Morbidities and Health-seeking Behavior of Elderly Patients Attending Primary Health Care in the Kingdom of Bahrain

Samya Bahram1,2, Adel Salman AlSayyad1,3, Fatima Al Nooh5, Wafa Al Farra6, Ali Al Ekri7

1Family Practice Residency Program, Training Department, 2Epidemiology and Public, Public Health Directorate, 3Naim Health Center, 4Ahmed Ali Kanoo Health Center, 5Jidhafs Health Center, Ministry of Health, Sanabis, 6Professional Skills Department and Community Medicine, 7Family and Community Medicine, College of Medicine & Medical Sciences, Arabian Gulf University, Manama, Kingdom of Bahrain

Abstract

**Background:** Understanding the health-seeking behaviors help in increasing the effectiveness and efficiency of the health-care system; however, there is lack of knowledge regarding the health-seeking behavior of the elderly population in the Kingdom of Bahrain.

**Objective:** The objective of this study was to identify the morbidity profile and determine the health-seeking behavior of the elderly population.

**Methods:** This cross-sectional study included all elderly patients (≥60 years) who attended four primary health-care centers that represent four governorates with the largest catchment area in the Kingdom of Bahrain between June 19 and August 31, 2021. Information concerning their sociodemographic data, morbidity profile and health-seeking behavior were collected through direct interviewing using a structured, predesigned and pretested questionnaire.

**Results:** A total of 414 elderly patients were included, with the majority being Bahraini (89.1%) and male (55%). The most prevalent morbidity was hypertension (67.6%), followed by hyperlipidemia (54.7%), diabetes (52.6%), and arthritis (32.1%); arthritis was significantly more common among females than males ($P < 0.001$). The majority reported the reason for their visit being “repeat prescription” (32.1%). Almost one-third (28.2%) attempted self-management prior to their visit, and almost half (46.7%) reported seeking non-professional medical advice. The majority rated their health as good (39.4%) and moderate (38.2%). Less than one-third (28%) reported having had a health problem for which they did not attend to a health care facility.

**Conclusion:** The study highlighted the morbidity profile and the health-seeking behavior among elderly population in Bahrain, which may serve as a point from which further efforts may be directed to improve the services.

**Keywords:** Aged, bahrain, geriatric, health care utilization, morbidity, primary health care, quality of life
INTRODUCTION

The prevalence of chronic diseases increases with age, which may be due to decline in functional abilities, and thus results in increased use of health services.[1,2] Health status impacts the quality of life,[3] with an increase in the number of morbidities resulting in a decrease in the health-related quality of life.[4]

The prevalence of multimorbidity increases with age and ranges between 55% and 98%.[5,6] Factors associated with multimorbidity are older age, female, and low socioeconomic status.[6] Studies from Sweden and Saudi Arabia have reported that 55% and 34.5% of the elderly, respectively, had two or more chronic diseases, with the multimorbidity median being three diseases.[7,8] In another study, multimorbidity prevalence was found to be the highest (35.5%) among older adults aged ≥65 years (in both genders).[9] In Bahrain, the non-communicable disease bulletin issued by the Public Health Directorate (2013–2020) showed that the prevalence of multimorbidity among elderly aged ≥60 was 20%.[10]

Health-seeking behaviors are defined as “any activity undertaken by individuals who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy,”[11] including initiating care at the right time, with the right provider, maintaining regular care seeking and follow up.[12] Factors that influence health-seeking behaviors are socioeconomic status, age, gender, financial status, perceived health status, type of illness, and the availability and the accessibility of health services.[13] The elderly population tend to show variability in their health-seeking patterns, with both over- and underutilization of health-care services, and with a tendency to be dependent on their families.[14]

There is a lack of studies from Gulf Cooperation Council (GCC) countries regarding the health-seeking behavior of the elderly population and its determinants. In Bahrain, in 2017, 4.7% of total population were aged ≥65 years, and primary care visits by this age range population accounted for 15% of the total visits.[10] However, their health-seeking behavior were unknown, and thus this study was conducted to fill this gap in the literature. Findings of this study would help toward the development of a more effective and efficient geriatric care system to ultimately decrease disability, improve overall health, and decrease societal and financial burden.

