

ORIGINAL ARTICLE

Patient satisfaction toward health care performance in the Obstetrics and Gynecology departments among hospitals in Saudi Arabia

Mohammad Eid Mahfouz¹, Ahmed Mohammed Abed^{1*}, Meshal Salem Alqahtani¹, Abdullah Majed Albaqami¹, Mohammed Mofareh Alsubaie¹

ABSTRACT

Background: Quality measurement of health care services is a very important need of the hour as patients are the ultimate customers, thus it makes logical to tailor this to patients' outcomes and satisfaction. The study aimed to evaluate patients' satisfaction and health care performance in Obstetrics and Gynecology departments among different hospitals in Saudi Arabia.

Methodology: A cross-sectional study was conducted using a pretested and validated questionnaire on 1,829 participants who satisfied the inclusion and exclusion criteria during the period between February 2019 and May 2019. Part 1 of the questionnaire recorded the socio-demographic details of the participants and part 2 had items in 5-point Likert scale. Satisfaction in various aspects from hospital services was measured and was subjected to statistical analysis using Statistical Package for the Social Sciences version 23.

Results: Regarding the overall satisfaction for the services and care provided, 55.7% of the participants were dissatisfied or had negative satisfaction. The satisfaction scores were better in private hospitals than governmental ones ($p < 0.001$). Satisfied responses were found to be reported more in aspects, such as "food and diet-quality services" (55.36%) and also in "admission and reception" (54.31%). More dissatisfied responses reported in 'midwives and other staff attitude, behavior and communication' (58.75%).

Conclusion: The study findings showed that the participants were more satisfied in certain aspects such as admission and reception, restrooms and food. There is a need to improve the quality of services where patients were dissatisfied.

Keywords: Quality, health care, hospital services, maternal care.

Introduction

Nowadays, health care environments are becoming very competitive and the quality of care provided is dependent not only on patient outcomes but also on patient satisfaction. It is important that health care settings should construct a framework of health plans and services that should focus on the high quality of care improving patient outcomes and also patient satisfaction [1]. Patients, with good satisfaction from the care they received, are more likely to come back for revisits and follow the recommendations and instructions of doctors. Also, positive satisfaction indicates that the hospitals have robust teamwork and organizational framework [2].

The quality of care hospitals provided could be measured and monitored in many ways. One way is the feedback

from the patients for the care and services they received during the course of treatments and another method is the internal assessments by the hospital administration or management. The assessments and perceptions of the quality of services by the hospital administrations may not be the same as the one provided by patients [3,4].

Correspondence to: Ahmed Mohammed Abed

*College of Medicine, Taif University, Taif, Saudi Arabia.

Email: drahmedabed4@gmail.com

Full list of author information is available at the end of the article.

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Obstetrics and Gynecology is an exclusive specialty in which the foremost and primary objective of care is the overall health of both the mother and the child. In Saudi Arabia, both government and private hospitals have the provision of health care for the public. The Ministry of Health is always committed to provide excellent quality of health care to its residents and is also very efficient in assessing and monitoring the same [5]. According to the Ministry of Health guidelines, child health care and baby-maternal health care are mentioned as two of the fundamental aspects of primary health care. It also gives guidelines on the quality assurance of child and maternal health care [6]. In Saudi Arabia, the subjects related to patient satisfaction in the Obstetrics and Gynecology departments are not studied widely and there is a lack of data regarding the satisfaction on the quality of care and services provided in the hospitals. This study aimed to assess and evaluate the patient satisfaction and assess the health care performance in the Obstetrics and Gynecology departments of the hospitals in Saudi Arabia, regardless of the condition and the reason for admission of patient.

