Assessment of Satisfaction with Primary Health Care Services: an Account of Clients' Perception in Baghdad.

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Abstract

Background

Primary health care (PHC) is the "front door" of the health system. This perception highlights the importance of the wide perspective required to analyze the quality of care that's provided by primary health care centers.

Aim

To assess the satisfaction with the quality of care provided by the medical consultation units in PHC centers from the perspective of the clients in question.

Methods

Cross-sectional primary health care center-based study was conducted from the 1st to the 23rd of February 2022 in Baghdad, Iraq. Six peripheral PHC centers were randomly selected from both Al-Karkh & Al-Rasafa. Clients' satisfaction with care was assessed according to the revised model of quality which includes: safety, effectiveness, waiting time, and patient/kin centeredness besides other criteria. All of these details, including the socio-demographic characteristics, were collected by a structured-interview questionnaire.

Results

Out of (415) clients who were enrolled in this study, two-thirds (65%) expressed general satisfaction regarding the overall healthcare services. When the quality of care was dissected into a more specific nature, the overall satisfaction had dropped and the lowest level of satisfaction was in timeliness, safety, and patient/kin centeredness (18.5%, 38%, and 40%, respectively), while the highest was in equity, kindness with compassion & holistic care (68%, 63%, and 57%, respectively). Other criteria remained on the borderline, with almost (50%) satisfaction for each.

Conclusion

The clients' overall satisfaction was above average which reflects an acceptable quality of care. Nevertheless, the overall satisfaction per se might be misleading in the assessment of quality and not necessarily correlate to reality and that's why every aspect of care must be evaluated separately, and not just the tip of the iceberg.

Keywords:

Primary Health Care, Quality, Satisfaction.

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1. Introduction

Primary health care is the "front door" of the health system and although the evidence is still evolving, there is widespread recognition of that.[1] It provides continuous essential health care services to populations undifferentiated by gender or organ system.[2] World Health Organisation (WHO) and United Nations International Children's Emergency Fund (UNICEF) precisely describe PHC as " a whole-of-society approach to health that aims at ensuring the highest possible level of health and well-being and their equitable distribution by focusing on people's needs and as early as possible along the continuum from health promotion and disease prevention to treatment, rehabilitation, and palliative care, and as close as feasible to people's everyday environment."[1] This definition highlights a base for the wide perspective required to analyze the quality of care that's provided by the PHC centers.

In Iraq, Primary health care centers were first established in the mid of the 20th century. Throughout the 1970s and 1980s, Iraq's health system used to be one of the most advanced in the Middle East.[3] after the Gulf War and decades afterward of conflicts, sanctions, and widespread violence, there was a huge drawback in the structure of the Iraqi health system which was struggling to regain the lost legacy. The shortcomings of the post-2003 health policy were lacking specificity and commitment to clear long-term objectives.[4,5] However to hamper this decline, a genuine reconstruction phase was implanted; reaching a countrywide number of primary health care centers per 100,000 population rose from 5.5 in 2003 to 7.4 in 2012.[4] Despite much rebuilding, health infrastructure couldn't be fully restored. The Iraqi nation has been suffering significantly since 2014 when more than 6 million civilians were displaced from their homes. [6] and left dysfunctional health systems in those regions. According to United Nations High Commissioner for Refugees (UNHCR) report in 2022, nearly 1.2 million Iraqis continue to be internally displaced.[7] Moreover to those struggles, the Coronavirus disease of 2019 (COVID-19) pandemic has struck with a tremendous burden on the Iraqi health system on different levels: drained the economy and burned out the human resource, likewise worldwide.[8] The Iraqi health care system, as a whole, struggled in responding to the pandemic in comparison to the neighboring countries.[9]

QUALITY OF CARE

It is time to turn our gaze from the past to the future and emphasis supporting the health system which requires concerted efforts to improve the quality of care and its implications. Quality of care has been described in various ways in the literature.[10-15.]

