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Original article

A Perspective of Geriatric Quality of Life & Depression from a Rural Setting of Division Kashmir, Jammu & Kashmir

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ABSTRACT

Introduction: Ageing is an inevitable natural phenomenon. Amongst the chronic morbidities of aged, hearing impairment is the commonest followed by visual impairment. Geriatric Psychiatric morbidity has been reported with prevalence range of 8.9-61.2%. Mood disorders especially depression & dementia are frequently encountered in elderly population. Increasing age, female gender, type of family & absence of spouse support has been seen to be significantly associated with geriatric depression. Dementia is a frequently encountered morbidity in primary health care. The current study was taken up to see for the quality of life experienced by the elderly, to assess the prevalence of depression in the elderly and to see for any correlation between socio-demographic variables with quality of life & depression. **Materials & Methods:** Cross-sectional from District Budgam of Kashmir Division done on individuals aged ≥60 years providing informed written consent. **Results:** WHO-QOL BREF score is fair in 49%. 90.5% of the subjects had good/moderate family integration. Similarly 55.5% had good/moderate social integration. The depression risk of 64.4% in elderly was seen with 58.1% having mild risk, 40.1% having moderate risk & 1.7% having severe risk. **Conclusion:** Depression is a common psychiatric morbidity in elderly that remains unrecognized.

KEYWORDS: Geriatrics, BREF- Quality of Life, Depression.

INTRODUCTION

Ageing is an inevitable natural phenomenon. With the current scenario of increasing life expectancy world-over, elderly population (age ≥60 years) is expected to reach 1.2 billion by year 2025 with majority living in the developing countries. [1] In other words it means that proportion of elderly is going to be one in ten.

Indian age-pyramid has been equally affected by increasing life expectancy which is due to advanced diagnostic & therapeutic technology & drugs. Currently Indian geriatric population is 8.25% [2] & India has acquired the label of an "Ageing nation". [3] With the present percentage of aged people India is facing a huge health burden in terms of not only communicable diseases but also non-communicable diseases. Added upon this is the loss of traditional family values & systems that leave this elderly population prone to psychological problems.

Mortality patterns indicate that cardiovascular diseases contribute 1/3rd , respiratory disorders 10%, infections including TB 10%, neoplasm 6%, accidents, poisoning & violence constitute <4% & other GI disorders of GIT, GUT, nutritional disorders, metabolic disorders contribute about 4%[4]. Amongst the chronic morbidities hearing impairment is the commonest followed by visual impairment.[5] Geriatric Psychiatric morbidity has been reported with prevalence range of 8.9-61.2%. [6]

Mood disorders especially depression & dementia are frequently encountered in elderly population. [7] Increasing age, female gender, type of family & absence of spouse support has been seen to be significantly associated with geriatric depression. [8] Dementia is a frequently encountered morbidity in primary health care. Tuokko H et al in their study have shown that in older adults with cognitive impairment not meeting the criteria for dementia, 5 year outcome is worse than those with no cognitive impairment. [9] In addition to the normal physiological age related morbidities there are some social processes evolving such as change in the traditional concept of family & traditional sources of security systems due to rapid urbanisation & industrialization.

The physiological processes of ageing & social systems together determine the Quality of Life lived by the elderly.

Quality of life has been defined by WHO as "an individual's perception of life in context of culture & value systems in which he/she lives & in relation to his/her goals, expectations, standards |& concerns. [10] For this purpose WHO devised universal instrument for assessment of quality of life.

In wake of these revelations that present a rather grim situation of the geriatric population this study was taken up to have an overview of the geriatric quality of life & depression.

The study aimed to see

- the quality of life experienced by the elderly
- the prevalence of depression in the elderly
- for any correlation between socio-demographic variables with quality of life & depression.

MATERIALS AND METHODS

Type of study: Cross-sectional over a period of 6 months from February 2016 to July 2016.

Study area: District Budgam of Kashmir Division based on feasibility.

