ORIGINAL ARTICLE

Health status of geriatrics in Gujrat, Pakistan

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Abstract

Objective: To determine the overall health status of the elderly in an area Pakistan's Punjab province.

Methods: The cross-sectional study was conducted from April to June 2016 in Tehsil Kharian of district Gujrat, Punjab, Pakistan district, and comprised people aged 60 years or more who were enrolled through multistage random sampling. To measure the health status, and adapted and modified version of Short Form-36 health survey was used. SPSS 23 was used for data analysis.

Results: Of the 395 subjects, 254(65%) were males, and the overall mean age was 69.18±8.93 years. Of the total, 151(38%) subjects reported having no health issues. Among those who reported health issues, 63(16%) had joint problem as their primary health illness. Health status score suggested 286(72%) participants to have poor health, and in the 60-69 years age group, females were more likely to report poor health status compared to males ($p<0.05$).

Conclusion: The majority of the elderly subjects reported to have poor health status, and females reported more health issues compared to males.

Keywords: Health status, Older people, Pakistan, Morbidity, Women health. (JPMA 69: 610; 2019)

Introduction

Various technological developments over the years have led to improved health and increase in the life expectancy of people. In 2002, it was estimated that around 400 million people aged 60 and over were living in the developing world;[1] there will be 1.5 billion older people by 2025.[2] In 2006 approximately, 64% of the world population of age 60 or above were residing in developing countries, and demographers predict that this percentage will increase to 73% by 2030.[3] It is expected that globally the population of people aged 50 and over will increase from 21% in 2011 to 34% by 2050.[4] The increase in the percentage of older people raises various challenges to health systems and overall health of the people.

This demographic transition of aging will lead to increase in the burden of diseases of the population,[5] both communicable and non-communicable. As people age, there is an increase in chronic diseases and disability.[6] In 2005, globally 37 million deaths occurred because of chronic disease and 77% of these were of people aged above 60.[4] In 2004, it was reported that unipolar depressive disorders, ischaemic heart disease, and cardiovascular disease are the top three diseases leading to morbidity in middle-income countries, whereas in lower-income nations, lower respiratory infections, diarrhoeal diseases and human imunodeficiency vrus /acquired immunofeciency syndrome (HIV/AIDS) were three main contributors to disease burden.[5]

However, the healthcare system spends a small fraction of the budget on treating older adult illness[2] and other health-related services. There will be increased demand for healthcare and other social services[2] which will address the chronic health conditions[2] for older people. It is predicted that in Asia chronic non-communicable disease (NCD) burden will increase by 10% in the next 20 years.[7] As the needs of older people are increasing, it is essential to understand the current health status of the elderly.

A more significant number of older people and longer life spans indicate that Pakistan has made progress in the health sector.[8] Older people are defined as those who are 60 years or older, according to Pakistan Demographic Health Survey (PDHS).[9] World Health Organisation (WHO) reported in 1998 that approximately six percent of Pakistan population was over 60 and future projection indicates it will double by 2025.[8] Deteriorating health of the older people is considered normal for their age in the developing world. The major priority in older people's health is to improve their quality of life and overall health.[10] In Pakistan, approximately 10 million people are estimated to have osteoporosis; other common illnesses include hypertension, diabetes, arthritis, dementia[8] and hearing loss.[11] In addition to functional dependency, older people in Pakistan are dependent economically on their family members. The retirement ages in Pakistan from government job is 60 years, and, after retiring, older

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people are less likely to find an alternative career which will satisfy their life economically and socially.[8] Pakistan government developed a national policy in 1999 for better health of the elderly.[12] The features of the policy were the training of geriatrics doctors, provision of dental care, domestic care and presence of healthcare providers for physical therapy and social work for the elderly in Pakistan's health system.[8] Most of the elderly in Pakistan live with families. As Pakistan's health system or health services do not have a specialised sector for geriatrics, therefore, health problems of older people are usually dealt with by general practitioners or other specialists.[8]

Pakistan has not yet accomplished the Health for All agenda[8] and the focus of Pakistan's health system is on maternal and child health as well as on infectious diseases. Due to the different focus, treating diseases of the elderly or meeting their healthcare needs are not country's priority;[8] the elderly group is mostly a neglected group in terms of healthcare service provision. As the aging population is increasing in Pakistan, it is vital to understand the needs of the elderly and how they rate their well-being and health status. The current study was planned to determine the overall health status of the elderly in a cross-section of Pakistani population.

