

## Original Research Article

# Prevalence and Evaluation of Patients' Satisfaction in A Primary Health Care Center, Riyadh-Saudi Arabia

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### Abstract

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The prevalence of patients' satisfaction has been evaluated in several studies globally with different conclusions. Few local studies evaluate the prevalence of patients' satisfaction in Primary Health Care centers in Saudi Arabia. Study of satisfaction among patients with factors related to the clinical consultation plays a key role in assessing the quality of health care. The objective of this study is to determine the prevalence of satisfaction among patients in primary health care center in Riyadh, Saudi Arabia and to explore the factors that could affect patients' satisfaction with the medical consultations. A cross-sectional study has been conducted between January and July 2019 among patients of Alwazarat health care center. The data were collected using face to face interview method. 340 patients were interviewed. The mean age was  $35.43 \pm 10.76$  years. Both age and educational level had significant relationships with patients' overall satisfaction. Overall satisfaction in both gender was as follow: 48.5% very satisfied, 44.7% satisfied, 3.8% not sure, 2.9% upset, zero very upset. The overall patient satisfaction is high among all ages of patients who require health care services and also among all patients' educational levels.

**Keywords:** Family medicine, Patient, Patient Satisfaction, Primary health care

## INTRODUCTION

Patient satisfaction involves the patients' perceived need, his expectations and experience of the health care system. This multidimensional concept includes both medical and nonmedical aspects of health care (Silva, 2003). Most importantly, patient satisfaction is considered as the essential indicator used to measure the quality in health care (Bhanuprakash, 2010). Patients who are more satisfied with their health care are more likely to follow medically prescribed instructions and thus contributing to the positive influence on their health (Buchanan et al., 2015).

A cross-sectional study conducted in Kuwait and aimed to measure patients' satisfaction with primary

health-care services. Results showed significant differences of satisfaction of patients with gender and level of education. Overall satisfaction was higher among males than females, and it was also higher among those with university degree of education than the other levels of education (Al-eisa et al., 2005).

Another study compared satisfaction of patients and evaluated factors associated with patients' satisfaction in two health care center in Egypt. 1108 patients had been interviewed using a structured questionnaire. The results show that most patients using primary health care services were women. Patient satisfaction was high for accessibility, waiting zone conditions and performance of

doctors and nurses. The main complaints centered on the availability of drugs and lab investigations. Additionally, 33% of patients described privacy in the consultation clinic as unsatisfactory. There was no association between overall patient satisfaction and education level, gender, age or type of service (M. G et al., 2003).

Thirty-four UK cancer centers and 160 doctors had been participated in a study aimed to identify factors that influence patient and clinician satisfaction with the cancer consultation and whether satisfaction can be improved with communication skills training. The authors concluded that; overall patient satisfaction was not related to the specialty, seniority or sex of the clinician or patient, site of primary cancer or type of treatment. Satisfaction was related to patients' age, psychological disorders and, most significantly, satisfaction with the length of wait in health center. Communication skills training had a non-significant positive effect on patient satisfaction. The benefits of improved communication may be overshadowed by practical problems such as waiting too long to meet the doctor, which have a negative effect on satisfaction (Valerie et al., 2003).

## MATERIAL AND METHODS

**Study design:** A cross-sectional study was carried out.

### Study population and setting

The study population comprised adult patients aged  $\geq 18$  years who attended the General Practice Department at Alwazarat PHC center which is the largest of many other family medicine centers under Prince Sultan Medical Military City in Riyadh. It services around 22000 patients yearly start on march 2018

### Sample size and sampling technique

A sample of 340 adult patients was calculated with the following assumptions: 50% reported being satisfied, a precision of 5%, an alpha level of 5% and a 10% non-response rate. A convenience sampling technique was used.

### Data collection

A validated Questionnaire of Patient Satisfaction (QPS) with General Practice was used after taking the permission from the authors (Miravukovic et al., 2012). The reliability had been evaluated by administering the questionnaire to 20 volunteer patients then re-administering again to the same patients after 10 days.

