



Original Article

Clients' Satisfaction with Immunization Services at Primary Health Care Centers in Baghdad, Al-Karkh

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ABSTRACT

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Background: Client satisfaction with the immunization service is used to evaluate the quality of the admitted service and at the same time it affects the goodness of the health care outcome.

Objectives: This study assessed the satisfaction with immunization services offered to children and factors affecting this satisfaction.

Methods: Exit interviews for clients were conducted in Baghdad, Al-Karkh in a representative sample of primary health care centers to assess clients' satisfaction with immunization services. Clients are companions of children encountered at study settings.

Results: Among the 253 respondent clients, 183 (72.3%) reflected satisfaction with the immunization services administered to their children at primary health care centers and 70 (27.7%) were dissatisfied. This satisfaction was significantly associated with younger age of clients ($P < 0.05$), clients who are mothers of the accompanied children ($P < 0.05$), and waiting no more than 30 minutes at the health facility to obtain immunization ($P < 0.05$). The major cause of dissatisfaction was the long waiting time before receiving the service.

Conclusion: Although the majority of clients are satisfied with immunization services; it is important to shorten the time consumed for vaccinating children at PHCCs in a way that gains more satisfied clients.

Introduction

Immunization is considered one of the highly confirmed cost-effective public health interventions by which morbidity and mortality from vaccine-preventable diseases can be minimized. This major influence of immunization together with safe water supply and sanitation contributed to the global community health improvement. Annually, millions of deaths had been prevented by the global administration of vaccines to eligible persons. (1-4)

The World Health Organization (WHO) recommended that the coverage rates for all vaccines included in the national immunization

schedule should reach at least 90% at the national level and at least 80% at the district level. (5)

It has been assured that the immunization coverage rates are always high in regions where the primary health care providers perform sufficiently.(6) The most memorable reasons for not immunizing children as stated by companions according to previous studies were: False contraindications for immunization, the visit day was not a vaccination day, failure of the health care workers to assess the child's immunization status, child sickness, parental refusal, and social problems. So, in order to achieve the target

immunization coverage rates, it is important to overcome these constraints. (7,8)

Clients are the main center of interest of the health care systems. (9) Client's satisfaction with the care provided at primary health care centers (PHCCs) defines the treatment commitment and thus, follow-up measures and better commitment usually ends with desired health outcomes. (10)

One of the ways to evaluate the quality of the admitted service, and at the same time is considered as an essential outcome of the provided care, is client's satisfaction. It is also reflected as the client's decision about the goodness of the service. (11)

A satisfied client is more likely to have a profound and sustainable rapport with the immunization staff at PHCCs, resulting in better compliance, care maintenance, and finally, positive health care outcomes. (12)

This study was conducted to assess client satisfaction with the immunization services administered to children at PHCCs and to highlight factors influence this satisfaction.

Methods

A primary health care centers (PHCCs) based cross-sectional study was conducted in A-IKarkh side of Baghdad, the capital of Iraq to assess client satisfaction with the immunization services administered to children at PHCCs. This study was conducted during January 2018 – June 2018.

A client is defined in this study as the companion of a child aged up to two years who are encountered in selected study settings.

A multistage random sampling technique was applied by which 50% of the primary health care districts were selected from Baghdad/ Al-Karkh health directorate by simple random sampling and then 50% of the PHCCs were selected from each chosen district by simple random sampling, then from each chosen PHCC the study participants (clients) were enrolled.

Data collected with the aid of a questionnaire guided direct interviews of encountered clients upon their exit from PHCCs. This questionnaire collected data on sociodemographic characteristics of clients, the client's satisfaction, and factors may influence this satisfaction.

Ethical approval was obtained from the research committee in the directorate of Public Health, Iraqi Ministry of Health. Verbal informed consent was obtained from each participant.

Statistical Package for Social Sciences (SPSS) version 24 was used for both data entry and statistical analysis. Chi-square test was used to examine the association between discrete variables. The level of significance was set less than 0.05.

