October 2006

Health and needs assessment of geriatric patients: results of a survey at a teaching hospital in Karachi

Syed Nabeel Zafar
Aga Khan University

Hammad Ashraf Ganatra
Aga Khan University

Sarah Tehseen
Aga Khan University

Waris Qidwai
Aga Khan University

Health and needs assessment of geriatric patients: Results of a survey at a Teaching Hospital in Karachi

Syed Nabeel Zafar[1], Hammad Ashraf Ganatra[2], Sarah Tehseen[3], Waris Qidwai[4]

Medical Students, Class of 2008[1-3], Family Medicine Department[4], Aga Khan University, Karachi.

Abstract

Objective: To study the health and needs of geriatric patients

Methods: A questionnaire based survey of patients visiting the out-patient department of Aga Khan University was carried out. Ethical requirements were met and included administration of informed consent and provision of confidentiality to patients. Convenience sampling was used without any randomization for interviews. Epi-info and SPSS software were used for data management.

Results: Four hundred and two (402) subjects above the age of 65 were surveyed. Most of the subjects were retired (40.5%) married (76.4%) men (69.7%). Ages ranged from 65 to 90 years, the mean being 70.57 years and 291 (72.4%) had five or more health problems. Mobility impairment, urinary incontinence, dyspnoea, fatigue and visual impairment had the worst impact on the life of the individual. Hypertension (42.5%), diabetes mellitus (28.1%) and arthritis (26.6%) were the most commonly reported chronic ailments. Two hundred and three (50.5%) respondents were taking three or more different medications daily. A large number of people had religion (61.4%), reading (36.1%), socializing (53%) and watching television (49.5%) as a regular activity. Eighty five (21.1%) respondents reported having financial problems. Three hundred and sixty five (90.8%) respondents had spiritual needs and 264 (72.3%) reported that their spiritual needs increased with aging.

Conclusion: We documented health and needs of the elderly population which need to be taken into account by practicing family physicians, social service workers and also the policy makers of the country (JPMA 56:470;2006).

Introduction

During the past few years much research has been done on the geriatric population worldwide and the universal accordance is that old age should be a criterion for prioritization in health care.[1] In response to demands and needs of the elderly population, geriatric medicine has grown rapidly over the past two decades[2] but still much more remains to be done to meet the ever-growing healthcare needs of the aging population.[2] A substantial number of studies have been conducted in different parts of the world on geriatric populations[3,4], but few have been done in developing countries[5,6], where the expanding geriatric population poses a major burden on their economy.

Overall health can be influenced by many factors including a person's psychological, behavioural and social well being.[7] The simultaneous presence of all these disorders (physical, psychological and social) and unmet health needs in elderly people require a complex assessment.[8] Therefore a holistic and comprehensive approach to assess the needs of the aging population is needed which is one that would include the assessment of physical, mental and functional aspects of life.[8] Needs defined in our study are based on this principle and accordingly include social, spiritual and health needs.

What a person does throughout the day on a regular basis eventually becomes his need. Various activities done to pass time, seek pleasure or fulfill ones spiritual needs slowly become a part of ones life and thus end up as a necessity and these necessary activities form the social needs of a person. It is not easy for an old person to change what he does therefore the social needs of the elderly are a serious matter as not being able to perform these tasks decreases their quality of life.

In order to fulfill the social as well as spiritual needs it is vital to be adequately healthy. The geriatric population is more likely to be affected by multiple health problems[9] which become much more of a burden[4] as their implications are quite adverse. It disables one from fulfilling his social as well as spiritual needs which in turn leads to be a great psychological burden which impairs health even more, resulting in a progressively worsening vicious cycle.

There are many health complaints in the elderly population and all of them should be dealt with accordingly but prioritization should be done to tackle those with the most adverse consequences towards social and spiritual wellbeing, thus improving the quality of life.

For achieving this goal the first step is to identify and assess the needs of the geriatric population only then

can alleviating measures be thought of. Therefore, due to lack of data, we set out to assess the health and needs of geriatric patients of Pakistan, trying to figure out the exact social and spiritual requirements and how these are affected by different health impairments.