METHODS

Study design, setting, and participants
This cross-sectional questionnaire study included all elderly patients (≥60 years) who attended four primary health-care centers in the Kingdom of Bahrain between June 19 and August 31, 2021 and consented for participation. Patients who did not consent for participation, were critically ill, or unable to respond in person for direct interviewing were excluded.

The Kingdom of Bahrain provides its primary health-care services through 26 health centers and one health clinic across five health regions in all governorates. These centers provide curative, preventive, and rehabilitation services. All citizens and residents are registered for treatment in the health center of their residential area. For this study, the following four governmental primary health centers with the biggest catchment population from the four main governorates were selected: Halat BuMaher Health Centre, Naim Health Centre, Jidhafs Health Centre, and Ahmed Kanoo Health Centre.

Sample size estimation
A sample size of 385 was calculated using the Raosoft sample size calculator, with a margin of error 5%, confidence interval 95%, and response of 50%.[15] Accordingly, an estimated 100 participants were targeted from each of the four centers.

Data collection tool and procedure
Direct interviewing using a structured predesigned and pretested questionnaire was carried out by the research group members who are practicing family physicians caring for elderly patients in primary care settings. The following items were collected for each participant: demographic characteristics (age, gender, education, occupation, marital status, and living status); type of illness/reason of presentation (chronic disease, acute illness, or others); and determinants affecting health-seeking behavior.

Four researchers created the first question guide in English, which was then forward translated to Arabic by two separate translators who are fluent in both written and spoken English and Arabic. Any disparities between the two forward translations were reconciled through consensus. After that, the reconciled translation was again translated into the source language and compared to the original question guide to check that the translation was conceptually equivalent.

The key themes of the questions regarding the profile and health-seeking behavior of elderly patients attending health
RESULTS

A total of 411 elderly patients from the four selected primary health-care centers responded and completed the questionnaire through direct interviewing.

Sociodemographic profile

The majority of the participants were Bahraini (89.1%). Further, 226 (55%) were males and more than two-thirds were aged 60–75 years (79.8%). Regarding marital status, 87.2% and 49.2% of the males and females were married, respectively. A total of 23.1% were widowed, with the proportion being significantly higher among females (42.7%) than males (7.1%). Almost half of them were living with their spouse and children (43.6%): 52.2% of the male and 33% of the female. Only 3.6% reported living alone.

In terms of education, 35.1% and 10.6% of the females and males, respectively, were illiterate. A significantly higher proportion of males had a graduate degree and above compared with females (42.9% vs. 20.0%, respectively; \( P < 0.001 \)). Only 19.0% and 6.5% of the males and females, respectively, were employed at the time of the study [Table 1].

Morbidity profile

Hypertension (67.6%) was found to be the most common morbidity, with no significant gender-related difference. This was followed by hyperlipidemia (54.7%) (which was more common in females than males: 60.0% vs. 50.4%, respectively; \( P = 0.053 \)), type 2 diabetes mellitus (T2DM) (52.6%) (no gender-related difference), and arthritis (32.1%) (which was significantly more common in females than males: 42.7% vs. 23.5%, respectively; \( P < 0.001 \)). Depression was reported by 5.9% of the females and 3.1% of the males, while anxiety disorder was reported by 3.9% of the participants [Table 2].

Health-seeking behavior

Reason for visit and self-management

One-third (32.1%) of the participants reported that repeat prescription was the reason for their visit. Further, 29.7% and 28% of the participants visited to request investigations at the non-communicable disease (NCD) clinic and for chronic complaint/condition, respectively; there were no gender-related differences in any of these variables. Almost one-third (28.2%) of the participants attempted self-management prior to their current visit, and this was more common among females (53.8%).

