

Assessment of the Quality of Primary Health Care Services in Al-Ramadi City, West of Iraq

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Abstract

Background: Quality of care is an important aspect of health care delivery system that should be given a priority. The fact that primary health care includes the provision of many services that are essential heightens the importance of assessing its quality.

Aim of the study: To assess the quality of healthcare services provided by PHC centres in Al Ramadi City.

Methodology: A cross sectional study design was employed to assess the quality of primary healthcare with respect to structure, consumer and care provider satisfaction, involving 600 clients and 150 care providers in Al Ramadi, West of Iraq from October 2012 to February 2013. Structure was assessed by observation of available items and comparing them with a checklist of standards recommended by the Ministry of Health for PHC centers. Data were also collected using an interview questionnaire for clients and self-administered questionnaire for care providers.

Results: The overall adequacy rates for the availability of structure items were 71.3% and 72.5% in main and sub centers respectively. This is regarded as acceptable structure compared to the ideal or expected requirements. The least component of structure items available was the number of medical and paramedical staff. Deficiency of equipments and supplies was noticed in some centers. Clients' perception about the quality of PHC services showed that about 47 % of clients expressed positive views and general satisfaction towards all services provided, the highest proportion (64.8%) were satisfied with cost of services being cheap, while the lowest proportion, only 13.7% were satisfied with availability of doctors in the centers. About 59.3% of care providers expressed an overall work satisfaction. The majority reported satisfaction with support by their managers, and with staff collaborations. The least satisfaction rates were reported with payment and physical work conditions.

Conclusion: Quality of care was regarded as generally acceptable in terms of structure but with marked deficiency in human resources, and moderate deficiency of equipments and supplies. On the other hand, it was below average as perceived by clients and care providers. The study recommended conducting continuous quality assessment using different indicators and under the guidance of experts in this field.

Key Words: *Primary Health Care. Quality Assessment. Al Ramadi*

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Introduction:

Primary health care is the first contact, continuous, comprehensive, and coordinated care provided to populations undifferentiated by gender, disease, or

Organ system ⁽¹⁾. It advocates an approach to health care based on principles that allow people to receive the care that enables them to lead socially and economically productive lives ⁽²⁾.

In Iraq, PHC is provided by the widespread primary health care centers

throughout the country. Iraqi Ministry of Health (MoH) had developed a standardized package of basic health services that formed the core of service delivery in all PHC facilities with the aim of enhancing the quality of health services⁽³⁾.

The quality of care is defined as the merit or excellence of PHC system in many aspects including management, resources, activities, and outcome of health care provided. Quality consists of the degree to which health services for individuals and populations increase the likelihood of desired health outcomes, are consistent with current professional knowledge, and meet the expectations of healthcare users⁽⁴⁾.

Quality of primary health care services provided is an important issue, good quality of primary health care is crucial for improved health status of populations. High quality services are required to ensure that scarce resources for healthcare are used to derive their full impact. It is more than a concept; it has become essential to patient well-being. Poor quality leads to more diseases and cost, loss of public confidence, loss of time, low staff morale, and also results in wastage of limited resources⁽⁵⁾.

The fact that primary health care includes the provision of many services that are essential heightens the importance of assessing its quality. Primary health care systems have traditionally been assessed in terms of coverage of services with little attention paid to the quality of the services provided⁽⁶⁾. The ability to assess the quality of care provided is an essential component of quality assurance and improving quality. The traditional Donabedian's conceptual framework for assessing quality of health care consists of three main perspectives: structure, process, and outcome of care provided⁽⁷⁾. However, others describe the patterns of assessing quality of care as observed and perceived methods.

The observed quality of care concentrates on structural and process measures, focuses on standards of care, and refers to whether health care services adhere to these standards. While perceived quality of care concentrates, on the views of patients which are thought to be of more importance in determining quality of care and has a strong influence on utilization patterns⁽⁸⁾.

Stakeholder perception and expectations of quality (including client and community, provider and manager) should also be included in the definition of quality standards⁽⁹⁾.

In most developed countries, service quality is measured by reviewing medical and other written records. However, this approach has not proved useful in environments where medical records are incomplete, inconsistent or even non-existent as in developing countries. In these situations, methods such as direct observation of care and/or exit interviews with patients are more commonly used^(10, 11).

Previous studies on the quality of services in PHC facilities, the cornerstone of the country's health care system, are rare especially in Anbar Province and the gap in our knowledge about various aspects of quality of services in Al Ramady City, the center of Anbar Province, is immense.

The aim of the study is to assess the quality of primary health services in Al-Ramady city, in terms of resources available, consumer and care providers' satisfaction.

Objectives of the study:

- 1- Assess the extent to which the available resources (structure) at the PHC centers correspond with National standards.
- 2- Determine the clients' satisfaction with different PHC services.
- 3- To assess care providers' work satisfaction with services.

