity ,medical morbidity, QOL, coping skills, stressful life events of elderly adults residing in old age home (OAH) and community.

**Method:** It is a cross sectional, comparative study where the elderly adults, 50 each in both groups, were selected by random sampling and assessed on GHQ,MMSE, MINI,PSLES, CCL,SF-36.

**Results:** Psychiatric morbidity was more in OAH (30%) than community (16%). Cognitive impairment was found in 20% of OAH inmates, 18% of community. There were more of stressful life events in OAH (2.21) than community (1.1).Inmates of OAH used emotion focused coping strategy, subjects of community used emotion and problem focused coping strategy. Medical morbidities are more in OAH(100%),than community(84). Quality of life was better in community than OAH.

**Conclusion:** Psychiatric, medical morbidity was more in old age homes than community, possibility of a drift of mentally and physically ill elderly in to OAH to be considered.

Keywords: old age homes, Psychiatric morbidity, Elderly adults, QOL, cognitive impairment

#### **INTRODUCTION**

The geriatric population is defined as population aged 60 years and above. <sup>(1)</sup> The geriatric population in India is currently the second largest in the world. In India increased life expectancy led to a rise in the older population from 70million in 2001 and ,expected to reach 324million by 2050. <sup>(2)</sup> India has thus acquired the label of an aging nation with 7.7 percent of its population being more than 60years old .The demographic transition is attributed to the decreasing fertility and mortality rates due to availability of better health services .It has been observed that the reduction in mortality is higher as compared with fertility. <sup>(3)</sup> Improved health care promises longevity but social and economic conditions such as poverty, break up of joint families and poor services for the elderly pose a psychiatric threat to them. <sup>(4)</sup>

The elderly people residing in old age home as a subgroup are rapidly increasing in numbers with urbanization, nuclear family system, industrialization and economic constraints. <sup>(5)</sup>

Epidemiological studies in the West have indicated a total prevalence of Psychiatric morbidity in old age ranging from 20-45%. <sup>(6)</sup> A review of literature by Djernes et al revealed that the prevalence of major depression ranges from 0.9-9.4% in community,14-42% in institutions. Psychiatric morbidity is frequent, severe and diverse among elderly people . Various studies have been carried out in India to estimate the prevalence rates by Nandi, Tiwari have reported the prevalence of as 2 -43percent. <sup>(8,9)</sup> mental illness Tiwari SC in 2013 found the prevalence of psychiatric morbidity in rural older adults was 23.7 percent, with mood disorders were the commonest followed by mild cognitive deficit(MCD) ,mental and behavioral disorders due to substance abuse, Alzhiemer s disease, vascular dementia. <sup>(10)</sup> Multiple factors are known to play a significant role in psychiatric illness in elderly like female sex, <sup>(11)</sup> illiteracy, marital status ,economic dependence, (12,13) medical comorbidties. <sup>(14)</sup> Multiple stressors like death of spouse, loss of job ,poor financial status may precipitate depression in old age. <sup>(15)</sup>

In a comparative study by Tiple between old age home residents and community, persons living in old age home perceived more supportive care, psychologically better and experience less cognitive impairment. <sup>(16)</sup> While other studies say that psychiatric morbidity is more in old age homes (OAH). <sup>(17)</sup> Untreated depression in elderly is associated with poor quality of life, difficulty with social and physical functioning. <sup>(18-20)</sup> Elderly adults using religion to cope were less likely to be depressed and more likely to experience improvement in depressive symptoms over time. <sup>(21)</sup> The present study is carried out to compare the psychiatric morbidity in elderly population in old age home and community. *Aims* 

(1)To study and compare the prevalence and pattern of psychiatric morbidity of elderly adults in old age home (OAH) and community.

(2)To study the association between sociodemographic variables and psychiatric morbidity in old age home (OAH) and community.

(3)To compare coping styles, quality of life
(QOL) of elderly adults in both settings.
(4)To compare life events, physical illness in old age home (OAH) and community.
(5)To study correlation between quality of life, coping styles and life events.

Elders living in community are living with their children or living with their spouse Those residing in old age home (OAH) have joined because of need for nursing care, poor social support, adjustment problem, death of spouse, financial problems.

# MATERIALS AND METHODS

*Type of study*; Cross-sectional, comparative study.

Type of sample: The study sample was selected from two branches of Gold age old age home in Saroor nagar Hyderabad ( one other philanthropic paid and the ).Community sample was collected from urban locality (Moula -ali, Hyderabad). The study was conducted from 23rd March 2014 to 23<sup>rd</sup> May 2014 .Subjects were selected by simple random sampling technique. In old age homes, the subjects on every alternate bed of dormitory were interviewed. When the candidate on a particular bed did not meet the criteria to be included in the

study the candidate on the next alternate bed was assessed. In case of community sample, every alternate house was selected, if the house was locked or do not have any elderly adults, next alternate house was selected.

### Inclusion criteria:

(1) age above 60 years.

(2) given consent and cooperative.

(3) not having speech and hearing defects.

(4) having informant (for community sample).

(5) who have been staying in old age home (OAH) for more than 6 months. *Exclusion criteria:* 

### (1) aga balaw 60 yaama

(1) age below 60 years.

(2) did not give consent ,not cooperative.

(3) having communication defects.

