Original Research Article



*Corresponding author: Hajar Abdullah Alsudairi, Qassim ,Buraidah, Saudi Arabia Tel: +966501302460, E-mail: hajaralsudairi@gmail.com

Saudi Medical Journal of Students (SMJS)

Official Journal of Faculty of Medicine University of Tabuk ISSN: 1658-8274 (Print version); 1658-8282 (Electronic version)

PRIMARY HEALTHCARE SERVICE UTILIZATION AND SATISFACTION AMONG ADULT PATIENTS IN QASSIM REGION, SAUDI ARABIA: A CROSS-SECTIONAL STUDY 2019

Abdulrahman M. Aldukhayel¹, Hajar A. Alsudairi^{2*}, Rand M. Alsalamah², Nouf S. Almutairi², Albatool F. Aloqlan², Mariah S. Alsaif²

 ¹Associate Professor of Family Medicine, Department of Family and Community Medicine, College of Medicine, Qassim University, Saudi Arabia
 ²Medical Intern, College of Medicine, Qassim University, Saudi Arabia

ABSTRACT

Objectives: This study aimed to assess the quality of care provided to adult patients with chronic diseases in Qassim Primary Health Care centers in Saudi Arabia.

Methods: A quantitative observational cross-sectional survey conducted among adult patients above 40 years with chronic diseases in Qassim provenance who had access to social media. Data was collected using a questionnaire that designed as an electronic questionnaire, and it was published in social media.

Results: Our study showed that more than half of the respondents were aged between 40 and 49 years. Almost 83% of all respondents were female. The PACIC (Patient Assessment of Chronic Illness Care) score was 2.35. Among the PACIC items, the maximum mean value of 2.99 ± 1.40 was observed for "The health team takes values, beliefs, and traditions into account". Health care delivery and patient satisfaction ware similar in all cities (all p values >.050).

Conclusion: The level of satisfaction in Qassim primary health care centers is high in general, but results indicate that there are some areas in which quality improvement is required, mainly with respect to "encouraging participation in specific groups".

To cite this article: Aldukhayel AM, Alsudairi HA, Alsalamah RM, Almaimoni NS, Aloqlan AF, Alsaif MS. Primary Healthcare Service Utilization And Satisfaction Among Adult Patients In Qassim Region, Saudi Arabia: A Cross-Sectional Study. Saudi Med J Students. 2020;1(2): [published online ahead of print Jan. 2020]

INTRODUCTION

In the last four decades, there has been a change in the demographics of Saudi Arabia due to an increase in birth rate and life expectancy, but recently there has been a decrease in the rate of fertility. Therefore, the demographic features of Saudi Arabia has changed due to the kingdom following the worldwide increase in the elderly population [1].

SMJS is the official journal of the Faculty of Medicine, University of Tabuk. All rights reserved with SMJS. © SMJS 2020

Progressive aging of the population has led to an increase in chronic conditions, especially diabetes mellitus and hypertension, the primary causes of cardiovascular diseases in the world. Failure in managing these chronic conditions contributes to negative impacts on the health of the population, with more agerelated complications, rehospitalizations, lower quality of life, and an economic burden on health systems and family structure [2].

However, early prevention is the most effective way to reduce the prevalence of chronic diseases, and the costs and difficulties associated with treatment in later stages of the disease [3]. Thus, high-quality services should be provided by primary health care centers to care for people with the greatest needs, particularly those living in rural and remote areas.

There is an increase in socioeconomic growth and improvement of health care services in Saudi Arabia, which may contribute to increasing the number of elderly people [4]. A study conducted among 2,514 elderly and 24,692 non-elderly adults in Asir showed that elderly people visit health care centers on a continual basis, and most of them are referred to secondary and tertiary centers [5]. In the Netherlands, an observational study was performed by Michel Wensing on 165 patients, 88 of whom had diabetes mellitus and 77 had chronic obstructive pulmonary disease (COPD), 68 years being the mean age. Of the 165 patients, 7 to 76% chose the lowest answer category, which manifests complete absence of structured chronic care, and 10 to 54% opted for the highest answers category, which reveals the complete presence of chronic care [6]. Also, a cross sectional study in Spain done in the period