Methodology:

This is a cross-sectional health center-based study conducted from October 2012 to February 2013. Almost 25% of all PHC centers (main and sub centers) in Al Ramadi City were chosen by simple random method from both urban and rural areas. A total of 6 primary health care centers, 3 main centers (A,B,C) and 3 sub centers (A,B,C) were enrolled in the study. Structure was assessed by observation of available items and comparing them with a checklist of standard structure items recommended by the Ministry of Health for PHC centers.

Structure components observed included building, furniture, manpower: doctors and other health workers; instruments, equipments and supplies; and availability of other organizational settings.

Scores adopted were 0 for items not available, 1 for available but inadequate, 2 for available and adequate items. Adequacy rate was then calculated as scores of items obtained/scores of items expected X 100. The grading of the adequacy of the structure was adopted as: if 90% and above of the requirements were available, then the standard of structure can be graded as good; if 70-89% available, it would be acceptable; and if less than 69%, it would be poor⁽³⁾.

Assessment of the perceived quality of care provided to clients attending primary health care centers was done through their expressed satisfaction with care. A structured questionnaire was applied, through exit interview, to a sample of 600 PHC consumers selected by a systematic random sampling and the investigator in a friendly atmosphere collected the data personally. Not a single client was interviewed in front of any service provider so that strict confidentiality was maintained. The questionnaire was pretested before data was collected.

The questionnaire included questions on socio-demographic variables, and questions to determine their satisfaction with different aspects of care, including: Satisfaction with building of PHC centers, accessibility of services, comprehensiveness and adequacy of care, cost of service, doctor's approach and attitude, provision of health education, continuity of care, and overall satisfaction with health services. The measurement scale of satisfaction for all those items was based on three point Likert Scales (1=satisfied, 2=fairly satisfied, and 3=unsatisfied).

Likert's scale was also used to grade the quality of service according to client's satisfaction:

< 50% satisfaction rate → below average quality

50-69% satisfaction rate → Average quality

70-80% satisfaction rate → Good quality

≥81% satisfaction rate → Very good/excellent quality.

For the assessment of care providers' satisfaction, a self-administered questionnaire was applied confidentially to a convenient sample involving 150 primary health care providers from the 6 studied PHC centers.

The questionnaire included information like age, sex, qualification, current job status, number of years of service, and their satisfaction with different aspects of work conditions, which include:

Satisfaction with type of work they perform, cooperation of staff they work with, support they receive from supervisors (managers), training and information provided to improve their performances, salary paid, physical work conditions (essential equipments and supplies of the PHC centers), working hours in the PHC centers, staff attitudes towards clients, staff abilities as decision makers, and overall satisfaction with the job.

The measurement scale of satisfaction was based on three point Likert Scales (1=satisfied, 2=fairly satisfied, 3=unsatisfied).

Data were analysed using SPSS version 12, chi square test was applied, P value less than 0.05 was considered statistically significant.

Results:

Table (1&2) demonstrate the availability and adequacy rate for the items of various structure components of primary health care main and sub centers respectively. The overall adequacy rate for the availability of structure items in the main centers was 71.3% and in the sub-centers was 72.5%. This is regarded as acceptable structure compared to the ideal or expected requirements.

Table 1- Adequacy rate (%) of structure items in main PHC centers in comparison with MOH required standards.

| health center | Building & no. of rooms % | Furniture % | Medical and paramedical staff % | Equipments and instruments % | Supplies % | Other organizational setting % | TOTAL % |
|---------------|---------------------------|-------------|---------------------------------|------------------------------|------------|--------------------------------|-------------|
| Main center A | 100 | 100 | 28 | 85 | 95.8 | 100 | 84.8 |
| Main center B | 50 | 57.1 | 21.8 | 50 | 70.8 | 100 | 58.2 |
| Main center C | 50 | 87.7 | 28 | 75 | 95.8 | 90 | 71 |
| Total | 66.6 | 81.5 | 25.9 | 70 | 87.4 | 96.6 | 71.3 |

Table 2- Adequacy rate (%) of structure items in PHC sub centers in comparison with MOH required standards

| health center | Building & no. of rooms | Furniture | paramedical staff | Equipments and instruments | Supplies | Other organizational setting | Total |
|---------------|-------------------------|-----------|-------------------|----------------------------|----------|------------------------------|-------|
| sub center A | 50 | 85.7 | 40 | 85 | 87.5 | 100 | 74.7 |
| sub center B | 50 | 78.5 | 70 | 35 | 50 | 100 | 63.9 |
| sub center C | 100 | 85.7 | 40 | 65 | 83.3 | 100 | 79 |
| Total | 66.6 | 83.3 | 50 | 61.6 | 73.6 | 100 | 72.5 |

Results shows that the least component of structure items available was the number of medical and paramedical staff, compared to what should be available, in all main and sub centers (25.9% & 50%) respectively, while the highest was for the availability of organizational settings such as maps and guidelines.

Equipments, instruments and supplies were deficient in sub center B and to some extent in main center B.

No significant differences were found between main and sub centers regarding adequacy of structure items. (Figure1).