Seeking non-professional advice and source of advice

Less than half of the participants (46.7%) reported seeking non-professional advice prior to the health
center visit. Similar results were noted when stratified by gender. A significantly higher proportion of female patients sought out non-professional advice from family members compared to males (68% vs. 47.1%, respectively; \( P = 0.005 \)). The most common advice received was the use of “herbal medication,” with no gender-related difference. Participants rated their general health status as good (39.4%), moderate (38.2%), and bad (9.2%), with no statistically significant difference noted for gender. A statistically significant difference was seen among males who reported their health as very good (16.8%) compared with females (7.6%) (\( P = 0.006 \)). About half (53.5%) of the participants reported having visited the health-care centers 4–6 times in the past year, while 8.8% reported having visited \( \geq 10 \) times. No difference was seen with regards to gender.

### Table 1: Sociodemographic profile of the elderly with gender-wise segregation

| Sociodemographic profile        | n (%) | Males (n=226), n (%) | Females (n=185), n (%) | \( P \) |
|---------------------------------|-------|---------------------|------------------------|------|
| Bahraini nationality            | 366 (89.1) | 201 (88.9) | 165 (89.2) | 0.935 |
| Age group (years)               |       |                     |                        |      |
| 60–75                           | 328 (79.8) | 183 (81.1) | 145 (78.4) | 0.514 |
| >75                             | 83 (20.2) | 43 (19.0)  | 40 (21.6)  |      |
| Marital status                  |       |                     |                        |      |
| Married                         | 288 (70.1) | 197 (87.2) | 91 (49.2)  | \(<0.001\) |
| Single                          | 18 (4.4)  | 8 (3.5)   | 10 (5.4)   |      |
| Divorced                        | 10 (2.4)  | 5 (2.2)   | 5 (2.7)    |      |
| Widowed                         | 95 (23.1) | 16 (7.1)  | 79 (42.7)  |      |
| Educational level               |       |                     |                        |      |
| Illiterate                      | 89 (21.7) | 24 (10.6) | 65 (35.1)  | \(<0.001\) |
| Primary school                  | 64 (15.6) | 23 (10.2) | 41 (22.2)  |      |
| Middle school                   | 41 (10.0) | 26 (11.5) | 15 (8.1)   |      |
| High school                     | 83 (20.2) | 56 (24.8) | 27 (14.6)  |      |
| Graduate and above              | 134 (32.6) | 97 (42.9) | 37 (20.0)  |      |
| Occupation                      |       |                     |                        |      |
| Unemployed                      | 157 (38.2) | 33 (14.6) | 124 (67.0) | \(<0.001\) |
| Employed                        | 55 (13.4) | 43 (19.0) | 12 (6.5)   |      |
| Retired                         | 199 (48.4) | 150 (66.4) | 49 (26.5)  |      |
| Living status                   |       |                     |                        | \(<0.001\) |
| Alone                           | 15 (3.6)  | 10 (4.4)  | 5 (2.7)    |      |
| With spouse                     | 94 (22.9) | 63 (27.9) | 31 (16.8)  |      |
| With spouse and children        | 179 (43.6) | 118 (52.2) | 61 (33.0)  |      |
| With children                   | 81 (19.7) | 55 (24.1) | 26 (14.6)  |      |
| With relatives                  | 22 (5.4)  | 11 (4.9)  | 11 (5.9)   |      |
| With a caregiver                | 15 (3.6)  | 7 (3.1)   | 8 (4.3)    |      |
| Others                          | 5 (1.2)   | 2 (0.9)   | 3 (1.2)    |      |

