

## Factors Associated with Level of Youth' Satisfaction about Health Services Provided at Family Health Centers in Alexandria

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### **Abstract**

**Background:** Client satisfaction and the quality of health services are key components for the long-term success of health care facilities. **Aim:** To assess the level of youth' satisfaction and the factors associated with level of youth' satisfaction about health services provided at Family Health Care Centers in Alexandria. **Settings:** The study was carried out in 16 Family Health Centers covering 8 health zones affiliated to the Ministry of Health in Alexandria Governorate, Egypt, which were selected randomly. **Research design:** A descriptive research design was adopted. **Subjects:** The study was conducted on 400 youth (25 youth from each Center) who were attending the selected family health centers, they were selected conveniently. **Tools:** three tools were used. Tool one: Youth' Profile Structured Interview Schedule. Tool two: Youth' Satisfaction Scale about Family Health Centers' Services. Tool three: Observational Checklist of Family Health Centers and Services. **Results:** The study showed that less than two thirds (64.8%) of the studied youth had a high level of satisfaction, and only 7.0% of them had a low level of satisfaction. The majority (87.5%) of the studied health centers had a high level of quality. A statistically significant relation was observed between mean scores of the studied youth's satisfaction and mean score of quality services provided at the studied health centers ( $r=0.764$ ,  $P = 0.000$ ). **Conclusion:** Based upon the study findings it could be concluded that, several factors were found to be significantly related to the studied youth's satisfaction grouped into demographic factors including place of residence, and occupation and health care services utilization factors including the number of visits of the health center, reporting problems to managers, and solving such reported problems. **Recommendations:** Youth satisfaction surveys should be conducted on an ongoing basis to assess youth' views on services they have received at family health centers and facilities.

**Keywords:** Youth' satisfaction, Health services, and Family health centers.

### **Introduction**

Youth is seen as the most dynamic sector of the population and the major deciding factor for the future, so society depends increasingly on this sector of the population (Àkànle, et al., 2022).

The world now has more youth than ever before, of the 7.2 billion people worldwide, almost 3 billion are under 25 years old, accounting for 42 percent of the global population. On the other hand, Egypt's population between the ages of 15 and 24 is quickly expanding, 1.96 percent annually on average (World Health Organization, 2022).

Although, youth are often assumed to be in good health, but youth face serious health challenges or problems such as communicable and non-communicable diseases that have an impact on youth health and continue to account for a major disease burden and mortality in youth. Furthermore, many youth die prematurely because of accidents, pregnancy complications, and risk behaviors that can be prevented or treated (Snow et al., 2018).

Because every youth should be able to access a core package of health services, but providing health care to youth is challenging

as they are less likely to use health services. On the other hand, youth are a heterogeneous group with varying expectations and interests. So, quality services tailored to youth should be provided to improve service use, adherence to treatment, and increase the likelihood of receiving continuing care (World Health Organization, 2019; Beaton et al., 2021; Edwards et al., 2021).

Indeed, client satisfaction, as an outcome of healthcare delivery, is a crucial indicator of healthcare quality. Also, it can reflect the individual's health state (Paul et al., 2016; Okyere-Mensah et al., 2023).

So, improving healthcare system efficiency frequently necessitates a better knowledge of the clients' perspectives and experiences and satisfaction about health services and the factors that influence satisfaction variation (Slawomirski et al., 2017).

### ***Aims of the Study***

- Assess the level of youth' satisfaction about health services provided at Family Health Care Centers in Alexandria.
- Assess the factors associated with level of youth' satisfaction about health services provided at Family Health Care Centers in Alexandria.

### ***Research Questions***

- What is the level of youth' satisfaction about health services provided at Family Health Care Centers in Alexandria?
- What are the factors associated with level of youth' satisfaction about health services provided at Family Health Care Centers in Alexandria?

## ***Materials and Method***

### ***Materials***

***Design:*** A descriptive research design was used to conduct this study.

### ***Settings:***

This study was carried out in 16 Family Health Centers covering 8 health zones in Alexandria Governorate. Two Family Health Centers from each zone were selected randomly to be included in the study.

