Frequency of chronic diseases in elderly age group.

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ABSTRACT… Objective: To determine the frequency of chronic diseases in elder age group of above 60 years along with their regular activities and functional limitations. **Study Design:** Cross Sectional study. **Setting:** Thokar Niaz Baig Area of Lahore. **Period:** January 2017 to June 2017. **Material & Methods:** A total of 163 respondents, both males and females above the age of 60 years were interviewed using Quota sampling. Data was collected with the help of a pretested structured questionnaire after informed consent. **Results:** The mean age of our study sample was 69 ± 7.1 years. 63.8% were males while females were only 36.2%. Hypertension was found to be 69.3% followed by Diabetes in 51.5%, Visual disturbance 52.1%. Only 10.4% were dependent in physical activity in which 23.5% depends on paid attendants. Elderly depending among them on their son for any support of income were 90% and 90.2% of the study subjects lived with their family in joint family system while 9.8% lived among them. Out of all participants 75.5% have the decision power. **Conclusion:** The risk of diabetes, hypertension, and visual problems were more among the selected population of geriatrics.

Key words: Chronic Diseases, Geriatric, Health Issues, Lahore.

INTRODUCTION

The world is ageing rapidly. It presents as a great challenge to the increased demand for long term care along with primary health care. The societies which invest in healthy ageing can enable individuals to live healthy for a longer period.[1] The older population proportion has been increasing from 8% to 11% from 1950 to 2007 and expected to rise by 22% in 2050.[2] Almost 60% of this elderly population is living in the developing world. This value will increase to 70% by the year 2020.[3] Pakistan has a 7% population above the age of 60 years, which amounts to 11.6 million people.[4] In Pakistan, there is no separate system for the health care of the elderly population. The older individuals require high demand for healthcare.[2] but the increase in their proportion is a challenge to the health care system.[5] They find it difficult to avail healthcare as per need. This problem is more pronounced in developing countries where financial issues are also present.

Due to improvement in life expectancy there is an abrupt rise in geriatric population.[6] This age group is most susceptible to problems involving malnutrition and immobility[7], thus demanding more attention. As of 2013, 7% of the total population of Pakistan is above the age of 60 years, which amounts to 11.6 million people. It is estimated that this number will climb upwards to 43.3 million by 2050 when the geriatric fraction of the population will be at 16%.[4]since the numbers indicate a large rise in the number of elderly people, a concurrent improvement and expansion of health care services should be provided. However, in Pakistan no separate system exists for the health care of the elderly population.[8] So the present healthcare system should allow older people better accessibility and availability of health care centers in Pakistan. Healthcare utilization services in Punjab, Pakistan reported that 20% elderly utilized services at the primary level whereas it was 25% at secondary health care facilities.[9] ‑

The elder age group is facing a large number of

problems and majority of them is dissatisfied with the available health care services. The dearth of geriatric care in Pakistan is evident by the fact that there are no specialized health care facilities available for the elderly. There are no training programs in geriatrics for specialization.

The traditional joint family system is also shifting towards nuclear family system, which is leading to many psychological issues in elderly.[10] The geriatric population is affected by multiple health problems, for which there is dire need to highlight the medical and socioeconomic problems that are being faced by the elderly people. The purpose of this study is to identify the health needs of an aging population and to develop a comprehensive plan to improve the aspects of the life of older in the community.

OBJECTIVE
The aim of this study was to present socio-demographic characteristics and health seeking behavior of elderly and to determine frequency of chronic diseases in elderly population of a peri-urban community in Lahore, Pakistan.

MATERIAL & METHODS
A cross sectional, house to house survey was conducted by using Random Walk and Quota Sampling, which is a type of non-probability sampling targeting the individuals of 65 years or older. A team of eleven medical students from fourth year MBBS of Fatima Memorial College of Medicine & Dentistry, Lahore participated in the collection of data after being trained to fill survey questionnaire. The study was conducted at Eden homes Thokar Niaz Baig because of its peri-urban location and easy accessibility, In this technique the students had been asked to begin the interview process at some random geographic point in the Eden homes Thokar Niaz Baig and had been asked to follow a specified path of travel to select the house holds to interview such as that mention in the inclusion criteria. In this way each household qualifying the interview for the survey had been included until a predetermined quota had been reached. A total of 163 respondents were interviewed using pretested structured questionnaire after informed consent. Sample size was calculated using WHO calculator based on the proportion of elderly population in Pakistan. Original sample calculated was 100 but during data collection 163 individuals were interviewed to avoid non-response rate. Ethical approval through IRB of FMH was taken. (FMH-03-2017-IRB-234-M)

Both males and females above the age of 60 years were surveyed. People below 60 years and patients of depression, dementia or Alzheimer's disease were excluded. The survey questionnaire obtained information on variables like age, gender, marital status, income, educational level, chronic illnesses, living status, daily physical activity and regular activities.