Study Population: All individuals aged ≥60 years providing informed written consent with no known psychiatric morbidity at the time of study.

Exclusion criteria: All people aged ≥60 years who were not willing or not in the position to provide information (stroke with aphasia, loss of hearing) and with known psychiatric morbidity (Alzheimer's, depression).

Sample Size: District Budgam has a total of 11 tehsils & 96 villages with a total population of 7.05 lakhs. Making use of Random sampling, 10% of villages (10 villages from 98) were chosen for the study by Lottery method.. In the villages thus chosen a house to house visit was conducted & eligible population providing informed written consent taken up for the study. There were app. 3050 households in the selected villages. 289 study subjects were present, out of which 276 were found eligible for the study. The rest were either ineligible or did not provide consent. Sample size for depression was calculated using the formula $4pq/L^2$.

The prevalence of depression has a wide range so the study done in Primary Health care settings was chosen for prevalence of 31%[11]. The sample size thus estimated was 218. Thus the 276 study participants well represented the component of depression prevalence. After Obtaining informed written consent in local language (Kashmiri), data was collected on pre-designed & pre-tested Questionnaire. The first part included general sociodemographic variables along with questions foe social & family integration.

2nd part included WHOQOL- BREF. It has 26 questions for assessment of physical health, mental state, social relationships, levels of independence & their relationships to the environment. The assessment is done in terms of four domains: physical health, psychological, social relationship & environmental.

3rd part included the questionnaire for Geriatric Depression Score. Shot version of GDS based on 15 questions was chosen as it has the sensitivity of 93% & specificity of 65% for depression screening[12].

WHO-QOL BEREF & GDS were translated into local language (Kashmiri) that was back translated for validity by experts in Department of Kashmiri. Written informed consent was sought by using Kashmiri language. The data was analyzed using statistical software SPSS 20. Prior to study Institutional Ethical Committee clearance was obtained.

RESULTS

Table1 shows the relationship between various sociodemographic variables. As is seen from the table, majority (36.6%) of the individuals with risk of depression were in age group of 65-69 years as compared from the individuals without risk of depression where majority (42.1%) were in the age group of 60-64 years. The chi-square for the association was found to be insignificant (p>0.05). Male sex was found to be more frequently associated with risk of depression (58.1%) in comparison with females (41.8%). The relationship was again found to be statistically insignificant.

There was relatively no difference in risk of depression between married and unmarried individuals as 76.7% of individuals with risk of depression were married & 71.5% of the individuals without the risk of depression were married. Similar was the finding with educational status as 83.1% of individuals with risk of depression were illiterate whereas 91.5% of the people without the risk of depression were illiterate. 30.2% of the individuals with risk of depression were agricultural labourers & 26.1% were homemakers(all females). The association between occupation & risk of depression was found to be insignificant.

Table 1: Relationship between Demographic Variables & Risk of Depression

		With risk of depression	**Without risk of depression**	**Total**	Chi square value=4.185 df=3 p value=0.242
Age(years)	60-64	60(34.8%)	40 (42.1%)	100(37.45)	
	65-69	63 (36.6%)	25 (26.3%)	88 (32.9%)	
	70-74	38 (22%)	20 (21%)	58 (21.7%)	
	≥75	11 (6.3%)	10 (10.5%)	21 (7.8%)	
TOTAL		172	95	267	
Gender	Male	100 (58.1%)	50 (52.6%)	150 (56.1%)	Chi-square value=1.336 df=1 P=.0.513
	Female	72 (41.8%)	45 (47.3%)	117 (43.8%)	