### ***Subjects:***

400 youth attending the previously mentioned health centers has been selected to participate in the study (25 youth from each selected Family Health Center). The total number of youth has been estimated through EPI Info 7 statistical program based on the following parameters;

Population size = 80322 youth, Expected frequency = 50%, Acceptable error = 5%, Confidence coefficient = 95%, Minimum sample size = 382. Accordingly, the final sample size was 400 youth.

By using the equal proportional allocation method, a convenient sample of (25) youth were selected from each of the previously mentioned health centers. The selected youth should be of both sex and attended any of the above-mentioned settings more than two times before the implementation of the study.

### ***Tools:***

In order to collect the required data from the study subjects, the following tools were used:

**Tool one: "Youth' Profile Structured Interview Schedule"**. It was developed by the researchers after reviewing the relevant literature to collect the required data (Saint-Maurice et al., 2017; World Health Organization (WHO), n.d; United Nations Youth Strategy, 2019). It included the following parts:

**Part I: Socio demographic characteristics of youth.** This part included age, sex, place of residence, level of education, occupation, income and number of siblings...etc.

**Part II: Youth' health profile data:** This part included the past health history of youth and present health history, duration of health problems, and current health complaints.

**Part III: Youth' life style data:** It included data about youth' life style aspects such as eating habits, physical activity, sleeping pattern, activities of leisure times, smoking and periodic follow up.

**Tool II: Youth' Satisfaction Scale about Family Health Centers' Services.** This tool was developed by researchers to assess youth satisfaction with services provided at family health centers in Alexandria (World Health Organization, 2022; Haller et al., 2012). It included 44 statements which were categorized under six main domains namely; accessibility to services (9 items) such as ease of accessibility and enough number of health care providers), continuity of care (5 items) such as follow-up visit and ease of the referral process), comprehensiveness of care (4 item) such as provision of preventive and curative services), humaneness of staff (12 items) such as well treatment by the staff and respect of privacy of the clients), provision of health education (4 items) such as presence of health education services to clients) and effectiveness of services (10 items) such as appropriate time spent with the physician / nurse and properly working equipment). Each item is scored on a five-point Likert scale, where 1= very unsatisfied and 5= very satisfied. The responses of the youth were scored then summed together and the total score was calculated and transferred to percentage and categorized into three levels: High satisfaction with a score equal to or greater than 75% to 100%, moderate satisfaction with a score from 50 % to less than 75 % and low satisfaction with a score Less than 50%.

**Tool III: Observational Checklist of Family Health Centers and Services.** It was developed by the researchers after reviewing relevant literature to collect the required data about the quality of the organizational structure and the provided services at the studied family health centers (Rafah, 2001). It included the following two parts;

**Part I: The organizational structure.** This part included 44 statements distributed into 6 domains as follow; rules and regulations (3 statements), human resources (5 statements), material resources (14 statements), geographical location (2 statements), infrastructure (15 statements), and waiting area (5 statements).

**Part II: The provided services.** This part was developed to assess the different health services provided at the studied family health centers. It included 82 statements distributed into 10 domains as follow; health education (11 statements), vaccinations (3 statements), pharmacy (5 statements), laboratory (6 statements), radiology (4 statements), documentation (14 statements), assessment of the client's condition (7 statements), implementation of care (12 statements), patient's safety (13 statements), and communication (13 statements).

The response for each statement was either available in satisfied form given a score of (2), available in unsatisfied form given a score of (1), and unavailable given a score of (0). The total score for each domain was generated by summing up the scores of its items, which converted into percentage and was classified as follows; High level of quality services with a score equal to or greater than 75%, moderate level of quality services with a score from 50 % to less than 75 % and low level of quality services with a score Less than 50%.

### ***Method***

An approval from the Ethical Research Committee, Faculty of Nursing, Alexandria

University was obtained. An official letter from the Faculty of Nursing, University of Alexandria was directed to the Directorate of Health Affairs in Alexandria governorate to inform them about the study objectives and to obtain their permission to conduct the study in the selected settings. Approval letter was directed from the Ministry of Health in Cairo to directors of the eight health zones and the selected family health centers' directors to facilitate conducting the study. Meetings were held with the directors of the selected family health centers to clarify the purpose of the study and to gain their cooperation during data collection. The content validity of the study tools was tested by a jury of five experts in the field of Community Health Nursing from the Faculty of Nursing and their opinions and suggestions were taken into consideration. A pilot study was carried out on 10% of the study sample in order to test the clarity, feasibility and applicability of the study tools. The reliability of tool II and III was tested using Cronbach's alpha coefficient test as follows; The reliability coefficient was 0.897 for tool II, and 0.952 for tool III. Data was collected by the researchers during the period from February 2022 to May 2022.

