



## Gender differences in satisfaction with Primary Health Care Centers in Riyadh City, Kingdom of Saudi Arabia

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### ABSTRACT

*Objectives: The assessment of consumers' satisfaction with Primary Care the services and gender differences in satisfaction*

*Methods: Systematically selected Saudi adults visiting 15 randomly selected health centers in Riyadh . A self administered questionnaire was used to collect data and satisfaction was rated on a 5 points Likert scale. Gender differences in satisfaction with services offered are explored*

*Results: For both genders satisfaction level was higher in health centers in Central zone and among subjects who have a file in the health center . It was low for both genders for dental and health education services. The overall perceived satisfaction was 3.5 significantly higher in females than males (3.57 compared to 3.39  $p=0.01$ ). Females were more satisfied than males with vaccination services while males were more satisfied with pharmacy and X-ray services. Physician offering referral was better ranked by females compared to males.*

*Conclusion: Gender differences in satisfaction need to be addressed.*

**KEYWORDS :** Primary care, satisfaction, gender , Riyadh, Saudi Arabia

### Introduction

Primary health care is acceptable, accessible, appropriate, and affordable health care.<sup>1</sup> Consumer satisfaction and evaluation of the provided services and the providers themselves is an important quality indicator in health care.<sup>2-5</sup> Assessing the level of satisfaction with health care can result in feedback useful for promoting higher quality standards of patient care in both developed and developing countries.<sup>6-9</sup> Many patient satisfaction questionnaires used appear to have high validity, reliability and good discriminatory power in measuring the different levels of patient satisfaction. They are quick and inexpensive.<sup>5-7</sup> Health care systems with a strong foundation of primary health care (PHC) provide opportunities for reducing mortality and morbidity and improving the overall health of populations.<sup>4,8,9</sup> Primary Health Care is an integral component of the health system in Kingdom of Saudi Arabia (KSA) with horizontal and vertical expansions of Primary Health Care Centers (PHCCs) all over the country.<sup>10</sup> Previous studies in KSA and neighboring countries reported findings on patients' attitudes and satisfaction with the utilization of Primary Health but did not address specifically gender differences in satisfaction.<sup>11-14</sup> Exploring gender differences in views and satisfaction of consumers of PHCC services is expected to help in modifying current services and in planning future expansions.

### Objectives

The objectives of this study were to assess the consumers' satisfaction with services provided by the physicians, allied health services (dental, laboratory, X-ray, pharmacy, vaccination), waiting and reception services and explore the gender differences in satisfaction patterns.

### Subjects and methods

This cross-sectional facility-based study in PHCCs in Riyadh City was conducted during May 2012. The study population was Saudi adults visiting the PHCCs during the study period. A multistage random sampling technique was used to select PHCCs and study subjects. Using a simple random sampling technique three PHCCs were selected from each of five geographical zone. The tenth Saudi adult consumer visiting the selected PHCCs during the study period was selected. Subjects were informed about the objectives of the study, the voluntary nature and use of collected data for stated research purposes. An anonymous self-administered pilot tested questionnaire including demographic and geographical characteristics of subjects, and satisfaction with the different services provided, physical environment of the facilities was used to collect data. Subject's response to satisfaction was rated on a five-point Likert scale, the higher the score the higher the satisfaction. The internal validity of the rating scale was assessed using Chronbach alpha coefficient, which was 0.89. Four trained fifth year medical students (two males and two females) supervised data collection and assisted with queries and helped illiterate subjects with completion of questionnaires. Data was checked, entered and analysed using SPSS version 17. Descriptive statistics, t-test or Mann Whit-

ney test, and ANOVA or Kruskal Wallis tests were used as appropriate after checking for normality. Level of significance was set to be  $< 0.05$ . The Institute Review Board (IRB) of King Fahad Medical City approved the protocol. Informed consent was obtained and confidentiality of data was assured.

### Results:

A total of 949 subjects participated of which two thirds (66.6%) were males. Table 1 shows the perceived, overall and differential mean satisfaction levels according to gender. The overall perceived satisfaction (assessed by one question) was 3.5 (69%) being significantly higher in females than males (3.57 (71.4%) compared to 3.39 (67.8%,  $p=0.01$ ). No significant differences according to gender according to service provided.