Total		172	95	267 (100%)	
Marital Status	Single	3 (7%)	2 (2.1%)	5 (1.8%)	Chi-square value=2.551 df=4 P=.0.636
	Married	132 (76.7%)	68 (71.5%)	200 (74.9%)	
	Widowed/widower	36 (20.9%)	23 (24.2%)	59 (22%)	
	Divorced	1 (0.5%)	1 (1%)	2 (0.7%)	
	Separated	0	1 (1%)	1 (0.3%)	
Total		172	95	267 (100%)	
Educational status	Illiterate	143 (83.15%)	87 (91.5%)	230 (86.1%)	Chi-square value=5.994 df=3 P=.0.112
	Primary	20 (11.6%)	4 (4.2%)	24 (8.9%)	
	High school	6 (3.4%)	4(4.2%)	10 (3.7%)	
	Higher secondary	3 (1.7%)	0	3 (11.2%)	
	Collegiate/higher	0	0	0	
Total		172	95	267 (100%)	
Occupation	Semi-skilled worker	26 (15.1%)	11 (11.5%)	37 (13.8%)	Chi-square value=5.589 df=9 P=.0779
	Industrial worker	5 (2.9%)	4 (4.2%)	9 (3.3%)	
	Skilled worker	11 (6.3%)	8 (.4%)	19 (7.1%)	
	Agricultural labourer+ others	42 (30.2%)	19 (20%)	71(26.4%)	
	Agriculturist/land owner	25 (14.5%)	20 (21%)	45 (16.8%)	
	Land-lord	1 (0.5%)	0	1 (0.3%)	
	Business (small scale)	7 (4%)	2 (2.1%)	9 (3.3%)	
	Beggar	0	0	0	
	Priest/religious leader	0	0	0	
	Homemaker	45 (26.1%)	26 (27.3%)	71 (26.5%)	
Total		172	95	267 (100%)	

Table 2: **Relationship between Social Variables & Risk of Depression**

Family integration	Well integrated	114 (66.2%)	72 (75.5%)	186 (69.6%)	Chi-square value3.23 df=4 P=.0.519
	Moderately integrated	41 (23.8%)	15 (15.7%)	56 (20.9%)	
	Somewhat integrated	7 (4%)	4 (4.2%)	11 (4.1%)	
	Not integrated	6 (3.4%)	3 (3.1%)	9 (3.3%)	
	Isolated	4 (2.3%)	1 (1%)	5 (1.8%)	
Total		172	95	267 (100%)	
Social integration	Well integrated	17 (9.8%)	11 (11.5%)	28 (10.4%)	Chi-square value=2.91 df=4 P=.0.713
	Moderately integrated	73 (42.2%)	47 (49.4%)	120 (44.9%)	
	Somewhat integrated	48 (27.9%)	23 (24.2%)	71 (26.5%)	
	Not integrated	28 (16.2%)	13 (13.6%)	41 (15.3%)	
	Socially isolated	6 (4.1%)	1 (1%)	7 (2.5%)	
Total		172	95	267 (100%)	

Table 2 shows that 66.2% of individuals with risk of depression were staying in a family with good integration whereas 75.5% of the individuals without depression belonged to a well integrated family. The association was found to be insignificant. As for the social integration as is evident from Table 2 majority (42.2%) with risk of depression had moderate level of social participation & similarly majority (49.4%) of the people without risk of depression had a moderate degree of social participation. The association between risk of depression & social integration was found to be insignificant.

Table 3 shows that amongst the various domains determining the quality of life, 51.3% had a fair quality of physical health, 47.9% had fair level of psychological balance, 36.3% had poor social participation & 49.1% had fair degree of environment arena around them.

Table 3: WHOQOL-BREF (indicating quality of life) scores of the studied population

WHOQOL –BREF domain (N=267)	SCORES(Transformed on scale of 1-100)			
	Excellent	Good	Fair	Poor
Physical Health	0	12.7%	51.3%	36%
Psychological	0	15.7%	47.9%	36.3%
Social	0	31.8%	31.8%	36.3%
Environmental	1.5%	16.5%	49.1%	33%

Table 4 shows that upon application of Multivariate Logistic Regression for various factors as determinants of the risk of depression, there is a significant association between Environmental domains(BREF 4) of WHOQOL-BREF and risk for depression ($p<0.05$). Similarly there is a positive correlation between Psychological domain (BREF2) of WHOQOL-BREF with exponential value of >1.