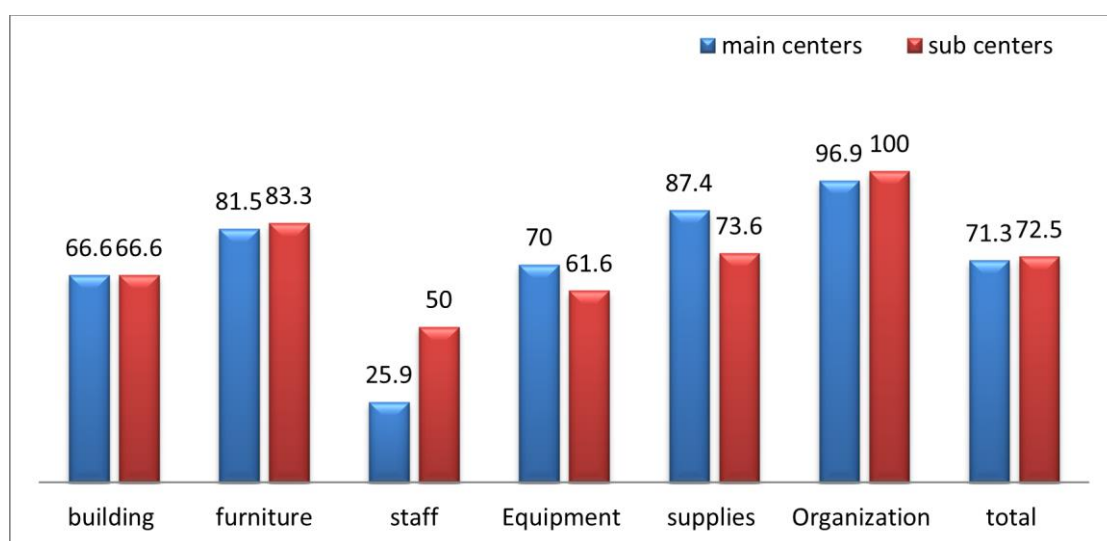


Figure 1-Adequacy rates of structure items in PHC main and sub centers

Clients' perception about the quality of health care services provided by the studied PHC main and sub centers revealed the following results:

Out of 600 clients attending for either curative or preventive care, 281 (46.8%) expressed positive views and general satisfaction towards all services provided, 195 (32.5%) were fairly satisfied, while 124 (20.7%) were not satisfied at all.

Attendants' opinions about certain aspects of care are demonstrated in Table (3) and summarized in the following components:

- 1- **Building:** About 54% of the attendants stated good building's location, and 47.3% of them were satisfied with hygienic standard of the centers. More than a quarter of the respondents were not satisfied with the adequacy of the waiting areas, chairs available, and ventilation of the building (25.3% & 28.3% respectively).
- 2- **Accessibility of care:** Less than half (44.5%) of the clients were satisfied with easiness of accessibility to health centers, and almost similar percentages considered waiting times for consultation and receiving drugs as satisfactory. However higher proportion (69.3%) were either not or fairly satisfied with waiting time for investigations.

- 3- **Comprehensiveness of services:** Results show that this is the least area the attendants were satisfied with. Satisfaction rates with availability of doctors; instruments, equipments & supplies; drugs; and availability and accuracy of investigations were very low (13.7%, 18.3%, 16.5% & 18.7% respectively). However, nearly half of them (50.5%) were satisfied with number of para staff available in health centers.
- 4- **Cost of the service:** Cost paid for services provided by PHC centers was affordable and satisfactory for 64.8% of clients, although about 10% were not satisfied.
- 5- **Doctor's attitude towards patients:** More than 50% of attendants were satisfied with doctors' listening to their complaints (52.5%) and providing privacy during examination (54.5%) and to less extent in responding to their needs (49.3%).
- 6- **Provision of health education:** Satisfaction with availability of health education materials and posters was reported by 40.8% of all respondents, while 42.8% were satisfied with the type and scope of advices provided.
- 7- **Continuity of services:** Only 42.3% were satisfied with receiving appointments for following up. When clients were asked whether they return back next time to the same health center, only 37.7% expressed satisfaction to do so.

The satisfaction rates among attendants of each health center independently were as follows: for PHC main centers, 39% for A, 37% for B, and 8% for C; and for sub centers A, B and C were 94%, 71%, and 37% respectively.