Analyzing all background variables separately for each gender revealed no significant differences in satisfaction in females except for geographical location where those from the central zone showed a significantly higher satisfaction level than from other zones. ( $p=0.01$ ). Males without PHCC files and those with intermediate and secondary school education have significantly lower satisfaction levels. ( $p=0.01$ ) as demonstrated in table 2. For some specific variables in the different categories including age, education, occupation, location and file in the PHCC, females have significantly higher perceived satisfaction. Females in age groups 18 – 24 years 32 – 38 years were significantly more satisfied than males ( $p=0.006$  and  $p=0.017$  respectively). Similarly females with secondary school education, those who are employees or students were significantly more satisfied than males ( $p=0.004$ ,  $0.025$  and  $0.029$  respectively). Females attending PHCCs in North and South zones of Riyadh city were significantly more satisfied than males ( $p=0.041$  and  $0.001$  respectively). Females with no open file in visited PHCCs were significantly more satisfied than males ( $p=0.01$ ). Table 3 reports the satisfaction of subjects with the different individualized service components according to gender and ranking per item. There are no significant gender differences in satisfaction with the, reception waiting and physician services. There were both similarities and differences in the ranking of service according to gender. Female waiting area was ranked first and health educational materials in the reception area last by both genders. Both genders gave very low rankings for dental and X-ray services with females satisfaction significantly lower compared to males ( $p=0.053$  and  $0.022$  respectively). Males were significantly more satisfied than females with pharmacy services whereas females were significantly more satisfied with vaccination services.

### Discussion

In theory, gender might affect the mean level of patient satisfaction or the relative strength of predictors of satisfaction.<sup>15,16</sup> This study found that the overall perceived (global) satisfaction as judged by one question only was 3.45 out of 5 (69 %). Overall satisfaction in

previous studies in KSA and neighboring countries ranged between 20 and 90%.<sup>11-14</sup> The results of the present study showed that although the overall calculated satisfaction including all services was high (about 74%), some aspects of services indicated a degree of dissatisfaction such as dental services with satisfaction of less 60%. This finding corresponds with reports that overall satisfaction may be high but many service components may show significant dissatisfaction.<sup>11</sup> <sup>14</sup>It is important to consider satisfaction with individual service items rather than a one summary satisfaction score. Increasing attention has been devoted to the identification of demographic influences such as gender on rates of satisfaction among health care consumers. Similar to the findings of Hall and Dornan this study revealed that overall perceived satisfaction was significantly higher in females than males.<sup>15</sup> Although some studies reported that males were more satisfied than females<sup>16,17</sup> other researchers reported no significant gender differences in satisfaction.<sup>18,19</sup> A meta-analysis of 110 studies of patient satisfaction, using standard instruments, concluded that there was no average difference in satisfaction with medical care between genders.<sup>15</sup> Women and men may have different expectations of the health care system, which may affect their satisfaction with services. It was reported that women value more time and explanations from their doctors compared to men.<sup>20</sup> Gender differences in satisfaction may also be related to other factors including methodology, study population, health system factors and perception of males compared to females. Past experience and consequently patient expectations might also influence gender differences in patient satisfaction.<sup>21</sup> As for the satisfaction with the different service components; physician's attributes were highly satisfactory for both genders. Other studies showed that doctor's technical skill and doctor's interpersonal skill seemed to be critical factors in patient satisfaction.<sup>22</sup> Interpersonal dimensions such as provider warmth, empathy, trust, and communication skills have been associated with more favorable patient evaluations.<sup>23,24</sup> Adequate time allotted for clinic visits, continuity of care with the same provider, and minimal waiting time may also affect how patients rate the provider experience.<sup>25</sup> Although physician listening skills were highly rated in this study, verbal communication skills were not adequately utilized to deliver health education activities which yielded the lowest consumers satisfaction ranking. Consumers expressing the need for more satisfactory health education services is a positive sign. Low satisfaction rating for dental services calls for corrective intervention. Consumers may request more advanced dental services than can be provided at the PHCC level. Consumers need to be informed about the limitations of dental services at Primary Care level. The provided dental services however, should meet the stated objectives of the service. Studies in other countries showed that dental dissatisfaction was related to long waiting time and lack of empathy of the dentists.<sup>23</sup> Demographic differences, such as gender are likely to shape patients' needs and preferences and might be a particularly important consideration in shaping specific health services to better meet needs and support treatment adherence. Quality

