

## A STUDY ON PREGNANT WOMEN'S SATISFACTION WITH PRIMARY HEALTH CARE SERVICES IN BASRA

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### ABSTRACT

The study was designed to assess some aspects of expressed maternal (pregnant women) satisfaction of care provided at 34 primary health care centers within the first and second sectors for Primary Health Care in Basra City. The study covered a sample of 400 pregnant women attending for maternal health care. Each individual in the sample was interviewed using a specific questionnaire form. The results indicated that most of women attending antenatal care are fairly satisfied with care provided, but the level of satisfaction was mostly in the middle scale. A small percentage 4.5% expressed dissatisfaction with the overall quality of care. When women were requested to suggested ways to improve care, they suggest providing the primary health care centers with ultrasonography which was the prime concern by nearly 61.25% followed by 41.25% regard the crowdedness and reception, and 33.75% provision of dentist, increase no. of doctors 6.25%, provision of female staff at the maternal health care unit 3.75%, location of the health centre and location of the maternal care unit within the centre 2.5% and 5% respectively.

**KEYWORDS:** Pregnant Women, Primary Health

### INTRODUCTION AND LITERATURE REVIEW

#### The Concept of Antenatal Care

The word 'antenatal' relates to any event or condition that occurs or exists in the embryo or the mother during the period between conception and delivery of the infant. Antenatal care, therefore, is the care of a pregnant woman and her fetus by health care staff from conception to the onset of labor <sup>(1)</sup>.

In addition to providing antenatal care, health professionals in the primary health care centers perform face-to-face education for all pregnant women on issues such as pregnancy, delivery, and the postpartum period, and also recommend a schedule for the next visits. Pregnant women can select their own health professionals for receiving prenatal care and the education they need <sup>(2)</sup>.

The effectiveness of antenatal care is not only the aim but also improving maternal satisfaction with health care services. <sup>(3)</sup>The knowledge about users' views is still very limited, especially in developing countries <sup>(4)</sup>.

The number of pregnant women in the developing countries receiving antenatal care during pregnancy has increased significantly since 1990 about 20 % <sup>(5)</sup>.

#### What is Meant by Clients' Satisfaction?

Patient or consumer satisfaction may be defined as the multiple evaluation of different aspects of health care

which is determined in some way by the individual expectation, attitude and comparison process. It represents a general patient overall assessment of physician delivered care and other related activities within a given setting <sup>(6)</sup>.

### **Importance of Satisfaction in the Evaluation of Health Care**

The measurement of patients' satisfaction is a common component of many evaluations. It is a wholly subjective assessment of the quality of health care and, as such, is not a measure of final outcome. Evidence has suggested that care, which is less than satisfactory to the patients, is also less effective, because dissatisfaction is associated with noncompliance with treatment instructions, delay in seeking further care and poor understanding and retention of medical information<sup>(7)</sup>.

### **How to Achieve Clients' Satisfaction**

Satisfying pregnant women is achieved through satisfying their needs and expectations, which in turn causes a pleasant feeling in them and promotes their mental health and brings about a feeling of calmness and security. The better the needs and expectations are satisfied, the satisfaction achieved will be more profound and complete and vice versa i.e. failure to satisfy their needs causes anxiety and imbalance <sup>(8)</sup>.

Without complete identification of the perceptions & expectations of the population receiving a service, any effort for satisfying them will certainly be defective. Such identification is based on paying continuous attention to their expectations and also on the criteria they use to evaluate the quality of the services provided <sup>(3)</sup>.

If health care provider fails to perform in a way that conforms to patients expectations, it will be reflected negatively on patient satisfaction and may increase the frequency of doctor visiting. <sup>(9)</sup>

## **METHODS OF MEASURING SATISFACTION**

There are two methods of measuring patients' satisfaction, which are qualitative method and quantitative method. In qualitative method, there are three ways of measuring satisfaction such as managerial observations, employee feedback programs and focus groups.