Table 3 - Client satisfaction rate (%) with services provided by all health centers studied (n=600)

| Aspects of care | Not satisfied | Fairly satisfied | Satisfied |
|---|---------------|------------------|-----------|
| | % | % | % |
| Location | 25.0 | 20.8 | 54.2 |
| Cleanliness of center | 19.0 | 33.7 | 47.3 |
| Waiting area and no. of chairs | 25.3 | 31.2 | 43.5 |
| Ventilation | 28.0 | 29.7 | 42.3 |
| Easiness of accessibility | 16.7 | 38.5 | 44.8 |
| Waiting time for consultation | 13.5 | 41.8 | 44.7 |
| Waiting time for investigation | 24.3 | 45.0 | 30.7 |
| Waiting time for receiving drugs | 9.8 | 38.5 | 51.7 |
| Comprehensive of services | 24.5 | 53.8 | 21.7 |
| Availability of doctors | 40.7 | 45.7 | 13.7 |
| Availability of other para staff | 12.2 | 37.3 | 50.5 |
| Availability of instruments, equipments and supplies | 35.7 | 46.0 | 18.3 |
| Availability of accurate investigations | 38.7 | 42.7 | 18.7 |
| Availability of drugs | 37.0 | 46.5 | 16.5 |
| Cost of services | 10.3 | 24.8 | 64.8 |
| Doctor understand patients complaints | 14.5 | 33.0 | 52.5 |
| Doctor response to patient needs. | 15.3 | 35.3 | 49.3 |
| Privacy during examination | 14.0 | 31.5 | 54.5 |
| Availability of health education materials | 16.8 | 42.3 | 40.8 |
| Health education & advices provided by health workers | 15.3 | 41.8 | 42.8 |
| Appointments for next visit | 16.2 | 41.5 | 42.3 |
| Return next time to same center | 15.8 | 46.5 | 37.7 |
| Go to private clinic next time | 23.8 | 48.7 | 27.5 |
| Overall satisfaction | 20.7 | 32.5 | 46.8 |

Table (4) shows the association of overall satisfaction with certain variables. Overall satisfaction was significantly higher among attendants of PHC sub centers than main centers' attendants, those with lower educational levels, and among clients attending for preventive services ($p=0.000$).

Although females tend to show more satisfaction rates than males, and those who have no jobs or having free jobs also reported higher satisfaction, but the differences were not statistically significant for both groups. Overall satisfaction was not determined by age or marital status in this study.

Table 4 - Association of overall satisfaction with selected variables

| Variable | unsatisfied | Fairly satisfied | satisfied | P value |
|------------------------------|-------------|------------------|-----------|---------|
| 1- Type of center attended: | | | | |
| • Main center | 36.7 | 37.0 | 26.3 | 0.000* |
| • Sub center | 4.7 | 28.0 | 67.3 | |
| 2- Age: | | | | |
| • 10- 25 | 22.9 | 29.9 | 47.2 | 0.631 |
| • 26- 40 | 20.8 | 32.0 | 47.2 | |
| • 41- 55 | 18.8 | 32.6 | 48.6 | |
| • 56-70 | 17.6 | 47.1 | 35.3 | |
| 3- Sex: | | | | |
| • Male | 21.5 | 35.5 | 43.0 | 0.092 |
| • Female | 19.6 | 28.7 | 51.7 | |
| 4- Marital status: | | | | |
| • Married | 20.0 | 31.0 | 49.1 | 0.666 |
| • Single | 21.6 | 37.9 | 40.5 | |
| • Divorced | 20.0 | 33.3 | 46.7 | |
| • Widow | 27.3 | 33.3 | 39.4 | |
| 5- Education: | | | | |
| • Illiterate | 11.8 | 35.3 | 52.9 | 0.000* |
| • Read & write | 6.8 | 26.0 | 67.1 | |
| • Primary + intermediate | 17.8 | 32.4 | 49.8 | |
| • Secondary | 31.0 | 33.8 | 35.2 | |
| • College + higher education | 25.4 | 33.9 | 40.7 | |
| 6- Occupation: | | | | |
| • Governmental work | 26.1 | 35.3 | 38.6 | 0.081 |
| • Free job | 18.8 | 30.9 | 50.3 | |
| • Not working | 18.0 | 31.5 | 50.6 | |
| 7- Reason for attending: | | | | |
| • Curative | 22.2 | 36.6 | 41.2 | 0.000* |
| • Preventive | 14.2 | 15.0 | 70.8 | |

*significant value

The quality of PHC centers was also assessed through care providers' satisfaction with services provided. Out of 150 employee, 89 (59.3%) expressed overall satisfaction with services, 45 (30%) were fairly satisfied, and only 16 (10.7%) were not satisfied.

The majority of respondents reported satisfaction with support provided by their managers, and with staff collaborations (73.3% & 70.0%) respectively. The least satisfaction rates were reported with monthly payment and physical work conditions including furniture, equipments and supplies (21.3% 20.7%) respectively.(Table 5).