Face to face interview method was used for data collection.

## Statistical analysis and ethical considerations

SPSS version 25 was used for data analysis. A p-value of  $<0.05$  was considered statistically significant. Ethical approval (1048) had been obtained from the research ethical committee in Prince Sultan Medical Military City followed by an approval from the ministry of defense. Consent was obtained from all the patients, and patients' confidentiality had been guaranteed

## RESULTS

More than one-third (35.1%) of male patients answered that sometimes they had difficulties in appointment registration, while 31.9% of females had rarely faced any difficulties. 32.8% of males were often satisfied about register an appointment which suits their day and time needs, where 36.7% of females were less satisfied (sometimes). Table 1, Figure 1-2

Almost 90% of all patients were satisfied with the reception. More than half of the total study participants were satisfied with the waiting time until seeing their doctors (52.9% and 50.6% for males and females, respectively).

38.0% of females preferred to see the same doctor at each visit while 35.1% of males had more flexible answers that it's acceptable sometimes to see different doctors.

55.7% of males versus 41.0% of females said they always feel free to talk with the doctors about their own problems in addition to their health issues.

58.0% of males and 38.6% of females were, overall, very satisfied about the medical services provided by the health center. While 6.8% of males and 6.6% of females were overall not satisfied.

The prevalence of overall satisfaction in both gender was as follow: 48.5% very satisfied, 44.7% satisfied, 3.8% not sure, 2.9% upset, 0% very upset about the clinical consultation in Al Wazarat primary health care center.

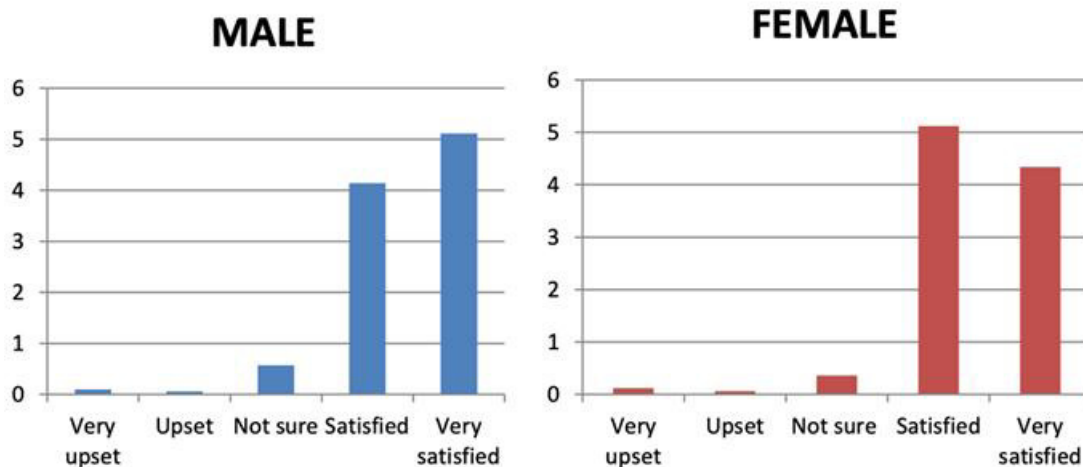
As shown in Table (2), statistical significant relationships were found between different patients' age categories and the level of patients' satisfactions regarding the registration process and the waiting time

Table (3) showed statistically significant association between patients' educational levels and their satisfaction levels when they asked if they felt how the doctor considered their health problems seriously, felt free to talk with the doctor about their own problems as well as medical issues, and if they were overall satisfied about the medical interviews at the health center.