improvement and research in primary care could benefit from gender analysis of patient satisfaction data and from more gender-sensitive patient satisfaction measures. We have to note that studies have found that most of the variation may be related not to gender per se but to other factors such as personality type, patient expectations and self-perceived health status<sup>31</sup> which were not addressed in this study. Assuming that gender is associated with reporting of satisfaction, some investigators treat gender as a "patient mix" variable and adjust for it in analyses.<sup>27</sup>

**Conclusion:** This study revealed some gender differences in overall and itemized satisfaction according to service provided. Some corrective intervention is needed for dental, X-ray and health education services which were the least satisfactory to both genders.

#### Study Limitations:

The study was cross-sectional conducted inside the health facilities themselves. Cross sectional studies are not powerful in determining valid association. Response of subjects may have been affected by their presence in the health facility while completing the questionnaire. The period of the study may not represent the situation for the whole year.

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**Competing Interest:** The author declares no competing interest

**Table 1 Mean satisfaction with services provided, perceived and calculated overall mean**

Gender		Mean satisfaction for waiting and reception	Mean satisfaction for physician attributes	Mean satisfaction for allied services	Overall calculated mean	Overall perceived satisfaction
Males	Mean	3.95	4.21	4.00	3.70	3.39
	Std. Deviation	9.99	.873	1.08	0.82	0.97
Females	Mean	4.00	4.21	3.82	3.64	3.57
	Std. Deviation	1.00	.871	9.84	0.89	0.99
TOTAL	Mean	3.97	4.21	3.93	3.68	3.45
	Std. Deviation	9.99	.870	1.04	0.84	0.94
P		0.744	0.969	0.287	0.323	0.008

**Table 2 Characteristics of subjects, their Perceived and calculated satisfaction level according to gender**

Variables / Gender	Perceived Satisfaction Mean ±SD		P @	Perceived Satisfaction Mean ±SD		P#
	Males	Females		Males	Females	
Age (years)						
18 - 24	3.26 ±.972	3.59±.963	<b>0.006</b>	3.67±0.80	3.69±0.98	0.860
25 - 31	3.50±.911	3.59±.998	0.502	3.65±0.82	3.63±0.89	0.973
32 - 38	3.40±.983	3.79±.885	<b>0.017</b>	3.69±0.84	3.73±0.73	0.811
39 - 45	3.38±1.01	3.33±1.06	0.788	3.79±0.86	3.47±0.88	<b>0.043</b>
46+	3.43±.988	3.36±1.15	0.751	3.72±0.79	3.54±0.86	<b>0.296</b>
P value	0.346	0.167		0.703	<b>0.576</b>	
Marital status						
Married	3.43±.972	3.57±1.03	0.116	3.75±0.80	3.63±0.89	0.102
Single	3.33±.999	3.53±.976	0.105	3.60±0.84	3.60±0.92	1.00
Widowed	3.18±.874	3.57±.852	0.273	4.00±0.63	3.71±0.83	0.353
Divorced	3.33±.913	3.92±.669	0.063	3.57±0.89	4.08±0.79	0.104
P value	0.596	0.657		0.088	0.352	
Education						
Elementary or less	3.46±.965	3.20±1.14	0.382	3.33±0.76	3.69±1.08	0.589
Intermediate	3.20±.911	3.49±1.18	0.192	3.49±0.88	3.55±1.08	0.762
Secondary	3.23±1.00	3.56±.902	<b>0.004</b>	3.58±0.79	3.69±0.83	0.239
University +	3.51±.953	3.65±.995	0.192	3.73±0.78	3.62±0.87	0.195
P value	0.005	0.373		0.001	0.841	