Table 5- Satisfaction of all health centers employee with certain aspects of service (n=150)

| | Unsatisfied | | Fairly Satisfied | | Satisfied | |
|---|-------------|------|------------------|------|-----------|------|
| | no. | % | no. | % | no. | % |
| Type of work they perform | 12 | 8.0 | 57 | 38.0 | 81 | 54.0 |
| Staff collaborations | 6 | 4.0 | 39 | 26.0 | 105 | 70.0 |
| Direct manger support | 9 | 6.0 | 31 | 20.7 | 110 | 73.3 |
| Training to do their job | 24 | 16.0 | 58 | 38.7 | 68 | 45.3 |
| Payment | 47 | 31.3 | 71 | 47.3 | 32 | 21.3 |
| Working hours | 23 | 15.3 | 55 | 36.7 | 72 | 48.0 |
| Physical work conditions | 29 | 19.3 | 90 | 60.0 | 31 | 20.7 |
| Staff attitude toward clients | 16 | 10.7 | 49 | 32.7 | 85 | 56.7 |
| Staff ability as decision makers | 13 | 8.7 | 57 | 38.0 | 80 | 53.3 |
| Overall satisfaction with services provided | 16 | 10.7 | 45 | 30.0 | 89 | 59.3 |

However, there was significant variability in satisfaction rates among different PHC centers 'employee.

Care providers' satisfaction rates among the 3 main centers A,B, and C were 94%, 46%, and 23%; and among the 3 sub centers A, B, and C were 76%, 69%, and 33% respectively.

Discussion:

The adequacy rate (availability and condition of structure items in PHC main centers and sub centers) was shown to be generally acceptable corresponding to the standards of the Iraqi Ministry of Health.

However, it is clear from the results that the PHC centers varied considerably in meeting the staffing requirements, with main centers having the lowest number of staff. This has several implications. First, it denotes that discrepancy in staffing between the centers may lead to different and inefficient utilization of resources across the centers, and consequently to inadequacy in the services provided. Secondly, this result of inadequate staffing especially in main PHC centers may imply that some important aspects of PHC are not being covered, or that these aspects are taken over by other health workers who are less qualified for the job. This result is similar to that of other studies conducted in other parts of Iraq^(12,13), while on the contrary, in Saudi Arabia, the PHC centers exceeded the MOH staffing requirements with respect to the physicians, nurses and other categories⁽¹⁴⁾.

With regards to equipments, it is noticed that there was shortage of basic medical equipments in most of the study sites, especially in sub center B which had the lowest adequacy rate (35%). This result is in agreement with Al-Osmiy study in Saudi Arabia⁽¹⁴⁾. This acts as a barrier and a constraint to the provision of health services for providing high quality services. Lewis M, et al., 2004, also reported lack of staff and resources, especially medication⁽¹⁵⁾.

The implications of structure adequacy are many. From one aspect, inadequate structure limits the process of care and consequently undermines the potential for favorable outcome through the restriction or hindrance of procedure and activities that are necessary in health care.

However, structural deficiencies, once identified, are probably the easiest to rectify under usual condition^(16,17).

MOH stated that the state of physical infrastructure is not satisfactory and requires major repairs. for this reason, efforts are made to equip the PHC network in order to meet the basic needs of the patients⁽¹⁸⁾.

Clients can participate in evaluating the quality of PHC by expressing satisfaction with care provided. The quality of care, as perceived by clients, was judged to be below average.

This result is not much different from the result obtained in the study conducted in Thi-qar province, south of Iraq 2007, where 53% of PHC attendants were satisfied with services⁽¹⁹⁾. But the rate of this study is lower than that recorded in a study conducted by Al Faris et al during 2005 in Riyadh health centers in Saudi Arabia (90%)⁽²⁰⁾, and Alsakkak MA et al in 2008 in health centers affiliated to Riyadh Military Hospital, Saudi Arabia (64.2%)⁽²¹⁾, and in Kuwait (62.0%)⁽²²⁾. In Egypt, Gadallah et al in 2003 reported 98% satisfaction rate in two districts in upper and lower parts⁽²³⁾. However, our result was almost the same as results obtained in another study in Saudi Arabia where the overall satisfaction rate was (49.0%)⁽²⁴⁾. Variations in satisfaction level in different countries may be attributed to many factors such as different study methodology and population, health systems, different administrative systems, education and culture of consumers⁽²⁵⁾.

Results also showed that there was a significant difference between satisfaction rates among PHC main and sub centers' clients (67.3%, 26.3%) respectively, this may be due to the fact that the majority of sub-center clients in rural areas are of low education and thus more favorably influenced and satisfied by services

provided . This result disagrees with the results obtained in a study conducted in Saudi Arabia, 2010, when the satisfaction rate was only slightly higher with PHC main centers (76.9%) than PHC-sub centers (70.65%) ⁽²⁶⁾.

Accessibility is one of the principles of health for all as stated in Alma Ata declaration on primary health care. . The results of this study are in consistence with Kuwait study ⁽²²⁾ and with Egypt study where waiting time contributes to 47.0% of patients' dissatisfaction in an assessment of quality of care ⁽²³⁾. Waiting time is a source of dissatisfaction for patients and remains a challenge to quality of care and services in the clinics ⁽²⁷⁾. Comprehensiveness rate of satisfaction in this study was low (21.7%). While another study conducted in United Arab Emirate ⁽²⁸⁾ results were different it was high in certain clinic (62%) and in another clinic in same study was low (28%). This reflected unavailability of doctors, instruments, supplies and drugs which considered as important causes of patient dissatisfaction. This denotes the increasing client demand to obtain comprehensive services required continuous assessment and improvement of health care services ^(29,30).

