

# Female adolescents' views on a youth-friendly clinic

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## Summary

**Objective:** To assess satisfaction among female patients of a youth-friendly clinic and to determine with which factors this was associated.

**Methods:** A cross-sectional survey was conducted in an adolescent clinic in Lausanne, Switzerland, between March and May 2008. All female patients who had made at least one previous visit were eligible. Three hundred and eleven patients aged 12–22 years were included. We performed bivariate analysis to compare satisfied and non-satisfied patients and constructed a log-linear model.

**Results:** Ninety-four percent of patients were satisfied. Satisfied female adolescents were significantly more likely to feel that their complaints were heard, that the caregiver understood their

problems, to have no change of physician, to have received the correct treatment/help and to follow the caregiver's advice. The log-linear model highlighted four factors directly linked with patient satisfaction: outcome of care, continuity of care, adherence to treatment and the feeling of being understood.

**Conclusions:** The main point for female adolescent patient satisfaction lies in a long-term, trustworthy relationship with their caregiver. Confidentiality and accessibility were secondary for our patients.

**Key words:** patient satisfaction; physician patient relationship; health care quality; health care access

## Introduction

Quality of care is an important and current concern in health care services and patient satisfaction has become an integral component of health care quality management [1]. Satisfaction can be defined as a subjective perception based on individual expectations, comprising both a cognitive evaluation and an emotional reaction [1]. Several studies show that satisfied patients are more adherent to medical treatment and have more symptom resolution [2–4]. Despite the fact that patient satisfaction has seldom been evaluated among adolescents [5–9]. There is a fair amount of literature on their expectations regarding health care services [10–18], which are closely linked to their satisfaction.

These expectations are likely to vary by age and gender or between regions but some themes seem to be essential for most young people. Maintaining confidentiality and privacy is one of the key issues that influence adolescents seeking health services. This implies privacy with the caregiver and the guarantee that information will not be disclosed to their parents [10–15]. The personal qualities of the physician, such as respect, friendliness, listening skills and honesty are

often mentioned as important [11, 16]. Moreover, understandable information and easy access with convenient opening hours and location are appreciated [11, 14–17]. Finally, the physician's professional skills and the outcome of care are essential [16, 17].

In order to address the special health care needs of adolescents, the World Health Organization (WHO) has developed the concept of adolescent-friendly health services. This concept is based on seven different dimensions: acceptability, accessibility, equity, efficiency, effectiveness, appropriateness and comprehensiveness [18].

Global satisfaction factors have been well studied among adult patients, less so among paediatric patients and rarely among adolescent patients [19]. The goals of the present study are to assess the degree of satisfaction among adolescent patients of a youth-friendly clinic and to determine with which factors this is associated. We hypothesise that the physician-patient relationship, confidentiality and accessibility are strongly associated with satisfaction. Moreover, satisfied patients will be more likely to adhere to treatment.

## Methods

The survey was conducted in a youth-friendly multi-disciplinary clinic for adolescents at the University Hospital in Lausanne, Switzerland, which has existed since 1998. Patients are aged 12–20 years, except in particular situations where follow-up is continued beyond this age. The permanent staff comprises three adolescent physicians, a gynaecologist, a psychologist, a nurse, a family planning counsellor and a dietician. Two physician residents (in paediatrics and gynaecology) rotate every six months and one adolescent medicine resident rotates each year. Most of the patients consult without their parents.

The questionnaire, containing 42 items, was based on a model from the WHO adapted to the Swiss context [20]. The questionnaire was pretested for understandability and acceptability by clinicians working with young people and by a group of adolescents. The ethics committee of the University of Lausanne medical school approved the study.

Questionnaires were delivered during three months (1 March to 31 May 2008) to all patients coming to the clinic who had made at least one previous visit. Patients gave oral informed consent and those who agreed completed the questionnaire in the waiting room before the consultation. About ten minutes were needed to fill out the questionnaire, which was anonymous and self-administered.

During these three months, 362 patients were eligible to fill out the questionnaire and the great majority were female (89.1%). The response rate was 97.8% (354/362) with five patients who refused to answer, two who could not answer because of a neurological disease, and one who was not fluent in French. Six other questionnaires were excluded because they were incomplete.

