

# Patient satisfaction with primary health care services in Riyadh

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## ABSTRACT

**الهدف:** هدف الدراسة هو تقييم و قياس درجة رضا المرضى عن خدمات الرعاية الصحية الأولية التي توفرها مراكز الرعاية الصحية الأولية التابعة لمستشفى القوات المسلحة بالرياض .

**الطريقة:** شملت الدراسة مسح 606 مريض عن طريق استبيان لقياس درجة رضا المرضى في خمس محاور من الرعاية الصحية الأولية وهي: استقبال المرضى، سهولة الوصول للرعاية الصحية، استمرارية الرعاية الصحية، الاتصال بالمرضى و التمكين من الرعاية الصحية.

**النتائج:** بينت الدراسة أن المستوى العام للرضا عن الخدمات الصحية منخفض نسبيا في المراكز الصحية الثلاثة التي جرت بها الدراسة ( 64.2% ) وقد كان هناك ارتفاع في مستوى الرضا عن الخدمات من قبل المرضى في محوري: استقبال المرضى ( 70% ) والتمكين من الرعاية الصحية ( 70.6% ) وقد كان هناك انخفاض في مستوى الرضا عن الخدمات من قبل المرضى في محور استمرارية الرعاية ( 56.3% ) كما بينت الدراسة أن المرضى الأكبر سنا ( أكبر من 50 عام ) و الأقل تعليما كانوا أكثر رضا من غيرهم (  $P\text{-value} < 0.001$  ) و أن هناك علاقة عكسية بين مستوى رضا المرضى عن خدمات الرعاية الصحية و عدد زيارات المريض للمركز الصحي (  $P\text{-value} = 0.015$  ) ولم توجد أي علاقة أخرى من ناحية عمل المريض، دخله الشهري و جنس المريض أو حالته الاجتماعية.

**خاتمة:** مستوى قياس درجة رضا المرضى عن خدمات الرعاية الصحية الأولية في مراكز الرعاية الأولية التابعة لمستشفى القوات المسلحة بالرياض نسبيا منخفض، النتائج في المجالات التي حددت تحسين النوعية هي المطلوبة والتي تتركز في سهولة واستمرار الرعاية.

**Objective:** To assess the level of patients' satisfaction with primary health care (PHC) services in health centers affiliated to Riyadh Military Hospital (RMH), Riyadh, Kingdom of Saudi Arabia.

**Methods:** A cross-sectional study was conducted in 3 PHC centers, affiliated to Riyadh Military Hospital (RMH), Riyadh, Kingdom of Saudi Arabia, over

2 months period in 2006, data was collected using a self-administered questionnaire to assess patients' overall satisfaction with PHC services and their level of satisfaction with 5 PHC domains: reception services, accessibility, continuity of care, communication, and enablement.

**Results:** Seven hundred questionnaires were distributed yielding 86.6% response rate, 39.6% of our patients were 20-30 years old, 51.5% of the respondents were females, 76.4% were married and 34.5% of them showed a medical visit frequency of a minimum of 8 times per year. The domains of PHC with the highest level of reported satisfaction was enablement (70.6%). The poorest level of satisfaction was at the continuity of care (56.3%). The mean score of satisfaction with reception was 70.0%, communication 69.2%, and accessibility to care was 62.4%. The overall satisfaction level was 64.2%. Patients of older age were more satisfied with PHC services than their younger counterparts ( $p\text{-value} < 0.001$ ) and patients with lower education level were more satisfied ( $p\text{-value} < 0.001$ ). Patients' satisfaction was inversely related to their average annual visit frequency to PHC centers ( $p\text{-value} = 0.015$ ). There was no relation found between patients' satisfaction and their gender, marital status, occupational status, and their average monthly income.

**Conclusion:** The level of satisfaction with PHC services in health centers affiliated to RMH is relatively low, results identified areas in which quality improvement is required, mainly accessibility and continuity of care.