Individuals who gave history of high blood pressure, diagnosis of hypertension by health care provider and use of antihypertensive medications were recorded as hypertensive.

Individuals who gave history of diagnosis of diabetes by health care provider and were using hypoglycemic agents were recorded to be diabetics.

Individuals who were unable to count fingers at a distance of 3 meter were considered as visually impaired.

The data was analyzed using soft-ware statistical package of social sciences (SPSS v22). Frequencies were calculated for the variables and chi square test was used to determine association between the different variables.

RESULTS
Mean age of the elderly population was found out to be 69 + 7.1 years. Out of them, 63.8% were males and 36.2% were females. The marital status in our sample population were found to be 76.1% as married, 1.2% unmarried,20.9% widow and 1.8% were divorced. The 66.9% of old age group were literate whereas 33.1% were illiterate. In our sample 38% of the old population was dependent for finances whereas 61.9% were independent and the sources were pension (42.6%), rent of any property (12.9%), earn themselves (39.6%)

and 4.9% had other sources. (Table-I)

Mean age is 69+7.1 years.

Socio-Demographic Profile	Frequency	Percentage %
Gender		
Male	104	63.8
Female	59	36.2
Total	163	100
Marital Status		
Married	124	76.1
Unmarried	2	1.2
Widow	64	20.9
Divorced	3	1.8
Total	163	100
Education		
Illiterate	54	33.1
Undergraduate	71	43.6
Postgraduate	38	23.3
Total	163	100
Source of income		
Dependent		
Son	56	90.3
Daughter	0	0
Any other	6	9.7
Total	62	100
Independent		
Pension	43	42.6
Rent	13	12.9
Earn	40	39.6
Other source	5	4.9
Total	101	100

Table-I Socio-demographic profile.

Activity	Frequency	Percentage
Independent	146	89.6
Dependent	17	10.4
Family	13	76.5
Paid attendant	4	23.5
Total	163	100
Individuals going for daily walk	**Frequency**	**Percentage**
Yes	82	50.3
Less than 30 minutes	20	24.4
30 minutes	32	39.0
1 hour	26	31.8
More than 1 hour	04	4.8
No	81	49.7
Total	163	100

Table-II. Physical activity.

Individuals living with family	Frequency	Percentage
Yes	147	90.2
Go for outing with family	94	64
Have peaceful environment at home	135	92
Have decision making power at home	111	75.5
No	16	9.8
Total	163	100

Table-III. Behavior assessment.

89.6% of the individuals were independent in their physical activity whereas 10.4% were dependent for their activity. 50.3% walks daily out of which 95.2% walk minimally for one hour and 4.8% of them walk for more than one hour. (Table-II)

Elderly living with their families were 90.2%, out of which 64% went for outing with their family, 92% had peaceful environment at their home and 75.5% do have the decision power. (Table-III)

The most commonly chronic ailments reported by these elderly were Hypertension 69.3%, Diabetes 51.50%, visual problem 52% and hearing issues 27%.

The regular activities of this elderly group are mostly religious 61.4%, followed by socialization 55%, watching television 47.3% and reading 36.3%.
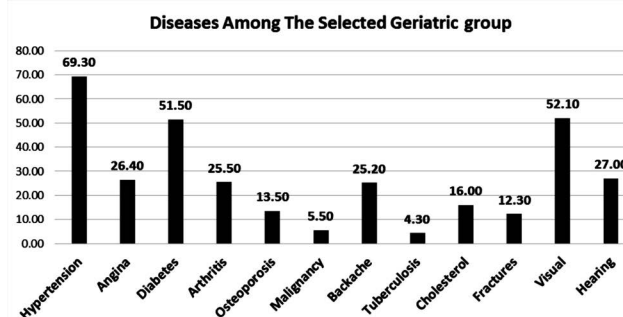

Figure-1. Percentages of the Diseases among geriatric population selected for the study.