Patient satisfaction was assessed by the statement: "I am satisfied with the care that I receive" with four possible answers on a Likert scale (1: strongly agree – 4: strongly disagree). We dichotomised this question into satisfied ("strongly" and "fairly agree") and dissatisfied patients ("rather" and "strongly disagree"). We categorised other assertions in different fields, mainly according to the WHO definition of the seven dimensions of quality of care [18]. These fields were considered as different satisfaction determinants to explore (illustrated in table 2). We also included several background variables: gender, age (categorised as: 12 to 16 years old, representing the compulsory school attendance age and over 16 years old), frequency of visits (dichotomised into: regular

patients who came five or more times per year and occasional patients who came less frequently), reason for the first consultation, who had referred them to the clinic (educational or health professional / the family, a friend or an acquaintance) and whether or not the patient agreed to come to the first consultation.

As only 37 patients were males and all of them were satisfied, we finally only included female patients (N = 311, 89.4% of all valid questionnaires) in our analysis.

### Statistical analysis

We first performed a bivariate analysis comparing each potential explanatory factor by adolescent satisfaction. All variables being either dichotomous or ordinal, association was measured with the Somer's d coefficient, an asymmetric association measure, taking values between –1 for maximal negative relation and 1 for maximal positive relation, 0 corresponding to minimal relation.

Our sample being relatively small, there was a high risk for some associations to be falsely significant or non-significant. To overcome this issue, we performed a bootstrap analysis. We defined a binary logistic regression with satisfaction as the dependent variable and entered potential explanatory factors into the model through a forward procedure. We replicated the procedure on 10,000 bootstrap samples and variables selected in at least 60% of the replications were considered as reliable predictors of the dependent variable [21]. These variables were used to compute a logistic regression, but the model behaved poorly, the main reason being the small number of unsatisfied adolescents in the sample. Therefore we decided to show the complex relations linking the satisfaction and the explanatory factors through a log-linear model [22]. This model was used to analyse simultaneously the relation between all variables into a high-order cross-table. No distinction was made in log-linear models between dependent and independent variables, so we were only interested here in finding significant associations between variables. Preliminary computations showed that associations of order higher than two were mostly non-significant, so we included only bivariate relations and the main effect of each variable into the model. We started with a model containing only factors directly associated to satisfaction and then added variables with indirect association. Only variables with relations significant at the 90% level were retained. We used Matlab 7 for bootstrap procedures and SPSS 16 for all other statistical computations.

## Results

Fifty-three percent of the patients were 17 years of age or older, 39% were regular patients and the main reasons for consultation were somatic complaints and gynaecological problems. More than two thirds were referred by an education or health professional and almost three out of every four agreed to come to the first consultation (table 1).

The global satisfaction rate was high (94%). Half of the patients indicated that the waiting time was too long and 54.5% did not know the

name of their physician. Forty-five percent had a change of physician and this was a problem for 30% of them (table 2).

Table 3 illustrates factors significantly associated with female satisfaction. The feeling of being heard and being understood, the self-perceived outcome of care, the absence of physician change and the willingness to adhere to treatment were all positively associated with satisfaction.