Methodology

A cross-sectional study was done using a validated questionnaire, which was originally in the French language [7] before translating into English and Arabic. Both the translated versions were checked for validity and reliability. We pilot tested the items in the questionnaire and the internal consistency (coefficient alpha) of the items was found to be 0.878 and the re-test reliability was 0.72. After possible refinements and iterations, the final version included 41 items on a 5-point Likert scale. The questionnaire is divided into two parts; part I included the socio-demographic data of the patients and part II included 41 closed-ended questions with a 5-point item Likert scale. According to the Questionnaire for satisfaction of hospitalized (QSH) patients, all items will be scored, with a 5-point Likert scale: “1: extremely less than expected,” “2: worse than expected,” “3: a little less than expected,” “4: as expected,” and “5: better than expected.”

A minimum sample of 1,829 was calculated considering the total population of Saudi Arabia (approx. 20 million in the year 2018) with a confidence interval of 95%, power of the study (β) at 80%, and an α -value of 5%. The study was conducted between February 2019 and May 2019, which used an online survey method for collecting data from participants across the kingdom of Saudi Arabia, who fulfilled the inclusion and exclusion criteria. The inclusion criteria included females who were treated or had any experience related to any disease with the Obstetrics and Gynecology department of a hospital and adult patient (>18 years of age). Exclusion criteria included patients who were critically ill [Cardiac care unit (CCU) and Intensive care unit (ICU) patients], patients who were mentally or psychologically ill and also patients who were not able to read and write. The participants were explained about the purpose of the study and its benefits. They were ensured regarding the confidentiality and anonymity of the

information they provide through the questionnaire. Those who gave consent after understanding the importance of the study were included. Thus, finally, we included a sample size of 1,829 for our analysis.

An expert entered the collected data carefully using Microsoft Excel 2010. The responses in Arabic were translated into English after entering and tabulated accordingly. Data were edited and cleaned for inconsistencies. Statistical analysis was done using Statistical Package for the Social Sciences version 23. Frequencies and percentages will be used for descriptive statistics. A significance value (α) of p less than 0.05 was considered to be statistically significant and confidence interval was set at 95%. All the continuous variables were presented as mean \pm standard deviation. Pearson's Chi-square test was applied to test any association of categorical variables. The 5-item Likert scale was converted to a two-item namely “satisfied response” and “dissatisfied response” for finding the relationship of different variables with satisfaction scores.

Results

Our cross-sectional study included 1,829 patients, who were treated or had any experience in or related to Obstetrics and Gynecology department in hospitals in the Kingdom of Saudi Arabia. Our study participants consisted of those who were above 18 years from both government and private hospitals. The socio-demographic details of the participants are given in Table 1.

In our study, when the characteristics related to the pregnancy and delivery of the participants were assessed, it was found that 93.3% delivered single baby, 5.2% had twins, and 1.5% had delivered triplets or quadruplets. When the participants' pregnancy duration was recorded, it was found that 73.3% had pregnancy more than 37 weeks, whereas 23.7% had it for less than 37 weeks. Among the participants, 69.3% reported a normal vaginal delivery, 15.4% had planned C-section, and 15.3% had an emergency C-section (Table 2).

When the duration of stay at hospitals after delivery was enquired, it was found that only 6.7% had stayed for 5

Table 1. Socio-demographic details of participants.

		Frequency	Percent
Age	18–25	351	19.2
	26–40	1,055	57.7
	41–65	408	22.3
	66–74	12	.7
	75 or older	3	.2
	Total	1,829	100.0
Hospital	Governmental hospital	1,299	71.0
	Private hospital	530	29.0
	Total	1,829	100.0

Table 2. Characteristics related to pregnancy and delivery.