By using quantitative method, there are five ways of measuring satisfaction such as comment card, self-administered patients survey, personal interview survey, telephone survey, and mystery shoppers<sup>(10)</sup>

It also has been show that patients reported levels of satisfaction reflect doctors' technical competence as judged by independent, population assessors. Thus, satisfaction or dissatisfaction is an intermediate outcome that may reflect a failure to answer patients' needs, meet their expectations, or provide an acceptable standard of service.<sup>(7)</sup>

### **Clients' Opinions as Feedback Measure to Improve the Quality of Care**

An important characteristic of investigating satisfaction is that it evaluates the opinions of the population receiving related services, i.e. the people whose satisfaction leads to effectiveness, acceptance, and collaboration in all health programs.

This acceptance & compliance should continuously be evaluated and measured, in order to promote the quality of health programs and also to prevent dissipation of the precious human resources and the heavy costs involved in these health centers.<sup>(2)</sup>

### The Objectives of the Study

- To determine the extent to which pregnant women attending Primary Health Care (PHC) Centers are satisfied with the care provided.
- To obtain their opinions on major deficiencies, as identified by the clients themselves and to gather clients' suggestions for further improvements of quality of care provided at PHC Centers.
- To find out if there is any association between level of satisfaction and selected character.

## METHODOLOGY

### Study Setting and the Study Sample and Data Collection

A cross sectional study which was conducted in the first and second primary health care sectors in Basra. 34 primary health care centers within first and second sectors were covered in the study. Four hundred pregnant women attending primary health care for ANC (antenatal care) were included in the study.

The participants were selected in series in a health institution on a randomly selected day and were those coming for antenatal visit. First, we selected one day from five working days of the week to visit each health care centre. On that day, we enrolled the women in sequence (meaning pregnant women visiting the clinic one after another as they presented on the day that was randomly fixed for conducting the study in that primary health care centre).

The data on satisfaction were obtained through a direct interview of each woman included in the sample using a specific questionnaire form, During the study period, the investigator visited the waiting area of the antenatal clinics and explain the purpose of the study to waiting mothers and obtained their verbal consent to participate, their replies were noted. The response of the person accompanying the woman was not noted. All pregnant women were informed about their right to participate or refuse this interview, in fact in the field of our study, all enrolled agreed to participate and there were no pregnant women who refused the interview. The interview were conducted in an area with adequate confidentiality and without any involvement of health care providers.

### The Study Variables

- **Personal Characteristics** such as age, place of residence, education whether she is illiterate or attending primary, intermediate, secondary or higher education and nature of work (Governmental employee, housewives or others {students and self employee}).
- **Accessibility to Health Care Factors** Two aspects were assessed, first was the travel time which is the time in minutes taken to arrive to the health centre as an indicator of geographical accessibility to the services. The second was the waiting time which is the time in minutes spent by each women at the health centre in waiting to receive the health care services.
- **Satisfaction:** These concentrated on pregnant women points of view (expressed satisfaction in terms of very satisfied, satisfied to a great extent, satisfied to some extent and not satisfied) on the services received by pregnant women in the form of clinical examination and laboratory investigation, treatment of existing condition, next visit appointment, education about health and nutrition, crowdedness, cost of transportation, availability of medicine, provision of supplements, privacy, time spent for each pregnant woman, response of doctor to woman inquiry,

hygiene, equipment supply, type of building and the overall rating of care in the centers.

- **Suggestions of Pregnant Women**, to improve healthcare at these primary health care centers, women were requested to give their own suggestions.

### Statistical Analysis

The Statistical Package for Social Science (SPSS), Version 16 was utilized for the purpose of statistical analysis of the data.

## RESULTS

### General Characteristics

The general characteristics of the studied pregnant women are described in **Table 1**

**Age** the age of the study population ranged between 14-45. The majority were in the age groups 20-29 and 30-39 years, 52% and 28.5% respectively. Those below 20 years represented 17.5%. While those above 40 years represented only 2%. In the current study the mean age of the study sample was 25.86 + 6.116.