**Table 1.** Socio-demographic characteristics of the patients (N=340)

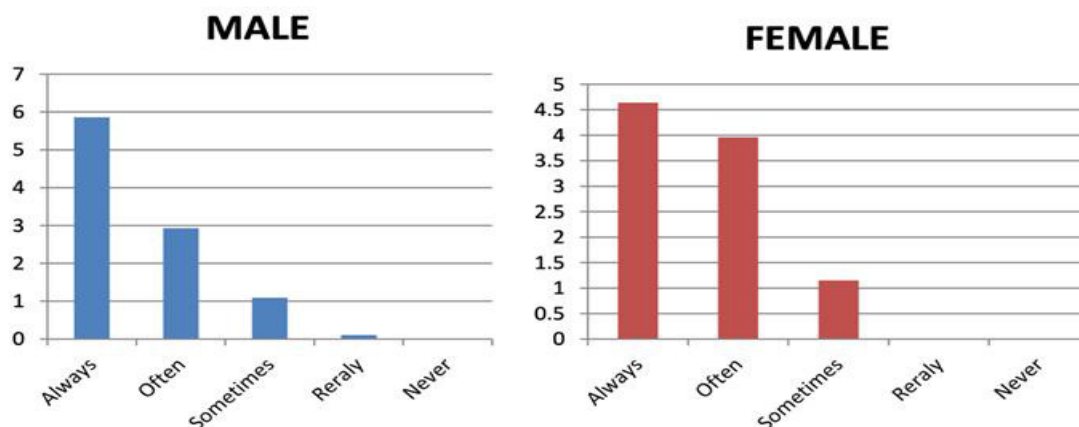
| Characteristics                                       |                             | Frequency | Percentage | P-Value |
|-------------------------------------------------------|-----------------------------|-----------|------------|---------|
| Age<br>(16 -84 years) Mean<br>(35.43 ±10.76<br>years) | <i>Less than 20 years</i>   | 11        | 3.2%       | 0.141   |
|                                                       | <i>21-30 years</i>          | 112       | 32.9%      |         |
|                                                       | <i>31-40 years</i>          | 125       | 36.8%      |         |
|                                                       | <i>41-50 years</i>          | 67        | 19.7%      |         |
|                                                       | <i>51-60 years</i>          | 17        | 5.0%       |         |
|                                                       | <i>More than 60 years</i>   | 8         | 2.4%       |         |
| Gender                                                | <i>Male</i>                 | 174       | 51.2%      | 0.002** |
|                                                       | <i>Female</i>               | 166       | 48.8%      |         |
| Marital Status                                        | <i>Single</i>               | 93        | 27.4%      | 0.349   |
|                                                       | <i>Married</i>              | 227       | 66.8%      |         |
|                                                       | <i>Divorced/Departed</i>    | 9         | 2.6%       |         |
|                                                       | <i>Widow/ed</i>             | 11        | 3.2%       |         |
| Education                                             | <i>Illiterate</i>           | 11        | 3.2%       | 0.018*  |
|                                                       | <i>Primary school</i>       | 20        | 5.9%       |         |
|                                                       | <i>Middle school</i>        | 25        | 7.4%       |         |
|                                                       | <i>Secondary school</i>     | 134       | 39.4%      |         |
|                                                       | <i>Diploma</i>              | 39        | 11.5%      |         |
|                                                       | <i>College/High School</i>  | 111       | 32.6%      |         |
| Monthly income                                        | <i>Less than 5000 SR</i>    | 138       | 40.6%      | 0.966   |
|                                                       | <i>5000-10000 SR</i>        | 108       | 31.8%      |         |
|                                                       | <i>10001-15000 SR</i>       | 69        | 20.3%      |         |
|                                                       | <i>More than 15000 SR</i>   | 25        | 7.4%       |         |
| No. of visits in the<br>last twelve months            | <i>Two visits or less</i>   | 166       | 48.8%      | 0.587   |
|                                                       | <i>Three to Five visits</i> | 135       | 39.7%      |         |
|                                                       | <i>Six visits or more</i>   | 39        | 11.5%      |         |

### SATISFIED WITH THE NURSES



**Figure 1.** 50% of male were very satisfied and 40% were satisfied with nurses, versus 43% of female were very satisfied and 50% were satisfied