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Primary health care (PHC) is essential care based on delivering integrated health care services of promotive, preventive, curative, and rehabilitative aspects. The Saudi Constitution states that health care is the right of every citizen, and in 1980 the government of Saudi Arabia adopted the World Health Organization (WHO) "Health for All" concept and declared the PHC as the corner stone to achieve that goal.<sup>1</sup> Since then Saudi Arabia has calibrated its healthcare system according to "Alma ata" declaration, which was adopted by the WHO in 1978.<sup>40</sup> To endorse PHC concepts, the Saudi government abolished all its former dispensaries and maternal and child health centers, and amalgamated their services into PHC centers to deliver PHC services.<sup>2</sup> The strategies of PHC development in the Kingdom includes expanding PHC facilities, co-ordination between primary, secondary, and tertiary health care facilities, as well as inter and intra-sectorial co-ordination with the Ministry of Health (MOH). These strategies aim at promoting positive relationships between PHC facilities and their consumers to develop active consumer participation.<sup>3</sup> By 1987, the MOH had established 1477 PHC centers, and by the year 2006 it reached 1905 PHC centers,<sup>4</sup> this expansion in centers' development created a need to assess the extent to which the healthcare objectives have been met.<sup>5</sup> In the last 3 decades Saudi Arabia has witnessed rapid urbanization, social, and economic transformation, this has resulted in an increase in people's demands and expectations for high quality health services, as a result it was necessary to devise an accurate means of assessing patient's satisfaction that has an influence on certain health-related behaviors, such as compliance, appointment keeping, and use of medical services.<sup>6,7</sup> Patient's expectations and satisfaction may be affected by various factors, which are related to demographic, hospital staff, structure, or to the complexity of administrative procedures in the hospitals.<sup>8</sup> Characteristics of the health care delivery system, which have been shown to play an important role in patient satisfaction with the health care services are affordability, accessibility, availability and equity.<sup>9</sup> Although some researchers have found little or no association between patient satisfaction and socio-demographic characteristics of service users, the general trend in satisfaction studies showed that age, gender, and the level of education have correlated with the patient's level of satisfaction with care.<sup>7</sup> Female patients usually are more satisfied in general than males, although at least one study reported higher satisfaction in men than women.<sup>10</sup> Ware<sup>11</sup> suggested that less educated persons tend to be less satisfied with the health care providers, other literature showed an association between high patient educational level and a lower level of satisfaction with care.<sup>7</sup> Few studies have been conducted in Persian

Gulf countries to assess patient satisfaction with PHC services.<sup>12,14</sup> The overall satisfaction ranged from 43-57% in United Arab Emirates,<sup>12</sup> and was 49% in Kuwait.<sup>13</sup> Al-Faris<sup>14</sup> had identified a high rate (90%) of patient overall satisfaction with accessibility and services offered in PHC centers in Riyadh. Another study in Riyadh of 560 patients in Olaissha's PHC center showed 80% satisfaction rate<sup>15</sup> and in a smaller study in Jeddah, the overall satisfaction with the services provided was 2.45 points out of 5 points likert scale.<sup>16</sup> This study was conducted to assess patients' satisfaction level with PHC provided by PHC centers affiliated to RMH in 5 domains of PHC service and to identify the main areas for quality improvement.

**Methods.** This is a cross-sectional study which was conducted in 3 PHC centers affiliated to RMH during November to December 2006, and they are Al Wazrat health center (WHC), officers clinic health center (OCHC), and non-commissioned officers clinic health center (NCOHC). These health centers serve a catchment population of military personnel and their dependants and do not have a laboratory on site, but have easy accessibility to both radiology and laboratory services. The data was collected using a pilot tested self-administered questionnaire, the items in the questionnaire were mainly extracted from an internationally validated and reliable questionnaire: The General Practice Assessment Questionnaire (GPAQ),<sup>17</sup> and the documentary book of PHC symposium in Saudi Arabia 2004.<sup>18</sup> The questionnaire was pre-tested in Al Wazrat PHC center through a pilot study of 30 patients to check the language clarity and understanding of questions, comments were taken into consideration where appropriate in the main survey. The information sought included socio-demographic data in the form of age, gender, marital status, education level, occupation, and the income. The questionnaire had 8 more questions to assess the patients' satisfaction, and the response was rated in a Likert scale, where a minimum score of one means completely not satisfied and a maximum score of 5 means fully satisfied. The questions were subdivided into 43 items to test 5 domains of interest as follows: reception service (Q9:A), accessibility to services (Q10-12,14), continuity of care (Q13,15:Q), communication (Q9:B-F,15:A-L,P,R,S,T), enablement (Q15:M-O) and one question about overall satisfaction with services (Q16). Missing data occurred when respondents did not answer questions, therefore a minimum number of questions must were answered for each domain in order to calculate the scale score for each respondent and a scale score was only calculated if half or more of the questions for that domain were answered by the respondent. Table 1 shows the minimum

number of responses needed to calculate scale scores for individual respondents and if there were any missing responses in any domain, then the data was listed as missing. The mean score of the completed questions is then calculated for each scale, a zero to 100 score scale is calculated using the following formula:

$$\text{Scale score} = (\text{mean score of completed questions} - \text{lowest possible question value}) \times 100 / \text{Maximum question range}$$

