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Medical and Socio-demographic Features of Elderly Patient Population Attending Primary Health Care Facilities in Dubai, UAE

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Abstract

Background: The social and biological characteristics of the elderly make them a unique population as manifestations of ill health are sufficiently distinct from the rest of the population. They experience a greater level of morbidity and are relatively frequent users of medical services. Objectives: To study the medical and socio-demographic characteristics of elderly patients in Dubai. Methodology: A cross sectional approach was utilized. It was conducted in Primary Health Care centres affiliated to Dubai Health Authority; including family, and geriatric clinics which provide elderly care. The minimum sample size required is 384. Stratified random sample with proportional allocation was utilized. The stratification was based upon the two medical regions of DHA (Deira and Burr Dubai), and clinic type (Geriatric, and Family clinics). Structured standard interview questionnaire was used. Results: Overall, Dyslipidaemia was diagnosed in the majority of participants (92.7%), followed by hypertension (70.3%) and diabetes mellitus (68.5%). Osteoarthritis was reported among almost one-third of patients (35.2%) while osteoporosis among 8.3% and ischemic heart diseases was reported by 19.3% of them. Considering gender difference, dislypidemia was reported among 94.9% and 89.8% of females and males respectively with statistically significant difference (X^2=3.65, P<0.05). Similarly, 40.1% of females as opposed to 28.7% of males reported osteoarthritis, X^2=5.33, P=0.014. Osteoporosis was reported among 12.9% and 2.4% of females and males respectively with statistically significant difference (X^2=13.64, P<0.001). Hypothyroidism was diagnosed in 10.1% of females as compared to 4.2% of males, X^2=4.78, P<0.05. Other diseases (for males mainly IBS, BPH, hemiplegia, and for females mainly cancer) were more reported among males than females with significant difference, X^2=21.33, P<0.001. Conclusions: It has been concluded that elderly patients do have specific medical morbidities as well as relevant socio-demographic features which are very important in planning and designing of the nature and health care services to be provided for elderly population in Dubai. Elderly health status evaluation can help in giving feedback to medical staff and improving elderly health care programs.

Keywords

Medical, Socio-Demographic, Elderly Patients, Dubai

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1. Introduction

The social and biological characteristics of the elderly make them a unique population as manifestations of ill health are sufficiently distinct from the rest of the population. They experience a greater level of morbidity and are relatively

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frequent users of medical services.[1] Therefore, planning and utilization of health services in this unique group is therefore very important.[2] Although the number of people aged 65 years and over in UAE is quite low at 1.9% of total population (in year 2009),[3] the predicted average annual growth rate in the UAE for those aged 65 and over is 10.3% (1999- 2025); which is the highest in the world. Consequently, by 2050 those aged 65 and over will form 27% of the UAE population; the same proportion predicted for the USA.[4]

The elderly exhibit limited regenerative abilities and are more prone to disease, syndromes, and sickness.[2] They experience a greater level of morbidity and are relatively frequent users of health services.[1] Regular source and continuity of care has been shown to significantly reduce the likelihood of hospitalization and emergency room visits.[5]

Population ageing has been described as a key demographic feature of the 20th century. The United Nations termed it as "one of the most distinctive demographic events" of the previous century, and stated that it will remain an important population issue throughout the 21st century.[1] The social and biological characteristics of the elderly make them a unique population as manifestations of ill health are sufficiently distinct from the rest of the population. They experience a greater level of morbidity and are relatively frequent users of medical services. [1] Therefore, planning and utilization of health services in this unique group is therefore very important. [2] Underlying global population ageing is a process known as the "demographic transition" in which mortality and then fertility decline from higher to lower levels. Decreasing fertility along with lengthening life expectancy has reshaped the age structure of the population in most regions of the planet by shifting relative weight from younger to older groups.[6]

Mortality rates have declined virtually in all countries due to progress in preventing infectious diseases and improving hygiene, sanitation and overall social development and living standards. As a result, average life expectancy has been dramatically increased in both developed and developing countries. [7] The health transition shifts the human survival curve so that the chances of surviving another year are higher at every age. In early nonindustrial societies, the risk of death was high at every age, and only a small proportion of people reached old age. In modern survival curves for industrialized societies, most people live past middle age, and deaths are highly concentrated at older ages. [8]

The number of older persons has more than tripled since 1950; it will almost triple again by 2050. In 1950, there were 205 million persons aged 60 or over throughout the world. By 2009, the number of persons aged 60 or over had increased three and a half times to 737 million.[4] This number is projected to grow to almost 2 billion by 2050, at which time the population of older persons will be larger than the population of children (0-14 years) for the first time in human history. [9]

In 2000, approximately 10% of the world's people were 60 years old or older. According to the United Nations population projection, falling fertility and mortality rates will cause this figure to rise to over 20% by 2050 and by 2150, one out of every three (around 33%) will be aged 60 years or over. [10] Moreover, it is estimated that between 2000 and 2050, the proportion of individuals above the age of 65 will more than double from 6.9% to 16.4%. In late nineties the majority of the elderly population (60% of the 580 million elderly people globally) is living in the developing countries. By 2020, this value will increase to 70% of the total elderly population.[11]