DISCUSSION

The health of individuals and communities are affected by many factors and it is arbitrated by their surroundings and circumstances.[11] The major determinants of health status of the elderly population in Lahore found in this study were

chronic diseases, functional limitations and their regular activities. Among the individuals interviewed 104(63.8%) were male while 59(36.2%) were females and male to female ratio was 1.7:1. In a study from Italy this ratio was 0.9:[12] while in a study from India this ratio was 1:1.[13] Education plays a significant role in all the aspects of life. The occupation, income and lifestyle all are affected by education. In our survey, 54 (33.1%) individuals were illiterate, 71 (43.6%) were undergraduate and 38 (23.3%) were postgraduate. Literacy rate was higher in males (76%) and lower in females (50.8%), this was consistent with another study conducted in Karachi where (70.5%) were found to be Iliterate.[14]

Many are unable to work and need support from family. Out of 163 individuals 62(38%) were financially dependent and 101(62%) were independent. Among the dependents, majority of them depend financially on their sons 56(90.3%). A local study, conducted in Jakarta, also showed that majority of the elders (83.3%) were supported by their sons[15] while this is also consistent with an international study conducted in India that showed 98% of the dependent elderly were supported by their children.[16] In the structure of our society, males are expected to earn and provide for their families.

Family has a great impact on the life of an individual. Family support is especially required at the extreme of ages when the person is not able to do all of their activities independently. In our society the joint family system is more prevalent as compared to nuclear system and old homes, which are not considered respectable. Due to these norms of the society, most of the older individuals in our community live with their families irrespective of their source of income. In our study 147 (90.2%) of the individuals were living with their families and 16(9.8%) were living alone. These results are similar to a study conducted internationally where majority of elderly were living with their family.[14]

Most of the elderly become debilitated due to the chronic illnesses associated with old age. Most prevalent diseases in our data were found to be hypertension 69.3% and diabetes 51.50% this is consistent with another study of geriatric individuals conducted internationally.[14] These finding are similar to another study conducted internationally.[17] In our data almost two third of the elders were suffering from hypertension and this finding is consistent with a study conducted in Ethiopia.[18] Also more than 50% of the elders were suffering from more than one chronic disease also shown by another study of India.[13] Communicable diseases are less prevalent in this age group as compared to non-communicable diseases. ˉ

Diabetes is of major concern especially in developing countries like Pakistan. WHO data of 2016 showed that 422 million people were suffering from diabetes and majority of them are present in developing countries.[11] The prevalence of diabetes in our data was 51.5% which means every second elder was suffering from diabetes. This high prevalence can be due to the fact that we collected data from urban community and they have sedentary life style, thus increase rise of type 2 diabetes. In another study conducted in population of Uttarakhand the prevalence of diabetes was low (36%).[19]

Visual problems are very common in this age group. In our data visual problems found to be 52% while in a study conducted internationally 51.7% elders were suffering from visual problems.[20]

Chronic diseases especially the one that limits mobility leads to decreased physical activity. In our study we found that 146(89.6%) elders were independent in their physical activities 17(10.4%) were dependent. These results are consistent with a study conducted in Bangalore, Karnataka, India75.8% were able to cope with daily physical activities than 24.2%who had decreased activities of daily living.[21]

In this study the regular activities include offering prayers 61.4%, socializing 55%, reading 36.3% and watching television 47.3% and these results are consistent with the study conducted in Agha Khan Hospital, Karachi.[14] As the geriatric population is on the rise it's important to address

their health and other problems which may contribute in improving their quality of life.

LIMITATIONS
The study constitutes of small sample size and only peri-urban area is covered so it may have restricted the generalizability of our results.

CONCLUSION
This study supports the view on chronic diseases in old age as a complex issue. To prevent the consequences of chronic diseases and other limitations associated with old age related problems demands multicomponent interventions. Early recognition of problems leading to disability and activities of daily living (ADL) dependence should be one of essential components of such interventions.
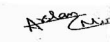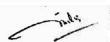
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AUTHORSHIP AND CONTRIBUTION DECLARATION

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1	Arslan Mir	Synopsis development, Introduction, Discussion.	
2	Shamaila Hassnain	Methodology, Results and overall supervision.	
3	Anas Khan	Results, Figures, Conclusion, Limitations, Data Collection.	