| Morbidity profile               | n (%) | Males (n=226), n (%) | Females (n=185), n (%) | \( P \) |
|---------------------------------|-------|---------------------|------------------------|------|
| Type 2 diabetes mellitus        | 216 (52.6) | 120 (53.1) | 96 (51.9)  | 0.808 |
| Hypertension                    | 278 (67.6) | 151 (66.8) | 127 (68.6) | 0.751 |
| Hyperlipidemia                  | 225 (54.7) | 114 (50.4) | 111 (60.0) | 0.053 |
| Hypothyroidism                  | 44 (10.7)  | 17 (7.5)   | 27 (14.6)  | 0.021 |
| Ischemic cardiovascular disease | 73 (17.8)  | 43 (19.0)  | 30 (16.2)  | 0.458 |
| Asthma                          | 27 (6.6)   | 7 (3.1)    | 20 (10.8)  | 0.002 |
| Gastritis                       | 118 (28.7) | 54 (23.9)  | 64 (34.6)  | 0.017 |
| Cerebrovascular disease         | 12 (2.9)   | 6 (2.7)    | 6 (3.2)    | 0.724 |
| Renal diseases                  | 62 (15.1)  | 32 (14.2)  | 30 (16.2)  | 0.562 |
| Gout                            | 34 (8.3)   | 19 (8.1)   | 15 (8.1)   | 0.913 |
| Arthritis                       | 132 (32.1) | 53 (23.5)  | 79 (42.7)  | \(<0.001\) |
| Prostate diseases               | 52 (12.7)  | 50 (23)    | 0          | \(<0.001\) |
| Obesity                         | 68 (16.5)  | 33 (14.6)  | 35 (18.9)  | 0.241 |
| Anemia                          | 32 (7.8)   | 12 (5.3)   | 20 (10.8)  | 0.038 |
| Cataract                        | 73 (17.8)  | 36 (15.9)  | 37 (20.0)  | 0.283 |
| Psychiatric disorders           |       |                     |                        |      |
| Depression                      | 18 (4.4)   | 7 (3.10)   | 11 (4.9)   | 0.160 |
| Anxiety                         | 16 (3.9)   | 9 (3.98)   | 7 (3.1)    | 0.918 |

### Health-related beliefs, perceptions, and care

About two-thirds of the participants believed that their current visit “likely” required professional help, with no
Less than one-third (28%) of the respondents reported having had a health problem for which they did not attend a health-care facility. This was observed more commonly among female than male participants (34.1% vs. 23%, respectively; \( P = 0.013 \)). The most common reason for not attending a health-care facility was that the patient believed it was “unnecessary” (15.1%) (female: 20.5%; male: 10.6%; \( P = 0.005 \)). Other reasons included lack of transportation (5.1%), the condition being self-limiting (4.6%), and lack of awareness regarding the significance of the problem (4.4%). None reported that financial factors or difficulty in accessing health-care facility were factors for not attending a health-care facility [Table 3].

**DISCUSSION**

This study provides a population representative and recent data regarding the morbidity and health-seeking behavior of the elderly (i.e., aged >60 years) in the Kingdom of Bahrain. Hypertension was found to be the most common chronic disease. This finding was consistent with previous studies from the United Arab Emirates (UAE)\(^4\) and the Kingdom of Saudi Arabia,\(^\text{[4]}\) collectively highlighting the commonality of hypertension within the GCC region. The next most prevalent chronic diseases were hyperlipidemia and T2DM. Similar findings were noted in the study from the UAE.\(^\text{[4]}\) The pattern of chronic diseases could be explained by the major socioeconomic development in the Kingdom of Bahrain over the past three decades that have resultantly led to significant changes in lifestyle and dietary habits.

In studies from India, musculoskeletal system problems had been reported to be the most prevalent complaint of the elderly (i.e., aged >60 years) in the Kingdom of Bahrain. Hypertension was found to be the most common chronic disease. This finding was consistent with previous studies from the United Arab Emirates (UAE)\(^4\) and the Kingdom of Saudi Arabia,\(^\text{[4]}\) collectively highlighting the commonality of hypertension within the GCC region. The next most prevalent chronic diseases were hyperlipidemia and T2DM. Similar findings were noted in the study from the UAE.\(^\text{[4]}\) The pattern of chronic diseases could be explained by the major socioeconomic development in the Kingdom of Bahrain over the past three decades that have resultantly led to significant changes in lifestyle and dietary habits.