		N	%
Number of child in a delivery	A single baby	1,706	93.3
	Twins	96	5.2
	Triplets, quads, or more	27	1.5
Duration of pregnancy	<37 weeks	434	23.7
	>37 weeks	1,395	76.3
Type of delivery	A normal vaginal delivery	1,267	69.3
	A planned cesarean delivery	282	15.4
	An emergency cesarean delivery	280	15.3
Duration of stay at hospital	Up to 12 hours	253	13.8
	12-24 hours	411	22.5
	1 to 2 days	653	35.7
	3 to 4 days	390	21.3
	5 or more days	122	6.7
Gender of doctor responsible for treatment and delivery	Female	1,193	65.2
	Male	636	34.8
Involvement in decision making about treatment and delivery	Yes, always	694	37.9
	Yes, sometimes	654	35.8
	No	239	13.1
	Wanted to be involved	48	2.6
	Didn't remember	194	10.6
Perception about the duration of stay at hospital after birth of child	About right time	1,141	62.4
	Too short	290	15.9
	Too long	232	12.7
	Didn't remember	166	9.1

or more days. About 65.2% of the doctors who treated the participants were females. The other characteristics related to pregnancy and delivery are depicted in Table 2.

The questionnaire had 48 items on a 5-point Likert scale that recorded responses of participants in various sections including a) Administration and Reception – 6 items, b) Doctors attitude, behavior and communication – 10 items, c) Nurses attitude, behavior and communication – 8 items, d) Midwives and other staff attitudes, behavior and communication – 14 items, e) Waiting time – 2 items, f) Rooms quality and service – 2 items, g) Restrooms accessibility, quality – 2 items, h) Food and diet quality and services – 3 items, and i) overall medical care. The 5-point Likert scale responses were again categorized into two such as satisfied response and dissatisfied responses.

When the satisfaction for admission and reception processes was recorded, 20% of the participants mentioned it as extremely less than expected, 17.23% reported it as worse than expected, 17.08% mentioned it as a little less than expected, and only 12.18% mentioned it as better than expected. The mean score for this section was found to be 3.00 ± 1.14 . For responses related to

satisfaction regarding the doctor's attitude, behavior and communication, 22.14% reported it as extremely less than expected, 17.64% mentioned it as worse than expected, and 29.73% mentioned it as expected, and the mean score for these items was 2.96 ± 1.24 (Table 3, Figure 1).

It was observed that 56.61% of the participants had a dissatisfied response for items related to the nurses attitude, behavior and communication, out of them 23.09% had an extremely less than expected response, whereas 13.37% had a better than expected experience. The mean score for this section was found to be 2.93 ± 1.28 . When the items related to midwives and other staff attitude, behavior and communication were assessed, it was found that only 48.79% of the participants were satisfied and the remaining 58.75% had dissatisfied responses. The mean score for this section was found to be 2.87 ± 1.23 (Table 3, Figure 1).

The satisfaction responses regarding the waiting time at the Obstetrics and Surgery department showed that 58.99% were dissatisfied about it. The mean satisfaction score was found to be 2.87 ± 1.29 (Table 3). When the responses

Table 3. Responses of participants.

	Extremely less than expected (1)	Worse than expected (2)	A little less than expected (3)	As expected (4)	Better than expected (5)	Mean score	SD	CI at 95%	
								Lower	Upper
Admission and Reception	20.00%	17.23%	17.08%	33.51	12.18%	3.00	1.14	2.95	3.05
Doctors attitude, behavior and communication	22.14%	17.64%	16.25%	29.73%	14.24%	2.96	1.24	2.90	3.02
Nurses attitude, behavior and communication	23.09%	17.81%	15.71%	29.02%	14.37%	2.93	1.28	2.87	2.99
Midwives, other staff attitude, behavior and communication	23.90%	18.48%	16.37%	28.90%	12.35%	2.87	1.23	2.81	2.92
Waiting time	22.55%	18.32%	18.12%	30.73%	10.28%	2.87	1.29	2.81	2.93
Bed Rooms quality and services	19.03%	15.53%	16.65%	32.64%	16.16%	3.11	1.34	3.05	31.17
Rest rooms accessibility, quality and Cleanliness	18.43%	12.71%	15.80%	36.17%	16.89%	3.20	1.29	3.14	3.26
Food and diet quality and services	14.94%	14.42%	15.73%	38.42%	16.49%	3.27	1.21	3.21	3.32
Over all medical care	19.6%	18.2%	17.9%	30.2%	14.1%	3.00	1.35	2.94	3.07

regarding the room’s quality and services provided were enquired, it was found that 16.16% had better than expected responses, 19.03% reported extremely less than expected, while 32.64% of the participants gave as expected response. The mean score of this section was found to be 3.11 ± 1.34 (Table 3, Figure 1).