(4) having not informant. The total sample size was 100 of whom 50 were residing in the community and 50 stayed in old age home (OAH) .Each group included both males and females. The authorities in charge of the home for aged where the study was conducted were contacted and prior permission was obtained .In the community ,informed consent was taken from all participants who were included in the study. After obtaining consent each person was interviewed on the sociodemographic data sheet. Then all those included in the study were screened for Psychiatric morbidity using GHQ-30, <sup>(22)</sup> those who scored more than 11 were subjected to MINI<sup>(23)</sup> for assessment of axis -I disorders. Mini Mental Status <sup>(24)</sup> was done to Examination,(MMSE) assess cognitive impairment in all subjects ,Presumptive stressful Life Events rating scale(PSLES)<sup>(25)</sup> was administered to all subjects to assess stressful events occurring 1 year before the date of assessment, Coping check List(CCL) <sup>(26)</sup> was given to all subjects to know the coping methods used in stressful situations ,Ouality of life(SF-36) <sup>(27)</sup> was used to assess quality of life in all subjects. Modified Kuppuswamy scale (28)

was used to assess socio economic status. All assessments were done in two or three sessions .For assessing physical morbidities in the inhabitants ,qualitative information like prescriptions and test reports as well as their own explanations were taken in to account .All the participants were categorized in to three sub groups -youngold :60-69years ;old-old :70-79 years;and oldest old :80 years and above. <sup>(29,3)</sup> The data was then analysed.

*Statistical analysis:* Data has been analyzed using Statistical Package for Social Sciences (SPSS) version 10.0 for Windows. Intragroup data are described as means and percentages.

Quantitative data between groups was analyzed using ANOVA and t test. Qualitative data between the groups was analyzed using Chi - square test. Statistical significance was set at p value 0.05.The correlations between the variables were measured using Pearson correlation coefficient.

GHQ <sup>(22)</sup>: Goldberg general health questionnaire used for the current study has 30 item with a cut-off score 11.

MINI international Neuro Psychiatric interview <sup>(23)</sup>: MINI is a structured diagnostic interview developed by Sheehan for diagnosing psychiatric disorders as per DSM-IV and ICD-10 diagnostic criteria.

MMSE <sup>(24)</sup>: Folstein Mini Mental status examination is a 30point cognitive test to provide a bedside assessment of cognitive function and has a cut off of 24 for identifying cases of dementia.

PSLES<sup>(25)</sup>: Presumptive stressful life events scale developed by Gurmeet Singh is an Indian adaptation of social readjustment rating scale by Holmes Rahe. It was observed that an average individual experiences an average of 10 common stressful life events in a life time, 2 stressful events in a year without suffering any adverse psychological distress. CCL <sup>(26)</sup>: Coping check list was developed by Kiran Rao, has 7subscales developed on Apriori basis and validated in a normal adult community sample.

There is one problem focused scale solving),5emotion (problem focused scale(distraction -positive methods ,distraction-negative methods ,acceptance/redefinition ,religion/faith and denial/blame)and problem and emotion focused(social support). The score for each sub scale is sum total of Yes responses (scored as 1) on that sub scale .The testretest reliability is 0.74 and the internal consistency(alpha)ranges from 0.75 to 0.85 indicating adequate reliability. Short form -36<sup>(27)</sup> :SF-36 was developed by John.E.Ware, is a self administered 36 question instrument for measuring health status .It is focused on individuals functional status as it relates to physical problems, pain and emotional difficulties over the last 4 weeks , it yields 8 scale profile. There is high internal consistency for 8sub scales and good test-retest reliability over a 2week period.

Mod Kuppuswamy scale <sup>(28)</sup> The most widely used scale for urban population is Kuppuswamy SES scale .It is a composite score of education and occupation of the head of the family ,along with monthly income of the family which yields a score of 3-29. This scale classifies the study population in to high, middle and low socioeconomic status.

### **RESULTS**

A total of 50 inmates (20 males and 30 females) of a old age home had given their consent to participate in study. Community sample comprised of 19 males and 31 females. The items that were compared in socio demographic data are age, gender, religion, domicile, education, marital status, occupation, type of family.

|  |                        | OAH  | Community | Chi-square | P Value     |
|--|------------------------|--|-----------|------------|-------------|
|  | 60-69                  | 28 (56%)   | 33 (66%)  | 1.678      | 0.432       |
| Age  | 70-79                  | 19 (38%)   | 13 (26%)  |            |             |
| -  | >80                    | $\begin{array}{c c c c c c c c c c c c c c c c c c c $ |           |            |             |
| Candan   | Male                   | 20(40%)  | 19(38%)   | 0.042      | 0.838       |
| Gender   | Female                 | 30(60%)  | 31(62%)   |            |             |
|  | Hindu                  | 40(80%)  | 48(96%)   | 7.127      | $0.028^{*}$ |
| Religion   | Muslim                 | 1(2%)  | 1(2%)     |            |             |
|  | Christian              | 9(18%)   | 1(2%)     |            |             |
| Dominile   | Urban                  | 27(54%)  | 50 (100%) |            | 0           |
| Domicile   | Rural                  | 23(46%)  |           |            |             |
|  | Lower                  | 11(22%)  | 7(14%)    | 10.74      | 0.03*       |
|  | Lower Middle           | 12(24%)  | 6(12%)    |            |             |
| Socio Economic   | Upper Lower            | 13(26%)  | 7(14%)    |            |             |
|  | Upper Middle           | 10(20%)  | 19(38%)   |            |             |
|  | Upper                  | 4(8%)  | 11(22%)   |            |             |
|  | Illiterate             | 12(24%)  | 6(12%)    |            |             |
|  | Primary                | 14(28%)  | 15(30%)   |            |             |
| Education  | S.S.C                  | 11(22%)  | 4(8%)     | 20.028     | 0.001*      |
| Education  | Intermediate           | 5(10%)   | 0(0%)     |            |             |
|  | Graduate               | 4(8%)  | 18(36%)   |            |             |
| Age<br>Gender<br>Religion<br>Domicile<br>Socio Economic<br>Education<br>Occupation<br>Marital Status<br>Family | PG                     | 4(8%)  | 7(14%)    |            |             |
|  | Housewife              | 24(48%)  | 15(30%)   | 16.91      | $0.001^{*}$ |
| Occupation   | Unemployed             | 8(16%)   | 0(0%)     |            |             |
| Occupation   | Unskilled              | 2(4%)  | 9(18%)    |            |             |
|  | Professional           | 16(32%)  | 26(52%)   |            |             |
| Marital Status   | Married                | 15(30%)  | 38(76%)   | 24.14      | $0.00^{*}$  |
| Marital Status   | Unmarried/Single/Widow | 30(60%)  | 12(24%)   |            |             |
| Family   | Joint                  | 2 (4%)   | 8 (16%)   |            |             |
| ,  | Nuclear                | 36 (72%)   | 27 (54%)  | 5.219      | 0.074       |
|  | Extended Nuclear       | 12 (24%)   | 15 (30%)  |            |             |