The majority of the world's older persons reside in Asia (54 per cent), while Europe has the next largest share (22 per cent). [9] In 2009 the united nation[3] reported that the percentage of population aged 60 years or over living in USA was 18%, Japan 30%, Sweden 25%, and Denmark 23%. Among the Arab countries, Tunisia and Lebanon have the highest percentage by 10% each then Morocco 8%. This percentage reached 5% in Oman and 2% in UAE. However according to local statistics conducted in UAE 2007, [12] the percentage of those 60 years old or over was 4% while in Dubai local statistics 2007, [13] it was 1.14%.

2. Objectives

To study the medical and socio-demographic characteristics feature of elderly patients in Dubai.

3. Methodology

A cross sectional approach was utilized in the present study. Primary Health Care centres (PHC) affiliated to Dubai Health Authority; including family, and geriatric clinics which provide elderly care in all PHC. Who are United Arab Emirates elderly (aged 65 years or more), males and females attending the PHC centre of DHA in Dubai during the period of the study. Excluded from the study Elderly patients with communication problem, as those with severe hearing impairment. Elderly patients with a previous diagnosis of dementia. the minimum sample size required is 384. Stratified random sample with proportional allocation was utilized. The stratification was based upon the two medical regions of DHA (Deira &, Burr Dubai), and clinic type (Geriatric, and Family clinics). Structured standard interview questionnaire was used.

4. Results

From table (1), it is obvious that 24% of all participants, (31.7% of males and 18.0% of females) were 75 years or above. The difference between males and females regarding age was statistically significant (X^2=10.57, P=0.005). Most of males were married (88.6%) as compared to 56.2% of females while 41.5% of females were widowed as opposed to 6.6% of males. The association between marital status and gender was statistically significant (X^2=60.01, P<0.001). There is a statistically significant difference between males and females regarding their occupation as almost all females were housewives (99%) and most of the males were retired (86.2%), X^2=356.2, P<0.001.

Concerning educational level, overall, the majority of the participated elderly patients were illiterate (71.3%). Considering gender difference, more than three quarters of females were illiterate (78.7%) as compared to 61.6% of males while 7.8% of males were above the secondary school level of education as opposed to 1.9% of females. This difference between males and females regarding educational level was statistically significant (X^2=17.36, P=0.002). Most of the participants reported having enough monthly income (68.2%) or more than enough (20.1%) with no statistically significant difference between males and females (P>0.05).

Table 1. Socio-demographic characteristics of elderly by gender utilized with primary health care services at Dubai Health Authority (n=384).

Socio-demographic characteristics	Males N=167 No. (%)	Females N=217 No. (%)	TotalN=384 No. (%)	X^2 (P-value)
Age in years				
65-	114 (68.3)	178 (82.0)	292 (76.0)	10.57 (0.005)
75-	48 (28.7)	33 (15.2)	81 (21.1)	
85-	5 (3.0)	6 (2.8)	11 (2.9)	
Marital status				
Single	5 (3.0)	2 (0.9)	7 (1.8)	
Married	148 (88.6)	122 (56.2)	270 (70.3)	60.01 (<0.001)
Divorced	3 (1.8)	3 (1.4)	6 (1.6)	
Widowed	11 (6.6)	90 (41.5)	101 (26.3)	
Occupation				
Working	18 (10.8)	1 (0.5)	19 (4.9)	
Retired House wife	144 (86.2)	1 (0.5) 215 (99.0)	145 (37.8) 220 (57.3)	356.2 (<0.001)
Educational level				
Illiterate	103 (61.6)	171 (78.7)	274 (71.3)	
Read and write	37 (22.2)	34 (15.7)	71 (18.5)	17.36 (0.002)
Primary/preparatory	14 (8.4)	8 (3.7)	22 (5.7)	
Secondary	8 (4.8)	3 (1.4)	11 (2.9)	
University and above	5 (3.0)	1 (0.5)	6 (1.6)	
Household income				
Not enough	19 (11.4)	26 (12.0)	45 (11.7)	2.02 (0.365)
Enough	109 (65.3)	153 (70.5)	262 (68.2)	
More than enough	39 (23.4)	38 (17.5)	77 (20.1)	

Table 2. Medical history of elderly by gender utilizing primary health care services at Dubai Health Authority (n=384).