between September 2014 and April 2015, with a sample of 196 patients aged 65 years old and above, show that the care given was higher with more chronic diseases [7]. Another cross-sectional study was conducted in Ilorin Metropolis among 366 elderly patients in the period between February and July 2013. Only 38.5% of patients were satisfied with primary health care services. The four dissatisfaction categories were: inadequate diagnostic and laboratory facilities, long waiting time, lack of trained personnel on elderly care, and expensive medical services , respectively [8]. The objectives of this study were to assess the quality of care provided to adult people with chronic diseases and their satisfaction level with the services provided by family physicians in the primary health care centers in Qassim region.

METHODS

Ethical approval was obtained from general directorate of health affairs, Qassim region. This study is a quantitative observational cross-sectional survey conducted among adult patients above 40 years with chronic diseases in Qassim provenance who had access to social media. Data was collected using a questionnaire that designed as an electronic questionnaire, and it was published in social media. The sample size was calculated using OpenEpi online sample size calculator and applying finite population formula. Prevalence of chronic diseases in Qassim was 16.9 %, Qassim population 1.4 million. At 95% confidence level and a bound on error of 5% the required sample size was 263.

 $_{Page}4C$

SMJS is the official journal of the Faculty of Medicine, University of Tabuk. All rights reserved with SMJS. © SMJS 2020

Data were checked for completeness and correctness. Descriptive statistics were used to present the data in tables. A total of 20 items were included in the questionnaire on five-point Likert scale. The possible responses and points were as follows: never = 1, rarely = 2, sometimes = 3, usually = 4, and always = 5. Cronbach's alpha test was performed to check the internal consistency of all Likert-scale questions (total 20 questions), which revealed an excellent internal consistency (Alpha value = .937). The 20 Likert-scale questions were subdivided into five categories: medication adherence, delivery system design/ decision support, goal setting/ tailoring, problem contextual, and follow solving/ up/ coordination. Reliability tests for all question categories were conducted separately, and are presented in Table 1. The table shows the acceptable reliability of all question categories. The mean and standard deviation of the Likert scale data are presented. Data were checked for normality using the Histogram, Kolmogorov Smirnov test, and Shapiro Wilk test. Both of the tests revealed a non-normal distribution of Likert Scale responses. All test items were compared between male and female patients using the Mann-Whitney U test; and all items were compared across age groups and city by the Kruskal-Wallis test.

The analysis was performed in 95% confidence intervals using the Statistical Package for Social Science (SPSS), version 23.0 (IBM, Armonk, NY, USA).

RESULTS

The study questionnaires were distributed to 263 patients, of whom 248 gave consent

(95.75%). More than half of the respondents were aged between 40 and 49 years, with 133 response (53.6%). Almost 83% of all respondents were female. The majority were from Buraydah, with 138 response (55.6%) (Table 2).

The maximum mean value of 2.99 ± 1.40 was observed for the item – "The health team takes values, beliefs, and traditions into account" and the minimum mean value of 1.69 ± 1.11 was observed for the item – "Encourage the participation in specific groups". Other mean item values for all cases and both genders are presented in Table 2. No statistically significant mean difference between males and females in terms of responses to 20 items was observed (all p values > .050) (Table 3).

Similarly, responses to 20 items were compared between the age groups. Statistically significant differences in mean responses were observed for item number 5 (p.036), 10 (p.028), 16 (.026), and 17 (.008). The mean satisfaction scores for other items were not statistically significantly different across the age groups (Table 4).

Again, the mean satisfaction levels of different city dwellers were compared, and are presented in Table 4. The analysis showed a statistically similar satisfaction level among all city dwellers. In other words, health care delivery and patient satisfaction were similar in all cities (all p values >.050) (Table 5).