Table – 1 showing sociodemographic factors of Old Age Home and Community

The maximum number of elderly were in 60 -69 years (young old) age group (n = 28; 56%) in old age home, (n=33; 66%) in community, the number decreased with age, in old age group n = 19; 38% and n = 13; 26% and least number in oldest old age group (n=3; 6%). In Old age home, n =4;8% in community. In both the groups majority belonged to young old group, both were evenly matched, did not differ significantly (p value = 0.432).

The number of females were more in both groups, in old age home (OAH) 30 females; 60%, 20 males; 40% .In community (19; 38% males, 31; 62%, females),both groups were evenly matched (p value = 0.042).

In old age home sample there were 40 (80%), Hindus, 9 (10%) Christians, 1 (2%) Muslims. In community sample number of Hindus were 48 (96%) one each were Muslim (2%) and Christian (2%) and the difference was significant across two groups ( p value = 0.028). Both groups were not matched in religion.

Among old age home (OAH), 23 (46%) were from rural areas, 27 (54%) urban. All elderly adults from community were from urban back ground .Both groups did not match, difference was statistically significant.

Socioeconomic status, occupation did not match across two groups as there were more of lower class in old age home (OAH) (23; 46%), upper class in community (30; 60%) (p value = 0.03), more of financially dependent elderly adults in old age home (OAH) (48%) versus 30% in community (p value = 0.001). Type of family was evenly matched across two groups (p value = 0.07).

Among old age home (OAH) majority had primary education (14; 28%) followed by illiterates (12; 24%), high school (11; 22%), intermediate (5, 10%), followed by degree (4; 8%) and above (4; 8%) proportionately majority of females in old age home (OAH) were illiterates (9; 18%) than females in community (p value = 0.04). (Table 2)

| Table – 2 showing interate remains in old age nome (OAT) and Community |        |             |            |            |          |  |  |
|--|--------|-------------|------------|------------|----------|--|--|
|  |        | Literate    | Illiterate | Chi-square | P Value  |  |  |
| OAH  | Female | 21 (70%)    | 9 (30%)    |            |          |  |  |
| Community  |        | 28 (90.31%) | 3 (9.69%)  | 3.985      | $0.04^*$ |  |  |

Table – 2 showing illiterate females in old age home (OAH) and Community

In community 6 (12%) were illiterates, 15(30%) had primary education, 4(8%) had high school, 18 (36%) degree and above (7; 14%), differed significantly (p value = 0.001), both groups could not be matched in terms of education.

More people in community were currently married and staying with partner (38; 76%) compared to old age home (15; 30%). The difference was statistically significant (p value = 0.00).

The prevalence of psychiatric disorders were more among individual living in OAH (15;30%), than in community (9;18%) difference was not statistically significant (p value 0.128).(Table 3).

| Table – 3 | showing Psychiatric morbidity | in OAH and communit | y as per MINI. |
|-----------|-------------------------------|---------------------|----------------|
|           |                               |                     |                |

|           |            |       |           | Alcohol |        | Chi-square | p value |
|-----------|------------|-------|-----------|---------|--------|------------|---------|
|           | Depression | GAD   | Psychosis | abuse   | Total  |            |         |
| OAH       | 13 (26%)   | 1(2%) | 1(2%)     | 0       | 15(30% | 9.927      | 0.128   |
| Community | 4(8%)      | 1(2%) | 1(2%)     | 3       | 9(18%) |            |         |

Depression was most common Psychiatric disorder in OAH (13;26%), community (4; 8%) followed by anxiety disorders. Schizophrenia, both one each in OAH and community. Alcohol was only substance abuse disorder in community in community in 3 patients (6%).

In OAH group depression was more common in young old age group (9: 18%), female gender (10,20%) less educated group (9; 18%), nuclear family (10; 20%) but the

association was not significant. Depression was more prevalent in widow (9; 18%), separated (3; 6%), unmarried (1;2%) and the association was statically significant (p value =0.027) (Table-4).