Data was collected through individual interview at family health centers for once from youth of both sexes attending the selected centers using the study tools (tool I, II) after brief explanation of the purpose and the nature of the research. The interview took approximately from 20 to 30 minutes for each youth. The observation of the family health centers was done by the researcher once after notification of the director of each center using tool III. The observation took 90 minutes for each family health center.

### ***Ethical considerations***

A written informed consent was obtained from the study subjects after explaining the aim of the study. Confidentiality of data was maintained. Anonymity of the study subjects was ensured. The subjects' voluntary

participation and their right to withdraw from the study were ascertained.

### ***Statistical Analysis***

The collected data were organized, tabulated and statically analyzed using the statistical package for social science (SPSS) Version 25.0. Descriptive statistical measures, which included: numbers, percentages, and averages (Minimum, Maximum, Arithmetic mean ( $\bar{X}$ ), Standard deviation (SD). Statistical analysis tests, which included: Chi square, student T test, and regression analysis. P value of 0.05 or less was considered statistically significant.

### ***Results***

**Table (1) shows the socio-demographic characteristics of the studied youth.**

The table revealed that less than half (47.8%) of the studied youth aged from 23 to 24 years with a mean of  $20.22 \pm 3.419$  years. While, more than three quarters (79.0%) of them were females, and more than half (53.5%) of them were single.

Additionally, it was noticed that, more than two fifths (41.5%) of the studied youth were living in urban areas. While, more than two fifths (42.3%) had basic education, and around one third (30.3%) of them had university education.

Moreover, the majority (80.5%) of them were not working, and more than half (57.0%) of them stated that their income was sufficient.

**Table (2) illustrates youth's utilization of the family health center and problems encountered during the utilization.**

Concerning the reason for visiting the health center, the first cause was follow up of chronic diseases as stated by more than one third (37.5%) of the studied youth and the last cause was antenatal and obstetric care (12.0%). While the mean number of visits was  $3.250 \pm 1.591$ .

It was noticed that only (2.5%) of the studied youth declared that during their previous visits to the health centers have previous query about the level of satisfaction of the services provided by the health center/unit.

Furthermore, more than one quarter (28.5%) of them experienced problems during their visit to the health center, mainly unavailable resources as mentioned by more than half (53.5%) of them. These problems were caused mainly by the receptionist (32.5%), followed by lab technician, nurse and physician (28.9%, 22.8%, &18.4%, respectively). Moreover, the vast majority (96.5%) of them reported the experienced problems to the managers, and among them, the majority (85.5%) stated that those reported problems were solved.

**Table (3) shows the youth's level of satisfaction about the services provided by the family health centers (by domains).**

It was noticed that more than two thirds of the studied youth had high level of satisfaction about the comprehension of services and provision of health education and counselling (69.8% and 69.5% respectively), while less than one tenth (8.3% and 7.5% respectively) had low level of satisfaction.

Moreover, less than two thirds of the studied youth had high level of satisfaction regarding the accessibility of the services and its effectiveness (64.8% and 62.0% respectively), while around one tenth (9.3% and 10% respectively) had low level of satisfaction.

With respect to the continuity of care, more than one third (35.3%) of the studied youth had a high level of satisfaction, and more than one fifth (21.8%) of them had a low level of satisfaction.

Pertaining to the humanness of the staff, less than three quarters (73.0%) of the studied youth had a high level of satisfaction. While

only 6.5% of them had a low level of satisfaction.

Regarding the total youth's satisfaction, less than two thirds (64.8%) of the studied youth had a high level of satisfaction, and only 7.0% of them had a low level of satisfaction.

**Table (4): portrays the correlates of the youth's satisfaction.**

The association between the youth's satisfaction and their basic characteristics was explored using binary logistic regression analysis (Enter method) with low satisfaction as the dependent variable. The  $R^2$  value is 0.858 which means that 85.8% of the variability in the youth's satisfaction is explained by the studied characteristics in the model with overall model significance ( $F=87.155$ ,  $P= 0.000$ ).