### Education

With respect to education, about half of the study population (47.8%) were either illiterate and not complete primary education, 24% attained education up to intermediate level, secondary education was attained by 14.8% while higher education were attained by 13.5% of the pregnant women included in the study. Mean year of education was 7.74 with S.D=4.306.

### Occupation

Most pregnant women were housewives (86.5%), followed by governmental employees who formed 13% of the pregnant women, while only 0.5% were students.

### Residence

All users of the primary health centers from the catchment areas of these centre.

**Table 1: Characteristics of the Studied Population**

<b>A. Age (Years)</b>	<b>Frequency</b>	<b>%</b>
<20	70	17.5
20-29	Frequency	%
30-39	114	28.5
40+	8	2
<b>Total</b>	<b>400</b>	<b>100</b>
Mean SSD	25.866.116	
<b>B. Education(years)</b>	<b>Frequency</b>	<b>%</b>
Illiterate	13	3.25
<6 year	178	44.5
Up to intermediate(up to 9)	96	24
Secondary(up to 12)	59	14.8
Above secondary(>12)	54	13.5
<b>Total</b>	<b>400</b>	<b>100</b>
Mean bS.D	7.744.306	
<b>C. Occupation</b>	<b>Frequency</b>	<b>%</b>

Students	2	0.5%
Housewives	346	86.5%
Governmental employees	52	13%
<b>Total</b>	<b>400</b>	<b>100</b>

### Accessibility to the Health Care Centers

Accessibility to health care as indicated by the time spent by each woman to reach the health centre and the time spent by each pregnant woman in waiting or receiving the intended care is shown in **Table 2**

It seems that most of the users need short time to reach the health centre, most of the women need 10-15 minutes to reach the health centre (79.8%) while only 0.2% need more than 30 minutes to reach the health centre, with mean arrival time=11.3625.and S.D=5.12560. (**Table 2-A**).

The waiting time was markedly longer than arrival time (**Table 2-B**)shows that the waiting time for 33.75%of pregnant women was 120 minutes, 11.25% of them spent 90 minutes,12.5% spent 30 minutes, 27.75% spent 60 minutes and 14.75% spent more than 120 minutes with mean waiting time=99.5,S.D=5.220.

**Table 2: Time Spent by Pregnant Women on Travel to and Waiting at the Health Centre**

Time Spent in Minutes	Pregnant Women frequency	%
<b>A. Travel time to the health centre</b>	<b>Frequency</b>	<b>%</b>
<10	68	17%
10-14	319	79.8%
15-19	3	0.8%
20-29	9	2.2%
30+	1	0.25%
<b>Total</b>	<b>400</b>	<b>100</b>
MeanSD	11.36255.12560	
<b>B. Waiting time at the health centre</b>	<b>Frequency</b>	<b>%</b>
30-59	50	12.5 %
60-89	111	27.75%
90-119	45	11.25%
120-	135	33.75%
>120	59	14.75%
<b>Total</b>	<b>400</b>	<b>100</b>
Mean S. D	99.55.22	

### Recurrence of Visit to Primary Health Care Centre

Most of the pregnant women included in the study were recurrently using the health centers for maternal health care

**Table 3: Recurrence of Visit to Primary Health Care Centre**

Recurrence of Visit to Primary Health Care Centre	Frequency	%
First visit	59	14.75%
Recurrent visit	341	85.25%
<b>Total</b>	<b>400</b>	<b>100</b>

### The Advocators of Pregnant Women to Use Maternal Health

**Table 4** shows the distribution of pregnant women according to the source of advice to visit antenatal care at the primary health care centers. The results show that 60.25% of the pregnant women attending the primary health centers for maternal health care did so by their own initiatives, the remaining 39.75% were advised by their relatives (husbands and other family members).