Patients and Methods

Karachi, a major city of Pakistan was selected for the study. Convenience sampling was done as follows:-

Patients aged 65 or above 402 in number, visiting the Aga Khan University Hospital Karachi, were interviewed over a period of one month. The interview was questionnaire based and the interviewers met before data collection to eliminate interviewer bias. Informed consent was taken from individuals completing the questionnaires and all other ethical requirements were met.

The questionnaire was designed after an extensive literature search and a pre test was carried out on a sample population of thirty patients to help in making modifications. The results of the pre-test were not included in the study.

The questionnaire was divided into four parts. The first part comprised of demography and included questions regarding age, sex, religion, employment, living conditions and marital status. The second part included common health issues (fatigue, incontinence, dental problems, hearing loss etc.). Each health complaint had three response alternatives, according to the severity of conditions: mild, moderate and severe. The impact of these health related complaints was also recorded. Options for the severity of the health problems were answered by the patients according to a grading scale based on subjective feelings of the patients' needs. Present chronic diseases and their status were also taken into account.

The third part evaluated social requirements (exercising, addictions, socializing, reading etc.) as well as any economical problems while the last part was concerned with the spiritual needs of the geriatric population.

Data entry was performed on Epi-Info version 6 and analyzed using SPSS v 13.0 software.

Results

Four hundred and two (402) subjects above or equal to the age of 65 were surveyed. Most of the subjects were retired (40.5%) married (76.4%) men (69.7%) residing in Karachi (80%). Age ranged from 65 to 90 years, with majority (64.7%) between ages of 65 and 70 (Table 1). Subjects were from all common ethnic backgrounds in Pakistan (Sindhi, Punjabi, Baluchi, Pathan, Mohajir, Memons and Ismailis).

Table-1. Demographic profile of the study population (n=402).

Parameter	Number (%)
Sex:	
Males	280 (69.7)
Female	122 (30.3)
Mean Age in Years ± SD	70.57±5.414
Marital Status:	
Single	7 (1.7)
Married	307 (76.4)
Divorced	0 (0)
Widow/widower	86 (21.4)
Separated	2 (0.5)
Educational Status:	
Illiterate	82 (20.4)
Can read/write	29 (7.2)
Primary	81 (20.1)
Secondary	62 (15.4)
Intermediate	34 (8.5)
Graduate	68 (16.9)
Post-graduate	31 (7.7)
Diploma	15 (3.7)
Employment status:	
Employed	75 (18.7)
Unemployed	30 (7.5)
Self employed	27 (6.7)
House wife	107 (26.6)
Retired	163 (40.5)

Table 2. Demographic profile of the study population (n=402).

Health issue	Present (%)	Mild to moderate (%)	Severe (%)
Dental Problems	73.4	32.2	67.8
Pain	54.5	61.7	38.3
Fatigue (daily activities)	54.3	69.2	30.8
Memory Decline	48	87.5	12.5
Mobility Impairment	42.5	72.5	27.5
Constipation	42.5	63.8	36.2
Hearing Impairment	42	85	15
Dizziness	39.5	78	22
Anxiety	39.3	63.9	36.1
Dyspnea (daily activities)	38.0	70	30
Visual Impairment	37.1	77.1	22.9
Sleep problems	34.8	62.9	37.1
Urinary Incontinence	33.8	61.8	38.2
Headache	32.8	78	22
Heartburn	30.6	77.1	22.9
Anorexia	21.9	72.6	27.4
Obesity	18.2	79.1	20.9
Fractures*	12.4	-	-

*fracture due to fall after age of 65

Table 3. Activities of geriatric respondents (n=402).