Despite no single universally accepted definition, there is a commonly shared basic notion.[16] The term quality can be reflected through different perspectives, from the clients to the employees of the primary health care center (PHCC), so for the definition to be in line with the concept and idea of this study, it was adopted as "the proper performance (according to standards) of interventions that are known to be safe, that are affordable, and acceptable to the society in question, and

that have the ability to improve health outcomes and meet or exceed client expectations"[16] as simple as doing the right thing right the first time.

More recently, the WHO has described "high-quality care" as "care that is safe, effective, people-centered, timely, efficient, equitable and integrated"[17], which is sharing the same six domains of health care quality that are mentioned by the Institute of Medicine (IOM) in 2001.[18] These criteria are a model for understanding, measuring, and evaluating the quality of medical care also the consistent implementation of some or all of these criteria will reinforce the message that this is what the public should expect to know when they make health care choices.[19] However, It's almost 22 years since the publication of these principles by IOM. As a matter of fact and a part of the natural process of development, a few challenges have emerged in the implication of these criteria and they didn't show the extent of success they claimed; [20, 21] that's when Dr. Peter Lachman extensively discussed the need of a revised model adapting the era changes as a matter of climate change, COVID-19 pandemic crisis and the evolvement in the internet and social media.[22] The new proposed model reflects the changing worldview of health care.

DOMAINS OF HEALTH CARE QUALITY

The revised model of quality includes the following: [22]

1. Person/kin-centeredness: People should be seen as a whole and their care must be coproduced. Shared decision-making and self-management are essential.
2. Safe: Care should be free from harm, where harm is defined as something one would not accept for oneself or one's Kin (physical or psychological).
3. Effective: All care follows evidence-based guidelines and standard operating procedures (SOP) where appropriate, with deviation only as per the need of the person receiving care.
4. Efficient: All care should have the intended benefit.
5. Accessible and Timely: There are no delays in receiving care.
6. Equitable: Care is of the same quality all the time, no matter who you are and where you require care.
7. Eco-friendly: Decrease unnecessary consultations.
8. Dignity and Respect: All views are accepted and respected in all decision-making.
9. Holistic care: Care addresses physical needs as well as spirituality and mental well-being in an integrated manner.
10. Partnership and coproduction: Be an active partner in designing health. Able to choose where and how to receive care.
11. Kindness with compassion: Appreciation of the human side of the person.

Aim

To assess the satisfaction of the quality of care provided by the medical consultation units in PHC centers from the perspective of the clients in question.

2. Methods

Study design and Setting

Cross-sectional primary health care center-based study was conducted from the 1st to the 23rd of February 2022 in Baghdad, Iraq. Six peripheral primary health care centers were randomly selected from both Al-Karkh (Al-Makasib PHCC, Abu Ghraib PHCC, and The Main Sabaa Al-Bour PHCC) & Al-Rasafa (Al-Hussainia 1 PHCC, Al-Jalaata PHCC, and Al-

Rashidiya PHCC) through a simple random sampling.

Inclusion Criteria

All clients who visited the medical consultation unit of those centers regardless of their complaints.

Exclusion Criteria

All clients under 18 years of age or who have been severely ill. Moreover, incompleted or duplicated questionnaire forms and the clients who participated in the pilot study.

Data Collection

Clients' satisfaction with care was assessed according to the revised model of quality; [22] which includes safety, effectiveness, efficiency, timeliness, and patient/kin-centeredness, besides the moral aspect of care (kindness & compassion, dignity & respect, and Holistic care). All of these details, including the socio-demographic characteristics of the clients (age, sex, marital status, level of education, and employment status), were collected by a structured-interview questionnaire conducted by well-trained neutral coordinators who explained the questions without interfering with the clients' opinions. Each item of quality was dissected into a more detailed aspect of care to reduce bias and misleading judgment and that was edited by the author to illuminate if there is any difference between the overall satisfaction and satisfaction towards the dissected models of quality. Thereafter, the participants have to choose one of the following choices (satisfied, neutral or, unsatisfied) for every single item of quality. Moreover, a final opinion was registered regarding the overall satisfaction of the PHC center in question. A pilot one-week period of data collection was carried out before starting commencement on the survey and it assigned a hidden problem with the study structure as a quite number of participants were illiterate and that was the reason to change the questionnaire style into a structured-interview rather than a self-administered. Finally, 415 clients of a convenient sample were enrolled during a period of three weeks with almost the same number of participants from each primary health care center.