Occupation						
Employee	3.41±.959	3.62±1.00	<b>0.025</b>	3.72±0.83	3.73±0.86	0.905
Business	3.41±.985	3.31±.946	0.733	3.52±0.81	3.75±0.68	0.310
Skilled	3.44±1.20	3.48±1.29	0.911	3.93±0.85	3.71±0.78	0.342
Unskilled	3.44±.882	3.55±1.02	0.579	3.72±0.79	3.40±0.97	0.100
Student	3.39±0.973	3.57±.993	<b>0.029</b>	3.610.76	3.58±0.96	0.854
P value	0.688	0.800		0.118	0.216	
File in the Health Center						
Yes	3.48±.957	3.55±1.02	0.363	3.74±0.79	3.59±0.92	<b>0.027</b>
No	3.23±.983	3.62±.89	<b>0.003</b>	3.62±0.87	3.80±0.77	0.104
P value	0.002	0.612		0.056	0.082	
Location of Health Center						
North	3.42±1.08	3.69±0.99	<b>0.041</b>	3.64±0.86	3.82±0.97	0.124
South	3.00±0.87	3.74±0.92	<b>0.001</b>	4.22±0.68	3.33±0.83	<b>0.001</b>
Centre	3.71±0.81	3.96±0.94	0.074	3.86±0.75	3.91±0.88	0.717
East	3.30±0.95	3.34±0.92	0.572	3.65±0.80	3.59±0.82	0.555
West	3.18±0.84	3.12±1.07	0.825	3.33±0.76	3.23±0.77	0.589
P value	0.001	0.001		0.001	0.001	

P @ = P value of gender differences in perceived satisfaction

P # = P value of gender differences in calculated satisfaction

Table 3 Consumers satisfaction with the different services of the PHCCs and their ranks according to gender

Service/ Gender/ Score	Male		Females		Sig-nificance P value
	Rank	Mean ±SD	Rank	Mean ±SD	
Reception services					
Female waiting	1	3.83(±1.02)	1	3.91(1.13)	0.258
Location of waiting area	6	3.60(±1.02)	2	3.63(±1.10)	0.682
Health education materials	9	3.50(±1.14)	9	3.55(±1.24)	0.061
Physician services					
Listening patiently	1	4.10(±0.92)	1	4.06(±0.86)	0.832
Health education messages	9	3.62(±1.14)	9	3.39(±1.27)	0.544
Offers referral	8	3.77(±1.15)	6	3.57(±1.26)	0.189
Other services					
Pharmacy	4	3.66(±1.09)	8	3.50(±1.15)	0.033
X ray	9	3.44(±1.22)	10	3.24(±1.36)	0.022
Vaccination	7	3.58(±1.18)	1	4.05(±1.03)	0.001
Dental	11	3.12(±1.34)	11	2.93(±1.40)	0.053