**Table 4: The Advocators of Pregnant Women to Visit Primary Health Care Centers for Antenatal Care**

Advice Given	Number	%
Self initiative	241	60.25%
Husband	49	12.25%
Other family members	110	27.5%
<b>Total</b>	<b>400</b>	<b>100</b>

### Services Received by Pregnant Women at the Health Centers

In addition to preventive and curative services, women were interviewed about specific items of services expected to be provided during their visits to the primary health care centers (measurement of blood pressure, body weight, hemoglobin and urine test).

The results are shown in **Table 5**, none of the listed services were done to 0.02% of the pregnant women, but multiple services were done for 99.5% of them, while the rest 8.2% received other services.

For all pregnant women, tetanus toxoid vaccination during current pregnancy was done for 88% of them

**Table 5: Type of Services Done to Pregnant Women Visiting Primary Health Care Centre**

Type of Service	Frequency	Percentage
<b>A. Clinical and Lab. Examinations:</b>		
None	1	0.02%
Blood pressure	379	94.5%
General urine examination	394	98.5%
Body weight checking	399	99.8%
hemoglobin	398	99.5%
Multiple services	398	99.5%
others	33	8.2%
<b>B. Vaccination during Current Pregnancy</b>	352	88%

### Pregnant Women's Satisfaction as an Assessment of Quality of Care

It seems from **Table 6** that pregnant women were fairly satisfied with the care provided by doctors at primary health care centers. When women were requested to rate the overall quality of care provided to them, only 4.5% of the pregnant women expressed non satisfaction, the rest were very satisfied, satisfied to great and some extent

**Table 6: Expressed Satisfaction by Pregnant Women**

Satisfaction	Very Satisfied No. %	Satisfied to Great Extent No. %	Satisfied to Some Extent No. %	Not Satisfied No. %	Total No. %
Rating of overall quality of care	9 2.25	66 16.5	307 76.75	18 4.5	400 100

### Pregnant Women's Satisfaction in Relation to Selected Personal Characteristics

When we examined women satisfaction in relation to specific personal characteristics, the results are shown in **Table 7**. It is clear from the table that regardless of personal characteristics, the level of expressed satisfaction is high.

Few exceptions were noticed, highly educated people (those who had been educated above secondary level) expressed lower rates of satisfaction than other educational groups, Occupational groups who were labeled as (Others) including students, self-employed etc.) also were less satisfied than housewives and governmental employees, with regard to age high percentage of satisfaction expressed among age between 20\_29 and the lowest in those older than 40.

Pregnant women waiting 90 minutes express the high frequency and the high satisfaction rate followed by those who waiting 120 minutes. With respect to recurrences of visit to primary health care centre those who of recurrent visit were the highest frequency and the highest satisfaction rate in compares with those of first visit.