The table indicates that fifteen variables were found to be predictors of youth's satisfaction namely place of residence ( $P=0.000$ ), sufficiency of income ( $P=0.016$ ), presence of chronic diseases ( $P=0.034$ ), number of visits ( $P=0.000$ ), experience of problems in the center ( $P=0.000$ ), solving the experienced problem ( $P=0.000$ ), accessibility of the services ( $P=0.047$ ), continuity of care ( $P=0.017$ ), comprehensiveness of care ( $P=0.003$ ), humanness of the staff ( $P=0.004$ ), provision of health education & counseling ( $P=0.000$ ), effectiveness of the services ( $P=0.000$ ), the total organization structure of the center ( $P=0.000$ ), the total services provided at the center ( $P= 0.015$ ) and the total center quality services ( $P=0.003$ ).

**Table (5) shows the level of quality services at the studied family health centers.**

The table shows that more than two thirds (68.8%) of studied centers had a high level of quality in relation to the organization structure and the rest (31.3%) of the centers had a moderate level.

Pertaining to the second domain (services provided at the centers), the table reveals that the vast majority (93.8%) of the centers had a high level of quality and 6.3% of them had a moderate level.

Lastly, the total center quality services, the majority (87.5%) of the studied health centers had a high level of quality and 12.5% of them had a moderate level of quality.

**Table (6) portrays the correlation between the studied youth's satisfaction and quality of services provided.**

The table illustrates that there is a statistically significant relation between the mean score of the studied youth's satisfaction and levels of quality of the provided services where a higher mean score of youth satisfaction was noted in the health centers with good quality of services ( $197.02 \pm 14.150$ ) in comparison to those centers with moderate quality ( $177.96 \pm 29.775$ ).

Additionally, a high positive statistically significant relation between mean scores of the studied youth's satisfaction and mean score of quality of the provided services at the studied health centers ( $r=0.764$ ,  $P = 0.000$ ).

## **Discussion**

Everyone has the right to have the best possible level of health, regardless of where they live. This is a cornerstone of primary healthcare (PHC) (Gericke et al., 2018; Tilahun, 2018).

Every healthcare facility needs a plan to deliver high-quality, reliable care. Daily operations are governed by healthcare rules and procedures (Awang et al., 2020a; Mughal et al., 2021). The current study found that more than two thirds of the studied family health care centers had moderate and high level of quality in relation to the rules and regulations governing the centers. This may be explained by the fact that all family health centers are accredited based on a set of indicators and criteria established by the Ministry of Health

and Population and are given awards according to how well they perform to guarantee the provision of high-quality care (Al Bahnasy et al., 2016). In the same line a study done by Gebrie et al. (2021) stated that lack of guidelines, rules and regulations may significantly affect the quality of services (Gebrie et al., 2021).

A high-performing primary healthcare staff is key to a national quality system, and monitoring and performance feedback are crucial to ensuring that workers across the health care system adhere to fundamental professional standards (Abdel-Razik et al., 2021). This could explain the results of the current study, where the majority of the studied family health centers had high quality level in the human resources dimension. In the same line, the results of Abdel Hamid. (2016), who noticed a link between the adequate numbers and the technical competency of the health care providers, especially the physicians and the nurses, whose performance is directly linked to the effectiveness of the care provided, as it determines the quality of care provided to the clients (Abdel Hamid, 2016).

Accessible and well-equipped primary care facilities can also help to support the quality of care in primary care (Bahreini et al., 2019). The results of the current study noted that more than half of the health care facilities had a high level of quality regarding material resources. This could be attributed to the shortage of medical equipment at the primary care facilities occurred in the form of unavailability of equipment, low quality of medical supplies and equipment as noted in less than half of the studied family health centers and poor maintenance of the few that were available as noticed in more than one third of the studied family health centers.

However, these results are in line with Kabeta et al. (2023) reported that poor maintenance and repair as well as limited financial resources are responsible for the shortages of medical equipment which had a negative influence on patient quality care (Kabeta et al., 2023).

Employees need a support system that includes appropriate and sufficient physical resources and infrastructure of the healthcare setting to offer effective patient care (Bali et al., 2022).