Subjects and Methods

The cross-sectional study was conducted from April to June 2016 in Tehsil Kharian of district Gujrat, Punjab, Pakistan. The district is in the northeast of Islamabad with a population of nearly 20 million and 4% of the total population in the area is above 65 years of age as per 1998 census.[13] The overall literacy rate of Gujrat district is 62.2%, and average household size is six persons. According to 2002 data of the Ministry of Health, Bio-Statistics Section and Health Management Information System, Islamabad, there are 201 health institutions in Gujrat which include one tertiary hospital, 94 basic health units (BHUs), 13 maternal and health health (MCH) centers, and others include dispensaries, rural health centres (RHCs) and tuberculosis (TB) centres.[13] The majority of people are Muslims, and Punjabi is the most spoken language in the district.

The study was carried out in Tehsil Kharian of the district. The study population was defined as any individual aged 60 years or older and residing within the communities in the selected localities for at least three months. Any individual suffering from any psychiatric illness, dementia, and schizophrenia was excluded, and so were those without the national identity card which specifies the holder's age.

The study was conducted in a selected union council (UC) of Tehsil Kharian using multistage random sampling technique. District Gujrat consists of 3 tehsils (Sarai Alamgir, Kharian and Gujrat). Tehsil Kharian was randomly selected. It further includes 43 UCs of which one UC was chosen randomly; UC106 (Figure-1). To formulate the sampling frame for the study participants, voter lists for the local bodies' elections 2015 were obtained. As the lists comprise people of all age groups, a new sampling frame was developed for individuals aged 60 years or above. A total of 960 people aged 60 or above were present in the UC. Using this sampling frame, study participants were randomly selected by lottery method.

The main outcome variable was health status of geriatrics. It was calculated based on general self-reported health in eight health domains: overall health, limitation of activities, pain, social functioning, cognition, sleep/energy, vision, and assistive aids.

The sample size was calculated using WHO software for sample size determination in health studies,[14] using the formula for sample size in the case of a population proportion with absolute precision. We based sample size calculation on the estimation that 42% of the elderly would report overall poor health status[6] with 95% confidence level and 5% precision. After allowance of 5% non-response rate, the total sample size was 394 ~ 395.

Data was collected using 36-items Short-Form Health Survey (SF-36)[10] structured questionnaire which was adapted and modified according to the context. The questionnaire was reliable and the Cronbach's alpha was 0.76. The questionnaire consisted of two main sections. The first part of the questionnaire had the information on demographic characteristics such as age, gender, marital status, education, occupation, pension status, the total number of household members, total number of older people at home, relation to the household head, disease status and when they last visited the doctor.

The second section of the questionnaire was used to measure the health status which had 28 items. It further comprised 8 subsections; overall health, limitation of activities, pain, social functioning, cognition, sleep/ energy, vision, and assistive aids. For example, in limitation of activities the questions were like, "can you perform rigorous activities, stoop, bend, walk more/less than a mile or do household work?" etc. The options ranged from "cannot do at all" to "can do easily" on an eight-item scale. For other subsections, such as pain, cognition, sleep/energy, social function, the questions were like,, "do you experience the phenomenon," if yes, "what is the level of phenomenon" and "how much it interferes with your daily life?"

The questionnaire was first developed in English and then translated into Urdu, which is the national language of Pakistan. Face-to-face interviews and self-administration were the methods for data collection. Only with the participants who were illiterate or had vision problems, face-to-face interview was carried out, while the rest preferred to fill out the questionnaires by themselves. A team of 5 data-collectors assisted the principal researcher in data collection. All these individuals were accommodated within the category of non-response allowance (5%).