In community, depression was association with young old age group (4; 8%), female gender (4; 8%), nuclear family (2; 4%), widow (2;4%) and unmarried (3; 6%)

| Table - 4 showing psychiatric motority and sociodeniographic ractors in OAT and Community |                         |            |         |           |               |  |  |
|---|-------------------------|------------|---------|-----------|---------------|--|--|
|   | Gender                  | Depression | GAD     | Psychosis | Alcohol abuse |  |  |
| OAH   | Male                    | 3(23.1%)   | 0       | 0         |               |  |  |
| GENDER  | Female                  | 10(76.9%)  | 1(100%) | 1(100%)   |               |  |  |
|   | Male                    | 0          | 0       | 0         | 2(66.77%)     |  |  |
| Community   | Female                  | 4(100%)    | 1(100%) | 1(100%)   | 1(33.3%)      |  |  |
| GENDER  | Chisquare               | 6.163      |         |           |               |  |  |
|   | p Value                 | 0.187      |         |           |               |  |  |
|   | Married                 | 0          | 0       | 0         |               |  |  |
| OAH   | Unmarried/ Single/Widow | 13(100%)   | 0       | 1(100%)   |               |  |  |
|   | Married                 | 2(50%)     | 1(100%) | 0         | 3(100%)       |  |  |
|   | Unmarried/Single/Widow  | 2 (50%)    | 0       | 1(100%)   | 0             |  |  |
|   | Chisquare               | 9.219      | 2       | 0         | 0             |  |  |
|   | p value                 | 0.027*     | 0.157   | 0         | 0             |  |  |

In OAH, 11 elderly adults (22%) scored less than 23, cognitive impairment in community was found in 9 (18%) and the association was not significant (p value = 0.617)(Table-5a).

Table 5a showing cognitive impairment in old age home (OAH) and Community

|          |          | cognitive<br>impairmt | chisqure | pValue |
|----------|----------|-----------------------|----------|--------|
| Cognitie | OAH      | 11(22%)               | 0.25     | 0.617  |
| Impairet | Communiy | 9(18%)                |          |        |

There as a statistically significant decrease in MMSE scores with increasing age in both (p value =0.000) (Table-5b). groups

|--|

| Age   | n   | Mean    | Standard  | F      | p value     |
|-------|-----|---------|-----------|--------|-------------|
|       |     |         | deviation |        |             |
| 60-69 | 61  | 24.7049 | 2.776     | 13.153 | $0.000^{*}$ |
| 70-79 | 32  | 24.0312 | 2.571     |        |             |
| >80   | 7   | 19.285  | 1.496     |        |             |
|       | 100 | 24.11   | 2.957     |        |             |

|                                       |  | LSD                         |            |         |
|---------------------------------------|--|-----------------------------|------------|---------|
| (a) Age of persons<br>in old age home | (b) Age of<br>persons in old<br>age home | Mean<br>Difference<br>(I-J) | Std. Error | P value |
| 60-89                                 | 70-79                                    | 0.67367                     | .57838     | 0.24    |
|                                       | >80                                      | 5.41920                     | 1.05744    | 0.00    |
| 70-79                                 | 60-69                                    | -0.67367                    | .57838     | 0.247   |
|                                       | >80                                      | 4.74554                     | 1.10566    | 0.000   |
| >80                                   | 60-69                                    | -5.41920                    | 1.05744    | 0.000   |
|                                       | 70-79                                    | -4.74554                    | 1.10566    | 0.000   |

QOL (quality of Life) was better in community than old age home. The association was not statistically significant (p value 0.35).( Table 6)

On comparison of number of stressful life events experienced by elderly adults in OAH and community, subjects staying in old age home have experienced

#### more stressful life events (mean 2.42) than community (1.22), which is statistically

### significant ( p value = 0.00) ( Table 6)

| 8      | Groups    | N  | Mean   | St. Deviation | F      | p value     |
|--------|-----------|----|--------|---------------|--------|-------------|
| QOL    | OAH       | 50 | 56.4   | 13.40271      | 0.882  | 0.350       |
|        | Community | 50 | 65.7   | 10.97353      |        |             |
| DELES  | OAH       | 50 | 2.42   | 0.97080       | 29.886 | $0.00^{*}$  |
| PSLES  | Community | 50 | 1.22   | 0.46467       |        |             |
| CCLEE  | OAH       | 50 | 1.78   | 0.73651       | 2.895  | 0.092       |
| ULLEF  | Community | 50 | 0.96   | 0.63760       |        |             |
| CCUDEE | OAH       | 50 | 0.06   | 0.31364       | 18.601 | $0.000^{*}$ |
| CCLPEF | Community | 50 | 0.22   | 0.41845       |        |             |
| MMCE   | OAH       | 50 | 24.38  | 2.8771        | 0.199  | 0.656       |
| WIWISE | Community | 50 | 23.84  | 3.03960       |        |             |
| CHO    | OAH       | 50 | 11.28  | 5.107         | 31.04  | $0.00^{*}$  |
| уло    | Community | 50 | 9.6122 | 2.8564        |        |             |

Table - 6 showing comparison of QOL scores, PSLES scores, CCLEF scores in old age home (OAH) and Community by t-test.