Ethical Considerations

After the explanation of the survey's purpose, verbal consent was obtained from all the study participants. A pledge was given to keep their information confidential and private, and that it would only be used for research and scientific purposes.

Data Analysis

The collected data were manually checked for completeness. Thereafter, it was analyzed by using the statistical package of social sciences (SPSS-25) statistical software, version 25. Data were represented in different ways of measurement including frequency, percentage, mean and standard deviation. The Chi-Square test was applied. In this study, (p-value < 0.05) is taken as the level for statistical significance to determine the association between satisfaction level with other variables.

3. Results

SOCIO-DEMOGRAPHIC CHARACTERISTICS

This study included (415) clients who visited the medical consultation unit of the PHC

center in question, during the last 6 months. More than half of the clients were females 257 (62%) and 158 (38%) were males. The age breakdown of the clients showed that 158 (38%) were older than 45 years, 141 (34%) were (31-45 years) and 116 (28%) were (18-30 years) at mean ± SD of 39.8±13.7 (age range 18-68), (Table 3-1 A).

The majority of the clients were married 280 (67.4%) and unemployed 274 (66%), while 178 (43%) of them had a secondary school-educational level, (Table 3-1 B).

Table (3-1A): Socio-demographic distribution of clients according to the age and sex. (n=415)

Age	Male	%	Female	%	Total	%	Age Mean±SD*
18-30	33	8%	83	20%	116	28%	39.8±13.7 range(18-68)
31-45	66	16%	75	18%	141	34%	
>45	59	14%	99	24%	158	38%	
Total	158	38%	257	62%	415	100%	*SD : standard deviation

Table (3-1 B): Socio-demographic distribution of clients according to marital status, educational level, and employment status. (n=415)

Variable	Value	%
1- Marital status:		
• Married	280	67.4%
• Single	128	31%
• Divorced	3	0.7%
• Widowed	4	0.9%
2- Educational level:		
• Illiterate	65	15.6%
• Primary school	123	29.6%
• Secondary school	178	43%
• Beyond secondary	49	11.8%
3- Employment status:		
• Employed	141	34%
• Unemployed	274	66%

IN-DEPTH ANALYSIS OF SATISFACTION

The evaluation of clients' perspectives of the quality of care provided by the primary health care centers revealed the following results:

Out of the total number of clients in this study, 271 (65%) expressed general satisfaction regarding the overall healthcare services, 128 (31%) were neutral, and 16 (4%) were unsatisfied, (table 3-2 A).

When the quality of care was dissected into a more detailed and specific nature, the overall satisfaction had dropped as the lowest level of satisfaction was recorded in timeliness, safety, and patient/kin-centeredness (18.5%, 38%, and 40%, respectively), while the highest level was in equity, kindness with compassion & holistic care (68%, 63%, and 57%, respectively). The other criteria remained on the borderline, with almost (50%) satisfaction for each (effectiveness, efficiency & dignity, and respect). Moreover, the results had shown an obvious

discrepancy in the level of satisfaction when each component was dissected furthermore into a specific type of care that clients can easily objectify and that discrepancy can be seen in the satisfaction between (waiting time to be seen by doctors) and (cost of services) as they scored (16% and 73%, respectively), (table 3-2 A). The association of overall satisfaction and the clients' socio-demographic characteristics had shown that a higher level of satisfaction was met when the client's age was beyond 45 years, while the educational level was of a secondary school and both were statistically significant (p-value = 0.000). On the other hand, the satisfaction was above the average for females and unemployed clients (53% and 64%, respectively) and they were statistically significant (p-value < 0.05), (table 3-2B).