Table 4: Multivariate Analysis of Depression Risk with various social & quality of life variables

Variable	B(inclination of slope)	Standard Error	df(degree of freedom)	Significance	Exponential(B)	Confidence Interval	
						Lower Bound	Upper Bound
Social Integration	-0.095	.147	1	.516	.909	.681	1.21
Family Integration	-0.187	.165	1	.258	.829	.600	1.14
BREF-1	0.237	.231	1	.227	.756	.481	1.18
BREF-2	0.279	.232	1	.308	1.26	.804	1.99
BREF-3	-0.185	.183	1	.313	.831	.581	1.19
BREF-4	-0.398	.210	1	.058[a]	.672	.445	1.01

DISCUSSION

This study reveals that WHO-QOL BREF score is fair in 49%. Similar were the findings on individual domains of WHO-QOL BREF. The possible reason for this could be the fact that the study was conducted in a rural setting where the elderly are still respected and traditional family & social integration are still maintained. Our study shows that 90.5% of the subjects had good/moderate family integration. Similarly 55.5% had good/moderate social integration. Elderly at this stage of life need constant emotional support & children in their productive age group are seldom able to provide it on steady basis.

Spousal support, if available at this age, becomes the prime source of emotional support. In our study 74.9% subjects were currently married thus it could have been the reason for fair quality of life score. Similar rates of marital status have been shown in 20007 by study conducted by GOI where the rate of currently married elderly was 68.2% & widows/widower were 37.7% only. [13]

Next to the fair quality of life experienced by majority 38% were having poor quality of life. This could possibly be due to illiteracy & low socio-economic status as quality of life is affected by significant positive & negative life events, that might be related to family, society or community where one lives. Illiteracy was seen in 86.1% of the subjects. Studies have also pointed out that the people with higher level of education have better quality of life. [14]

Our study has revealed the depression risk of 64.4% in elderly with 58.1% having mild risk, 40.1% having moderate risk & 1.7% having severe risk. Study done by Balaji Arumugam, Saranya Nagalinga, et al revealed, mean depression rates of 43.5% in urban slums & rural areas. [15]

Another study by Kundap RP et al has pointed at 20% depression risk in elderly with majority having mild risk. [16] Since similar findings are evident from our study as well this revelation could be an indicator for the milder form of depression prevalence that is being ignored by the family & individual as a part of ageing. This depression has been coined by WHO as “masked Depression”. [17] Depression risk was more seen in males (58.1%) & in Illiterates (83.1%).

Multivariate Logistic Regression revealed a significant association between Environmental domains of WHOQOL-BREF. This Environmental domain has questionnaire to assess the freedom, physical safety & security, accessibility & quality of health & social care, home environment, opportunities for acquiring new information & skills, participation for recreation & leisure activities, physical environment & transport.

This finding reflects a state of life in elderly in elderly where despite being within the family & in the society, there is dissatisfaction due to lack of decision making & independence (mental & physical). In addition this shows a sense of alienation from the rest of society & family. Social participation at the level of family & community is important to prevent feelings of loneliness & emptiness of life. [18]

Supporting this is the finding by Balaji Arumugam, Saranya Nagalingam et al, wherein they showed that 50% of the elderly in rural areas & urban slums show dissatisfaction with the time spent with their children & grand-children [15].

CONCLUSION

Depression is a common psychiatric morbidity in elderly that remains unrecognized. In primary health care where elderly usually visit with vague symptoms without any evident medical cause application of depression scale should be considered so that those at risk are referred in time. Screening for depression in elderly with symptoms using less consuming validated short form GDS at primary level will prove quite fruitful. Mere presence of elderly living in a family is inadequate for prevention of depression. Quality of life in terms of independence (mental & physical), judgement making position & social participation are also important. This calls for development of active geriatric clubs or self help groups to deal with the situation.

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