The target population were patients attending 3 PHC centers (WHC, OCHC, NCOHC) affiliated to RMH, which was estimated to be 200,000 eligible patients in the year 2006. A sample size of a minimum of 383 patients were required to reach the power of the study defined at 0.90 (90%) with alpha level of 0.05 to be considered significant. The study sample were recruited by systematic random sampling (choosing every tenth eligible patient attending these PHC centers) over a 2-month period from November to December 2006. The survey was anonymous, and all the collected data was kept confidential. The study participants were informed through the introduction of the questionnaire of the purpose of the study and that their participation is voluntary, informed consent was sought at this level. Ethical approval was attained from the Research Committee of the Family Medicine Department. The patients were recruited when they registered at reception to see a doctor, and were asked to complete the questionnaire after they had seen the doctor and the questionnaire was collected by an assigned employee. The questionnaire was self-administered and the data were manually checked for completeness.

The SPSS program was used to process data, multiple comparisons were carried out by one-way analysis of variance (ANOVA) with post tests, where appropriate. Associations between respondents' characteristics, and the services' quality were evaluated by Multiple Regression and ANOVA, employing SPSS program, confidence interval limits (95%) and *p*-values ( $\alpha=0.05$ ) were considered to indicate statistical significance.

**Results.** Six hundred and six questionnaires of a total of 700 were returned during the study period representing 86.5 % response rate, 15 questionnaires were not complete and 591 questionnaires (84.4% of total) were complete and were included in the final analysis. Demographic data showed that 39.6% of our patients were from the age group 20-30 years old, 9.5% were more than 50 years, and 51.5% of the respondents were females. Subjects were married in 76.4% of our sample, single in 19.8%, widows in 2%, and divorced in 1.8%. Educational level of respondents showed that 7.3% were illiterate and 32.2% had a university level of education. Financial level of respondents showed that 40.3% had an average monthly income between

**Table 1 -** Minimum number of valid responses needed to calculate scale scores for an individual patient.<sup>(17, 18)</sup>

Domain	Questions in domain	Number of questions in domain scale	Minimum number of valid responses needed to calculate scale score
Receptionist	9a	1	1
Access	10,11,12a,b 14:a-j	14	7
Continuity of care	13a,b 15q	3	2
Communication	9:b-f 15:a-l,p,r,s,t	21	11
Enablement	15:m-o	3	2
Overall satisfaction	16	1	1

**Table 2 -** Relationship of overall patient satisfaction level and their educational level (F: 4.77, *p*<0.001).

Patient educational level	Overall satisfaction (%)
Illiterate	67.4
Elementary	78.2
Intermediate	70.2
Secondary	64.7
University	59.0

SR 2000-4999, and 17% had a monthly income of SR 10,000. Frequency of health center visits showed that 11.5% of respondents had visited our PHC centers at least once per year, and 34.5% had an average annual visit frequency of a minimum of 8 times or more. The domain of PHC services that was rated the highest level of satisfaction was the enablement (70.6%) and the lowest level of satisfaction was rated the domain of continuity of care (56.3%). The mean score of reported satisfaction with reception service was 70%, communication was 69.2%, access to care was 62.4%, and the overall satisfaction level was 64.2%. Further analysis was carried out to examine the relationship of the respondents' socio-demographic characteristics to their level of satisfaction, which showed that older patients were more satisfied with PHC services (F: 6.9, *p*-value <0.001), Females were more satisfied with PHC services (65%) than males (64%), which was not significant (F: 0.23, *p*-value: 0.63). Marital status did not affect the level of overall satisfaction (*p*=0.17) however, patients with lower levels of education were more satisfied than patients with higher levels (*p*<0.001) (Table 2). Patient's satisfaction score was inversely related to the average annual visit frequency to PHC centers, with a range of 72-59% (F: 3.1, *p*=0.015).