Table 7 showing comparision of medical comorbidities in OAH and community.

|                        | OAH      | Community | Chisquare | p value     |
|------------------------|----------|-----------|-----------|-------------|
| HTN                    | 27(54%)  | 12(24%)   | 3.960     | $0.047^{*}$ |
| DM                     | 21(42%)  | 7(14%)    | 18.541    | $0.000^{*}$ |
| Arthritis              | 14(28%)  | 25(50%)   | 4.760     | $0.029^{*}$ |
| Multiple comorbidities | 31 (62%) | 15(30%)   | 11.009    | $0.001^{*}$ |

Table - 8 showing correlation between GHQ, PSLES, QOL, CCLEF and CCLPEF

|                     | Corr   | relations   |   |   |
|---------------------|--|---|---|---|
|                     | GHQ  | PSLES   | QOL   | CCLEF   |
| Pearson Correlation | 1  | .379**  | 607**   | .351**  |
| Sig. (2-tailed)     |  | .000  | .000  | .000  |
| N                   | 99   | 99  | 99  | 99  |
| Pearson Correlation | .379**   | 1   | 445**   | .452**  |
| Sig. (2-tailed)     | .000   |   | .000  | .000  |
| N                   | 99   | 100   | 100   | 100   |
| Pearson Correlation | 607**  | 445**   | 1   | 318**   |
| Sig. (2-tailed)     | .000   | .000  |   | .001  |
| N                   | 99   | 100   | 100   | 100   |
| Pearson Correlation | 008  | 152   | .052  | 643   |
| Sig. (2-tailed)     | .333   | .132  | .607  | .000  |
| N                   | 99   | 100   | 100   | 100   |
|                     | Pearson Correlation<br>Sig. (2-tailed)<br>N<br>Pearson Correlation<br>Sig. (2-tailed)<br>N<br>Pearson Correlation<br>Sig. (2-tailed)<br>N<br>Pearson Correlation<br>Sig. (2-tailed)<br>N | Corr           GHQ           Pearson Correlation         1           Sig. (2-tailed)         99           Pearson Correlation         .379**           Sig. (2-tailed)         .000           N         99           Pearson Correlation        607**           Sig. (2-tailed)         .000           N         99           Pearson Correlation        607**           Sig. (2-tailed)         .000           N         99           Pearson Correlation        008           Sig. (2-tailed)         .333           N         99 | Correlations           GHQ         PSLES           Pearson Correlation         1         .379**           Sig. (2-tailed)         .000         .000           N         99         99           Pearson Correlation         .379**         1           Sig. (2-tailed)         .000         .000           N         99         100           Pearson Correlation        607**        445**           Sig. (2-tailed)         .000         .000           N         99         100           Pearson Correlation        008        152           Sig. (2-tailed)         .333         .132           N         99         100 | Correlations           Correlation         Correlation         PSLES         QOL           Pearson Correlation         1         .379**        607**           Sig. (2-tailed)         .000         .000         .000           N         99         99         99           Pearson Correlation         .379**         1        445**           Sig. (2-tailed)         .000         .000         .000           N         99         100         100           Pearson Correlation        607**        445**         1           Sig. (2-tailed)         .000         .000         .000           N         99         100         100           Pearson Correlation        607**        445**         1           Sig. (2-tailed)         .000         .000         .000           N         99         100         100           Pearson Correlation        008        152         .052           Sig. (2-tailed)         .333         .132         .607           N         99         100         100 |

\*\*. Correlation is significant at the 0.01 level (2-tailed).

| Note:  |   |   |
|--------|---|---|
| GHQ    | _ | General Health Questionnaire                  |
| PSLES  | _ | presumptive stressful life events scale       |
| QOL    | _ | Quality of Life                               |
| CCLEF  | _ | Coping check list emotion focused             |
| CCLPEF | _ | Coping check list problem and emotion focused |

Elderly subjects living in OAH were using emotion focused coping strategies ( p value = 0.092), those in community were using emotion and problems focused coping strategies ( p value = 0.000)Average MMSE scores of OAH and community did not show statistical significance (p value =0.656).The average GHQ scores of OAH (11.28) are more than that of community ( 9.612) which was statistically significant ( p value =0.000).

In old age home (OAH), most common medical comorbidity was hypertension (27; 54%) followed by diabetes (21;42%) and arthritis (14;28%). In community most common medical comorbidity was arthritis (17;34%) followed by hypertension (13;26%) and diabetes mellitus (8;16%). All the elderly subjects of old age home (OAH) (100%) had some form or other medical comorbidity. 84% of elderly in community had medical illnesses. Diabetes, hypertension, arthritis and multiple comorbidities were more in OAH than community and the association was statistically significant. (Table 7)



Graph – I Graph showing more female illiterates in OAH (9) than community(3).



Graph – II Graph showing association between age and MMSE scores, as age increases scores decrease.

GHQ scores showed positive correlation with PSLES and the correlation is statistically significant. ( p = 0.000) (Table – 8)GHQ scores showed negative correlation with quality of life (QOL) and it is statistically significant ( p = 0.000). GHQ scores showed statistically significant positive correlation with CCLEF (p=0.000) .CCLPEF (Coping check list problem and emotion focused) scores showed significant negative correlation with CCLEF ( Coping check list emotion focused) (p=0.000)(Table 8)



Graph - III Graph showing negative correlation between GHQ scores and QOL scores.



Graph – IV Graph showing positive correlation between GHQ scores and PSLES scores, as stressful life events increases ,psychological distress increases





International Journal of Health Sciences & Research (www.ijhsr.org) Vol.4; Issue: 8; August 2014



Graph – VI More elderly in oldage home(27) had diabetes than community(7).