Satisfaction rate about the availability of instruments, equipments, and supplies was low (18.7%) which is less than the results obtained in study conducted in kurdistan of Iraq (23.6%) ⁽³¹⁾.

Satisfaction rate with attitude of doctors was 52.2% in the present study. Janice et al indicated that the physician remains a key element in patient satisfaction ⁽³²⁾. Almost similar results were obtained in a study conducted in north of Iraq, Kurdistan (55.6%) ⁽³¹⁾. While another study conducted in Egypt and United Arab Emirates shows high level of satisfaction in this aspect of care (99% & 73.0%) respectively ^(23,29).

Providers of care should ensure that they meet the information needs of patients

because patients' perceptions of quality of care are associated with providers' ability to transfer key information to their patients ⁽³³⁾. Patients are concerned more about how caring of the service provider rather than how much knowledge possessed ⁽³⁴⁾.

Continuation of care is one of the most significant points for assessment of PHC services, patient expect to see their doctor at each consultation to ensure the continuation of care, and they are disappointed if they are did not find the doctor during their visit. Williams SJ et al ⁽³⁵⁾ stated that client satisfaction is associated with continuity of care. In this study only 42.3% of clients were satisfied with this aspect which is higher when compared with a neighboring country such as Kuwait (30%) ⁽²²⁾. This is a universal problem because of temporary absence or transfer of staff from one place to another. Makhdoom YM considers this as well-recognized cause of client dissatisfaction with care ⁽³⁶⁾. Continuity of care and ultimately better health outcomes can result from trustful & dependable contact with their physician ⁽³⁷⁾.

Satisfaction rate about the availability of instruments, equipments, and supplies in our study was low (18.7%). It is lower than the results obtained in a study conducted in Kurdistan of Iraq (23.6%) ⁽³¹⁾.

The overall satisfaction with services in general as reported by clients was 46.8%, but when subjects were asked about satisfaction for each service item individually the satisfaction rates ranged from 13.7% for doctors availability to 64.8% for cost of the service. This is consistent with the study done by Williams SJ et al ⁽³⁵⁾ which showed that general levels of consumer satisfaction are high, however questions of a more detailed and specific nature reveal greater levels of expressed dissatisfaction.

At the same time significant differences in satisfaction rates among PHC main and sub centers clients was noticed in this

study, ranging from 8% in one main center to 94% in another sub center, thus reflecting variable levels of quality of care provided in different centers.

Job satisfaction is another aspect of assessing the quality of care. Relationships have been reported between job satisfaction, productivity, absenteeism and turnover among healthcare employees and as such it affects employees' organizational commitment and the quality of healthcare services. ⁽³⁸⁻⁴⁰⁾

This part of the study was based on a self-administered questionnaire survey of all employees working in the selected health centers (doctors, dentists, pharmacists, laboratory workers, medical assistants, nurses, and non-medical staff)

Nearly 60% of PHC centers employee reported overall job satisfaction. This result is similar to Bodur study ⁽⁴¹⁾ which stated that, in Turkey, the proportion of health care staff satisfied with their work was 60% . In Germany, 64% of primary care physicians said they were satisfied with their job overall ⁽⁴²⁾. Our result is different from Nylenna et al and Brøndt et al studies ^(43,44) in which Norwegian and Danish general practitioners had reported a high level of job satisfaction. On the other hand, it is higher than that reported from Bahrain study in which PHC workers reported low satisfaction rates ⁽⁴⁵⁾ , and Serbia study in 2010 which showed that the overall job satisfaction of doctors and nurses was relatively low ⁽⁴⁶⁾ . In Kurdistan region, North of Iraq, around 72% of health workers in 5 hospitals and 8 PHC centers had a rather negative view on or dissatisfaction with the overall health system ⁽⁴⁷⁾.

The reported level of satisfaction was highest for manager support, staff collaboration and staff attitudes towards clients. Other studies also reported the same aspects of satisfaction ^(41,43,44, 46) .

Major areas of dissatisfaction were in physical condition of the centers and in

their monthly salary and physical work conditions, which is similar to Bodur study ⁽⁴¹⁾. Van Ham I et al ⁽⁴⁸⁾ stated that the factors decreasing job satisfaction were: low income, too many working hours, administrative burdens, heavy workload, lack of time, and lack of recognition.

Employees' satisfaction with their ability as decision makers was (53.3%). When the employees believe that they have a voice that carries influence, it deepens their commitment to the organization and encourages a continuous and positive dialogue.

Manongi R et al study ⁽⁴⁹⁾ has indicated that although financial incentives are important for health workers satisfaction, they are not sufficient to motivate them. Supportive supervision, performance appraisal, career development and transparent promotion have been prioritized for improving the services they deliver.