REFERENCES

1- Walley J, Lawn JE, Tinker A, de Francisco A, Chopra M, Rudan I, et al. Primary health care: Making Alma-Ata a reality. Lancet 2008; 372:1001-7. | 2- Garman AN, Garcia J, Hargreaves M. Patient satisfaction as a predictor of return-to-provider behavior: Analysis and assessment of financial implications. Qual Manag Health Care 2004;13(1): 75–80. [Pubd] | 3- Zinelidin, M. The quality of health care and patient satisfaction: an exploratory investigation of the 5Qmodel at some Egyptian and Jordanian medical clinics. International Journal of Health Care Quality Assurance 2006; 19(1): 60-92. | 4- Jaakkimainen, R.L., J. Barnsley, J. Klein-Geltink, A. Kopp, and R.H. Glazier. Did Changing Primary Care Delivery Models Change Performance? A Population Based Study Using Health Administrative Data. BMC Family Practice, 2011.12(1): p. 44-44. | 5- Wong EL, Leung MC, Cheung AW, Yam CH, Yeoh EK, Griffiths S. A population-based survey using PPE-15: Relationship of care aspects to patient satisfaction in Hong Kong. Int J Qual Health Care 2011; 23:390 | 6- Eric B, Çiftçioğlu S. Psychometric evaluation of the primary health-care satisfaction scale in Turkish women Int J Qual Health Care 201; 22 (6): 500-506 | 7- Vuković M, Gvozdenović BS, Gajić T, Stamatović Gajić B, Jakovljević M,McCormick BPValidation of a patient satisfaction questionnaire in primary health care. Public Health. 2012; 126(8):710-8. | 8- Starfield, B., L. Shi, and J. Macinko, Contribution of Primary Care to Health Systems and Health. The Milbank Quarterly, 2005. 83(3): 457-502 | 9- World Health Organization. The World Health Report 2008: Primary Health Care Now More Than Ever. 2008, World Health Organization: Geneva, Switzerland | 10- Annual Health Report. Ministry of Health, Kingdom of Saudi Arabia, Department of Health Information and Statistics. 2012 | 11- Al-Sakkak MA, Al-Nowaiser NA, Al-Khashan HI, Al-Abdrabulnabi AA, Jaber RM.Patient satisfaction with primary health care services in Riyadh. Saudi Med J.2008; 29(3):432-6. | 12- Abutiheen A .Clients’ satisfaction with referral system in Karbala. American Journal of Applied Sciences, 2014; 11 (2): 216-222 | 13- Gadallah M, Zaki B, Rady M, Anwer W, Sallam I. Patient satisfaction with primary health care ser-vices in two districts in Lower and Upper Egypt. Eastern Mediterranean Health Journal, 2003; 9:422-30. | 14- Al-Dousari H. Patient Satisfaction According to Type of Primary Healthcare Practitioner in the Capital Health Region, Kuwait. Kuwait Medical Journal 2008; 40:31-8 | 15- Hall, J.A. & Dornan, M.C., 1990, 'Patient socio-demographic characteristics as predictors of satisfaction with medical care: A meta-analysis, Social Science & Medicine, 30(7), 811-818 | 16- Ahmad I, Nawaz A, Ud Din S. Dynamics of patient satisfaction from health care services. Gomal Journal of Medical Sciences 2011; 9:37 -41 | 17- .Weisman CS, Wadden TA, Brodie KH, Mullen PD, Tabak ER, Wilson GT, et al. Gender and patient satisfaction in managed care plans: analysis of the 1999 HEDISCAHPS 2 OH adult survey. Women's Health Issues 2001; 11(5): 401-15. | 18- Bleich S, Özaltn E, Murray C How does satisfaction with the health-care system relate to patient experience? Bull World Health Organ 2009; 87(4): 271–278 | 19- Alotaibi M, Alazemi T, Alazemi F, Bakir Y. Patient satisfaction with primary health-care services in Kuwait. Article first published online: 12 MAR 2014 DOI: 10.1111/jjn.12257 | 20- Bean-Mayberry, BA et al. Patient Satisfaction in Women's Clinics Versus Traditional Primary Care Clinics in the Veterans Administration. Journal of General Internal Medicine 2003; 18, 175-181. | 21- Birhanu Z, Assefa T, Woldie M, Morankar S. Predictors of perceived empathy among patientsvisiting primary health-care centers in central Ethiopia. Int J Qual Health Care. 2012; 24(2):161-8. | 22- Albalushi R, Sohrahi M, Kolahi A, Clients' Satisfaction with Primary Health Care in Muscat. Int J Prev Med. 2012; 3(10): 713–717. | 23- Dewi F, Sudjana G, Oesma Y. Patient satisfaction analysis on service quality of dental health care based on empathy and responsiveness. Dent Res J (Isfahan). 2011; 8(4): 172–177. | 24- Weisman CS1, Rich DE, Rogers J, Crawford KG, Grayson CE, Henderson JT. Gender and patient satisfaction with primary care: tuning in to women in quality measurement. J Womens Health Gend Based Med. 2000; 9(6):657-65. | 25- Pappa, E., N. Kontodimopoulos, A. Papadopoulos, Y. Tountas and D. Niakas, 2013. Investigating unmet health needs in primary health care services in a representative sample of the Greek population. Int. J. Environ. Res. Public Health, 10: 2017-2027. | 26- Ilioudi S Lazakidou A, Maria S. Importance of Patient Satisfaction Measurement and Electronic Surveys: Methodology and Potential Benefits. International Journal of Health Research and Innovation 2013;1(1): 67-87 ISSN: 2051-5057 | 27- Rubin HR, Gandek B, Rogers WH, et al. Patients' ratings of outpatient visits in different practice settings: Results from the Medical Outcomes Study. JAMA 1993; 270:835.