The items related to accessibility, quality, and cleanliness of restrooms at the Obstetrics and Gynecology department showed a mean score of 3.20 ± 1.29 . Among the participants, 53.06% had a satisfying response regarding restrooms, out of them, 36.17% had as expected response and 16.89% had a better than expected response. The mean score in this area was found to be 3.32 ± 1.21 . The items in the questionnaire regarding the food and diet were related to the quality, quantity, and services. Among the participants, 16.49% had better than expected responses related to the food and diet at the Obstetrics and Gynecology departments, 38.42% had as expected response, 20.16% had a little less than expected experience, and only 14.94% had an extremely less than expected experience. The mean score in this area was found to be 3.27 ± 1.21 (Table 3, Figure 1).

The satisfaction of participants regarding the overall medical care at the Obstetrics and Gynecology departments showed that more than half of the participants (55.7%) had

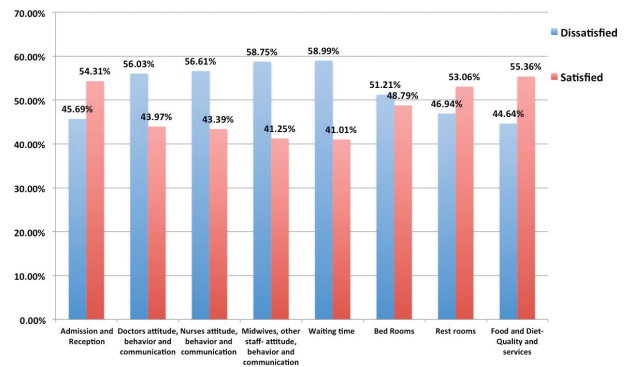


Figure 1. Responses regarding various different items at Obstetrics and Gynecology departments.

a dissatisfied response. The mean score of overall medical care was found to be 3.00 ± 1.35 (Figure 2, Table 3).

When the relationship of the satisfaction of participants with the type of hospital in which they had experienced was assessed it was found that there was a statistically significant association ($p > 0.001$). We found that participants in the private hospital were comparatively more satisfied than governmental ones. This relationship showed that all the sections gave better satisfaction in private hospitals than government hospitals (Table 4).

We also measured the relationship between age and duration of the stay at the hospital with different satisfactory responses. It was observed that there was no statistically significant association of age of the participants with any of the items (Table 4). The relationship of the duration of stay at the hospital showed that the participants who stayed more than 1–2 days reported a more satisfying response than those who stayed less than one day or 12 hours and this was statistically significant (Table 5).

When the relationship of number of child per birth with the satisfaction response was assessed, it was found that there was no statistically significant relationship with satisfaction scores ($p > 0.05$) of all the nine cumulated items. At the same time, it was noted that patients who were carrying child for more than 37 weeks were comparatively satisfied with items in three aspects, including admission and reception, nurses attitude,

behavior, and communication, midwives attitude, behavior, and communication and this relationship was statistically significant ($p < 0.05$) (Table 5).

Another interesting finding in our study is that participants were satisfied with all the items of nine areas when the doctor was female and this had a very significant statistical association ($p < 0.05$) (Table 5). The type of pregnancy and its relationship with the satisfaction scores showed that participants who had a planned C-section were comparatively satisfied with the admission and reception and with doctors attitude, behavior and communication only ($p < 0.05$) (Table 5).