### SATISFIED WITH THE MEDICAL CARE PROVIDED BY THE DOCTOR



**Figure 2.** 57% of males versus 43% of females said they always feel how seriously their doctors interested in their health issues at  $P < 0.01$

**Table 2.** Levels of patients' satisfaction and age categories

| Patients were asked if they,.....                                   |            | < 20  | 21-30 | 31-40 | 41-50 | 51-60 | >60   | Pearson Chi-Square |
|---------------------------------------------------------------------|------------|-------|-------|-------|-------|-------|-------|--------------------|
| found difficulties in appointment registration?                     | Always     | 0     | 2     | 8     | 1     | 4     | 0     | 0.001**            |
|                                                                     |            | 0.0%  | 1.8%  | 6.4%  | 1.5%  | 23.5% | 0.0%  |                    |
|                                                                     | Often      | 0     | 11    | 16    | 10    | 0     | 1     |                    |
|                                                                     |            | 0.0%  | 9.8%  | 12.8% | 14.9% | 0.0%  | 12.5% |                    |
|                                                                     | Sometimes  | 2     | 30    | 35    | 28    | 7     | 2     |                    |
|                                                                     |            | 18.2% | 26.8% | 28.0% | 41.8% | 41.2% | 25.0% |                    |
|                                                                     | Rarely     | 2     | 30    | 40    | 16    | 4     | 3     |                    |
|                                                                     |            | 18.2% | 26.8% | 32.0% | 23.9% | 23.5% | 37.5% |                    |
| Never                                                               | 7          | 39    | 26    | 12    | 2     | 2     |       |                    |
|                                                                     | 63.6%      | 34.8% | 20.8% | 17.9% | 11.8% | 25.0% |       |                    |
| could register an appointment which suits their day and time needs? | Always     | 4     | 44    | 22    | 14    | 2     | 1     | <0.001***          |
|                                                                     |            | 36.4% | 39.3% | 17.6% | 20.9% | 11.8% | 12.5% |                    |
|                                                                     | Often      | 2     | 29    | 53    | 18    | 2     | 2     |                    |
|                                                                     |            | 18.2% | 25.9% | 42.4% | 26.9% | 11.8% | 25.0% |                    |
|                                                                     | Sometimes  | 3     | 32    | 39    | 28    | 11    | 2     |                    |
|                                                                     |            | 27.3% | 28.6% | 31.2% | 41.8% | 64.7% | 25.0% |                    |
|                                                                     | Rarely     | 2     | 5     | 9     | 5     | 0     | 0     |                    |
|                                                                     |            | 18.2% | 4.5%  | 7.2%  | 7.5%  | 0.0%  | 0.0%  |                    |
| Never                                                               | 0          | 2     | 2     | 2     | 2     | 3     |       |                    |
|                                                                     | 0.0%       | 1.8%  | 1.6%  | 3.0%  | 11.8% | 37.5% |       |                    |
| were satisfied with the waiting time ahead from seeing the doctor?  | Very upset | 0     | 2     | 0     | 2     | 0     | 0     | 0.009**            |
|                                                                     |            | 0.0%  | 1.8%  | 0.0%  | 3.0%  | 0.0%  | 0.0%  |                    |
|                                                                     | Upset      | 0     | 21    | 19    | 9     | 0     | 0     |                    |
|                                                                     |            | 0.0%  | 18.8% | 15.2% | 13.4% | 0.0%  | 0.0%  |                    |
|                                                                     | Not sure   | 0     | 15    | 22    | 6     | 6     | 0     |                    |
|                                                                     |            | 0.0%  | 13.4% | 17.6% | 9.0%  | 35.3% | 0.0%  |                    |
|                                                                     | Satisfied  | 5     | 52    | 68    | 34    | 11    | 6     |                    |
|                                                                     |            | 45.5% | 46.4% | 54.4% | 50.7% | 64.7% | 75.0% |                    |
| Very Satisfied                                                      | 6          | 22    | 16    | 16    | 0     | 2     |       |                    |
|                                                                     | 54.5%      | 19.6% | 12.8% | 23.9% | 0.0%  | 25.0% |       |                    |