### **DISCUSSION**

This is a cross-sectional study .A majority of inmates of OAH and community were in the young-old (60-69years)age group(56% and66%) followed by old-old group (38 % and 26%) and oldest old (6 and 8%. The two groups were evenly matched with respect to age .Most of the study sample was in the age group of 60-69 due to the fact that there will be a gradual decline in the number of persons surviving with increasing age(life expectancy-64.6 in India according to 2002). This is in accordance with study by Seby et al (14) in which youngest age group accounted for highest sample size .Landmark studies by Prasad, <sup>(30)</sup> Nandi<sup>(8)</sup> reported in same range 74 %,87.6% in 60-69years respectively ,22.3% and 24.27% in 70-79years,11.6%,16.02% in 80years above age group.

both In groups (OAH and community) females outnumbered males(females 60%, Males 40%) in 62%,males 38%)in OAH.(females community signifying the current trend of feminisation of older adults . <sup>(31)</sup> The two groups were evenly matched for sex .Educationally females were more illiterate (10;20%) than males(2;4%) in OAH, which is in accordance to Census of India 2001 report.<sup>(32)</sup>

In current study marital status differed across the two groups, more number of elderly in community (38;76%)were currently married and staying with their partner.

The two groups differed in terms of education, domicile and socio-economic status.

Psychiatric illness was found to be prevalent among inmates more of OAH(30%) than community (18%)(p=0.186).This finding is in accordance with study by AKM Nagaraj,  $^{(17)}$  Western studies by Mc Dougall FA,  $^{(33)}$ Djernes. <sup>(7)</sup> This is against study by Tiple, <sup>(16)</sup> which says that those staying in old age homes are psychologically better and experience less cognitive impairment.

Depression was most common psychiatric disorder in both groups (26%,8%).Western studies by McDougall, <sup>(33)</sup> reported depression in institutions as 27.1% and 9.3% in the community .Indian studies by Nagaraj found depression in 36% elderly adults in OAH ,22%in of community. In both community and OAH the highest prevalence of depression was found in sixth and seventh decades of life. This is in line with study by Tiple and Sharma. <sup>(16)</sup> The prevalence of depression in females was higher when compared to males in both settings (76.9%,100). This finding may be because of responsibilities ,family burden and increased perception of stress in females. This is in accordance with Indian study by Premaranjan, <sup>(34)</sup> Western study by Copeland, <sup>(35)</sup> that psychiatric illness was more prevalent among females .Depression was more prevalent in widow, single, unmarried in both OAH and community. This is in line with studies by Nandi. <sup>(11)</sup> In old age home (OAH) .depression was more prevalent among less educated ,those who have only school education (74%) than those

who had college education. This could be due to better comprehension of illness by literate people and earlier seeking help from psychiatrist. This finding is in line with study by Seby <sup>(14)</sup> on urban population.

11 inmates of OAH (22%),9 elderly adults (18%) of community sample scored less than 23 in MMSE .Indian study by Nagaraj AKM, <sup>(17)</sup> also found cognitive impairment more in OAH (46%) than community(36%). Cognitive impairment was more among less educated in OAH, study also found a statistically this significant decrease in MMSE scores with increasing age both, in line with study by Henderson. <sup>(36)</sup> Average MMSE scores were almost the same across two groups ,this is in contrast to Gupta 's, (37) where in the average MMSE scores of community were greater than old age home (27 study and 20).

All the inhabitants of OAH and majority of community subjects were suffering from one or more physical illness .A majority of inhabitants of OAH were having multiple morbidity .This is in line with findings of previous studies by Venkoba Rao.<sup>(29)</sup> The most common medical morbidity was hypertension (27;54%)followed by diabetes(21;42%)and musculoskeletal disorders(14;28%) in OAH .Similar findings were observed in study done on morbidity profiles of elderly in old age home (OAH) by Rani , Palani. <sup>(38)</sup> In community most common medical morbidity was arthritis (25;50%) followed by hypertension(12:24%) diabetes(7:14%) our study is in line with previous studies by Munshi, <sup>(39)</sup> and Western studies by Kaplan. (40)

The prevalence of mental health problems as well as medical problems were found to be higher in old age home (OAH) in comparison to community. The reason could be more psychological stressors like lack of spouse ,poor family support, financial constraints, restricted environment of old age home (OAH).

Quality of life was better in community than old age home (OAH) ,this is in contrast to study by Nagaraj AKM <sup>(17)</sup> wherein QOL was evenly matched across both groups .GHQ scores were significantly higher in OAH than community indicates more psychological distress in OAH. In our study inhabitants of OAH experienced more number of stressful life events than community. This is in consonance with Indian study by Agarwal, <sup>(15)</sup> Western study by Murphy, <sup>(41)</sup> it was found that the elderly depressed patient experienced significantly higher number of stressful life events as compared to control group. Elderly adults in old age home (OAH) use more emotion focused coping strategies than community. Elderly adults living in community have used emotion and problem solving social support coping strategy as compared to OAH .This is in contrast with study by Tiple <sup>(14)</sup> who studied social support in elderly people living with children and those living in old age home (OAH) and found that inmates of old age home perceived their social support to be either moderate or good life events.

GHQ showed positive scores correlation with PSLES, as stressful life events increases psychological distress increases, GHQ scores showed negative OOL. correlation with increased psychological distress is associated with poor OOL. Coping checklist emotion focused scores (CCLEF) showed negative correlation with coping check list problem and emotion focused scores (CCLPEF), elderly adults who use more emotion focused coping strategies use less of problem and emotion focused coping strategy.

# CONCLUSION

(1)The prevalence of mental illness was more in old age home (OAH) than community

(2)Depression was the most common mental illness ,more so in young old age group ,female gender ,widow, single, unmarried ,from nuclear family.