**Table 7: Pregnant Women's Satisfaction in Relation to Selected Characteristics**

Characteristics	Very Satisfied No. %	Satisfied to Great Extent No. %	Satisfied to Some Extent No. %	Not Satisfied No. %	Total No. %
<b>A. Age(Years):</b>					
<20	1 0.25	17 1.5	49 12.25	3 0.75	70 17.5
20-	6 1.5	35 8.75	160 40	7 1.75	208 52
30	2 0.5	12 3	92 23	8 2	114 28.5
40+	0 0	2 0.5	6 1.5	0 0	8 2
<b>Total</b>	<b>9 2.25</b>	<b>66 16.5</b>	<b>307 76.75</b>	<b>18 4.5</b>	<b>400 100</b>
<b>B. Education (years):</b>	<b>Very satisfied No. %</b>	<b>Satisfied to great extentNo. %</b>	<b>Satisfied to some extentNo. %</b>	<b>Not satisfied No. %</b>	<b>Total No. %</b>
Illiterate	0 0	4 1	9 2.25	0 0	13 3.25
< 6 year	2 0.5	33 8.25	138 34.5	5 1.25	178 44.5
Up to intermediate	4 1	12 3	75 18.75	5 1.25	96 24
Secondary	1 0.25	8 2	45 11.25	5 1.25	59 14.75
Above secondary	2 0.5	9 2.25	40 10	3 0.75	54 13.5
<b>Total</b>	<b>9 2.25</b>	<b>66 16.5</b>	<b>307 76.75</b>	<b>18 4.5</b>	<b>400 100</b>
<b>C. Occupation:</b>	<b>Very Satisfied No. %</b>	<b>Satisfied to Great Extent No. %</b>	<b>Satisfied to Some extent No. %</b>	<b>Not Satisfied No. %</b>	<b>Total No. %</b>
Housewife	7 1.75	14.5 58	268 67	15 3.75	348 87
Governmental employee	2 0.5	8 2	37 9.25	3 0.75	50 12.5
Others	0	0 0	2 0.5	0 0	2 0.5
<b>Total</b>	<b>9 2.25</b>	<b>66 16.5</b>	<b>307 76.75</b>	<b>18 4.5</b>	<b>400 100</b>
<b>D. Waiting Time (years):</b>	<b>Very Satisfied No. %</b>	<b>Satisfied to Great Extent No. %</b>	<b>Satisfied to Some Extent No. %</b>	<b>Not Satisfied No. %</b>	<b>Total No. %</b>
30-	1 0.25	5 1.25	1 0.25	0 0	7 1.75
60-	8 2	19 4.75	16 4	5 1.25	48 12
90-	0 0	29 7.25	114 28.5	8 2	151 37.75
120-	0 0	12 3	118 29.5	5 1.25	135 33.75
>120	0 0	1 0.25	58 14.5	0 0	59 14.75
<b>Total</b>	<b>9 2.25</b>	<b>66 16.5</b>	<b>307 76.75</b>	<b>18 4.5</b>	<b>400 100</b>
<b>E. Type of the Current Visit</b>	<b>Very Satisfied No. %</b>	<b>Satisfied to great Extent No. %</b>	<b>Satisfied to some Extent No. %</b>	<b>Not satisfied No. %</b>	<b>Total No. %</b>
First visit	2 0.5	7 1.75	47 11.75	3 0.75	59 14.75
Recurrent	7 1.75	59 14.75	260 65	15 3.75	341 85.25
<b>Total</b>	<b>9 2.25</b>	<b>66 16.5</b>	<b>307 76.75</b>	<b>18 4.5</b>	<b>400 100</b>

### Level of Women's Satisfaction to ward Specific Objective Evaluation

As shown in Table 8 good extent was the highest percentage recorded by pregnant women in the clinical examination 55.8%, laboratory investigation 65%, treatment of existing condition 62.8%, appointment system 79%, information about pregnancy and education about nutrition 49%, supplements of the health centre 50%, time spent with each woman 59%. Privacy 69.2%, inquiry 69.2% and hygiene 62.8%. Crowdedness 60.8% and medicine supply 70% demonstrate the highest percentage in satisfaction to some extent, pregnant women gave 74.8% to cost of transportation, the crowdedness was the highest percentage in the no satisfaction score (17%).