4-Discussion

SOCIO-DEMOGRAPHIC CHARACTERISTICS

In this study, approximately two-thirds of the total participants were females (62%) and the rest of them were males. Besides, more than one-third were older than 45 years (38%), at a mean ± SD of 39.8±13.7 (range 18-68). These results are similar to a study conducted in Thi-qar province, Iraq in 2008.[23] However, It's unlike two other studies: in Al-Anbar province in 2022, almost two-thirds (59.7%) were males and the majority (32.5%) were between (20-29) years of age,[24] and a study in Arar in 2019, males were the predominant (52%) and (41.7%) were between (18-30) years of age.[25] Another study in Baghdad city in 2021 showed that the majority (30.7%) of participants were in their 3rd decade of life and females were the predominant among participants (59.7%).[26] Similar to two other studies in Babylon province and Baghdad, Al-Karkh.[27,28] The controversies in age and sex against our study could be attributed to the small sample size of participants. Moreover, the clients in this study were living in rural regions of a single city and they exhibited certain cultural and behavioral habits that could be the reason for the sex variation. On the other hand, the participants' age groups were distributed differently in each study.

Regarding the educational level, the majority of clients (43%) had a secondary school-educational level similar to Thi-qar study (43.1%).[23] However, it was unlike three different studies conducted in Iraq where the primary school level was the predominant among participants as follows: Baghdad, Al-karkh study (75.9%), Babylon study (30.2%) and Al-Anbar study (24.6%).[28, 29, 24]

The percentage of unemployed clients was (66%) and this is in the line with Baghdad study (56.8%),[26] and as same as a study conducted in Saudia Arabia.[29] However, Thi-qar study showed that (71.7%) of participants were employed.[23] Keeping in mind that the employment status and the educational level of participants were distributed differently in each study making their interpretation quite inconvenient when used in comparison with this study.

The majority of the clients (67.4%) were married. These findings are compatible with several studies.[24, 27, 29, 30] However, Arar study had shown that (72%) were single.[25]

Table (3-2 A): Clients' satisfaction level with the provided services. (n=415)			
Variable	Satisfied (%)	Neutral (%)	Unsatisfied (%)
1- Safety: • The comfort of the reception room. • The comfort of the medical consultation unit. • The PHC center follows safety & sanitary protocols and COVID-19 safety guidelines.	132 (32%) 120 (29%) 219 (53%)	117 (28%) 195 (47%) 113 (27%)	166 (40%) 100 (24%) 83 (20%)
Mean± SD	157±54 (38%)	142±46.2 (34%)	116±43.8 (28%)
2- Timeliness: • Waiting time to be seen by doctors. • Amount of time spent the doctor with you.	67 (16%) 87 (21%)	157 (38%) 12 (3%)	191 (46%) 316 (76%)
Mean± SD	77±14 (18.5%)	84.5±102 (20.5%)	253.5±88.3 (61%)
3- Patient/kin centeredness: • Doctors' sensitivity to your needs. • Doctors' concern about your confidentiality. • I felt I could ask and seek clarification easily. • Doctors' explanation of diagnosis and treatment.	216 (52%) 145 (35%) 179 (43%) 132 (32%)	74 (18%) 29 (7%) 54 (13%) 42 (10%)	125 (30%) 241 (58%) 182 (44%) 241 (58%)
Mean± SD	168±37.6 (40%)	50±19 (12%)	197±55.6 (48%)
4- Efficiency: • Confidence in the care provider. • Advise people to get care in this unit.	193 (46%) 220 (53%)	102 (24%) 108 (26%)	120 (29%) 87 (21%)
Mean± SD	207±68.6 (50%)	105±68.6 (25%)	103±68.6 (25%)
5- Equity: • Equity of your rights in the eyes of the care provider with no discrimination based on gender, ethnicity, colour, or disability.	282 (68%)	100 (24)%	33 (8%)
6- Effectiveness: • Cost of services. • The comprehensiveness of services (treatment and investigation availability and resources).	303 (73%) 124 (30%)	62 (15%) 50 (12%)	50 (12%) 241 (58%)
Mean± SD	213±126 (51%)	56±8.4 (14%)	146±135 (35%)
7- Holistic care: • Care addresses your physical, spiritual, and mental well-being.	236 (57%)	45 (11%)	134 (32%)
8- Dignity and respect: • All views are accepted and respected in decision-making by the care provider.	207 (50%)	29 (7%)	179 (43%)
9- kindness with compassion: • The doctor appreciates the human side of the patient and vice versa.	261 (63%)	21 (5%)	133 (32%)
10- Overall satisfaction with the quality of the PHC services.	271 (65%)	16 (4%)	128 (31%)