Discussion

In this study, the overall satisfaction in medical care at Obstetrics and Gynecology departments across different health care settings in the kingdom of Saudi Arabia showed that only 44.3% of the participants had a satisfied response. There is no study done in Saudi Arabia, which reported patient satisfaction at Obstetrics and Gynecology departments throughout Saudi Arabia. This finding shows that this satisfaction rate was low compared to the studies done in other countries like India and Nigeria [8,9]. The differences regarding the satisfaction responses in our studies may be attributed to the differences in the socio-demographic and cultural characteristics between these populations. This could also be due to the differences in the methodologies of these studies. It should also be noted that the current study was done in Obstetrics and Gynecology departments alone compared to the above studies. Another study done in Sweden showed a higher patient satisfaction in other departments, such as internal medicine, surgery, orthopedics, and radiology [10]. In our

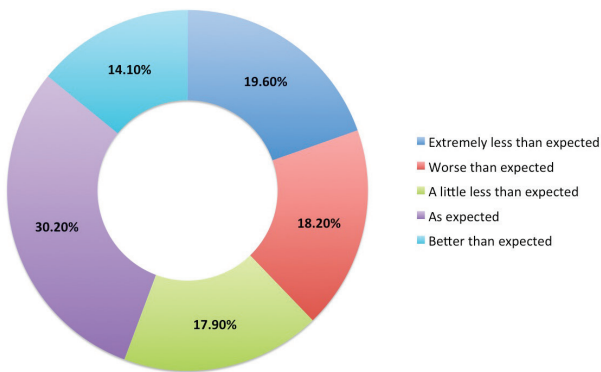


Figure 2. Responses regarding over all medical care at the Obstetrics and Gynecology departments.

Table 4. Relationship between type of hospital and responses.

		Dissatisfied	Satisfied	Chi-square Value	p-value
Admission and reception	Government	4,483 (40.85%)	3,311 (30.17%)	402.65	<0.001
	Private	1,158 (10.55%)	2,022 (18.43%)		
Doctors attitude, behavior, and communication	Government	6,458 (44.14%)	3,934 (26.88%)	738.83	<0.001
	Private	1,606 (10.98)	2,634 (18.0%)		
Nurses attitude, behavior, and communication	Government	5,692 (44.46%)	3,401 (26.56%)	663.36	<0.001
	Private	1,397 (10.91%)	2,313 (18.07%)		
Other staffs, midwives attitude, behavior, and communication.	Government	11,859 (46.31%)	6,327 (24.71%)	1081.21	<0.001
	Private	3,184 (12.43%)	4,236 (16.54%)		
Rooms quality and services and waiting time	Government	1,707 (46.66%)	891 (24.36%)	166.88	<0.001
	Private	451 (12.33%)	609 (16.65%)		
Rest rooms accessibility, quality, and cleanliness	Government	1,424 (38.93%)	1,174 (32.09%)	223.13	<0.001
	Private	293 (8.01%)	767 (20.97%)		
Food and diet quality and services	Government	1,977 (36.03%)	1,920 (34.99%)	172.96	<0.001
	Private	497 (9.06%)	1,093 (19.92%)		
Over all medical care	Government	826 (45.16%)	473 (25.85%)	111.109	<0.001
	Private	194 (10.61%)	336 (18.37%)		

Table 5. Relationship of different variables with the satisfaction of patients.

	Responses		Chi square test (p-value)					
	Dissatisfied response	Satisfied response	Age of the patients	Duration of stay	Number of births in a delivery	Duration of pregnancy	Gender of doctor	Type of delivery
Admission and reception	45.69%	54.31%	>0.05	<0.05	>0.05	<0.05	<0.05	<0.05
Doctors attitude, behavior, and communication	56.03%	43.97%	>0.05	<0.05	>0.05	>0.05	<0.001	<0.05
Nurses attitude, behavior, and communication	56.61%	43.39%	>0.05	<0.001	>0.05	<0.05	<0.001	>0.05
Midwives, other staff attitude, behavior, and communication	58.75%	41.25%	>0.05	<0.05	>0.05	<0.05	<0.05	>0.05
Waiting time	58.99%	41.01%	>0.05	<0.001	>0.05	>0.05	<0.05	>0.05
Bed rooms quality and services	51.21%	48.79%	>0.05	<0.001	>0.05	<0.05	<0.05	>0.05
Rest rooms accessibility, quality, and cleanliness	46.94%	53.06%	>0.05	<0.001	>0.05	<0.05	<0.05	>0.05
Food and diet quality and services	44.64%	55.36%	>0.05	<0.001	>0.05	<0.05	<0.05	>0.05
Over all medical care	55.7%	44.3%	>0.05	<0.001	>0.05	<0.05	<0.001	>0.05

study, it is bizarre to note that participants in government hospitals were comparatively less satisfied than those at private hospitals.