Conclusion: this multi- aspect assessment study revealed that the quality of care provided by PHC centers in Al Ramadi City, as observed by the researchers, was generally acceptable in terms of structure but with marked deficiency of medical and paramedical staff, and moderate deficiency of equipments, instruments and supplies. On the other hand, it was, as perceived by clients, below average, while PHC centers employees express a moderate level of job satisfaction, which again reflects less than average quality of care.

The study recommended the need for reallocation of medical and paramedical staff according to the actual need, structural improvement through provision of required equipments and facilities, establishment of a system of incentive rewards to motivate staff to a higher level of performance, and evaluation of health care Programmes by continuous process, best performed by the PHC center staff themselves under the guidance of experts in this field.

References:

- 1- World Health Organization. Primary Health Care: Report of the International Conference on Primary Health Care: Alma-Ata. Geneva, Switzerland: USSR; 1978: 25.
- 2- Haggerty J, Burge F, Lévesque JF, Gass D, Pineault R, Beaulieu MD, and Santor D. Operational definitions of attributes of primary health care: Consensus among Canadian experts. *Annals of Family Medicine*, 2007;5:336-34
- 3- MOH. A Basic Health Services Package for Iraq. Ministry of Health with the Technical Support from WHO 2009.
- 4- Buttell P, Hendler R, and Daley J. Quality in Healthcare: Concepts and Practice 2007. Available at: <http://healthcarecollaboration.com>.
- 5- Franco LM, Silimperi DR, van Zanten TV, MacAulay C, Askov K, Bouchet B, and Marquez L. Sustaining Quality of Healthcare: Institutionalization of Quality Assurance 2002. Quality assurance project. USAIDS.
- 6- Al-Assaf AF, "Introducing quality in healthcare: an international perspective," *Journal for Healthcare Quality*. 1999; 21(1):4-15.
- 7- Donabedian A. Quality and cost: choices and responsibility. *Inquiry* 1988;25(1) 90-99.
- 8- Baltussen RM, Ye Y, Haddad S, Sauerborn RS. Perceived quality of care of primary health care services in Burkina Faso. *Health Policy Plan*, 2002; Mar;17(1):42-8.
- 9- Donabedian A. The definition of quality and approaches to its assessment. Vol. 1. The Definition of Quality and Approaches to Its Assessment. Ann Arbor, Health Administration Press; 1980.
- 10- Hermida J, Nicholas D, and Blumenfeld S. Comparative validity of three methods for assessment of the quality of primary health care. *International Journal for quality in health care* 1999; 11(5): 429-433.
- 11- Beyene W, Jira C, and Sudhakar M. Assessment of Quality of Health Care in Jimma Zone, Southwest Ethiopia. *Ethiop J Health Sci*. 2011 August; 21(Suppl 1): 49–58.
- 12- Altaha MA. Evaluation of structure, process, and outcome of maternal health services at district level in Basrah. Ph.D thesis. University of Basrah. 2001.
- 13- Sa'adoun NY, Khalifa MF. Determination of Quality Assurance for Maternal and Child Health Services in Baghdad City. *Iraqi Sci. J. Nursing* 2010; 23:107-115.
- 14- Al-Osimy M. Evaluation of Primary Health Care in Riyadh, Saudi Arabia. *J Family Community Med*. 1994;1(1): 45–54.
- 15- Lewis M, Eskeland G, Traa-Valerezo X. Primary health care in practice: is it effective? *Health Policy* 2004;70:303-25.
- 16- Gilson L, Magomi M, Mkangaa E. The structural quality of Tanzanian primary health facilities. *Bull World Health Organ*. 1995;73(1):105-114.
- 17- WHO. Quality assurance of health services. World Health Organization. Regional office for Europe. Copenhagen 1982.
- 18- Furber A, Johns toue P . Rebuilding health care in Iraq. *J. Epidemiol. Community Health* . 2004; 58 : 890-892.
- 19- Abd Sa'adoun A, , Hussien AH, and Museher TR. Patients' satisfaction for health care services at Thi-qar province,Iraq. *Thi-Qar Medical Journal (TQMJ)* 2008;2(1): 39-45.
- 20- Al- Faris E. Patients satisfaction with accessibility and services offered in Riyadh health centers.*Saudi Med.J*. (2005) 17 (1): 11-17.
- 21- 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 Mar;29(3):432-6.
- 22- Bu-Alayyan S, Mostafa A, Al-Etaibi S, Sorkhou E, Al-Taher H, Al-Weqayyan A. Patient Satisfaction with Primary Health Care Services in Kuwait. *Kuwait Medical Journal* 2008; 40 (1): 25-30.
- 23- Gadallh M, Zaki B, Rady M, Anwer W, and Sallam I. Patient satisfaction with primary health care services in two districts in lower and upper Egypt. *East Mediterranean Health J*. 2003; 9 (3): 422-30.
- 24- Al-Doghaither AH, Saeed AA. Consumer satisfaction with primary health services in the city of Jeddah, Saudi Arabia. *Saudi med J* 2000; 21:523-454.
- 25- Taman M. Users' assessment of primary health care services in Oman: A quality improvement tool. *Benha M.J*(2005). 22 (3): 193-311.
- 26- Salem SA. Patient Satisfaction With Primary Health Care Services in Qassim Province ,Saudi Arabia. *The Egyptian Journal of Community Medicine* 2010;28 (3):89-108.