**Table 3.** Levels of patients' satisfaction and educational levels

| Patients were asked if they,.....                                   |           | Illiterate | Primary school | Middle school | Secondary school | Diploma | College-university | Pearson Chi-Square |
|---------------------------------------------------------------------|-----------|------------|----------------|---------------|------------------|---------|--------------------|--------------------|
| Found difficulties in appointment registration?                     | Always    | 0          | 2              | 5             | 4                | 2       | 2                  | <0.0001***         |
|                                                                     |           | 0.0%       | 10.0%          | 20.0%         | 3.0%             | 5.1%    | 1.8%               |                    |
|                                                                     | Often     | 3          | 0              | 6             | 8                | 3       | 18                 |                    |
|                                                                     |           | 27.3%      | 0.0%           | 24.0%         | 6.0%             | 7.7%    | 16.2%              |                    |
|                                                                     | Sometimes | 2          | 6              | 8             | 41               | 12      | 35                 |                    |
|                                                                     |           | 18.2%      | 30.0%          | 32.0%         | 30.6%            | 30.8%   | 31.5%              |                    |
|                                                                     | Rarely    | 0          | 8              | 4             | 35               | 10      | 38                 |                    |
|                                                                     |           | 0.0%       | 40.0%          | 16.0%         | 26.1%            | 25.6%   | 34.2%              |                    |
| Never                                                               | 6         | 4          | 2              | 46            | 12               | 18      |                    |                    |
|                                                                     | 54.5%     | 20.0%      | 8.0%           | 34.3%         | 30.8%            | 16.2%   |                    |                    |
| could register an appointment which suits their day and time needs? | Always    | 4          | 6              | 6             | 42               | 8       | 21                 | 0.001**            |
|                                                                     |           | 36.4%      | 30.0%          | 24.0%         | 31.3%            | 20.5%   | 18.9%              |                    |
|                                                                     | Often     | 0          | 4              | 4             | 47               | 16      | 35                 |                    |
|                                                                     |           | 0.0%       | 20.0%          | 16.0%         | 35.1%            | 41.0%   | 31.5%              |                    |
|                                                                     | Sometimes | 6          | 6              | 12            | 34               | 14      | 43                 |                    |
|                                                                     |           | 54.5%      | 30.0%          | 48.0%         | 25.4%            | 35.9%   | 38.7%              |                    |