The most frequent chronic illness among the respondents was diabetes mellitus, 98 (39.5%) and the least frequent one was bronchial asthma, 29 (11.7%). Patients with diabetes mellitus scored consistently higher percentage in all question categories -

SMJS is the official journal of the Faculty of Medicine, University of Tabuk. All rights reserved with SMJS. © SMJS 2020

| Question | | Question asks for | Question category Mean | Cronbach's alpha | Cronbach's alpha based on standardized items |
|----------|-------------------------|---|------------------------------|------------------|--|
| No | Category | | | | |
| Q1 | | Asks the user's opinion when defining the care plan | | | |
| Q2 | Medication adherence | Gives options of treatment for the user to think about | 2.42 ± 1.02 | .668 | .673 |
| Q3 | | Asks about problems with the use of medication | | | |
| Q4 | Delivery | Provides a written list of "things "that can improve health | | | |
| Q5 | system design/ | Satisfaction with the organization of the treatment | 2.78 ± 1.15 | .784 | .785 |
| Q6 | decision support | Explains that whatever the user does to take care of himself influences the health problem | | | |
| Q7 | | Asks about what the user wants to do to take care of the health problem | | | |
| Q8 | Goal | Helps to maintain healthy lifestyle habits | 2.18 ± 1.04 | 852 | 952 |
| Q9 | tailoring | Provides a written care plan | 2.10 ± 1.04 | .032 | .035 |
| Q10 | | Encourage the participation in specific groups | | | |
| Q11 | | Asks about health habits | | | |
| Q12 | _ | The health team takes values, beliefs, and traditions into account | | | |
| Q13 | Problem | Helps to make the care plan | | | |
| Q14 | solving/ | Helps to plan health care in difficult times | 2.52 ± 1.05 | .776 | .776 |
| Q15 | | Asks about how the chronic conditions affects life | | | |
| Q16 | _ | Gets in contact after consultation | | | |
| Q17 | | Encourages the participation in community | | | |
| | Follow-up/ | programs | | | |
| Q18 | coordina- | Guidance on health care | 2.11 ± 1.07 | .852 | .852 |
| Q19 | tion | Explanation of consultation with | | | |
| 020 | - | specialists/help with treatment | | | |
| Q20 | | Asks about visits to specialists | | | <u> </u> |

Table 1: Reliability analysis of all question categories.

medication adherence (2.52 ± 1.07) , delivery system design/ decision support (2.80 ± 1.19) , goal setting/tailoring (2.21 ± 1.03) , problem solving/ contextual (2.53 ± 1.05) , and follow-up/ coordination (2.24 ± 1.16) (Table 6).

DISCUSSION

The primary purpose of this study was to assess the quality of care provided to adult patients with chronic diseases in Qassim Primary Health Care centers in Saudi Arabia. The results of the survey of 263 patients with

SMJS is the official journal of the Faculty of Medicine, University of Tabuk. All rights reserved with SMJS. © SMJS 2020

Table 2: Demographic characteristics of all respondents (n = 248).

| Characte | ristics | Ν | % | | |
|----------|--------------|-----|------|--|--|
| Age in y | ears | | | | |
| 0 | 40 to 49 | 133 | 53.6 | | |
| 0 | 50 to 59 | 69 | 27.8 | | |
| 0 | 60 or above | 46 | 18.5 | | |
| Gender | | | | | |
| 0 | Male | 43 | 17.3 | | |
| 0 | Female | 205 | 82.7 | | |
| City | | | | | |
| 0 | Al Badayea | 12 | 4.8 | | |
| 0 | Al Bukayriah | 4 | 1.6 | | |
| 0 | Al Mithnab | 4 | 1.6 | | |
| 0 | Alrass | 17 | 6.9 | | |
| 0 | Buraydah | 138 | 55.6 | | |
| 0 | Others | 56 | 22.6 | | |
| 0 | Unayzah | 17 | 6.9 | | |

chronic diseases in the Qassim region supported the expected results.

The present study applied 20 Likert-scale questions, which were subdivided into five categories: medication adherence, delivery system design/decision support, goal setting/ tailoring, problem solving/contextual, and follow-up/coordination.

Similar studies were conducted in different countries, including Saudi Arabia, to measure primary health-care service utilization and satisfaction among the elderly; some of these studies even used different research tools, such as assessment for consultation and relational empathy, perceived technical competency, perceived suitability of the environment, and privacy issues [11].