- 27- McCarthy K, McGee HM, O'Boyle CA. Outpatient clinic waiting times and non-attendance as indicators of quality. *Psychology, Health and Medicine* 2004; 5(3):287-293.
- 28- Margolis SA, Al-marzouqi S, Revel T, and Reed RL. patient satisfaction with primary health care services in United Arab Emirates. *International journal for quality in health care.* 2003;24(3):241-249.
- 29- Haggerty J, Beaulieu M, Pineault R, Burge F, Lévesque J, Santor D, et al. Comprehensiveness of Care from the Patient Perspective: Comparison of Primary Healthcare Evaluation Instruments. *Healthcare Policy.* 2011;7: 154-166.
- 30- Abd ElHamid D, Shehab I and Gadallah M. Patient satisfaction survey in outpatient clinics in Ain-Shams University hospitals. *The Egyptian Journal of Community Medicine* 2005;23(4):1-17.
- 31- Burnham G, Hoe C, Hung YW, Ferati A, Dyer A, Al Hifi T, Aboud R and Hasoon T . Perceptions and utilization of primary health care services in Iraq: findings from a national household survey.
- 32- Janice C, Anbesaw W. Patient and Physician Satisfaction with an Outpatient Care Visit. *J Fam Pract* 1997; 45:418- 425.
- 33- Larson C. The relationship between meeting patients information need and their satisfaction with hospital care and general health status outcomes . *Int. J. in health care.* 1996; 8,: 447-456.
- 34- Perneger TV. Adjustment for patient characteristics in satisfaction surveys. *International Journal for Quality in Health Care.* 2004 ; 16(6):433-435.
- 35- Williams SJ, Calnan M Key determinants of consumer satisfaction with general practice. *Family Practice* 1991; 8: 237-242.
- 36- Makhdoom YM, AlZubeir AG, Hanif M. satisfaction with health care among primary health care centers in Alkhobar, Saudi Arabia, *Saudi medical journal* 1997; 18(3): 227-230.
- 37- Gulliford M, Naithani S, Morgan M. What is 'continuity of care'? *J Health Serv Res Policy.* 2006 Oct;11(4):248-50.
- 38- Arab M, Pourreza A, Akbari F, Ramesh N, Aghlmand S. Job Satisfaction on Primary Health Care Providers in the Rural Settings. *Iranian J Publ Health, Vol. 36, No.3, 2007, pp. 64-70.*
- 39- Kumar R, Ahmed J, Shaikh BT, Hafeez R and Hafeez A. Job satisfaction among public health professionals working in public sector: a cross sectional study from Pakistan. *Human Resources for Health* 2013, 11:2.
- 40- Buciuniene I, Blazeviciene A and Bliudziute E. Health care reform and job satisfaction of primary health care physicians in Lithuania. *BMC Family Practice* 2005, 6:10.
- 41- Bodur S. Job satisfaction of health care staff employed at health centres in Turkey. *Occup Med* 2002;52(6):353-5.
- 42- Behmann M, Schmiemann G, Lingner H, Kühne F, Hummers-Pradier E, and Schneider N. Job satisfaction among primary care physician s: results of a survey. *Dtsch Arztebl Int.* 2012 Mar ;109 (11):193-200.
- 43- Nylenna M, Gulbrandsen P, Førde R, Aasland OG. Job satisfaction among Norwegian general practitioners. *Scand J Prim Health Care.* 2005 Dec;23(4):198-202.
- 44- Brøndt A, Vedsted P, Olesen F. General practitioners' job satisfaction. *Ugeskr Laeger.* 2007 Jun 25;169(26):2521-5.
- 45- Sharaf E, Madan N, Sharaf A. Job Satisfaction in Primary Care. *Bahrain Medical Bulletin* 2008; 30(2):
- 46- Korac V, Vasic M, Krstic M, Markovic R. Job satisfaction among health care workers in Serbia. *Cah Sociol Demogr Med.* 2010 Jul-Sep;50(3):319-43.
- 47- Shabila NP, Al-Tawil NG, Tahir R, Shwani FH, Saleh AM and Al-Hadithi TS. Iraqi health system in kurdistan region: medical professionals' perspectives on challenges and priorities for improvement. *Conflict and Health* 2010, 4:19.
- 48- Van Ham I, Verhoeven AA, Groenier KH, Groothoff JW, De Haan J. Job satisfaction among general practitioners: a systematic literature review. *Eur J Gen Pract.* 2006;12(4):174-80.
- 49- Manongi R, Marchant T and Bygbjerg I. Improving motivation among primary health care workers in Tanzania: a health worker perspective. *Human Resources for Health* 2006; 4:6.