Activity	Number	Percentage
Religion	247	61.4%
Socializing	213	53.0%
TV	199	49.5%
Reading	145	36.1%
Taking care of children	115	28.6%
Exercise	90	22.4%
Work	81	20.1%
Others	42	10.4%
Addictions	40	10.0%
Cooking	35	8.7%
Sewing/Knitting	26	6.5%
Clubs	19	4.7%
Music	15	3.7%
None	7	1.7%
Games	3	0.7%

While assessing the health issues, as identified by the subjects or their close relatives, it was found that 291 (72.4%) subjects had five or more problems and only 3 people had none. It was seen that a significant number of people had complaints in almost all of the categories of health issues. Dental problems, fatigue and pain were most commonly reported issues. Around twelve percent (50) of the respondents reported fractures due to fall injuries after the age of 65 (Table 2).

Hypertension (42.5%), diabetes mellitus (28.1%) and arthritis (26.6%) were the most commonly reported chronic ailments. Ischaemic heart disease and chronic obstructive pulmonary disease were reported by 93 (23%) and 35 (9%) respondents respectively. One, two, three, four and five chronic diseases were reported by 131 (32.6%), 101(5.25%), 50 (12.43%), 13 (3.7%) and 02 (0.5%) respondents respectively.

It was noted that 203 (50.5%) were taking three or more different medications daily and upon inquiring about satisfaction with the geriatric health services of Pakistan, 233 (58%) respondents expressed their dissatisfaction.

The regular activities of the subjects are listed in Table-3. It was observed that a large number of people have religion (61.4%), reading (36.1%), socializing (53%) and watching television (49.5%) as a regular activity, whereas 319 people (79.4%) felt the need for clubs to be built in Karachi for the elderly.

Eighty five (21.1%) respondents reported having financial problems. Majority had financial support from their children (51.2%) or finances were self generated (45.3%) and some had support from pensions (18.1%) or charity (1%).

Three hundred and sixty five (90.8%) respondents had spiritual needs and 264 (72.3%) reported increasing spiritual needs with ageing. One hundred and nineteen (32.6%) complained that their spiritual needs were not being adequately fulfilled because they had joint pains (68.9%), excessive fatigue/dyspnea (20.2%), urinary incontinence (16%) or memory loss (11.8%). Of all the respondents, 153 (38.1%) expressed their belief in faith healers, however only 69 (17.2%) sought treatment from them which were usually in the form of "dua" (69.6%), "taveez" (49.3%) and "damm" (30.4%). "Dua" is prayers, "taveez" is an article generally worn by a person on his/her body with holy recitation bestowed on it by faith healer, while "damm" is recitation of holy verses by faith healer and then blowing onto the recipient.

Discussion

Although the study sample was a convenience sample the researchers are of the opinion that this study can be generalized to the city[10] (and therefore all major cities of Pakistan) due to the large sample size of 402.

To discuss the health complaints in the elderly population it is prudent to discuss the impact they have on the life of the individual which is determined by their impact on various social and spiritual needs. Our study identified Socializing, watching T.V., reading, taking care of children, exercising and working as the major social needs. The major spiritual need was practicing religion. These needs were mostly impacted by hearing impairment, urinary incontinence, mobility impairment, dyspnoea, fatigue, visual impairment, pain and headaches.

A very large number of respondents complained of hearing impairment which resulted in their inability to socialize appropriately. They were unable to watch TV or listen to the radio, which was one of the most popular activities amongst the elderly population as documented by our study. As remediation of presbycusis is an important contributor to quality of life in geriatric medicine[11], many studies have suggested measures that should be taken to limit this problem. One of them is to screen for sensorineural defect early on, so that evaluation and management can be started.[12]

Urinary incontinence in old age is a matter of grave concern worldwide[3,13]. It imposes severe restrictions on the spiritual and social life of the elderly as they cannot practice religion the way they want to and are unable to go to public places to work or socialize for longer periods with family or friends. Due to the restraints placed on their daily lives, elderly patients with urinary incontinence are more depressed, have worse perceived health and this has a substantial negative impact on the quality of life.[14]

Mobility impairment, dyspnea and fatigue during daily activities were also reported as major concerns by a large numbers of respondents. According to our study these problems had the worst impact on the daily living of the individual, hindering even the simplest of tasks like going to the bathroom, brushing ones teeth, sitting up etc. Due to this they had difficulty in performing their religious duties and in socializing. But the main problems were that they were unable to take effective care of their grandchildren and were unable to exercise or work. This problem is grave as it takes away an individual's independence, which is something very important for the mental wellbeing of an adult.[15] Dependency is a risk factor for depression and is associated with a low quality of life.[16] Mobility impairment also increases the risk of falling[17] and therefore further worsening the problem.