In accordance with our study, a study was conducted in a capital health region in Kuwait, the respond rate of which was 82.8%, and 495 (47.8%) were males [12]. Also, Mahfouz A[5] conducted a similar study in the Asir region of Saudi Arabia, and found that the majority of the elderly people were female (55.3%). Similarly, another study was performed with a response rate of 100% of which 57.8% were female participants. [13]

In contrast to our study, a discourse was conducted in Irbid Governorate of Jordan, and the percent of female participants represented 42.6%[14].

Regarding the age group of respondents, a study was performed that found that most elderly health care utilizers were below 60 years of age [15], and Mahfouz A [5] reported that the mean age was 67 years, and Alkhawaldeh A [14] noted that the mean age was 64 years.

In contrast to our study, a study was conducted in Shiraz, Iran, which found that the mean age of responders was about 39 years[16].

The present study found that according to Patient utilization and satisfaction with regard to gender, the maximum mean value of 2.99 ± 1.40 was observed for the item – "The health team takes values, beliefs, and traditions into account" with no statistically significant mean difference between males and females.

In accordance with our study, Al-Eisa IS [12] observed that regarding gender distribution, majority of the subjects were highly satisfied with different aspects of physicians' services, with the highest score being for physicians' relationship with patients (mean score 4.56).

In contrast to our study, Jiang M [13] stated that men were less likely to use outpatient health services than women.

With regarding to age group distribution in relation to utilization and satisfaction of health services, the current study found that

SMJS is the official journal of the Faculty of Medicine, University of Tabuk. All rights reserved with SMJS. © SMJS 2020

Table 3: Patients' mean responses against all items split by gender.

| Questions | All cases Mean ± SD | Male cases Mean ± SD | Female cases Mean ± SD | p-value |
|---|---|---|---|--------------|
| Asks the user's opinion when defining the care plan | 2.11 ± 1.22 | 2.33 ± 1.25 | 2.06 ± 1.21 | .177 |
| Gives options of treatment for the user to think about | 2.36 ± 1.34 | 2.30 ± 1.30 | 2.38 ± 1.35 | .792 |
| Asks about problems with the use of medication Provides a written list of things "that can improve health" | 2.78 ± 1.39 2.57 ± 1.42 | $\begin{array}{c} 2.91 \pm 1.41 \\ 2.42 \pm 1.40 \end{array}$ | $\begin{array}{c} 2.76 \pm 1.39 \\ 2.60 \pm 1.42 \end{array}$ | .511 .447 |
| Satisfaction with the organization of the treatment | 2.93 ± 1.38 | 3.00 ± 1.35 | 2.92 ± 1.39 | .741 |
| Explains that whatever the user does to take care of himself influences the health problem | 2.85 ± 1.34 | 2.95 ± 1.36 | 2.83 ± 1.34 | .596 |
| Asks about what the user wants to do to take care of the | 2.00 ± 1.31 | 2.12 ± 1.38 | 1.97 ± 1.29 | .565 |
| Helps to maintain healthy lifestyle habits | 2.56 ± 1.37 | 2.44 ± 1.31 | 2.59 ± 1.38 | .589 |
| Encourage the participation in specific groups | 2.30 ± 1.38 1.69 ± 1.11 | 2.47 ± 1.50 1.72 ± 0.98 | 2.27 ± 1.35 1.69 ± 1.13 | .511 .358 |
| Asks about health habits The health team takes values, beliefs, and traditions into | 2.25 ± 1.35 2.99 ± 1.40 | 2.22 ± 1.29 2.74 ± 1.43 | 2.25 ± 1.36 3.04 ± 1.39 | .989 .203 |
| account Helps to make the care plan | 2.44 + 1.38 | 2.45 + 1.45 | 2.44 + 1.37 | .991 |
| Helps to plan health care in difficult times | 2.28 ± 1.34 | 2.30 ± 1.42 | 2.28 ± 1.32 | .992 |
| Gets in contact after consultation | 2.29 ± 1.29 2.10 ± 1.37 | 2.42 ± 1.28 1.98 ± 1.22 | 2.27 ± 1.30 2.13 ± 1.40 | .439 |
| Encourages the participation in community programs | 1.94 ± 1.35 | 2.00 ± 1.38 | 1.93 ± 1.35 | .723 |
| Guidance on health care Explanation of consultation with specialists/help with treatment | $\begin{array}{c} 2.13 \pm 1.35 \\ 2.13 \pm 1.35 \end{array}$ | $\begin{array}{c} 2.14 \pm 1.37 \\ 2.09 \pm 1.34 \end{array}$ | $\begin{array}{c} 2.13 \pm 1.35 \\ 2.14 \pm 1.35 \end{array}$ | .908 .948 |
| Asks about visits to specialists | 2.27 ± 1.35 | 2.21 ± 1.37 | 2.28 ± 1.34 | .705 |