**Table 8: Level of Women Satisfaction to ward Specific Objective Evaluation**

Satisfaction Rate Specific Objective Evaluated	Very Good		Good Extent		Some Extent		Not Satisfied			
	No.	(% )	No.	%	No.	%	No.	%	No.	%
Clinical examination.	12	3	223	55.8	136	34	29	7.2	400	100
Lab. investigation.	4	1	260	65	134	33.5	2	5	400	100
Treatment of existing condition	10	2.5	251	62.8	122	30.5	17	4.2	400	100
Appointment	22	5.5	316	79	60	15	2	0.5	400	100
Education about nutrition	11	2.8	196	49	166	41.5	27	6.8	400	100
Crowdedness	12	3	77	19.2	243	60.8	68	17	400	100
Medicines	3	8	112	28	280	70	5	1.2	400	100
Supplements	11	2.8	200	50	184	46	5	1.2	400	100
Time spent for each patient	19	4.8	236	59	113	28.2	32	0.8	400	100
Privacy	17	4.2	277	69.2	79	19.8	27	6.8	400	100
response to inquiry	18	4.5	277	69.2	85	21.2	20	5	400	100
Hygiene	11	2.8	251	62.8	137	34.2	1	0.02	400	100
Equipment	11	2.8	197	49.2	190	47.5	2	0.5	400	100
Building	19	4.8	116	29	243	60.8	22	5.5	400	100
Cost	299	74.8	100	25	1	0.02	0	0	400	100

**Table 9:** summarizes the suggestions put by women to improve the health care provided by primary health care centers.

Nearly two thirds of the women interviewed (61.25% of the pregnant women) pinpointed to the provision of ultrasonography and 41.25% regard the crowdedness and reception and suggested improvement in this aspect of care. Provision of dentist was suggested by 33.75%, improvement in the drug supply was suggested by 20%. Increase no. of doctors was the suggestion of 6.25%, 3.75% suggested the need for maternal care unit to be served by a female staff and only few 2.5% gave suggestion regard the location of the health centre and 5% recommended the maternal care unit to be placed at the ground floor, 27.8% of women gave no suggestion.

**Table 9: Suggestions Given By Pregnant Women to Improve Care**

No	Suggestions	Frequency	%
1	Provision of ultrasonography	245	61.25
2	Improve the crowdedness and the reception	165	41.25
3	Increase number of doctors and staff	25	6
5	Provision of dentist	135	33.75



6	Location of Primary health care	10	2.5
7	maternal unit at ground floor	20	5
8	Provision of female staff	15	3.75
9	Improving drug supply	80	20
10	No suggestions	111	27.75

## DISCUSSIONS

Satisfaction with antenatal care services motivates pregnant women to seek and continue antenatal care whereas dissatisfaction with antenatal care services results in decreased utilization<sup>(11)</sup>. It is well known that most deaths can be prevented if adequate and timely obstetric care is provided but if nothing is being done to avert maternal deaths, it will be rose to 1000– 1500/100, 1000 live births, which is unacceptably very high.<sup>(12,13)</sup> Therefore it is our widespread desire to improve maternal care and make optimum use of women contact with health services. Furthermore it is also important to identify which interventions are effective and how best to deliver them.

The final result of this study showed that 96% of the pregnant women were satisfied with the service that they had received, divided into 2.25% very highly satisfied, 16.5% good satisfaction, 76.75% express satisfaction to some extent while the non satisfied women represent 4.5%.

Similar study which was conducted at 2005 illustrated that level of satisfaction of the pregnant women was higher, from 218 pregnant woman who received antenatal care at four primary health care centers included in the study within the first sector in Basra city it was reported that the satisfaction of pregnant women with the overall service that they had received was 98.2%, divided into 41.3% very highly satisfied, 56.9% fairly satisfied, only 1.8% had no satisfaction at all<sup>(14)</sup>

The result of this survey, in general, agree with many previous studies carried out in different places in Iraq For example, a previous interview studies carried out in Basra in 1989-2000, reported a wide range of satisfaction with various components of antenatal care<sup>(15)</sup>. In a study carried out in Turkey at 2004 regard the level of satisfaction of pregnant women toward public health centre, the result reveal that they were somewhat satisfied.<sup>(16)</sup> A study in Malaysia at 2005 showed 56.7% over all rating of satisfaction.<sup>(17)</sup>