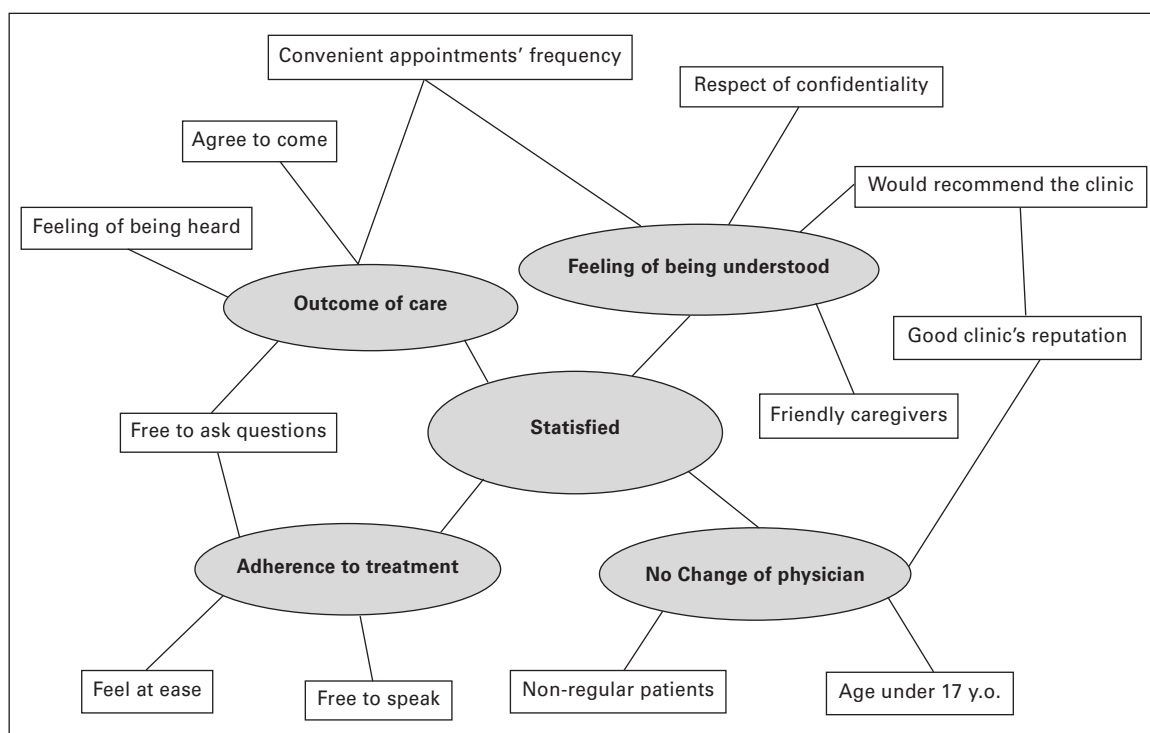
A log-linear model (fig. 1) was constructed to

**Table 1**  
Background characteristics of female patients.

Age (years)	N†	%	95% CI
12–16	146	46.9	41.4 / 52.5
17–22	165	53.1	47.5 / 58.6
Frequency of visits in the last 12 months			
Occasional patients (1–4 times)	186	61.2	55.7 / 66.7
Regular patients (5 times or more)	118	38.8	33.3 / 44.3
Reason for the first consultation			
Somatic complaint	125	41.4	35.8 / 46.9
Gynaecological problem	93	30.8	25.6 / 36.0
Psychological problem	57	18.9	14.5 / 23.3
Counselling (Family planning or dietetic)	27	8.9	5.7 / 12.2
Person referring the patient for the first visit			
An education or health professional	206	69.8	64.6 / 75.1
Family/friend/acquaintance	89	30.2	24.9 / 35.4
For the first consultation			
The patient agreed to come	226	72.9	68.0 / 77.9
The patient was forced to come	35	11.3	7.8 / 14.8
The patient was indifferent	49	15.8	11.7 / 19.9

N† values vary because of inconstant number of missing values.

**Figure 1**  
Factors associated with female satisfaction with direct and indirect links in a log-linear model.



**Table 2**

Descriptive analysis of satisfaction determinants.