Medical history	Males N=167 No. (%)	Females N=217 No. (%)	Total N=384 No. (%)	X^2 (P-value)
Diabetes mellitus	109 (65.3)	154 (71.0)	263 (68.5)	1.42 (0.140)
Hypertension	112 (67.1)	158 (72.8)	270 (70.3)	1.49 (0.174)
Dislypidemia	150 (89.8)	206 (94.9)	356 (92.7)	3.65 (0.044)
Ischemic heart disease	37 (22.2)	37 (17.1)	74 (19.3)	1.58 (0.130)
Osteoarthritis	48 (28.7)	87 (40.1)	135 (35.2)	5.33 (0.014)
Osteoporosis	4 (2.4)	28 (12.9)	32 (8.3)	13.64 (<0.001)
COPD◊	15 (9.0)	13 (6.0)	28 (7.3)	1.25 (0.170)
Renal diseases	9 (5.4)	16 (7.4)	25 (6.5)	0.61 (0.286)
Hypothyroidism	7 (4.2)	22 (10.1)	29 (7.6)	4.78 (0.029)
Gouty arthritis	5 (3.0)	8 (3.7)	13 (3.4)	0.14 (0.710)
Gastritis	5 (3.0)	8 (3.7)	13 (3.4)	0.14 (0.710)
Others◊◊	34 (20.4)	11 (5.1)	45 (11.7)	21.33 (<0.001)

◊ Chronic obstructive pulmonary disease.
◊◊ For males mainly IBS, BPH, hemiplegia and for females mainly cancer.

Table (2) displays the details of medical history of the participants, presented by gender. Overall, Dislypidemia was diagnosed in the majority of participants (92.7%), followed by hypertension (70.3%) and diabetes mellitus (68.5%). Osteoarthritis was reported among almost one-third of patients (35.2%) while osteoporosis among 8.3% and ischemic heart diseases was reported by 19.3% of them. Considering gender difference, dislypidemia was reported among 94.9% and 89.8% of females and males respectively with statistically significant difference (X^2=3.65, P<0.05). Similarly, 40.1% of females as opposed to 28.7% of males reported osteoarthritis, X^2=5.33, P=0.014. Osteoporosis was reported among 12.9% and 2.4% of females and males respectively with statistically significant difference (X^2=13.64, P<0.001). Hypothyroidism was diagnosed in 10.1% of females as compared to 4.2% of males, X^2=4.78, P<0.05. Other diseases (for males mainly IBS, BPH, hemiplegia, and for females mainly cancer) were more reported among males than females with significant difference, X^2=21.33, P<0.001.

5. Discussion

Regarding gender, a study was conducting in Riyadh 2004,[14] among patients (from 18- 60+ years old) attending public PHC centres and private (out patient) clinics showed that, there were a higher percentage of male patients than female using the private outpatient clinics. However gender is not found to be a discriminating factor in the choice between public and private health facilities. A similar result of this was in Jeddah conducted by Al-Doghaither 2003, [15] who found that males were more likely to utilise private health facilities than females.

Higher utilization (Once or more /month) of PHCs centre in Alexandria,[16] among elderly was because of the lower health status as appeared from higher number of chronic diseases. Another study conducted by Al Ghanim 2005, [17] in Riyadh city among 18 years old and above measured frequent and non frequent users of PHC, found that the vast majority of patients who reported having chronic illness were classified as frequent users. Also the present study revealed that, the significant predictor for being high utilizer (Once or more /month) of PHC services at DHA was the history of having 3 chronic diseases or more.

The type of illness or symptoms experienced for the particular illness and duration are all known to affect health service utilization.[18] A study was conducting in South Africa 2010,[19] among patients attending community health care centre 16 years old and above showed that, above 45 years of age female and male (81.8%- 75%) were visited the tuberculosis clinic frequently, followed by presence of history of diabetes (76.7% male and 75.9% female) and hypertension 25% for both. The present study found that, the presence of IHD and those with osteoporosis were significantly more liable to be high utilizer of the services.

The present study revealed that elderly have not enough income has statistically significant high rate of utilization of pHC services at DHA. This finding is congruent with other studies which suggest that individuals with higher income have more tendency to use private services [Al-Doghaithe 2003, [15] Andaleeb 2000, [20] and Al Ghanim [14]].

Elderly needing help with ADL alone or ADL with IADL, increased their difficulty in accessing PHC by 39% which decreased their utilization of PHC centre as reported by a study done in USA 2001,[21] while our study revealed no statistically significant between elderly with ADL or IADL and utilization of the PHC services. This can be explained by preparation of PHC building for easy accessing, presence of care giver and way of treating (nurses, administrative, medical record staff and physician) elderly with functional disability by easy access, less waiting time.

The present study revealed that another significant predictor for being high utilizer (Once or more /month) of PHC services at DHA being satisfied with services provided. Asir study [22] revealed that majority of elderly people (aged 60+ years) were satisfied with the services provide (79.0%) accordingly preferred always to use the health services provided by the centre. Alexandria study [16] revealed that multiple regression analysis utilization of other source of medical care had significant negative relation to total satisfaction score of the elderly about their facility.

6. Conclusion

It has been concluded that elderly patients do have specific medical morbidities as well as relevant socio-demographic features which are very important in planning and designing of the nature and health care services to be provided for elderly population in Dubai. Elderly health status evaluation can help in giving feedback to medical staff and improving elderly health care programs.

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