Investigating women's satisfaction with antenatal care received at the primary health care centers of Shirvan Chardaval, Iran in 2005 revealed a total of 89.8% of the women had very high or high satisfaction with the antenatal care schedule while 10.2% of them had low or very low satisfaction<sup>(18)</sup>. The study which was conducted by Mawajdeh et al on an assessment by pregnant women receiving antenatal care from maternal and child health centres in Irbid, Jordan, showed that the majority (94%) were satisfied with the service received<sup>(19)</sup>. A study carried out in Karachi and Hyderabad in Pakistan at 2005 revealed that satisfaction with over all care was 49.6%<sup>(20)</sup>, similar study carried out in Khartoum in Sudan at 2009 resulted in 22% reported full satisfaction<sup>(21)</sup>. Also there was a study in the Mosandom region of Oman at 2005 revealed that 59% of the participants were in the excellent grade. The rest of the participants reported "very good" levels of satisfaction<sup>(22)</sup>

A study of client satisfaction towards antenatal care service in the maternal and child health hospital in Thailand found that most of the respondents (91.8%) were satisfied with the service given and behavior of service providers<sup>(10)</sup>.

Regarding the laboratory services, in the present study, the pregnant women included in the sample gave 65% to good satisfaction with laboratory services.

The dissatisfaction with the laboratory services were noted in a study carried out in the Mosandom region of Oman at 2005<sup>(22)</sup>. These issues were also the reasons for low satisfaction in a study covering four countries including Saudi Arabia at 2003 (a neighboring country of the present study area)<sup>(23)</sup>

Waiting time had been reported to influence the level of the satisfaction of clients<sup>(23)</sup> Waiting time emerged as an important predictor of satisfaction and long waiting time has been associated with dissatisfaction with care in many studies. The present study revealed longer waiting time associated with less level of satisfaction, those who waited more than 120 minutes resulted in 14.75%, one study carried out in Oman at 2005<sup>(22)</sup>. Two studies carried out at 2005 one in Iran<sup>(18)</sup> and the other in Karachi and Hyderabad in Pakistan<sup>(20)</sup>. and a study carried out in Khartoum at 2009<sup>(21)</sup>.

Previous study by Greene reported that there was positive correlation and significant relationship between level of satisfaction and waiting time whereas patients who wait shorter time were more satisfied compare with patients who wait long time. The above results suggest that waiting time is major factors to be addressed for ANC<sup>(24)</sup>.

Although we did not have any benchmark for the time required at different stages of the antenatal care, grievances about delays, especially in laboratory tests should be taken into consideration in the future.

With regard to physical examination during the visit to the health centre, our study resulted in a good satisfaction 55.8 % and 7.2% not satisfied with clinical examination, like a study of Iran which reveal more women were satisfied with completeness of physical examination and competence of the provider<sup>(18)</sup>.

Regarding education about nutrition and other information received during this period of women life, our study revealed that 49% were highly satisfied with the education about nutrition and information, while 6.8% express no satisfaction. In contrast to a study carried out in Iran at 2007<sup>(18)</sup>, 60.2% of the mothers had very low satisfaction with the education received during antenatal care, while 39.8% of them were very highly satisfied. A study of Pakistan resulted in 68.3% satisfied with the information and instructions they had been received during ANC<sup>(20)</sup>, a study of Saudi Arabi reported that the information was good in amount and quantity<sup>(25)</sup>.

In the current study good percentage (59%) of participants were more satisfied when their providers spent more time with them and when their providers engaged them by listening to their problems, answering their questions and interest shown in their feeling, which is similar to the result of the Iran study<sup>(18)</sup>. While a study of Saudi Arabi, the women didn't feel confident enough to ask and second because doctors do not response necessarily to their question.<sup>(25)</sup>

Based on level of education, this study found that patients who were illiterate and those <6 year educated were more satisfied (47.75%) than intermediate (23.95%), secondary (14.75%) and higher education (13.5%), this result was similar to the study carried out in Basra at 2005 which resulted in those who attended higher education reported the lower level of satisfaction (23.1%).<sup>(14)</sup> while the study of Shirvan Chardaval in Iran at 2005 resulted in those who attended secondary education were more satisfied (63.8%) than primary (44.8%) and tertiary education (56.5%)<sup>(30)</sup>. The study of Mosandom region of Oman revealed that 79.5% of the participants women were educated and this reflected positively on their satisfaction.<sup>(22)</sup>