	N†	%	95% CI
Global satisfaction			
Patient is satisfied with care*	301	94.0	91.3 / 96.7
Accessibility			
Clinic reputation is good*	308	98.4	97.0 / 99.8
Patient would recommend the clinic to friends*	305	93.8	91.1 / 96.5
Frequency of the appointments is convenient*	304	90.5	87.2 / 93.8
Phone access is good when needed*	284	85.9	81.9 / 90.0
No access problem (location, costs, opening hours, fear about confidentiality)	308	72.1	67.1 / 77.1
Waiting time is not too long*	294	50.0	44.3 / 55.7
Acceptability			
Reception staff is friendly*	303	99.0	97.9 / 100
Patient can speak freely*	308	98.7	97.4 / 100.0
Caregivers are friendly*	302	98.0	96.4 / 99.6
Patient feels free to ask questions*	308	96.1	93.9 / 98.3
Patient has the feeling of being heard*	305	94.1	91.5 / 96.7
Caregiver has understood the patient's problems*	309	93.9	91.2 / 96.5
Time for questions is sufficient*	307	94.5	91.9 / 97.0
Waiting room is comfortable*	298	91.3	88.1 / 94.5
Right to confidentiality has been explained	297	89.9	86.5 / 93.3
Patient feels at ease during the consultation*	309	88.3	84.8 / 91.9
Confidentiality will be respected	298	87.2	83.5 / 91.0
Physician asks the patient's opinion about the treatment*	290	84.8	81.7 / 89.0
Physician does not seem to rush*	309	80.6	76.2 / 85.0
Leaflets and booklets are useful*	292	74.0	68.9 / 79.0
Continuity of care			
Consultation is not interrupted too often*	303	90.8	87.5 / 94.0
Patient knows the name of the physician	308	45.5	39.9 / 51.0
Patient did not have to change physician	302	55.0	49.4 / 60.6
Physician change was a problem	130	30.0	22.1 / 37.9
Physician change was explained	129	66.7	58.5 / 74.8
Appropriateness			
Information is understandable*	307	97.4	95.6 / 99.2
Patient received the right treatment/help	301	85.7	81.8 / 89.7
Effectiveness/comprehensiveness			
Physician takes a psycho-social history	303	91.7	88.7 / 94.8
Physician speaks about prevention of risk behaviours	305	75.7	70.9 / 80.5
Adherence to treatment			
Patient will follow the caregiver's advice*	308	95.5	93.1 / 97.8

\* Assertions with answers from 1 to 4 on a Likert scale (1 = "strongly agree" to 4 = "strongly disagree") are dichotomised. Percentages correspond to the sum of the answers "strongly agree" and "fairly agree". N† values vary because of inconstant number of missing values.

**Table 3**

Statistically significant explanatory factors of female patients' satisfaction.

	Satisfied females %, †	Dissatisfied females %, †	Somer's d	P value
Acceptability				
Patient has the feeling of being heard*	95.3 (265/278)	72.2 (13/18)	.231	.049
Caregiver has understood the patient's problems*	95.7 (270/282)	66.7 (12/18)	.291	.023
Continuity of care				
Patient did not have to change physician	57.5 (158/275)	23.5 (4/17)	.075	.009
Appropriateness				
Patient received the right treatment/help	90.1 (247/274)	27.8 (5/18)	.305	<.001
Adherence to treatment				
Patient will follow the caregiver's advice*	97.9 (275/281)	58.8 (10/17)	.503	.008

\* Assertions with answers from 1 to 4 on a Likert scale (1 = "strongly agree" to 4 = "strongly disagree") are dichotomized. Percentages correspond to the sum of the answers "strongly agree" and "fairly agree".

† Total N (denominators) vary because of inconstant number of missing values.

specify which factors had a direct link with patient satisfaction and which ones had an indirect link through another factor. The relation between the different factors was relatively complex. However, only four factors had a direct link with patient satisfaction: the self-perceived outcome of care, the

absence of a change of physician, the willingness to adhere to treatment and the feeling of being understood. On the other hand, important factors such as confidentiality, for example, had only an indirect link (through "feeling of being understood") with patient satisfaction.

## Discussion

Our findings indicate a very high satisfaction rate among female patients consulting the youth-friendly clinic. This result was foreseeable, as most satisfaction surveys find satisfaction rates over 90% and because questions on general satisfaction tend to produce high rates of satisfaction [23]. Prospectively it was thought that satisfaction is determined by several explanatory factors. In the final model, four factors were found to be directly associated with patient satisfaction: outcome of care, the feeling of being understood, continuity of care and the willingness to adhere to treatment.

The self-perceived outcome of care is strongly associated with patient satisfaction. Whilst this relation has been well established in adult patients [2, 3], few studies have discussed it among adolescent patients [5]. Our results indicate that reaching the expected help or treatment is very important for youth. Kane et al. [3] have reported that although outcomes of care and satisfaction are linked, adult patients rate their present state of health more than the global extent of improvement of their health state. This issue needs to be further explored among adolescents.