Our study shows that more than half of the participants had a satisfying response regarding the admission and reception of the hospitals. According to Alma Ata declaration, accessibility is one of the principles of health for all and it is very important that each health care facility should be easily accessible and approachable to patients at any time [11]. The admission and reception areas of hospitals should make sure that it should not cause any discomfort to the patients during the time of registration. Also, the waiting time during registration and admission should not be long considering the importance of the patients' time. The reduction in satisfaction levels at the admission and reception areas could be attributed to many factors, such as long waiting hours, less staff than the minimum required quantity, misleading signboards, and providing not enough information to the patients.

The doctor-patient relationship is one of the prime principles of bio-ethics and every patient admitted at the Obstetrics and Gynecology department has the right to expect that she or he will be taken care of without any shortfalls. The doctor's attitudes, behavior, and communication with patients not only have an effect on the reputation of the hospitals but also could improve the clinical outcomes [12]. In the field of Obstetrics and Gynecology, doctor-patient communication may be altered to improve the clinical outcome as the patient satisfaction has an important role to play, and these patients greatly differ from general patients [13].

Another important and exclusive determinant that should be considered is nursing care, especially for patients at

Obstetrics and Gynecology department. In our study, 56.6% of the participants had a dissatisfied response. Patients express their concerns and requirements in terms of what they need, prefer, and demand and this should be considered as demand for quality nursing care [14,15]. In a study conducted in the Makkah province of Saudi Arabia, patient satisfaction was found to be very high toward nursing care [16]. The less satisfying response noted in this study toward nursing care could be attributed to the language, cultural, or religious differences as the majority of the nurses were not from Saudi Arabia [17]. It is suggested that nurses should go through advanced training and experiences to meet the increasing and challenging demands [18].

The postnatal period is the most critical time that extends for about more than 6–7 weeks after the child is born. Postnatal care is very important and midwifery care during this period plays a role to promote and monitor the health of the mother for proper infant feeding and also to foster and monitor different aspects of infant health including a good maternal-infant relationship [19,20]. In our study, patients' satisfaction regarding midwives and other staff gave only 41.01% satisfied response. Studies report that the constant presence of a midwife during and after delivery could reduce discomfort to the patients [21,22].

In our study, the satisfaction regarding bedroom was found to be little less than expected by the participants. The bedrooms quality and standards should meet the requirement of the patients, especially during the postnatal care as both mother and child come under care. Increasing the bed occupancy rate and quality of bedrooms at hospitals improves the performance and it requires comprehensive and long terms planning [23].

Also, the quality and accessibility of the restrooms also need to be taken care of at the hospitals. More than half of the patients gave positive feedback about the restrooms. After the delivery, patients may face difficulties to use toilets as they might have restricted physical activities, especially in the case of cesarean deliveries. In such cases, toilets in the hospital should be easily accessible for the patients, convincingly should be attached to the hospital rooms than outside. Also, they should be well maintained, cleaned, and disinfected in order to minimize the postoperative infections both to the mother and the child. It is reported that cleanliness and accessibility of restrooms dramatically increased patient satisfaction [24].