The results of the current study revealed that the majority of the studied health centers had high level of quality regarding its infrastructure in the form of good lighting and ventilation, electric power source, running water, and waste collection area. Mohamed et al. (2022) noted that higher inpatient quality level was correlated with higher quality standards for hospital infrastructure (Mohamed et al., 2022).

Additionally, one of the quality dimensions and elements of service is the sufficiency and appropriateness of waiting rooms (Dixit et al., 2017). The present study revealed that the vast majority of the studied family health centers had adequate waiting areas for the clients and had high level of quality in relation to it. These findings are supported by the results of Gebrie et al. (2021) who reported that most of the health facilities have a particular waiting area. Additionally, studies by Awang et al. (2020b) found that providing youth clients with their own private waiting areas is a crucial component of high-quality health services that are geared toward their needs and permits for more privacy during counselling and consultation (Gebrie et al., 2021; Awang et al., 2020b).

Family health centers provide a variety of medical services, including those in the fields of family medicine, internal medicine, pediatrics, obstetrics, and gynecology, as well as diagnostic, laboratory, and radiologic services. They also provide preventive services, such as prenatal and perinatal care, cancer screening, well-child services, immunizations, and counselling services (Abd El-Aaty et al., 2019).

The results of the current study indicated that the majority of the studied family health centers had a high quality level regarding the different services and the rest of them had

moderate level. Moreover, these results are in accordance with those of Ahmed et al. (2017) that revealed that the more three quarters of the studied participants had a high level of satisfaction with primary health care services which reflected on their utilization rate. They attributed these findings to the presence of different health services, either preventive or curative within the studied facilities that matched with the recipients of care needs (Ahmed et al., 2017).

Youth are unquestionably the future leaders of the world, and they require outstanding healthcare. Youth health service usage and satisfaction must be measured even though it is well known that youth utilize healthcare services less frequently than adults (Gebrie et al., 2021).

Pertaining to the total youths' satisfaction level, less than two thirds of the studied youth had a high level of satisfaction, and a minority of them had a low level of satisfaction. One explanation is that the majority of the family health facilities under study had a high level of quality, which had a positive impact on the satisfaction of the young people. In the same context, a study done by Alqahtani et al. (2023) and Alhajri et al. (2023) who reported that the highest percentages of the study population had the highest overall satisfaction (Alqahtani et al., 2023; Alhajri et al., 2023).

Consumer satisfaction with the health care received is an internationally recognized indicator of the quality of the offered services, which may in turn foster customer loyalty to the provided services and the health facility. It is generally known that patients may choose to seek treatment elsewhere if their level of satisfaction with the quality of care falls short of their expectations (Endalamaw et al., 2023).

This was reflected in the current study finding where a statistically significant positive correlation between the studied youth's satisfaction and the quality care provided at the studied health centers was noticed. In the same

line the results of Awang et al. (2020a) who found that youth mean satisfaction score was significantly related to the utilization of the services. Similarly, Aladwan et al. (2021) found that service quality had a positive direct effect on patient loyalty and patient satisfaction. Meanwhile, patient satisfaction mediated the relationship between service quality and patient loyalty (Awang et al., 2020a; Aladwan et al., 2021).

Client satisfaction has been linked to a number of client attributes, including demographics, socioeconomic, and general health (Fatah et al., 2018). The current study indicated that several factors were correlated with the youth satisfaction mainly age, sex, marital status, place of residence, education, occupation, have chronic diseases, and regular checkup. In the same context, the studies of Albahrani et al. (2022), Alqahtani et al. (2023), Al Salem et al. (2020), Gebrie et al. (2021), and Kagura et al. (2023).

### ***Conclusion***

Based on the findings of the current study, it could be concluded that most of the studied youth had a high level of satisfaction, and a minority of them had a low level of satisfaction about the services provided by the family health centers. Furthermore, the majority of the studied health centers had a high level of quality and minority of them had a moderate level of quality.

Several factors were found to be significantly related to the studied youth's satisfaction grouped into demographic factors including place of residence, occupation, and sufficiency of income and health care services utilization factors including the number of visits of the health center, experience of a problem during the visit to the health center, reporting problems to managers, and solving such reported problems.

Finally, a high positive statistically significant relation was noted between the studied youth's satisfaction and level of quality care provided at the studied health centers.