Several studies have produced evidence that the interpersonal aspect of care is essential for adolescents [11, 16, 17, 24, 25] and our results agree with this. The feeling of being understood has a direct link with satisfaction, whilst other factors, such as the feeling of being heard and being at ease, the friendliness of the caregiver and the freedom to speak and ask questions, have an indirect link with satisfaction. All these factors depend

on the physician's communication ability and empathy, which would seem to be key determinants of adolescent satisfaction. This aspect of care has also been cited as the principal component of patient satisfaction among adults [23].

The direct association between the absence of a change of physician and satisfaction highlights the importance of the continuity of care. Beresford and Sloper [26], in studying chronically ill adolescents, reported that seeing a different doctor each time was identified by patients as a real barrier to communication. For them the continuity of contact was a key factor in terms of promoting communication on which the physician-patient relationship is based. Moreover, Ginsburg et al. [16] and Klostermann et al. [25] have noticed within focus groups that healthy youths did not spend much time discussing continuity of care but frequently mentioned that a long-term relation was necessary in order to trust the provider. In this way, maintaining the continuity of care seems to be one of the main and necessary bases in establishing a physician-patient trustworthy relation. As our clinic is part of a teaching hospital, resident physicians rotate frequently and unavoidably. In order to minimise the effect of changing physician, particular attention should be given to the preparation and explanation of these changes, especially as our results showed that the change was not explained in almost one third of the cases and half of the sample did not know the name of their physician.

The willingness of the patient to follow advice

also has a direct and strong link with satisfaction. Several authors have supported the finding that both a good physician-patient relationship and patient satisfaction positively influence the adherence to treatment. [2, 4] Moreover, research in chronically ill adolescents has shown that being supported by the physician and patient motivation are both important determinants of patient compliance [27, 28]. Neither the cross-sectional nature of the study nor the log-linear model permit an assessment of causal effects. However, whilst other factors seem to be satisfaction determinants, adherence to treatment might be a consequence of the patient satisfaction, without excluding the possibility that this relation might also be bidirectional.

Confidentiality is frequently mentioned as a priority for adolescent patients [11, 14, 24, 25] and the fear of a lack of confidentiality can be a factor affecting a youth's decision to seek health care [13, 15]. We expected a strong association between confidentiality and patient satisfaction but, surprisingly, we found only an indirect link. Our results are in line with the findings of Ginsburg et al. [16] and support the finding that confidentiality, although certainly important, is not always a key determinant of satisfaction. This finding might be explained by the fact that most of the clinic's patients consult without their parents, which is less common in paediatrics or family practice [12, 14, 24]. We can also hypothesise that for our patients a trustworthy relation with their provider is largely defined by the interpersonal aspect of the relation and by the continuity of care.

Finally, we had hypothesised that accessibility would be associated with satisfaction. Although half of the patients were irritated by long waiting times, it did not influence their global satisfaction rate.

Our research has some limitations worth mentioning. Firstly, we had very few male patients so that they were finally not included in the analysis. Apart from the fact that the prevalence of health care use is higher among female adolescents than

males [29], in a previous study we had already found that females represented over 80% of our clinic's consultations [30], mainly because of a gynaecological consultation and because eating disorders, which are more common among females, represent the main reason for consultation for psychological problems in our clinic. Secondly, the survey took place in one single specialised clinic and similar studies in other settings would be necessary to confirm our findings. Thirdly, for logistic reasons (the questionnaire needed to be completed before the consultation), only those patients returning for a second time were eligible for the study. This could represent a selection bias, as dissatisfied patients are less likely to return. Finally, we can assume that some patients are hesitant about expressing dissatisfaction as they fill out the questionnaire just before the consultation and fear disappointing their caregiver [23].

In conclusion, adolescent satisfaction is determined by several factors that are closely linked with those described for adults. Overall, the most important point for adolescent patient satisfaction lies in a long-term and trustworthy relationship with their health care provider. Paediatricians occupy a privileged place to achieve these needs as they know their patients throughout childhood. However, they need to keep in mind that the physician-patient relation should change in adolescence, especially regarding the presence of parents during a consultation. From a global perspective, health professionals dealing with adolescents must be aware of the importance of being empathic (listening and understanding) and communicating clearly and honestly with them.

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