In studies from India, musculoskeletal system problems had been reported to be the most prevalent complaint of the elderly (i.e., aged >60 years) in the Kingdom of Bahrain. Hypertension was found to be the most common chronic disease. This finding was consistent with previous studies from the United Arab Emirates (UAE)\(^4\) and the Kingdom of Saudi Arabia,\(^\text{[4]}\) collectively highlighting the commonality of hypertension within the GCC region. The next most prevalent chronic diseases were hyperlipidemia and T2DM. Similar findings were noted in the study from the UAE.\(^\text{[4]}\) The pattern of chronic diseases could be explained by the major socioeconomic development in the Kingdom of Bahrain over the past three decades that have resultantly led to significant changes in lifestyle and dietary habits.

In studies from India, musculoskeletal system problems had been reported to be the most prevalent complaint of the elderly (i.e., aged >60 years) in the Kingdom of Bahrain. Hypertension was found to be the most common chronic disease. This finding was consistent with previous studies from the United Arab Emirates (UAE)\(^4\) and the Kingdom of Saudi Arabia,\(^\text{[4]}\) collectively highlighting the commonality of hypertension within the GCC region. The next most prevalent chronic diseases were hyperlipidemia and T2DM. Similar findings were noted in the study from the UAE.\(^\text{[4]}\) The pattern of chronic diseases could be explained by the major socioeconomic development in the Kingdom of Bahrain over the past three decades that have resultantly led to significant changes in lifestyle and dietary habits.

In studies from India, musculoskeletal system problems had been reported to be the most prevalent complaint of the elderly (i.e., aged >60 years) in the Kingdom of Bahrain. Hypertension was found to be the most common chronic disease. This finding was consistent with previous studies from the United Arab Emirates (UAE)\(^4\) and the Kingdom of Saudi Arabia,\(^\text{[4]}\) collectively highlighting the commonality of hypertension within the GCC region. The next most prevalent chronic diseases were hyperlipidemia and T2DM. Similar findings were noted in the study from the UAE.\(^\text{[4]}\) The pattern of chronic diseases could be explained by the major socioeconomic development in the Kingdom of Bahrain over the past three decades that have resultantly led to significant changes in lifestyle and dietary habits.

In studies from India, musculoskeletal system problems had been reported to be the most prevalent complaint of the elderly (i.e., aged >60 years) in the Kingdom of Bahrain. Hypertension was found to be the most common chronic disease. This finding was consistent with previous studies from the United Arab Emirates (UAE)\(^4\) and the Kingdom of Saudi Arabia,\(^\text{[4]}\) collectively highlighting the commonality of hypertension within the GCC region. The next most prevalent chronic diseases were hyperlipidemia and T2DM. Similar findings were noted in the study from the UAE.\(^\text{[4]}\) The pattern of chronic diseases could be explained by the major socioeconomic development in the Kingdom of Bahrain over the past three decades that have resultantly led to significant changes in lifestyle and dietary habits.

In studies from India, musculoskeletal system problems had been reported to be the most prevalent complaint of the elderly (i.e., aged >60 years) in the Kingdom of Bahrain. Hypertension was found to be the most common chronic disease. This finding was consistent with previous studies from the United Arab Emirates (UAE)\(^4\) and the Kingdom of Saudi Arabia,\(^\text{[4]}\) collectively highlighting the commonality of hypertension within the GCC region. The next most prevalent chronic diseases were hyperlipidemia and T2DM. Similar findings were noted in the study from the UAE.\(^\text{[4]}\) The pattern of chronic diseases could be explained by the major socioeconomic development in the Kingdom of Bahrain over the past three decades that have resultantly led to significant changes in lifestyle and dietary habits.

In studies from India, musculoskeletal system problems had been reported to be the most prevalent complaint of the elderly (i.e., aged >60 years) in the Kingdom of Bahrain. Hypertension was found to be the most common chronic disease. This finding was consistent with previous studies from the United Arab Emirates (UAE)\(^4\) and the Kingdom of Saudi Arabia,\(^\text{[4]}\) collectively highlighting the commonality of hypertension within the GCC region. The next most prevalent chronic diseases were hyperlipidemia and T2DM. Similar findings were noted in the study from the UAE.\(^\text{[4]}\) The pattern of chronic diseases could be explained by the major socioeconomic development in the Kingdom of Bahrain over the past three decades that have resultantly led to significant changes in lifestyle and dietary habits.