(3)Hypertension, diabetes, arthritis was more in old age home (OAH) than community.

(4)There was significantly more number of stressful life events in OAH than community.

(5)Elderly adults in community used emotion and problem solving coping strategies more than elderly in OAH.

(6)Quality of life was better in community than OAH.

# Limitations Of The Study

(1)Both study groups were not evenly matched in marital status, education, socioeconomic domicile status. hence conclusions are difficult draw. to (2)Perceived social support was not assessed.

(3)While assessing medical morbidity elderly adults were not examined by General Physician

(4) size of sample is small, hence results may not be generalized to general population.

# Highlights of the study;

Our study is first of it's kind where in comparison of stressful life events, medical morbidities, coping strategies, quality of life was compared between two groups.(OAH and community).

# Future directions;

The high physical and mental morbidity among elderly in the present study stresses for efforts to provide specialized care to them, so that they remain active members of our society. Geriatric clinics will improve the health status of elderly adults by screening, early diagnosis and create awareness in them.

Further studies are needed to evaluate whether elderly adults who are physically and mentally ill are joining old age homes most likely be a social drift.

### ACKNOWLEDGEMENTS

My sincere thanks to my daughter K.SaiBhavana, my in laws, smt. P.Sita and Sri K.Narasimha Rao for their encouragement and support.

### REFERENCES

- 1. Elango S.1998. A study of health and health related social problems in the geriatric population in a rural area of Tamilnadu .Indian J Public health.42:7-8.
- 2. World Health Organisation .Burden of mental and behavioral disorders.2001.The World health Report 2001;Mental health:new understanding ,new hope. Geneva ,Switzerland. pp3-4 ,19-45,Box 3.7.
- 3. Irudayarajan S .Demography of ageing .2003.In :Dey AB,editor.Ageing in India, Situational analysis and planning for the future .Ministry of health and family welfare .Govt of India.Geneva.WHO p 3-11.
- 4. Venkoba Rao A.1979.GeroPsychiatry in Indian culture .Can J Psychiatry.25:431-6.
- 5. Jamuna D ,Reddy LK.1997.The impact of age and length of widowhood on the self concept of elderly widows .Indian J Gerontology .7:91-5.
- 6. Regier DA et al .1988.One month prevalence of mental disorders in the United states .Arch Gen Psychiatry .45:977-986.
- 7. Djernes JK.2006.Prevalence and predictors of depression in population of elderly :a review .Acta Psychiatr Scand.113:372-87.
- Nandi DN ,Ajmari S ,Ganguli A, Banerjee G ,Boral GC, Ghosh A ,Sankar S.1975.Psychiatric disorders in

a village community in West Bengal .Indian J Psychiatry.117:87.

- 9. Tiwari SC .2000.Geriatric Psychiatric morbidity in rural north Indiaimplications for the future .Int Psycho Geriatr .12:35-48.
- 10. Tiwari SC ,Srivastava G,Tripathi RK .2013.Prevalence of Psychiatric morbidity amongst the community dwelling rural adults in northern India .Indian J Med Res .138:504-14.
- Nandi PS, Banerjee G ,Mukherjee SP ,Nandi S, Nandi DN.1997.A study of Psychiatric morbidity of elderly population of a rural community in WestBengal.Indian J Psychiatry .39:122-9.
- Jain RK ,Aras RY.2007 .Depression in geriatric population in urban slums of Mumbai.Indian J Public health.15:112-3.
- 13. Rajkumar AP ,Thangadurai P ,Senthilkumar P.2009.Nature,Prevalence and factors associated with depression in elderly in a rural south Indian community .International Psycho Geriatr .21:372-8.
- 14. Seby K ,Chaudhary S ,Chakraborty R.2011.Prevalance of Psychiatric and physical morbidity in urban geriatric population.Indian J Psychiatry.53:121-7.
- 15. Agarwal P ,Jhingan. 2002 .Life events and depression in elderly .Indian J Psychiatry.44:34-40.
- 16. Tiple P ,Sharma SN, Srivastava AS.2006.Psychiatric morbidity in geriatric people.Indian J Psychiatry .48:88-94.
- 17. Nagaraj AK ,Mathew J ,Nanjegowda SM ,Malgi SM ,Purushotham SM.2011.Psychiatric morbidity among elderly people living in old age homes and in community .A comparative study .Online Journal of health and allied sciences.10:1-5.
- 18. Unutzer J.2007.Late life depression.N Engl Med.357:2269-76.
- 19. Barua ,Kar N .Screening of depression in elderly population.2010.Indian J Psychiatry.52:150-3.