Results

A total of 253 clients responded to the interview with a response rate of 97.3%. Age of clients varied from 17 to 62 years (mean age = 30.1±9.5 years). More than 80.0% of participants were from the age group 20-39 years. Male to female ratio found as 1:9. Mothers constituted More than 75% of enrolled clients. Regarding education, about 75.9% had up to primary education, 13.0% had secondary education, and the remaining had higher than secondary education. Concerning occupation, the majority of clients was housewives.

About half of participated clients have more than three children. More than 75.0% of clients dwell in urban areas. Most of clients took 30 minutes distance or less from dwelling to PHCC. In regards to the time needed for vaccinating children in PHCCs, about 60.0% spent up to 30 minutes, 33.0% spent 31-60 minutes, and the remaining take more than 60 minutes. (table 1)

One hundred and eighty-three (72.3%) of the clients was satisfied with the immunization services administered to their children at PHCCs, while 70 clients (27.7%) were dissatisfied.

Client satisfaction was attributed to: the friendly treatment given by the immunization staff (53.0%), the immediate attention paid to clients and their children by the staff (44.3%), and being not charged for the service (2.7%). While most of those who were dissatisfied (94.3%) justified their dissatisfaction by the long waiting time while getting their children immunized (table 2).

This study showed significant associations (P<0.05, table 3) with client satisfaction including: younger age of clients, clients' relation to the child in a way that mothers are more satisfied than others and waiting no more than 30 minutes till immunization finalized.

This study found no significant association between client satisfaction and each of clients' gender, education, occupation, residence, and the time needed to reach PHCCs (P>0.05, table 3).

Table 1.
Characteristics of enrolled clients and studied factors.

Variable		N = 253	%
Client age groups (years)	< 20	13	5.1
	20-39	205	81.0
	40-59	31	12.3
	≥ 60	4	1.6
Client gender	Male	25	9.9
	Female	228	90.1
Client Relation to the accompanied child	Mother	193	76.3
	Father	25	9.9
	Grandparent	35	13.8
Number of children living in the home	≤ 3	126	49.8
	> 3	127	50.2
Occupation	Housewife	210	83.0
	Employed/Retired	43	17.0
Education	Up to primary education	192	75.9
	Secondary education	33	13.0
	More than secondary education	28	11.1
Residence	Urban	194	76.7
	Rural	59	23.3
Time to reach the PHCC (minutes)	≤ 30	243	96.0
	> 30	10	4.0
Waiting time for immunization (minutes)	≤ 30	150	59.3
	31-60	85	33.6
	> 60	18	7.1

Table 2.

Causes of being satisfied or dissatisfied with the immunization services.

Causes of satisfaction	n = 183	%
Friendly treatment by staff	97	53.0
Immediate attention	81	44.3
No charge for service	5	2.7
Causes of dissatisfaction	n = 70	%
Long waiting time	66	94.3
The vaccinators did not explain what vaccines they had given the child	4	5.7

Table 3.

Association between client's satisfaction to immunization services and their sociodemographic characteristics.

Variable	Satisfied n(%)	Unsatisfied n(%)	P-value
Client age groups (years)	< 20	12(92.3)	0.013
	20-39	153(74.6)	
	40-59	16(51.6)	
	≥ 60	2(50.0)	
Client gender	Male	17(68.0)	0.610
	Female	166(72.8)	
Relation to the child	Mother	148(76.7)	0.008
	Father	17(68.0)	
	Grandparent	18(51.4)	
Number of children living in the home	≤ 3	97(77.0)	0.099
	> 3	86(67.7)	
Occupation	Housewife	154(73.3)	0.431
	Employed/Retired	29(67.4)	
Education	Up to primary education	135(70.3)	0.097
	Secondary education	29(87.9)	
	More than secondary education	19(67.9)	
Residence	Urban	138(71.1)	0.440
	Rural	45(76.3)	
Waiting time for immunization (minutes)	≤ 30	129(86.0)	<0.001
	31-60	49(57.6)	
	> 60	5(27.8)	
Time to reach the PHCC (minutes)	≤ 30	177(72.8)	0.374
	> 30	6(60.0)	