patients above 60 years old were satisfied with the organization of treatment with statistically significant differences in mean responses (p.036). Also, Alkhawaldeh A[14] showed that significantly greater use of PHC services was associated with increasing age. Further, the study conducted by Al-Eisa IS [12] indicated a high satisfaction score for pharmacy services (mean 4.62 points).

In contrast, Al Yousif N.[15] found that patients aged < 60 years are the highest utilizers of healthcare services.

The current study showed statistically similar satisfaction levels among all city dwellers (p values >0.050).

In contrast to our study, Jiang M[13] found that elderly people who lived in the outer suburbs were more likely to utilize and show satisfaction with outpatient health services. Niyas M[16] proved that the residence of patients affects healthcare service utilization.

The present study found that the most frequent chronic illness among the respondents was diabetes mellitus, 98

SMJS is the official journal of the Faculty of Medicine, University of Tabuk. All rights reserved with SMJS. © SMJS 2020

| Question number | Items | 40 to 49 | | 50 to 59 | | ≥60 | | p- value |
|--------------------|--|----------|-----------|----------|------|------|------|-------------|
| | | М | SD | М | SD | М | SD | |
| 1 | Asks the user's opinion when defining the care plan | 1.92 | 1.11 | 2.36 | 1.33 | 2.26 | 1.29 | .056 |
| 2 | Gives options of treatment for the user to think about | 2.32 | 1.30 | 2.41 | 1.42 | 2.41 | 1.38 | .931 |
| 3 | Asks about problems with the use of medication | 2.80 | 1.38 | 2.80 | 1.35 | 2.72 | 1.52 | .935 |
| 4 | Provides a written list of "things "that can improve health | 2.61 | 1.34 | 2.45 | 1.55 | 2.63 | 1.47 | .551 |
| 5 | Satisfaction with the organization of the treatment | 2.88 | 1.47 | 2.72 | 1.30 | 3.39 | 1.14 | .036 |
| 6 | Explains that whatever the user does to take care of himself influences the health problem | 2.83 | 1.33 | 2.72 | 1.26 | 3.09 | 1.49 | .372 |
| 7 | Asks about what the user wants to do to take care of the health problem | 2.08 | 1.33 | 1.87 | 1.29 | 1.93 | 1.29 | .434 |
| 8 | Helps to maintain healthy lifestyle habits | 2.54 | 1.38 | 2.61 | 1.35 | 2.54 | 1.38 | .929 |
| 9 | Provides a written care plan | 2.29 | 1.39 | 2.26 | 1.32 | 2.41 | 1.45 | .875 |
| 10 | Encourage the participation in specific groups | 1.85 | 1.15 | 1.51 | .93 | 1.52 | 1.17 | .028 |
| 11 | Asks about health habits | 2.34 | 1.36 | 1.94 | 1.23 | 2.41 | 1.42 | .088 |
| 12 | The health team takes values, beliefs, and traditions into account | 3.00 | 1.40 | 2.93 | 1.45 | 3.07 | 1.36 | .878 |
| 13 | Helps to make the care plan | 2.49 | 1.35 | 2.36 | 1.42 | 2.39 | 1.42 | .688 |
| 14 | Helps to plan health care in difficult times | 2.36 | 1.30 | 2.06 | 1.30 | 2.39 | 1.48 | .193 |
| 15 | Asks about how the chronic conditions affects life | 2.34 | 1.28 | 2.10 | 1.24 | 2.46 | 1.38 | .333 |
| 16 | Gets in contact after consultation | 2.31 | 1.42 | 1.74 | 1.15 | 2.07 | 1.44 | .026 |
| 17 | Encourages the participation in community programs | 2.18 | 1.44 | 1.61 | 1.06 | 1.74 | 1.37 | .008 |
| 18 | Guidance on health care | 2.26 | 1.34 | 1.84 | 1.30 | 2.17 | 1.43 | .053 |
| 19 | Explanation of consultation with specialists/help with treatment | 2.23 | 1.36 | 1.94 | 1.28 | 2.13 | 1.41 | .346 |
| 20 | Asks about visits to specialists | 2.21 | 1.32 | 2.26 | 1.30 | 2.46 | 1.49 | .631 |
| | *M = mean, SD = st | andard a | deviation | | | | | |