### ***Recommendations***

***In light of the present study findings, the following recommendations could be made:***

- The implementation of a targeted education campaign for the youth on the usefulness of youth friendly health services (YFHS) that could improve knowledge, attitudes and uptake of YFHS among this target group.
- Allocation of more staff at primary healthcare facilities according to the load of work done. In addition, improvement of the infrastructure and enhance of resources at the primary healthcare settings and facilities.
- Periodic professional training and development programs for doctors and nurses, as well as technical development of the clinics, are required for a better performance to be maximized for the care of youth.
- Youth satisfaction surveys should be conducted on an ongoing basis to assess youth' views on services they have received at family health centers and facilities. These data must be used as a tool for improvement of health care.



**Table (1): Distribution of the studied youth according to their basic characteristics.**

Items	Total (N= 400)	
	No.	%
<b>Age (years)</b>		
▪ 15-	66	16.5
▪ 17-	53	13.3
▪ 19-	42	10.5
▪ 21-	48	12.0
▪ 23-24	191	47.8
Min- Max 15.0-24.0	Mean ± SD 20.22 ± 3.419	
<b>Sex</b>		
▪ Male	84	21.0
▪ Female	316	79.0
<b>Marital status</b>		
▪ Single	214	53.5
▪ Married	186	46.5
<b>Place of residence</b>		
▪ Urban	166	41.5
▪ Squatter	161	40.3
▪ Rural	73	18.3
<b>Level of education</b>		
▪ Illiterate/ Read & Write	24	6.0
▪ Basic education	169	42.3
▪ Secondary/Technical education	86	21.5
▪ University education	121	30.3
<b>Occupation</b>		
▪ Working	78	19.5
▪ Not working	322	80.5
<b>Sufficiency of income</b>		
▪ Sufficient	228	57.0
▪ Insufficient	172	43.0

**Table (2): Distribution of the studied youth according to their utilization of the family health center and problems faced during the utilization.**

Items	Total (N=400)	
	No.	%
<b>Reason for visiting the health center</b>		
▪ Chronic diseases	150	37.5
▪ Dental care	70	17.5
▪ Child care	69	17.3
▪ Family planning	63	15.8
▪ Antenatal care	48	12.0
<b>Numbers of visits of the health center in the last year</b>		
▪ 2-	284	71.0
▪ 4-	85	21.3
▪ 6-	20	5.0
▪ ≥8	11	2.8
Min- Max 2.0-14.0 Mean ± SD 3.250 ± 1.591		
<b>Previous query about the level of satisfaction of the services provided by the health center/unit</b>		
▪ No	390	97.5
▪ Yes	10	2.5
<b>Experience a problem during the visit to the health center</b>		
▪ No	286	71.5
▪ Yes #	114	28.5
▪ Unavailable resources	61	53.5
▪ Poor quality of services	33	28.9
▪ Inappropriate staff behavior	25	21.9
▪ Long waiting time	14	12.3
▪ Poor cleanliness of the center	6	5.3
<b>The person causing these problems#</b>	<b>N= 114</b>	
▪ Receptionist	37	32.5
▪ Lab technician	33	28.9
▪ Nurse	26	22.8
▪ Physician	21	18.4
<b>Reported the problem to the managers</b>	<b>N= 114</b>	
▪ No	4	3.5
▪ Yes	110	96.5
<b>Reported problems solved by the managers</b>	<b>N= 110</b>	
▪ No	16	14.5
▪ Yes	94	85.5

# Multiple responses were allowed

**Table (3): Distribution of the studied youth according to the level of satisfaction about the services provided by the family health centers (By domains).**

Items	Levels of Satisfaction					
	Low		Moderate		High	
	No.	%	No.	%	No.	%
- Accessibility of the services	37	9.3	104	26.0	259	64.8
- Continuity of care	87	21.8	172	43.0	141	35.3
- Comprehensiveness of care	33	8.3	88	22.0	279	69.8
- Humanness of the staff	26	6.5	82	20.5	292	73.0
- Provision of health education and counseling	30	7.5	92	23.0	278	69.5
- Effectiveness of the health care services	40	10.0	112	28.0	248	62.0
<b>Total Youth Satisfaction</b>	<b>28</b>	<b>7.0</b>	<b>113</b>	<b>28.3</b>	<b>259</b>	<b>64.8</b>