To enter the data accurately and reference for analysis, a codebook was developed for the questionnaire. For data entry and data analysis purposes, SPSS 23 was used. At the end of each day, each questionnaire was coded and the data was entered into SPSS. In case of any missing values, the participants were contacted to get the missing information.

Health status was measured using 30-item scale adapted and modified from the SF-36 questionnaire. Mean and the standard deviations (SDs) were reported for general health status and the score for health ranges 17-56 where 17 was the lowest score, and 56 was the highest. General health status was also categorised into poor health and good health based on a median score. The median for general health score was 36.5, so the score 36 or below was categorised as poor health, and the score above 36 was categorised as good health.

Data was analysed in 2 phases. In the first step, descriptive analyses were carried out for demographic characteristics of the study population. Continuous data, such as age, education, total number of people at home, total number of older people at home, and latest visit to the doctor were summarised and reported in tabular form using mean and SD. Categorical data, like gender, occupation, marital status, pension status and disease status, was summarised and presented in terms of frequencies and percentages. The second phase of the analyses involved inferential statistics. Based on the distribution of each variable, the tests were decided and, bivariate and multivariate analysis was carried out. A significance level of p=0.05 was used for all statistical analysis unless specifically mentioned.

To look for an association between health status and gender and education, chi-square test was used. Chi-square goodness of fit was used to compare the reported health status of the studied population with the results reported in previous studies.

The study protocol was approved by the institutional review board of Al-Shifa School of Public Health, Al-Shifa Trust, Rawalpindi, Pakistan. Informed consent was taken from all the participants before data collection and they were informed that they could withdraw at any point. Confidentiality of the data was maintained.

Results

Of the 395 subjects, 254 (64.3%) were males, and 343(87%) were married. Housewife, ex-government employee and farming work were the main occupation of the participants representing 132(33.4%), 110(27.8%) and 86(21.8%) subjects. Besides, 237(60%) subjects were not pension holders, and from among those who were, 80(20.3%) subjects' pension amount ranged from Rs6000 to Rs10,000.

Overall, the mean age of the participants was 69.18±8.93. The mean duration of schooling was 4.48±4.7 years. Also, the mean number of members in a household was 6±2.5.

Regarding the health condition of the participants, 151(38%) subjects reported they did not have any health-related issue. Among those who had any type of health-related issues, 63(15.9%) subjects had issues of joint pain, while 30 (7.5%) had heart disease and 44(11.4%) had diabetes (Figure-2).

Mean score for the overall health of the participants was

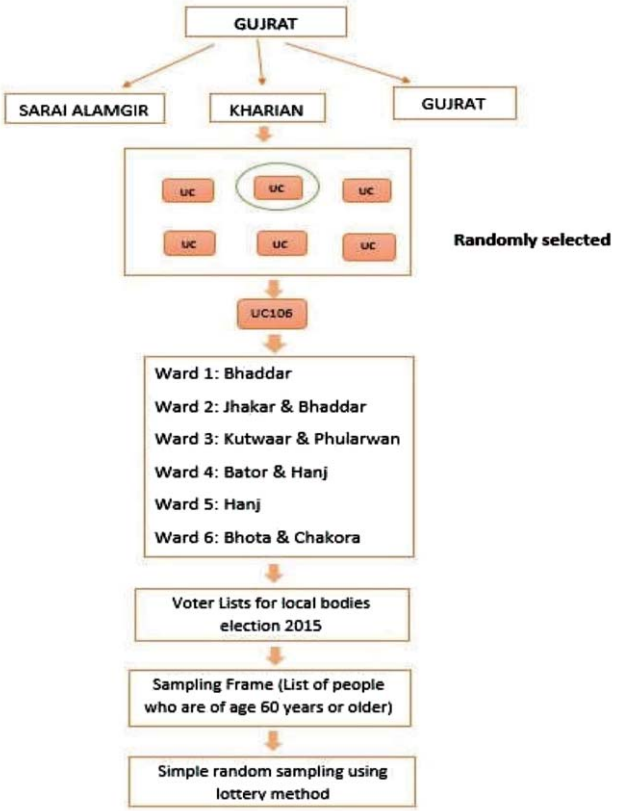

Figure-1: Sampling strategy for the study population.