The finding of our study was similar with the study which conducted by McCrea and Marion in Malaysia at 1999<sup>(26)</sup>. Their study involved 154 women in Northern Ireland. The result of their study showed that there was no relationship between satisfaction and education level. However, previous old study which was conducted by Pascoe at 1983 found that higher education is associated with greater satisfaction<sup>(27)</sup>

Regarding the women s' occupation, Housewives & employees were more satisfied (87%and 12.5%) respectively, with the antenatal care schedule as compared to other subject groups (0.5%) which is the result of the present study, also the study at 2005 resulted in those who were labeled as "others" including the self employees and students were less satisfied (13.5%) than housewives and governmental employees. (14) The result from previous studies carried out in Iran<sup>(18)</sup>, Malaysia<sup>(17)</sup> showed that workers were more satisfied (57.4%) than non workers (51.4).

With regard to age and the level of satisfaction, the present study demonstrate higher satisfaction rate was among those age between 20-29 (52%) and the lower rate was in women whose age was more than 40 year(2%), this result similar to the results of 2005 which reveal that those who were 40 year and above had the lower satisfaction rate(3.8%)<sup>(14)</sup>, studies had been done in Iran<sup>(18)</sup>, Malaysia<sup>(17)</sup>, Oman<sup>(22)</sup> revealed that younger women were more satisfied than the older, however, study by Pascoe<sup>(27)</sup> did show that increased service satisfaction was found to be significantly and positively associated with being older.

One of the factors which related with the continuity of care was the number of visit<sup>(17)</sup> Their study reported that a positive relationship exists between previous visit at the similar hospital and the pregnant women total satisfaction score.

It is similar with the finding of this study which reveal recurrent visitors more satisfied than those of first visit to the health care centre. A study in Malaysia<sup>(17)</sup> found that number of visit and the satisfaction was significantly associated.

Studies examining the cost of care in Turkey<sup>(16)</sup> and Malaysia<sup>(17)</sup> have found that the higher the cost, the lower the level of patient satisfaction, It was similar with the finding of the present study which reveal that pregnant women were satisfied with the low cost of antenatal care services.( the service is free of charge).

Satisfaction with getting medicines, our study resulted in 70% satisfied to some extent, a study of Malaysia reported 36.6% were satisfied with medicines supply.<sup>(17)</sup>

## CONCLUSIONS

Generally, most of the pregnant women were satisfied with the service that they had received.

Also they were satisfied with multiple aspects of care in the health centre in the form of clinical examination, laboratory investigation, treatment of existing condition, appointment system, education about nutrition, supplements of the health centre and equipment supply, also they were satisfied with time spent with doctors, privacy, response to their inquiry and the health care centers' hygiene, and the cost of services available.

However, those pregnant women were less satisfied with the crowdedness of the health care centers and to the medicine supply. Our study concluded that highly educated, older women and those who wait longer at the health care centers express less satisfaction.

This study concluded that antenatal care provided needs improvement Our study concluded that measures should be taken to improve public sector services through increasing resources, adequate medicine supply and reduce waiting

time. Furthermore awareness among women should be created to properly utilize services, which are being provided to them increase their attention to improve the quality of services provided.

## **RECOMMENDATIONS**

- That this report be presented to the health authorities in Basra.
- That this survey be repeated after a time to check any change in the clients' perception and satisfaction.
- Increase the numbers of doctors and improve the facility of the clinic are important things which should be considered by the maternal health care centre management to improve the level of pregnant's satisfaction in antenatal clinic.
- Application of effective appointment service (for day and time of visit).

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