The nutrition and diet of the mother not only influences her health but also the health of the neonate. Doctors and other health care providers need to be judicious of nutritional needs during and after delivery as they are different from other non-pregnant people [25]. In our study, we found that patients were satisfied with the food they were provided at the hospitals. The recommended dietary requirements (RDA) suggest a protein intake of 60 g/day for pregnant women than non-pregnant ones (46g/day) [26]. When providing food for pregnant women the RDA should be taken care of by the hospitals and it should be different than other type of patients. The results of our study showed that patient satisfaction is better at private hospitals than government ones. It should be noted that we had only 29% of the participants from private hospitals and the differences in opinion may be due to less sample recruited from private hospitals. There is also a possibility that health care providers may treat patients based on their income levels or social status. Also, the private sector patients may demand more responsiveness from the doctors or the hospital as the patients are the payers. Therefore, the hospitals need to provide standards and quality health care and this could also be a reason for good patient satisfaction. One of the important factors that improve patient satisfaction is postnatal care by nursing and midwifery staff [27].

In our study, we found that mothers who had a planned cesarean delivery had comparatively better satisfaction than those who had other types of deliveries. This is similar to another study done in Ethiopia, where the reported satisfaction was high for a planned delivery than spontaneous vaginal delivery [28]. The reason for this could be that mothers who had a planned delivery might have a good faith in services as they had received during previous deliveries for herself, relatives, or friends. It is always natural to be dissatisfied with the services of the hospital if the mothers go for an unplanned delivery.

Another interesting finding in our study is the relationship between the genders of the doctor with the satisfaction responses. Mothers who were treated with female doctors were more satisfied than those treated with a male doctor. This is not the first study to find this patient–physician gender relationship. A systematic review by Janssen

SM et al. reported that most of the patients preferred a female gynecologist–obstetrician than a male one [29]. This can be explained on the basis that the satisfaction is always based on patient-centered communication and female patients may feel more freedom to discuss their issues and concerns to a female doctor than a male doctor. Another study that was done in the USA has contrasting findings, which reported that women gynecologists received less satisfaction score than their counterpart [30]. Similar studies have been reported from other countries suggesting women obstetricians and gynecologists receive lower patient satisfaction scores [31,32]. This contrasting finding with our results could be explained on the basis of religious, cultural, and social differences that exist in Saudi Arabia compared to other western or Asian countries.

Some of the limitations of our study should be considered before interpreting our findings. We did not measure the varying factors, such as respondent's education level, house income, and provider's attitude as these all may have an influence on satisfaction scores. Also, we did not assess the health condition of the patients or the presence of any systemic diseases. Since all the patients were not interviewed at hospitals there might have responses, which may have recall bias and social desirability bias. Another limitation of our study is confirmation bias as the data collectors were health professionals. We also did not collect the data regarding the reasons why they were not satisfied with the services and care they were provided. When planning for a patient satisfaction survey, investigators should consider certain factors such as participants' personal attitudes, perceived social norm, intent to participate, and also actual participation.

Conclusion

Assessment of patient satisfaction regarding the quality of care needs to be focused on all aspects related to hospitals starting from the admission until the discharge of patients. The overall medical care satisfaction in our study was 44.3%. Majority of the patients were satisfied with admission and reception, restrooms and food they were provided. The participants might have their own reasons and opinions regarding various services for dissatisfaction. The Obstetrics and Gynecology departments at hospitals need to improve the standards and quality of the services provided in all aspects including prenatal and postnatal care as the treatments alone cannot satisfy the patients.

List of Abbreviations

QSH	Questionnaire for satisfaction of hospitalized
ICU	Intensive care unit
CCU	Cardiac care unit

Conflict of interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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None.

Consent for publication

Informed consent was obtained from all the participants.

Ethical approval

The approval for conducting the particular research was given by the Ethics and Research Committee of Taif University. The study was approved by Taif University via letter number 40-36-0126 dated: 26/2/2019.

Author details

Mohammad Eid Mahfouz¹, Ahmed Mohammed Abed¹, Meshal Salem Alqahtani¹, Abdullah Majed Albaqami¹, Mohammed Mofareh Alsubaie¹

1. College of Medicine, Taif University, Taif, Saudi Arabia

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