Discussion

Immunization, offered by the Expanded Program on Immunization (EPI), is considered one of the highly confirmed cost-effective public health interventions by which morbidity and

mortality from vaccine-preventable diseases can be minimized. This major influence of immunization together with safe water supply and sanitation contributed to the global community health improvement. (1-4)

This study showed that 72.3% of clients were satisfied with the immunization services presented for their children at PHCCs. This finding is close to what found by Al-Emadi, et al, 2009, in Qatar and Das, et al, 2010, in India,(13,14) but is higher than that found by Zare, et al, 2015 and Andi, et al, 2009, in Iran, and Uonwa, et al, 2010, in Nigeria.(9,15,16) While it is lower than what found by Aziz, 2015, in Iraq, Mohammed, et al, 2015, in Saudi Arabia, El Gammal, 2014, in Egypt, Nath, et al, 2009, in India, Uzochukwu, et al, 2004 and Fatiregun & Ossai, 2014, in Nigeria, and Schempf, et al, 2007, in USA.(17-23)

The current study showed that the majority of dissatisfied respondents attributed their dissatisfaction to the long waiting time at PHCCs to get their children immunized. This is similar to findings of Unowa, et al, 2010 and Fatiregun, et al, 2014, in Nigeria, and Newman, et al, 1998, in Mozambique. (16,22,24)

In this study, more than 80.0% of the respondents were under 40 years of age which falls within the reproductive age group and this is logical because most of them were children's mothers. There is a significant association between client's satisfaction with the immunization service and the client's age, younger clients are more satisfied with the services received. This finding agreed with what found by Goodman, et al, 2016, in Nigeria (11) who stated that age had significant influence on mother's satisfaction.

Among the study participants, children's mothers were found to be significantly satisfied with the immunization services administered to their children. This finding may be due to the fact that most of the participants in this study were the children's mothers which constitute 76.3% of the total study sample.

There is a significant association between the client's satisfaction with immunization services and the spent by them waiting for their children to be immunized. Those who spend 30 minutes or less in the centers' waiting rooms are more likely to be satisfied with the immunization services presented to their children. This result is consistent with the finding of Newman, et al, 1998, in Mozambique (24) who stated that client's satisfaction was positively associated with shorter waiting times. This finding indicates that long waiting times result in client's dissatisfaction which in turn lead to immunization dropouts and missed opportunities for immunization which decreases the national immunization coverage rates.

Mohamed, et al, 2015, in Saudi Arabia, Andi, et al, 2009, in Iran, and Goodman, et al, 2016, in Nigeria showed that there is a significant association between client's satisfaction and the client's educational level, in that those with low educational levels are more likely to be satisfied with the services,(18,15,11) which is not the state in this study. Anyhow, waiting for a long time could dissatisfy even educated people.

This study revealed that none of the client variables gender, occupation or residence, showed significant association with client's satisfaction with the immunization services provided to their children, which is consistent with findings of Goodman, et al, 2016, in Nigeria and Hussen, et al, 2016, in Ethiopia(11,25) that fail to

depict significant association of clients' satisfaction with gender, parental occupation, and their residence. Unlike this study, Aziz, 2015, in Iraq(17) found a significant association between residence and clients' satisfaction towards immunization services, and Fatiregun & Ossai, 2014, in Nigeria(22) identified a statistically significant association of residence and occupation with clients' satisfaction towards immunization services.

Conclusion

Although the majority of clients are satisfied with immunization services; it is important to shorten the time consumed for vaccinating children at PHCCs in a way that gains more satisfied clients.

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Conflict of Interest

No conflict of interest

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