Table 4: Patients' mean responses against all items split by the age.

(39.5%), and the least frequent one was bronchial asthma, 29 (11.7%); patients with diabetes mellitus scored consistently higher percentages in all question categories.

In addition, a study showed a similar finding regarding participants who suffered from diabetes mellitus representing a high percentage of 40.26[17].

In this study, the total PACIC score was 2.35, which was a high score compared to similar studies performed locally and internationally [2,17]. In addition, two

subscales of PACIC, namely delivery system/practice design and problem solving/contextual, revealed a higher result with a mean of 2.78 and 2.52, respectively, compared to findings from another study conducted in Riyadh by AlMomen R[17] with a mean of 2.5623 for Delivery system/practice design and 2.4539 for problem solving/contextual.

Alkhawaldeh A[14] reported that participants who used significantly more primary health care services were those who had a chronic illness.

SMJS is the official journal of the Faculty of Medicine, University of Tabuk. All rights reserved with SMJS. © SMJS 2020

Table 5: Patients' mean responses against all items split by the city

p-value

551 304 477 088 937

1.11 1.54 l.46 l.35 1.50 00.1 1.14 l.36 1.37 1.41 1.27.37 20. l.14 1.22 I.17 l.33 1.24 86 87 SD Unayzah 2.12 2.12 2.35 2.881.59 2.06 2.59 2.00 2.12 2.18 2.12 1.65 1.942.18 2.412.881.652.47 1.82 2.24Σ 1.28 1.15 1.28 1.39 1.39 1.37 1.451.361.37 .37 1.18 1.39 .32 1.26 .25 1.31 1.24 1.34 SD Others 2.282.36 2.18 1.75 2.09 2.502.822.59 2.89 2.821.962.61 2.39 1.73 2.31 2.88 2.39 2.00 1.91 2.20 Σ 1.16 1.39 1.15 1.42 1.39 1.281.32 1.36 .40 1.40 1.41 1.37 1.36 1.33 1.39 1.41 1.37 .41 SD Buraydah 2.07 2.36 2.58 2.36 2.28 2.33 2.82 2.70 2.95 2.942.06 2.64 1.72 2.27 3.09 2.29 2.17 2.04 2.27 2.20 Σ mean, SD = standard deviation1.46 .50 1.42.46 1.26 1.56 1.59 1.59 1.34 1.39 1.39 1.43.48 69.1 80 .52 1.32 .73 .55 21 ß Alrass 2.00 2.59 1.71 2.24 2.65 2.182.76 2.35 2.00 2.47 2.94 2.062.35 1.472.06 3.00 2.53 1.942.24 1.71 Σ 1.002.00 2.00 1.00 1.00 0.00 1.00 1.50 2.00 1.15 58 .82 1.71 96 96 96 1.41 50 96 Al Mithnab 96 Ŝ 1.502.00 1.501.75 1.50 2.00 2.75 1.501.00 1.75 1.75 2.00 3.50 1.25 1.75 2.00 2.00 1.75 2.00 1.75 Σ $= M^*$ 1.001.26 1.26 l.26 l.50 1.41 1.41 96 96 96 96 .96 1.71 96 82 50 96 96 82 SD Al Bukayriah 2.75 3.75 3.75 3.75 3.501.75 2.25 2.75 2.00 2.00 2.00 2.75 3.25 2.25 2.75 2.75 3.25 4.00 2.25 2.25 Σ 1.00 1.37 1.40 1.03 1.63 l.36 1.16 1.53 1.541.45 1.35 1.541.51 1.621.42 1.14 1.69 1.48 1.48 1.71 SD Al Badayea 2.75 3.00 2.502.08 2.75 2.00 2.25 2.45 2.17 2.50 1.83 1.58 1.91 2.36 2.00 1.75 1.67 1.83 2.25 1.42 Σ Helps to maintain healthy lifestyle beliefs, and traditions into account Gives options of treatment for the Asks about problems with the use Asks about what the user wants to Satisfaction with the organization Gets in contact after consultation Provides a written list of "things Explanation of consultation with Encourages the participation in of the treatment Explains that whatever the user Asks about visits to specialists specialists/help with treatment Encourage the participation in influences the health problem Asks the user's opinion when The health team takes values, do to take care of the health habîts Provides a written care plan Helps to make the care plan Helps to plan health care in Asks about how the chronic does to take care of himself Asks about health habits "that can improve health Guidance on health care conditions affects life defining the care plan community programs user to think about specific groups difficult times of medication problem Items A similar study conducted in Nigeria proved In contrast to our study, Al Yousif N[15] that primary health care utilization is patients with dyslipidemia and the lowest significantly related to chronic illness[8]. utilizers were COPD patients, with 100%