Table 3. Continue

|                                                                    |                       |       |       |       |       |       |       |        |
|--------------------------------------------------------------------|-----------------------|-------|-------|-------|-------|-------|-------|--------|
| were satisfied with the waiting time ahead from seeing the doctor? | <i>Rarely</i>         | 0     | 0     | 3     | 7     | 1     | 10    | 0.034* |
|                                                                    |                       | 0.0%  | 0.0%  | 12.0% | 5.2%  | 2.6%  | 9.0%  |        |
|                                                                    | <i>Never</i>          | 1     | 4     | 0     | 4     | 0     | 2     |        |
|                                                                    |                       | 9.1%  | 20.0% | 0.0%  | 3.0%  | 0.0%  | 1.8%  |        |
|                                                                    | <i>Very upset</i>     | 0     | 0     | 0     | 0     | 2     | 2     |        |
|                                                                    |                       | 0.0%  | 0.0%  | 0.0%  | 0.0%  | 5.1%  | 1.8%  |        |
|                                                                    | <i>Upset</i>          | 0     | 2     | 5     | 14    | 9     | 19    |        |
|                                                                    |                       | 0.0%  | 10.0% | 20.0% | 10.4% | 23.1% | 17.1% |        |
|                                                                    | <i>Not sure</i>       | 2     | 2     | 0     | 20    | 2     | 23    |        |
|                                                                    |                       | 18.2% | 10.0% | 0.0%  | 14.9% | 5.1%  | 20.7% |        |
|                                                                    | <i>Satisfied</i>      | 7     | 12    | 16    | 74    | 14    | 53    |        |
|                                                                    |                       | 63.6% | 60.0% | 64.0% | 55.2% | 35.9% | 47.7% |        |
|                                                                    | <i>Very Satisfied</i> | 2     | 4     | 4     | 26    | 12    | 14    |        |
|                                                                    |                       | 18.2% | 20.0% | 16.0% | 19.4% | 30.8% | 12.6% |        |
| were satisfied with the receptionists handling?                    | <i>Very upset</i>     | 0     | 0     | 0     | 0     | 0     | 4     | 0.012* |
|                                                                    |                       | 0.0%  | 0.0%  | 0.0%  | 0.0%  | 0.0%  | 3.6%  |        |
|                                                                    | <i>Upset</i>          | 0     | 0     | 1     | 0     | 4     | 3     |        |
|                                                                    |                       | 0.0%  | 0.0%  | 4.0%  | 0.0%  | 10.3% | 2.7%  |        |
|                                                                    | <i>Not sure</i>       | 0     | 0     | 0     | 9     | 2     | 7     |        |
|                                                                    |                       | 0.0%  | 0.0%  | 0.0%  | 6.7%  | 5.1%  | 6.3%  |        |
|                                                                    | <i>Satisfied</i>      | 7     | 6     | 16    | 58    | 19    | 54    |        |
|                                                                    |                       | 63.6% | 30.0% | 64.0% | 43.3% | 48.7% | 48.6% |        |
|                                                                    | <i>Very Satisfied</i> | 4     | 14    | 8     | 67    | 14    | 43    |        |
|                                                                    |                       | 36.4% | 70.0% | 32.0% | 50.0% | 35.9% | 38.7% |        |

## DISCUSSION

A total of 340 patients were participated in this study, and the overall satisfaction about the clinical consultation showed a non-significant association with the patients' gender. This finding is different from a similar study conducted in Riyadh and showed that females were more satisfied than males with a statistically significant relationship (Faisal et al., 2013).

Regarding the nurse care, our results showed no statistical significant relation between patient's gender and the level of satisfaction about the nurse care, and this finding is different from the results of another study published in 2003 to investigate the influence of gender on patient satisfaction and showed that females expressed significantly less satisfaction compared to males on four of the six questions about nursing care (Scott and Zahra, 2003).

Many literature of the patient satisfaction suggests that the level of patient satisfaction with health care is positively associated with age (Young et al., 2000; Tucker and Kelley, 2000; Zaslavsky et al., 2000; Cleary et al., 1992) and these results are consistent with ours which revealed significant association between patients' age categories and the level of patients' satisfactions considering the registration process and the waiting time.

A Saudi study conducted in the Eastern province (2019) and aimed to examine the relationship between waiting time and patient satisfaction in a tertiary hospital,

the authors concluded that there were statistical significant differences in the satisfaction score between participants of the different age groups, gender, educational level, employment, clinic type, and visit type (Rasmah et al., 2019). Worth to mention that, it is unclear if the age-related differences in patients' satisfaction are due to differences in patient expectations and perceptions of care, or due to true differences in health care (Linder-Pelz, 1982).

Results of the current study revealed that about 73% of the illiterate patients and 80% of patients who completed their primary schools were satisfied and very satisfied about their medical interview at the health center. Whereas, only 25% of Diploma holder patients were very satisfied. Similar findings were reported from an Iranian study aimed to evaluate the patient satisfaction in social security hospitals and the authors reported that patient satisfaction is related to educational level. Patients with higher educational level were less satisfied, since they have higher education, higher incomes and social status. Thus, their expectations regarding the health care services are higher (Seved-ebrahim jafarikelarijani et al., 2014).

## CONCLUSION

Overall patients' satisfaction was nearly 50% and it was statistically significant with both age and educational

levels of the patients. Our study also revealed that patients were satisfied with reception, waiting time, physicians and nurses' performance but less satisfied with the appointment registration process. More effort is needed to identify any administrative or medical problems that may contribute to patients' dissatisfaction

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