Visual impairment is probably the single most serious condition in old age as it has a negative impact on almost all aspects of social and spiritual life. Impact of this can be very distressing as visual impairment is associated with issues of safety, independent living, emotional wellbeing and activities of daily living.[18]

The adverse impact of memory loss on the lives of the geriatric population resulted in their inability to practice religion appropriately and interfered in socializing with friends and family. It also had an adverse effect on their ability to work, thus making them more dependent on others. Memory impairment is also a major risk factor for depression amongst the elderly.[19]

A vast majority of respondents claimed that their daily life was hindered due to some sort of pain and constant headaches. Mostly affecting working, reading and exercising it had adverse impacts on almost all aspects of social life. The complaints of pain and headaches are very often ignored or labeled as somatoform but they are very real[20] and decrease the quality of life.[4] Also the prevalence of secondary headache disorders including temporal arteritis and mass lesions increases with age.[6] Therefore the complaints of pain and headaches should not be underestimated and be managed appropriately and given proper care and attention.[20,6]

The other health complaints had high prevalence rates but their impact on daily life was not as much as those reported above. This does not mean that they are not important and should be ignored as many grave problems can result from them. Seemingly simple problems such as obesity and constipation are related to many grave diseases[21,22] and complaints such as dental problems, insomnia, anorexia and heartburn all affect the quality of life of an individual also reported by previous studies.[23-25]

Several studies have shown that there is a strong association between the number of reported diseases and a low quality of life.[5] In our study around 70% of the respondents were suffering from at least 5 or more health problems and almost 75% of the respondents had one or more chronic disease. The above findings along with the fact that around 50% of the respondents were taking 3 or more medications daily reflects poorly on the health of the elderly population. This coupled with the fact that majority of the elderly are not satisfied with the available geriatric health services is a matter of grave concern. This finding has been reported previously.[15] also but several years down the line the conditions still seem to be the same.

A majority of the elderly respondents desired for clubs in Karachi. This shows the need and desire of the elderly population to socialize. A substantial number of respondents reported having financial problems.

Spiritual well being is a very important part of life and an essential component of health. In our study it was seen that almost all of the respondents had spiritual needs and a vast majority of them stated that these needs increase as they age. As discussed above many health problems directly affect the performance of religious/spiritual tasks and this is a matter of grave concern and needs to be dealt with seriously.

A substantial number of respondents expressed their belief in faith healers and many sought treatment from them. It is understandable that elderly are faced with many chronic health problems with no cure. In such circumstances one would expect elderly patients to turn to faith healers in search for a miracle cure. In our opinion these practices should not be completely discouraged as they at least provide some psychological relief to the suffering elder.

Conclusion

We have identified and discussed many health, social and spiritual needs of the elderly population which need to be taken into account by practicing family physicians, social service workers and also the policy makers of the country. Geriatrics is indeed a completely separate field in medicine and the government should act in order to fulfill the needs of the elderly. More research is recommended in different developing countries to formulate a scheme to combat the needs of the ever growing geriatric population.

References

1. Gorbien MJ, Eisenstein AR. Elder abuse and neglect: an overview. Clin Geriatr Med 2005; 21:279-92.
2. Besdine R, Boult C, Brangman S, Coleman EA, Fried LP, Gerety M, et al. American Geriatrics Society Task Force on the Future of Geriatric Medicine. Caring for older Americans: the future of geriatric medicine. J Am Geriatr Soc. 2005; 53(6 Suppl):S245-56.
3. Damian J, Valderrama-Gama E, Rodriguez-Artalejo F, Martin-Moreno JM.