612

966 586 364 398

696

290

547

SMJS is the official journal of the Faculty of Medicine, University of Tabuk. All rights reserved with SMJS. © SMJS 2020

846

694

577

829

610

543 427

| Condition | n | % | Medication adherence | Delivery system design/ decision support | Goal setting/ tailoring | Problem solving/ contextual | Follow-up/ coordinatio n |
|-----------|----|------|----------------------|--|----------------------------|-----------------------------------|--------------------------------|
| HLD | 74 | 29.8 | 2.33 (1.06) | 2.80 (1.24) | 2.04 (1.12) | 2.46 (1.12) | 1.97 (1.08) |
| OA | 81 | 32.7 | 2.42 (0.96) | 2.67 (1.07) | 2.01 (0.87) | 2.32 (0.95) | 1.95 (0.89) |
| DM | 98 | 39.5 | 2.52 (1.07) | 2.80 (1.19) | 2.21 (1.03) | 2.53 (1.05) | 2.24 (1.16) |
| HTN | 77 | 31.0 | 2.22 (0.92) | 2.60 (1.12) | 2.07 (1.01) | 2.48 (1.07) | 2.10 (1.10) |
| BA | 29 | 11.7 | 2.33 (1.06) | 2.66 (1.18) | 2.06 (1.10) | 2.45 (1.00) | 1.93 (1.05) |
| | | | · · · · | | . , | . , | · · · · |

Table 6: Mean (SD) of question category score and subclass by chronic diseases.

* Some cases have more than one chronic disease

satisfaction in COPD patients and the lowest satisfaction in osteoporotic patients. Jiang M[13] reported that, respondents with chronic diseases such as heart disease, cataracts, cerebrovascular disease, and gastroenteritis were more likely to use outpatient health services. In addition, AlMomen RK[17] showed similar findings regarding participants who suffered from diabetes mellitus representing a high percentage of 40.26.

claimed that the highest utilizers were

This study provides an insight to those who want to monitor and improve the services provided to patients in PHCs. In our community, chronic diseases are subject to great health impacts, which require continued treatment and follow-up.

PACIC questionnaire is an excellent and useful tool to evaluate health care services received by patients as well as their perspectives. Finally, we recommend an annual evaluation of PHC services.

CONCLUSION

The level of satisfaction in Qassim primary health-care centers is high in general, but results indicate that there are some areas in which quality improvement is required, mainly in context of "encouraging participation in specific groups". So, we should improve these areas for better management and prevention of chronic diseases.

ACKNOWLEDGMENTS

We thank Dr. Nouf Sahal Alharbi for assistance in our research.