The most common reasons for visit were to refill prescriptions and request investigations at the NCD clinic. Further, the majority of participants visited the primary care facility 4–6 times in the past year. Therefore, the number of visits appears to be correlated with the most common reasons for visit, given that prescriptions require regular refilling and investigations for NCDs are repeated every 4 months in Bahrain. Similarly, a study from Saudi Arabia demonstrated that the poorer the perceived health status, the higher the utilization of health services.\(^\text{[18]}\)

In the current study, a significant proportion of patients did not visit a health-care facility because they deemed it to be “unnecessary.” This highlights patients’ lack of awareness of disease, neglect, or belief that ailments are a part of ageing. None of the patients reported financial factors or difficulty in accessing health-care facility as reasons for not utilizing health-care given that all Bahraini citizens and their family as well as governmental workers and their families are provided the health-care services for free. This is in complete contrast to a recent study from Portugal, wherein financial factors and lack of availability of hospital care service and long-term care facilities were the primary barriers in the utilization of health-care by the elderly.\(^\text{[19]}\) In Albania, the elderly were found to more likely attend governmental health centers than private sector and they generally sought care once per month.\(^\text{[20]}\)

In a study in Japan, social support was noted to be an important factor that affected the help-seeking behavior.\(^\text{[21]}\) In Bahrain, the elderly most commonly live with family members such as their spouse and children, as also shown in this study. Such family constructs could potentially be the reason for the most common non-professional medical advice were those taken from family members. However, this highlights the need for better educating the elderly and their family to seek professional advice, and thus increase the uptake of health-care utilization.

**Limitations**

A limitation of this study is that all variables were collected through the interview format, including chronic diseases being self-reported. Given the possibility of recall bias, variables such as the prevalence of chronic morbidity among the elderly may differ from that being reported in this study. In addition, this study was conducted during the COVID-19 outbreak, during which the elderly were advised by the health authorities to stay home and seek
teleconsultations; therefore, the sample may not be entirely representative despite including the four primary health care centers that represented the main governorates and biggest catchment areas. Moreover, only those attending the governmental primary health care centers were studied and not those attending private health care clinics.

CONCLUSION

The study provides a population representative and recent data regarding the morbidity and health-seeking behavior of the elderly in the Kingdom of Bahrain. Data from this study may serve as a point from which further efforts are directed to improve the effectiveness and efficiency of health-care utilization by the elderly.

Ethical considerations

This study was approved by the Research Committee, Primary Health Care, Ministry of Health, Kingdom of Bahrain on June 17, 2021. The study adhered to the Declaration of Helsinki, 2013, and all participants provided verbal consent before inclusion.

Data availability statement

The datasets generated and/or analyzed during the current study are not publicly available but are available from the corresponding author on reasonable request.

Peer review

This article was peer-reviewed by two independent and anonymous reviewers.