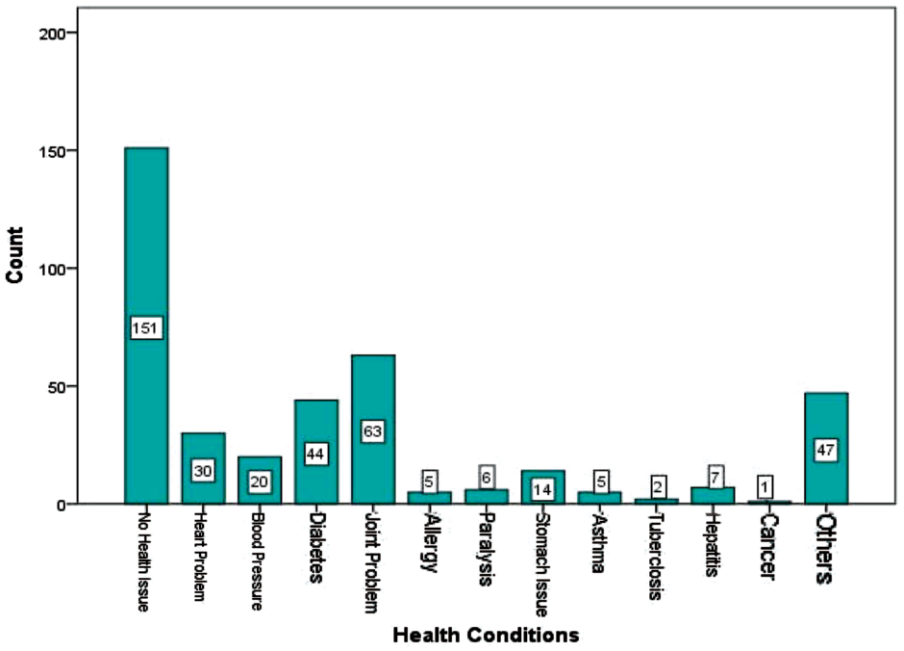

Figure-2: Health condition of the participants.

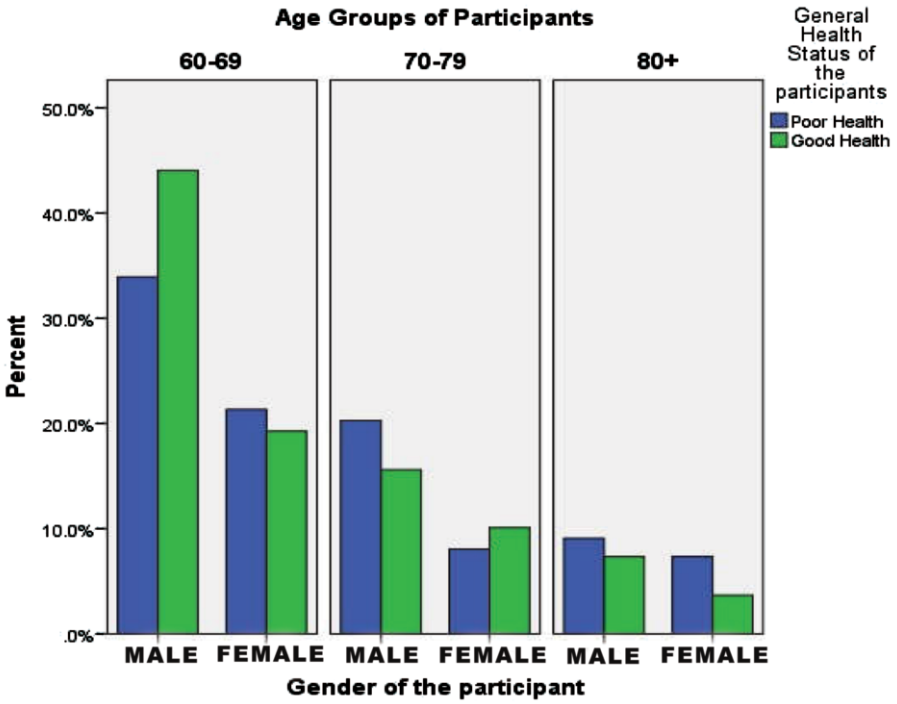

Figure-3: Proportion of health status of the participants with respect to age and gender.