CONFLICT OF INTEREST None

REFERENCES

- 1. Gosadi IM. National screening programs in Saudi Arabia: Overview, outcomes, and effectiveness. Journal of Infection and Public Health. 2019;12(5):608-14.
- 2. Silva LB, Soares SM, Silva PAB, Santos JFG, Miranda LCV, Santos RM. Assessment of the quality of primary care for the elderly according to the Chronic Care Model. Revista latinoamericana de enfermagem. 2018;26.
- Almalki M, FitzGerald G, Clark M. Health care system in Saudi Arabia: an overview. EMHJ-Eastern Mediterranean Health Journal, 17 (10), 784-793, 2011. 2011.
- 4. Hafez G, Bagchi K, Mahaini R. Caring for the elderly: a report on the status of care for the elderly in the Eastern Mediterranean Region.

SMJS is the official journal of the Faculty of Medicine, University of Tabuk. All rights reserved with SMJS. © SMJS 2020

EMHJ-Eastern Mediterranean Health Journal, 6 (4), 636-643, 2000. 2000.

- Mahfouz A, Al Sharif A, El Gamal M, Kisha A. Primary health care services utilization and satisfaction among the elderly in Asir region, Saudi Arabia. EMHJ-Eastern Mediterranean Health Journal, 10 (3), 365-371, 2004. 2004.
- Wensing M, van Lieshout J, Jung HP, Hermsen J, Rosemann T. The Patients Assessment Chronic Illness Care (PACIC) questionnaire in The Netherlands: a validation study in rural general practice. BMC health services research. 2008;8(1):182.
- Adrián-Arrieta L. Patients' assessment of their chronic illness care. Atencion Primaria. 2017;50(7):390-7
- Raheem A, Saka MJ, and Tobin-West CI. Assessment of utilization, and satisfaction with primary health care services among the elderly in Ilorin Metropolis, Nigeria. Journal of Gerontology Geriatric Research 2014, 3:4.
- Glasgow RE, Wagner EH, Schaefer J, Mahoney LD, Reid RJ, Greene SM. Development and validation of the patient assessment of chronic illness care (PACIC). Medical care. 2005:436-44.
- Alharbi NS; Alsubki N; Alotabi F; Alotabi M; Alhrabi NS; de Lusgnian S; Jonas S. Translation into Arabic and validation of the Patient Assessment of Care for Chronic Conditions questionnaire for diabetes. East Mediterr Health J. 2020;26(x):xxx-xxx. https://doi.org/10.26719/emhj.19.049
- 11. Mohamed EY, Sami W, Alotaibi A, Alfarag A, Almutairi A, Alanzi F. Patients' satisfaction with primary health care centers' services, Majmaah, Kingdom of Saudi of Saudi Arabia. International journal of health sciences. 2015;9(2):163.
- 12. Al-Eisa IS, Al-Mutar MS, Radwan MM, Al-Terkit AM, Al-Eisa I. Patients' satisfaction with primary health care services at capital health region, Kuwait. Middle East Journal of Family Medicine. 2005;3(3):10-6.

- Jiang M, Yang G, Fang L, Wan J, Yang Y, Wang Y. Factors associated with healthcare utilization among community-dwelling elderly in Shanghai, China. PloS one. 2018;13(12):e0207646.
- 14. Alkhawaldeh A, Holm MB, Qaddumi J, Petro W, Jaghbir M, Al Omari O. A cross-sectional study to examine factors associated with primary health care service utilization among older adults in the Irbid Governorate of Jordan. Current gerontology and geriatrics research. 2014;2014.
- 15. al Yousif N, Hussain HY, Mhakluf MMED. Health Care Services utilization and satisfaction among elderly in Dubai, UAE and some associated Determinants. Middle East Journal of Age and Ageing. 2014;83(1195):1-9.
- Niyas M, Karimi M, Kavosi Z. Utilization of Primary Health Care Services in Rural and Urban Areas in Shiraz. Shiraz E-Medical Journal. 2018;In Press
- AlMomen RK, Abdelhay O, Alrowais NA, Elsaid T. Evaluation of patient with chronic disease using Patient Assessment of Chronic Illness Care Questionnaire (PACIC) in Riyadh KSA. InIJCAR 2015 (Vol. 4, No. 9, pp. 378-381).



SMJS is the official journal of the Faculty of Medicine, University of Tabuk. All rights reserved with SMJS. © SMJS 2020