- 20. Asadullah Md ,Kunal K ,Basavaraj K, Malamandi S.2012.A study on morbidity profile,quality of life of inmates of OAH in udup idistrict .International Journal of Basic and applied medical sciences.2:91-7.
- 21. Koenig HG ,Cohen HJ ,Blazer DG.1992.Religious coping and depression in hospitalized medically ill older men .Am J Psychiatry.149:1693-00.
- 22. Goldberg DP.1992.The detection of Psychiatric illness by questionnaire .Maudsley monograph 21.London Oxford University press .
- 23. Sheehan DV ,Lecrubier Y ,Sheehan KH, Amorim P ,Janavs J ,Weiler ET.1998.The Mini-International Neuropsychiatric Interview(MINI):The development and validation of a structured diagnostic Psychiatric interview for DSM -IV and ICD -10.J Clin Psychiatry.20:22-23.
- 24. Folstein MF ,Folstein SE ,Mc Hugh PR.1975.Mini -Mental status examination(MMSE)-a practical method for grading the cognitive state of patients for the clinician .J Psychiatr Res .12:189-98.
- 25. Singh G ,Kaur B ,Kaur.1984 .PSLES .A new stressful life event scale for use in India.Indian J Psychiatry.26:104-14.
- 26. Rao K ,Subbakrishna DK ,Prabhu GG.1989.Development of a coping checklist - A preliminary report .Indian J Psychiatry.31:128-33.
- 27. Ware JE ,Sherbourne CD.1992.The MOS -36 item Short Form health survey(SF-36),Conceptual framework and item selection medical care1.30:473-83.
- Park,editor .2011 .Medicine and Social sciences. TextBook of Preventive and Social Medicine 21st edition :Jabalpur. In :Banarasi das, Bhanot publishers, p638-40.
- 29. Venkoba Rao .1993 .Psychiatry of old age in India .Int Rev Psychiatry. 5:165-70.

- Prasad KMR ,Sreenivas KN ,Ashok MV et al .1996.Psychogeriatric patients: A sociodemographic and clinical profile .Indian JPsychiatry.38:178-81.
- 31. The woman ageing situations .Newyork: Centre for social development and Humanitarian affairs ,United Nations.1991.
- 32. Appraisal of age data.2001. In: Banthia JK ,editor.Census of India .Series 1.New Delhi : Controller of Publications .99.
- 33. McDougall FA ,Mathews FE ,Kvaal K ,Dewey ME .2007.Prevalence and Symptomatology of depression in older people living in institutions in England and Whales .Age and Ageing 2007.
- 34. Premarajan KC ,Danabalan M ,Chandrasekhar R ,Srinivasa DK .1993.Prevalence of Psychiatric morbidity in an urban community of Pondicherry .Indian J Psychiatry .3599-602.
- 35. Copeland JR ,Dewey ME ,Wood N ,Searle R ,Davidson IA ,Mc William C. 1987.Prevalence of mental illness among the elderly in the community .Prevalence in Liverpool using the

GMSAGECAT Package.Br J Psychiatry .150:815.

- 36. Henderson AS.1994.Epidemiology of mental disorders and psychosocial problems:Dementia.WHO. Geneva.
- 37. Gupta S ,Steinmeyer C ,Frank B ,Lockwood K ,Lentz B ,Schultz K.2003Older patients with schizophrenia : nature of dwelling status and symptom severity .Am J Psychiatry .160:383-40
- Rani AM ,Palani G and Sathiyasekharan BWC.2012.Morbidity profile of elders inOAH in Chennai .National Journal of Community medicine .3:458-64
- 39. Munshi YI ,Iqbal M ,Rafique H ,Ahmed Z.2008.Geriatric morbidity pattern and depression in relation to family support in aged population of Kashmir valley .Internet J Geriatr Gerontology .4:14-6.
- 40. Kaplan MS ,Huguet N ,Feeny DH ,Mc Farland BH.2010.Self reported hypertension prevalence and income among Canada and United States .Soc Sc i Med.70:844
- 41. Murphy E.1982.Social origins of depression in old age .Br J Psychiatry.141:135-42.

| Proforma: (For inmates of old age home)   |
|---|
| Name:   |
| Age:  |
| Domicile : rural / urban.   |
| Socio-economic status : Modified Kuppuswamy scale   |
| Address:  |
| Religion :Hindu/Muslim/Christian  |
| Education :school/college/degree/PG   |
| Occupation :full-time paid/part-time paid /household duties/unemployed/retired/agriculture. |
| Marital status : single/married/separated /divorced/unmarried /widow                        |
| Type of family : nuclear/joint/extended nuclear   |
| Duration of stay in old age home:   |
| Nature of admission in to old age home: paid/free.  |
| Family members visit to old age home : rare/frequently.                                     |
| Are you happy staying in old age home: yes:   |
| No: Reason:   |
| Past history of psychiatric illness ,substance abuse:                                       |
| Family history of psychiatric illness:  |
| Medical illness:  |
| MMSE :  |
| GHQ :   |
| MINI:   |
| International Journal of Health Sciences & Research (www.jihsr.org)                         |
| ,   |

PSLES: CCL: OOL: Pro forma for community sample: Name : Age: Sex: Socioéconomic status :mod Kuppuswamy scale Education :school/college/degree/PG Marital status :single/married/divorced/widow/unmarried Occupation :retired/Employed/household duties /part time paid/full time paid Type of family :Joint/nuclear/extended nuclear Past history of mental illness: Family history of mental illness : Substance abuse: Medical illness: MMSE: GHQ: MINI: **PSLES:** CCL: QOL:

How to cite this article: Rao SS, Chennamsetty SK, Rao SK. A comparative study of psychiatric morbidity, quality of life (QOL), coping skills among elderly people living in old age homes(OLH) and in the community. Int J Health Sci Res. 2014;4(8):212-225.

\*\*\*\*\*

International Journal of Health Sciences & Research (IJHSR)

#### Publish your work in this journal

The International Journal of Health Sciences & Research is a multidisciplinary indexed open access double-blind peerreviewed international journal that publishes original research articles from all areas of health sciences and allied branches. This monthly journal is characterised by rapid publication of reviews, original research and case reports across all the fields of health sciences. The details of journal are available on its official website (www.ijhsr.org).

Submit your manuscript by email: editor.ijhsr@gmail.com OR editor.ijhsr@yahoo.com