Table 3: Health-seeking behavior among the elderly segregated by gender

| Variable                                    | Males (n=226), n (%) | Females (n=185), n (%) | P   |
|---------------------------------------------|----------------------|------------------------|-----|
| Reason for the visit                        |                      |                        |     |
| Acute complaint                             | 103 (25.1)           | 63 (27.9)              | 40 (21.6) |
| Acute on chronic                            | 37 (9)               | 13 (5.8)               | 24 (13) |
| Chronic complaint                           | 115 (28)             | 58 (25.7)              | 57 (30.8) |
| For investigations                          | 122 (29.7)           | 65 (28.8)              | 57 (30.8) |
| For referral                                | 20 (4.9)             | 13 (5.8)               | 7 (3.8) |
| For repeat prescription                     | 132 (32.1)           | 78 (34.5)              | 54 (29.2) |
| Follow up/discussion of results             | 68 (16.5)            | 38 (16.8)              | 30 (16.2) |
| Others                                      | 22 (5.4)             | 15 (6.6)               | 7 (3.8) |
| Attempted self-management                   | 116 (28.7)           | 60 (26.5)              | 56 (30.3) |
| Seek nonprofessional advice                 | 192 (46.7)           | 107 (47.3)             | 85 (45.9) |
| Types of nonprofessional advice received    |                      |                        |     |
| Herbal medications                          | 66 (16.1)            | 30 (13.3)              | 36 (19.5) |
| Over-the-counter medications                | 28 (6.8)             | 11 (4.9)               | 17 (9.2) |
| Complementary medicine                      | 4 (1.0)              | 2 (0.9)                | 2 (1.1)  |
| Visit doctor                                | 38 (9.2)             | 27 (11.9)              | 11 (5.9) |
| Others                                      | 7 (1.7)              | 5 (2.2)                | 2 (1.1)  |
| Source of the advice                         |                      |                        |     |
| Family                                      | 78 (57.8)            | 32 (47.1)              | 46 (68.7) |
| Friends                                     | 44 (32.6)            | 31 (45.6)              | 13 (19.4) |
| Others                                      | 13 (9.6)             | 5 (7.4)                | 8 (11.9)  |
| Believed that the current visit required professional help | 10 (2.4) | 5 (2.2) | 5 (2.7) |
| Very unlikely                               | 6 (1.5)              | 2 (0.9)                | 4 (2.2)  |
| Unlikely                                    | 42 (10.2)            | 23 (10.2)              | 19 (10.3) |
| Probably                                    | 278 (67.6)           | 154 (68.1)             | 124 (67.0) |
| Likely                                      | 75 (18.2)            | 42 (18.5)              | 33 (17.8) |
| Self-health status perception               |                      |                        |     |
| Very good                                   | 52 (12.7)            | 38 (16.8)              | 14 (7.6)  |
| Good                                        | 162 (39.4)           | 95 (42)                | 67 (36.2) |
| Moderate                                    | 157 (38.2)           | 78 (34.5)              | 79 (42.7) |
| Bad                                         | 38 (9.2)             | 14 (6.2)               | 24 (13)  |
| Very bad                                    | 2 (0.5)              | 1 (0.4)                | 1 (0.5)  |
| Number of visits to health-care facilities/year |                         |                        |     |
| 1–3                                        | 93 (23.5)            | 48 (22.6)              | 45 (24.6) |
| 4–6                                        | 220 (55.7)           | 117 (55.2)             | 103 (56.3) |
| 7–9                                        | 46 (11.6)            | 24 (11.3)              | 22 (12)  |
| ≥10                                        | 36 (9.1)             | 23 (10.8)              | 13 (7.1)  |
| Reasons for not attending health-care centers |                      |                        |     |
| Unnecessary                                 | 115 (28)             | 52 (23.0)              | 63 (34.1) |
| Neccessary                                  | 62 (15.1)            | 24 (10.6)              | 38 (20.5) |
| Lack of awareness                           | 18 (4.4)             | 14 (6.2)               | 4 (2.2)  |
| Financial                                   | 0                    | 0                      | 0 | NA |
| Difficulty in accessing health center        | 0                    | 0                      | 0 | NA |
| No transportation                           | 21 (5.1)             | 6 (2.7)                | 15 (8.1)  |
| No social support                           | 12 (2.9)             | 4 (1.8)                | 8 (4.3)  |
| Self-limited                                | 19                   | 11 (4.9)               | 8 (4.3)  |

NA – Not applicable
Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

REFERENCES

1. Maresova P, Javanmardi E, Barakovic S, Barakovic Husic J, Tomsonе S, Krejcar O, et al. Consequences of chronic diseases and other limitations associated with old age – A scoping review. BMC Public Health 2019;19:1431.

2. Alshaali A, Al Jaziri A. Health profile of elderly patients registered in the elderly home based primary care, Dubai, United Arab Emirates. Middle East J Age Ageing 2015;12:13-9.