37.35±7.01 (range: 17-56).

When the health status score was divided into two categories based on the median, 286(72%) participants had poor health.

Regarding the health status, males aged 60-69 years had relatively good health status compared to females in the same age group, and overall, the females generally had poor health status compared to males irrespective of age groups (Figure-3).

Discussion

It has been reported that approximately 64% of the world population aged 60 or above were residing in developing countries and demographers predict that this percentage will increase to 73% by 2030.[8] This study aimed at determining the health status of people aged 60 years or above. The main finding of this study was that 27.6% of the studied population reported having good health status.

This study found that 72.4% of the population had poor health status. The observed proportion of health status was much higher compared to that reported in other studies from developing countries. A study conducted in Ghana reported that only 42% of the participants reported poor health status.[8]

In our study, there was a difference in the proportion of poor health reporting for both men and women. Our results show that 71% of men reported having poor health compared to 74.5% of women. The results are similar to those from other developing countries where women were reported to have poor health compared to men. For example, a study from South Africa concluded that women were 30% more likely to report poor health compared to men.[2] Studies from Ghana and Vietnam also reported contradictory results as compared to our study. A study carried out in Ghana indicated that 45% of women had poor health status compared to 35% of men[6] and a study

in Vietnam concluded that 58% of women reported health status below median than 39% of men.[8]

Age was another predictor of health status. In our study, 79.7% geriatrics of age 80 years or above reported poor health compared to 69.6% of geriatrics aged 60-69 years. Similar findings were reported by a study in Ghana where older adults rated their health as poor compared to younger adults.[8] Regarding marital status, in our study, there was no significant association between health status and marital status as all marital status groups reported a higher proportion of poor health of elderly. Other studies have reported similar findings. For example, a study in rural Vietnam also reported an insignificant association between poor health status and marital status.[8] Whereas a study from Nairobi slums reported a positive association between marital status and health; those who were married or in current partnership reported better health.[13]

Socioeconomic status was also a predictor of poor health. In the present study, 75.9% geriatrics that did not have pension reported poor health compared to the 67% pension holders. A study from Tanzania reported that the socio-economic status was associated with health status among older people.[2] Lower socioeconomic status is associated with worse health in older adults.[6] The only provision of pension is not enough because in our study it was reported that among those who had pension, 67% reported having poor health. The government of Pakistan does not have a social welfare system for the elderly such as national assistance programme, meal-on-wheels services, supplementary pensions, on-site services, door-to-door health services etc.

Random selection of the participants was one of the mainstrengths of the study and this random selection ensured the elimination of all possible biases in the data-collection process. Pakistan's health system has mostly focussed on infectious diseases and women and children are the target population segments. Geriatrics is a neglected population and field in Pakistan. The current study with a data of 395 geriatrics participants has highlighted their needs and overall health status. It also caters to the problem of non-response by adding non-response percentage (%) which was 5% of the total sample size.

The study also had several limitations. One of the main limitations was the time of data-collection because of extreme weather and the holy fasting month of Ramzan that explains lack of cooperation by those who were approached. Besides, the overall study was time-oriented, so there were a lot of limitations in the study design. For example, initially the study was intended to compare the health status of geriatrics living in homes and institutions, but because of permission issues and time constraints, it had to be restricted to home-based geriatrics. Lastly, as this was a self-funded project, data-collection was a huge problem because the participants were asking for incentives over and over again.

Conclusion

The elderly in the study reported having poor health status overall. Gender, age, education and pension status were associated with the health status.

Disclaimer: None.

Conflict of Interest: None.

Source of Funding: None.

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