Table (3-2 B): Association of overall satisfaction with socio-demographic characteristics of the client in question. (n=415)

Variable	Satisfied	Neutral	Unsatisfied	P value
1- Age:				
18-30 31-45	89 (33%) 57 (21%)	6(43%) 8(50%)	21 (24%) 76 (29%)	0.000*
> 45	125 (46%)	2(31%)	31 (23%)	
2- Sex:				
Male Female	127 (47%) 144 (53%)	7(44%) 9(56%)	24 (18%) 104 (82%)	0.0000004 *
3- Marital status:				
Married	190 (70%)	7(43%)	83 (64%)	
Single	77(28.6%)	8(50%)	43 (34.6%)	0.15
Divorced	2 (0.7%)	0 (0%)	1 (0.7%)	
Widowed	2 (0.7%)	1 (7%)	1 (0.7%)	
2- Educational level:				
Illiterate	25 (9%)	1 (6%)	39 (30.4%)	
Primary school	98 (36%)	2(12%)	23 (18%)	0.000*
Secondary school	113 (42%)	4(25%)	61 (47.6%)	
Beyond secondary	35 (13%)	9(57%)	5 (4%)	
3- Employment status:				
Employed Unemployed	98 (36%) 173 (64%)	14(87.5 %) 2(12.5%)	29 (22%) 99 (78%)	0.0000007 *
*** Statistically significant value**				

IN-DEPTH ANALYSIS OF SATISFACTION

In this study, the quality of care provided by the PHC centers is translated into a satisfaction level in the account of clients' perspective which was used to assess the prosperity of the primary healthcare system in question. The result showed an overall satisfaction of (65%). It is almost the same as the results obtained in three studies as following: Al-Anbar study in 2022 (64%), the Saudia Arabia study in 2008 (64.2%), and the Kuwait study (62.0%).[24, 30, 31, 32] Nevertheless, the level of satisfaction in this study is lower than three other studies in Baghdad city in 2021 (71.6%), Saudi Arabia in 2022 (73%) and Lebanon in 2019 (96.6%).[26, 31, 33]

On the other hand, this study has a higher satisfaction level when compared to the results of two other Iraqi studies: Thi-qar province in 2008 and Babylon in 2021,
where the clients' satisfaction reached up to (53% and 9.8%, respectively).[23, 27] The variation in satisfaction level may be attributed to the different types of questionnaires that had been relied on for each study, the cultural backgrounds, and the sample size which was all different from this study in one way or another. Also, most of these studies have been conducted in both central and peripheral primary health care centers, unlike this study which was conducted only in peripheral ones.

When clients were asked about satisfaction for each particular aspect individually depending on the revised model of quality,[22] the overall satisfaction had been dropped as follows: safety (38%), timeliness (18.5%), patient/kin-centeredness (40%) and reaching the average in effectiveness (51%), efficiency (50%) and holistic care (57%), dignity and respect (50%). While only equity and kindness & compassion showed a relevant level of satisfaction in the overall score (68% and 63% respectively). This is consistent with a study conducted by Williams SJ et al,[34] which showed that the general level of clients' satisfaction is high, however questions of a more detailed and specific nature reveal greater levels of expressed dissatisfaction. Therefore the researchers and the administrators of health policy should not rely on overall satisfaction when assessing the quality of care.