3. Hung WW, Ross JS, Boockvar KS, Siu AL. Recent trends in chronic disease, impairment and disability among older adults in the United States. BMC Geriatr 2011;11:47.

4. Gupta RD, Loha A, Roy S. Morbidity pattern and health seeking behavior among the senior citizens in a selected urban area of Bangladesh: A cross-sectional study. South East Asia J Public Health 2016;5:43-9.

5. Zhang R, Lu Y, Shi L, Zhang S, Chang F. Prevalence and patterns of multimorbidity among the elderly in China: A cross-sectional study using national survey data. BMJ Open 2019;9:e024268.

6. Marengoni A, Angleman S, Melis R, Mangialasche F, Karp A, Garmen A, et al. Aging with multimorbidity: A systematic review of the literature. Ageing Res Rev 2011;10:e430-9.

7. Marengoni A, Winblad B, Karp A, Fratiglioni L. Prevalence of chronic diseases and multimorbidity among the elderly population in Sweden. Am J Public Health 2008;98:1198-200.

8. Saqib S, Saqib J, Albadlag A, Alsakour MA, Aljumah B, Saghayyir M, et al. Chronic disease prevalence among elderly Saudi men. Int J Health Sci (Qassim) 2017;11:11-6.

9. Algbabani A, Alqahtani A, BinDhim N. Prevalence and determinants of non-communicable diseases in Saudi Arabia. Food Drug Regul Sci J 2019;2:1.

10. Al Hajri M, Abulfath N, Alsayyad A, Al-Nooh A, Abulfath M, Alsayyad N, et al. Non-Communicable Disease Unit. Bulletin. Bahrain; 2020. p. 3-4. Available from: https://www.bahrainmedicalbulletin.com/december_2020/Medical-News.pdf. [Last accessed on 2022 Feb 20].

11. Ward H, Mertens TE, Thomas C. Health seeking behaviour and the control of sexually transmitted disease. Health Policy Plan 1997;12:19-28.

12. MacKian S. A Review of Health-Seeking Behaviour: Problems and Prospects. Health Systems Development Programme, University of Manchester, Manchester; 2003.

13. Manuela S, Neculau G. The Performance of Public Health-Care Systems in South-East Europe: A Comparative Qualitative Study. Belgrade: Friederich-Ebert-Stiftung, Regional Project for Labour Relations and Social Dialogue in South-East Europe; 2014.

14. Detels R, McEwen J, Beaglehole R, Tanaka H. Oxford Textbook of Public Health. 4th ed. Oxford: Oxford University Press; 2002. p. 829-63.

15. Sample Size Calculator. Raosoft, Inc. Makes High Quality Web Survey Software. Available from: http://www.raosoft.com/samplesize.html. [Last accessed on 2022 Feb 24].

16. Gupta A, Chellaiyan V, Lohiya A, Rizwan SA, Upadhyay RP, Palanivel C. Morbidity profile of out-patients attending a primary health centre in rural Puducherry, South India. Natl J Community Med 2014;5:424-7.

17. Barua K, Borah M, Dekha C, Kakati R. Morbidity pattern and health-seeking behavior of elderly in urban slums: A cross-sectional study in Assam, India. J Family Med Prim Care 2017;6:345-50.

18. Afghanim S. Perceived health status and its effect on the utilization of health facilities among elderly patients in Riyadh, Saudi Arabia. J King Saud Univ 2011;22:1-10.

19. Doesch J, Pilot F, Santana P, Krafft T. Potential barriers in healthcare access of the elderly population influenced by the economic crisis and the troika agreement: A qualitative case study in Lisbon, Portugal. Int J Equity Health 2017;16:184.

20. Gabrani J, Schindler C, Wyss K. Health seeking behavior among adults and elderly with chronic health condition(s) in Albania. Front Public Health 2021;9:616014.

21. Nagai S. Predictors of help-seeking behavior: Distinction between help-seeking intentions and help-seeking behavior. Jpn Psychol Res 2015;57:313-22.