Health and functional status among elderly individuals living in nursing homes in Madrid Gac Sanit 2004; 18:268-74.

4. Borglin G, Jakobsson U, Edberg AK, Hallberg IR. Self-reported health complaints and their prediction of overall and health-related quality of life among elderly people. Int J Nurs Stud 2005; 42:147-58.
5. Sharma AL 'Geriatrics' a challenge for the twenty first century. Indian J Public Health. 2003 ;47:16-20.
6. Weerasuriya N, Jayasinghe S. A preliminary study of the hospital-admitted older patients in a Sri Lankan tertiary care hospital. Ceylon Med J 2005:50:18-9.
7. Centers for Disease Control and Prevention (CDC). Social support and health-related quality of life among older adults--Missouri, 2000. MMWR Morb Mortal Wkly Rep 2005;54:433-7.
8. Biein B. An older person as a subject of comprehensive geriatric approach. Rocz Akad Med Bialymst. 2005; 50 (Suppl 1):189-92.
9. Winblad I, Jaaskelainen M, Kivela SL, Hiltunen P, Laippala P. Prevalence of disability in three birth cohorts at old age over time spans of 10 and 20 years. J Clin Epidemiol. 2001;54:1019-24.
10. Urban resource center, Karachi. Nov 2005 (Accessed: November 17, 2005) http://www.urckarachi.org/popu.htm
11. Gates GA, Mills JH. Presbycusis. Lancet 2005;366:1111-20.
12. Weinstein BE. Geriatric hearing loss: myths, realities, resources for physicians. Geriatrics 1989; 44:42-8.
13. Jumadilova Z, Zyczynski T, Paul B, Narayanan S. Urinary incontinence in the nursing home: resident characteristics and prevalence of drug treatment. Am J Manag Care 2005; 11(4 Suppl):S112-20.
14. Ko Y, Lin SJ, Salmon JW, Bron MS. The impact of urinary incontinence on quality of life of the elderly. Am J Manag Care. 2005; 11(4 Suppl):S103-11.
15. Baig LA, Hasan Z, Iliyas M. Are the elderly in Pakistan getting their due share in health services? Results from a survey done in the peri-urban communities of Karachi. J Pak Med Assoc 2000;50:192-6.
16. VanItallie TB. Subsyndromal depression in the elderly: underdiagnosed and undertreated. Metabolism. 2005;54(5 Suppl 1):39-44.
17. N, Cuvalci S, Ekici G, Otman AS, Karakaya MG. The risk factors of fall and their correlation with balance, depression, cognitive impairment and mobility skills in elderly nursing home residents. Saudi Med J 2005; 26:978-81.
18. Keeffe JE, McCarty CA, Taylor HR. Impact of unilateral and bilateral vision loss on quality of life. Br J Ophthalmol 2005; 89:360-3.
19. Heun R, Hein S. Risk factors of major depression in the elderly. Eur Psychiatry 2005;20:199-204.
20. Care of the older patient with pain. Goodlin,SJ Curr-Pain-Headache-Rep. 2004; 8:277-80
21. Poole R, Byrne CD. The metabolic syndrome and type 2 diabetes. Minerva Endocrinol 2005; 30:139-59.
22. Kinnunen O. Study of constipation in a geriatric hospital, day hospital, old people's home and at home. Aging (Milano). 1991;3:161-70.
23. Hellstrom Y, Hallberg IR. Perspectives of elderly people receiving home help on health, care and quality of life. Health Soc Care Community 2001; 9:61-71.
24. Voyer P, Verreault R, Mengue PN, Morin CM. Prevalence of insomnia and its associated factors in elderly long-term care residents. Arch Gerontol Geriatr 2006;42:1-20
25. de la Rie SM, Noordenbos G, van Furth EF. Quality of life and eating disorders. Qual Life Res 2005; 14:1511-22.