The waiting time carried the lowest satisfaction level (18.5%), whether it was the time spent waiting to be seen by the doctors or the time the doctor spent with the clients themselves, and these findings are compatible with studies conducted in Kuwait and Egypt.[31,35] However Al-Anbar study showed a time satisfaction of (55.7%).[24]

This study showed only (40%) of clients were satisfied with the patient/kin centeredness and (51%) with effectiveness. This result is similar to a study conducted in Kuwait where the majority of clients had negative opinions about the doctor-patient relationship.[36] On the other hand, it differs from the following: a study conducted in the United Arab Emirates with a satisfaction level of (73%) in a doctor-patient relationship,[37] and Al-Anbar study (72.4%).[24] These differences may be attributed to the cultural background, educational level, or type of methodology/validation. Moreover, the doctors' level of experience was different. As in this study, peripheral PHC centers are hiring doctors with almost three years of

experience, unlike main/central centers that hire general practitioners and family medicine consultants with higher seniority and experience. The patient/kin- centeredness is a fundamental aspect of the quality of care that directly affects patient satisfaction and changes the outcome in return;[38] that's why the care providers should focus on this relationship as patients are more concerned about how caring for the care providers are rather than how much knowledge they possessed.[39]

Safety scored the lowest level of satisfaction (38%), unlike a study in Iran in 2012 which had a high overall satisfaction for different items including safety.[40] This study differs from the latest in having a small sample size of participants, besides the overwhelming effect of the COVID-19 pandemic. On the other hand, this study recorded the highest level of satisfaction (73%) in the cost of services which was similar to Al-Anbar study (77.3%).[24]

OVERALL SATISFACTION IN RELATION TO SOCIO-DEMOGRAPHIC CHARACTERISTICS

This study showed a significant statistical association between overall satisfaction and each of the following (p-value < 0.05): age (a higher satisfaction when clients were older than 45 years), sex (females had a higher satisfaction), occupation (a higher satisfaction when clients were unemployed) and educational level (who has a secondary school-educational level expressed higher satisfaction). While the marital status was of no significant association. These findings are similar to the Babylon study except that sex wasn't of a statistical significance.[27] and similar to Al-Anbar study for both sex and educational level.[24] However, a higher satisfaction level was recorded when the clients were in their third decade of life.[24] These differences might be attributed to the small sample size of participants in this study. Moreover, age groups and educational levels were distributed differently in each study which makes the comparison quite inconvenient.

LIMITATIONS OF THE STUDY

It was a cross-sectional small-sample study of clients who visited only six peripheral primary health care centers in a single city. Moreover, the medical consultation unit of these centers is managed by junior doctors with almost three years of experience. It may be difficult to generalize these results over other regions with various socio-demographic characteristics and for centers whose care providers have a more senior level of training.

Recommendation

This study should be generalized to involve a national level and over a longer period. The main/central primary health care centers should be included besides the peripheral ones.

2. The perspective of the care providers is recommended to be assessed as it affects the quality of care in one way or another.

3. This study recommended the need to emphasize the importance of patient-doctor relationship and time management in client satisfaction, with proper reception rooms that follow the safety and sanitation protocols including COVID-19 safety guidelines.

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care centers in both Al-Karkh & Al-Rasafa in Baghdad and my greatest gratitude to all the participants in this research as it had not been seen if not for them

Conclusion

In this study, the clients' overall satisfaction was above the average which reflects an acceptable quality of care. It is essential to acknowledge that the overall satisfaction per se might be misleading in the assessment of quality and not necessarily correlate with reality; that's why every aspect of care must be evaluated separately, not just the tip of the iceberg. The incompetence of patient/kin- centeredness, safety, and time management were the main reasons for dissatisfaction.

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