**Table (4): Correlates of the youth's satisfaction (Regression analysis).**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-0.179	0.179		-0.998	0.319
Age	0.022	0.046	0.036	0.476	0.634
Sex	0.031	0.024	-0.050	-1.310	0.191
Marital status	0.024	0.042	0.036	0.570	0.569
Place of residence	0.252	0.067	0.229	3.738	0.000*
Education	0.001	0.004	-0.008	-0.207	0.836
Occupation	0.003	0.053	0.002	0.055	0.956
Monthly income	0.005	0.021	0.005	0.258	0.797
Sufficiency of income	0.163	0.068	-0.153	-2.413	0.016*
Have chronic diseases	0.122	0.057	0.124	2.132	0.034*
Regular checkup	0.022	0.046	0.036	0.476	0.634
Reason for visiting the center	0.026	0.048	0.016	0.535	0.593
Number of visits	0.309	0.028	0.336	11.204	0.000*
Experience of problems in the center	0.344	0.032	0.334	10.783	0.000*
Solving the experienced problem	0.370	0.030	0.375	12.162	0.000*
Accessibility of the services	0.244	0.026	0.040	1.714	0.047*
Continuity of care	0.211	0.005	0.154	2.396	0.017*
Comprehensiveness of care	0.190	0.064	0.193	2.954	0.003*
Humanness of the staff	0.132	0.046	0.117	2.908	0.004*
Provision of health education & counseling	0.204	0.040	0.217	5.047	0.000*
Effectiveness of the services	0.156	0.033	0.174	4.760	0.000*
The total organization structure of the center	0.372	0.034	0.443	10.949	0.000*
The total services provided at the center	0.092	0.038	0.093	2.450	0.015*
The total center quality services	0.083	0.028	0.122	2.961	0.003*

R<sup>2</sup>= 0.858

F= 87.155

P= 0.000

\* Statistically significant at p ≤ 0.05

**Table (5): Distribution of the studied family health centers according to the level of quality services based on the observation (By domains)**

Items	Levels of Quality					
	Low		Moderate		High	
	No.	%	No.	%	No.	%
<b>Organization structure</b>	<b>0</b>	<b>0.0</b>	<b>5</b>	<b>31.3</b>	<b>11</b>	<b>68.8</b>
- Rules & regulations governing the center	5	31.3	5	31.3	6	37.5
- Human resources	0	0.0	3	18.8	13	81.3
- Material resources	0	0.0	7	43.8	9	56.3
- Geographical location	0	0.0	4	25.0	12	75.0
- Infrastructure	0	0.0	1	6.3	15	93.8
- Waiting areas	0	0.0	2	12.5	14	87.5
<b>Services provided at the center</b>	<b>0</b>	<b>0.0</b>	<b>1</b>	<b>6.3</b>	<b>15</b>	<b>93.8</b>
- Health education & Counseling	1	6.3	1	6.3	14	87.5
- Vaccination	0	0.0	0	0.0	16	100.0
- Pharmacy	0	0.0	0	0.0	16	100.0
- Laboratory services	0	0.0	0	0.0	16	100.0
- Radiology services	5	31.3	3	18.8	8	50.0
- Documentation	0	0.0	0	0.0	16	100.0
- Assessment of the client's condition	1	6.3	13	81.3	2	12.5
- Implementation of care of the client	0	0.0	15	93.8	1	6.3
- Patient's safety	0	0.0	1	6.3	15	93.8
- Communication	0	0.0	0	0.0	16	100.0
<b>Total Quality Services</b>	<b>0</b>	<b>0.0</b>	<b>2</b>	<b>12.5</b>	<b>14</b>	<b>87.5</b>

**Table (6): Correlation Matrix between the studied youth's satisfaction and quality of services provided.**

Items	Mean Score of Youth's Satisfaction	Test of Significance	Correlation between Mean Score of Youth Satisfaction and Quality of services
	Mean ±S. D		
<b>Level of quality of services at the family health centers</b>			
▪ Fair	177.96±29.775	t=7.471	R= 0.764
▪ Good	197.02±14.150	P= 0.000*	P= 0.000*

t =Student T Test R= Pearson Correlation Coefficient \* statistically significant at p ≤ 0.05

r ≥0.9 very high correlation r 0.7-<0.9 high correlation r 0.5-<0.7 moderate correlation r < 0.5 low correlation

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