The researchers failed to identify any significant relationship between patients' satisfaction level and their occupational status ( $p=0.078$ ) or their average monthly income ( $p=0.058$ ).

**Discussion.** Consumers' satisfaction is generally considered as the extent to which consumers feel that their needs and expectations are being met by the services provided. Patients usually express their views through complaint procedures, changing doctors, and by expressing their opinion on the quality of services received.<sup>19</sup> In health care, patient satisfaction has long been considered as an important component when measuring health outcomes and quality of care.<sup>20,21</sup> Patient satisfaction has been taken into consideration by many health care authorities worldwide aiming to address the issue of quality improvement.<sup>20,22,23</sup> Also the rising strength of consumerism in society highlights the central role patients' attitudes play in health planning and delivery.<sup>24,25</sup> A satisfied patient is more likely to develop a deeper and longer lasting relationship with their medical provider, leading to improved compliance, continuity of care, and ultimately better health outcomes.<sup>26,27</sup> Health care recipients in developing and newly developed nations are particularly sensitive to perceptions of the quality of their health care delivery system when compared with those in advanced economies.<sup>28</sup> This is a particularly important issue for countries in the Persian Gulf who may have sufficient resources to provide a clinical care model similar to the resource level to those present in western countries, as patient's expectations have grown proportionately with the rising wealth of the population resulting in strong societal pressure to adopt health care policies that meet higher patient expectations.<sup>12</sup> Studies in Saudi Arabia showed a variable level and determinants of patients' satisfaction with PHC services, Al-Faris<sup>14</sup>, and Saeed<sup>15</sup> showed that the rates of patients who were satisfied with PHC services were 80-90%, the level of overall satisfaction with PHC services in our study was relatively lower at 64.2%. This lower level of satisfaction might be due to genuine problems concerning these services like the long waiting time, the issue of continuity of care, congruity between the population size, and the available resources and the lack of a proper appointment system.

Patients in our study were less satisfied mainly with services of access and continuity of care, These domains need to be improved to achieve a higher level of satisfaction. Previous studies have shown no consistent picture of the effect of socio-demographic data on satisfaction level, and that satisfaction level is usually multi-factorial. Our study showed age had an effect on satisfaction, as older patients were more satisfied with different PHC services than their younger counterparts,

which was also observed in previous studies.<sup>12,14</sup> This could be explained by the fact that older patients are of a generation of consumers who experienced health services prior to the growth of welfare in economy or due to cognitive perceptual effect. Al Dawood<sup>29</sup> showed that males had a higher level of satisfaction, but in our study no significant association was found between gender and patient satisfaction level. Patients with lower levels of education had a higher level of satisfaction, which is congruent with the finding of Makhdoom et al.<sup>30</sup> Younger patients were less satisfied, particularly in relation to communication and attitude of health care provider, but not in the area of access and outcomes of care. Although it is not clear whether this association represents a difference between generations or whether individuals become more satisfied as they grow older. Patient satisfaction in one study was most influenced by the easy accessibility and the perceived physician competence,<sup>31</sup> other studies showed that patients were less satisfied with younger doctors,<sup>32,33</sup> but this was not tested in our study. Longer consultation time, the use of a regular doctor and the continuity of health care provider are all associated with a higher rating of patient satisfaction.<sup>9,34-36</sup> Personal continuity of care is valued highly by patients,<sup>37</sup> but it requires that the care provider is available for patient care most of the time, so it is been suggested that the ideal personal continuity in family medicine should be replaced by that of organizational continuity.<sup>38</sup> Lower levels of patient satisfaction can lead to changing doctor and sometimes 'shopping' for doctors.<sup>11,39,40</sup>

There were some limitations to our study, as we used a self-administered questionnaire, which means that only literate patients were included in this study, probably masking a different level of satisfaction with illiterate patients, also we included a large number of patients, and this could dilute the results.

In our study we concluded that the level of satisfaction with PHC services in RMH affiliated health centers is relatively low and our results also further revealed areas in which quality improvement is required mainly, accessibility and continuity of care. Changes should take place to promote these domains like improving our appointment system, implementing telephone consultation, implementing a recall system, shortening waiting times, providing regular appointments, and providing personal continuous comprehensive care with the health care provider.

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