

## PERCEPTION AND SATISFACTION OF SECONDARY SCHOOL STUDENTS WITH THE DERMATOLOGICAL SERVICES IN RIYADH CITY.

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**مقدمة :** إن الخدمة الطبية التي تلبي توقعات المريض لها أثر حسن على مستوى رضا المريض والذي له بدوره انعكاسات في تحسن مسيرة العلاج. وتوجد عدة عوامل تؤثر على اقتناع المريض بالخدمة الطبية المقدمة إلى المرضى وقد درست هذه المؤثرات إلا أن مثل هذه الدراسات في مجال الخدمة المقدمة في الأمراض الجلدية نادرة .  
**هدف الدراسة :** تهدف هذه الدراسة إلى معرفة تجارب ورضا الطلبة عن الخدمة المقدمة في عيادات الأمراض الجلدية وما يتوقعونه منها .

**طريقة الدراسة :** أجريت دراسة مقطعية على 700 طالب وطالبة في المدارس الثانوية بالرياض ، وجمعت الآراء عن طريق استبيان أجابه الطلاب بحيث يعكس مدى اقتناعهم بالخدمة المقدمة بما في ذلك مستوى رضاهم عن الطبيب المعالج وطريقة تقديم الخدمة .

**نتائج الدراسة :** كان متوسط عمر الطلبة  $18.1 \pm 1.8$  ( من 15 إلى 29 سنة ) وقد استجاب 517 طالباً للدراسة يمثلون ( 74 % ) من العينة وكان عدد الذكور 267 ( 51.6 % ) وعدد الإناث 250 ( 48.4 % ) ويمثل السعوديون منهم 457 طالباً ( 88.4 % ) . وبينت الدراسة أن 385 طالباً ( 73.9 % ) يفضلون وجود مختص بالأمراض الجلدية في كل مركز صحي من الرعاية الأولية ، وبينما يفضل 310 طلاب ( 59.5 % ) العلاج في العيادات الحكومية .

ويلاحظ أن الذكور يفضلون طبيباً 142 طالب ( 52.8 % ) وأن الإناث يفضلن طبيبة 167 طالبة ( 66.5 % ) فقط 14 طالب ( 2.7 % ) ليس لديهم تفضيل لجنس المعالج (  $P > 0.001$  ) . وقد تلقى 273 طالباً ( 52.4 % ) الخدمة مرة أو أكثر منهم 225 طالباً ( 82.4 % ) تلقى خدمة علاجية ، 91 طالباً ( 33.3 % ) تلقى الخدمة في عيادات حكومية و 104 طالب ( 38.1 % ) تلقى الخدمة في عيادات خاصة و 78 طالباً ( 28.6 % ) تلقى الخدمة من الجهتين .

أبدى 188 طالباً ( 68.9 % ) اقتناعه بصفة عامة بالخدمة ، بينما أجاب 36 طالباً ممن قدمت لهم الخدمة في جهات حكومية بنسبة ( 42.3 % ) بعدم رضاهم عن الخدمة ، وقد اعتبر 68 طالباً ( 24.9 % ) فترة الانتظار طويلة .

**الخلاصة :** بينت هذه الدراسة أن الخدمة الحكومية في مجال عيادات الأمراض الجلدية لا ترقى إلى مستوى تطلعات الطلبة. لا بد من وجود دراسات جادة ومستمرة تركز على مدى اقتناع المرضى وتوقعاتهم ورضاهم عن الخدمة الطبية المقدمة. مثل هذه الدراسات سوف تضع النقاط المهمة أمام واضعي السياسات الصحية لتقديم خدمة طبية أفضل في مجال الجلدية تفي باحتياجات المرضى وتوقعاتهم .

**الكلمات المرجعية:** التقبل، الرضا، التوقعات، الشباب، الأمراض الجلدية.

**Background:** Health care that meets patient's expectations inevitably leads to a high level of patient satisfaction and in turn to an improved compliance of the patient with the prescribed management. Accordingly, health care services are more likely to improve. Numerous factors have been associated with patient satisfaction and studies have been done to investigate this relationship. However, not much work has been done in the field of dermatological service.

**Objective:** This study was designed to investigate the experience, satisfaction and expectations of adolescents of the dermatological services provided in the outpatient ambulatory facilities.

**Methods:** A cross-sectional study was conducted on 700 male and female secondary school students in Riyadh in Saudi Arabia. A self-administered questionnaire was used to collect data from the students. Data were related to the perception, expectation and satisfaction of a specific group of students. The overall and different items of satisfaction with the dermatological service including satisfaction with the physician providing the service, and satisfaction with the setting of the care were estimated.

**Results:** The age range was 15-29 years with a mean of  $18.1 \pm 1.8$  years. Of the 517 (74%) respondents, 267 (51.6%) males and 250 (48.4%) females, 457 (88.4%) were Saudis. With regard to

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*expectation and preference, 385 (73.9%) would like to have dermatologists at each PHC center; 310 (59.5%) preferred a government setting for treatment. Statistically significant gender preference was observed ( $p < 0.001$ ); males preferred male dermatologist and females preferred female dermatologist, 142 (52.8 %) and 167 (66.5%), respectively. Only 14 (2.7 %) had no preference. As far as the experience with dermatological service was concerned, 273 (52.4%) had had one or more consultations, 225 (82.4%) had used the services for curative purpose, 91 (33.3%), 104 (38.1%) and 78 (28.6%) had used governmental, private and both facilities, respectively. Overall, 188 (68.9%) patients were satisfied, but of those who had availed themselves of the government services, 36 (42.3%) were not satisfied and 68 (24.9%) considered the waiting time too long.*

**Conclusion:** *Dermatological services at the governmental facilities do not meet the expectations of the adolescent. Well-designed operational research studies on the appropriate sample, focusing on patients' expectation and satisfaction with appropriate sample is required. Such studies will facilitate the work of the policy makers and service implementers and help them to develop appropriate human and other resources in order to tailor dermatologic services to the clients' expectations.*

**Key Words:** *Perceptions, satisfaction, expectations, adolescents, Dermatological services.*

## INTRODUCTION

Skin disease is among the ten most common groups of diseases registered in the outpatients' ambulatory services in Saudi Arabia, the number of patients having increased over the past five years.<sup>1</sup>

Health care that is responsive to patient's expectations will inevitably lead to high levels of patient satisfaction, which in turn can lead to improved compliance of patient with prescribed therapy.<sup>2,3</sup> Accordingly, an improvement in the health outcome will be more likely.<sup>4,5</sup> It has been stated that poor compliance with prescribed management might lead not only to negative consequences on the health outcome of the patient, but also to a waste of economic resources.<sup>6,7</sup>

Factors suggested to be associated with patient satisfaction include, good patient-physician relationship, type of treatment, route of administration, factors that describe administration of health service, and some characteristics of the physician.<sup>8, 9</sup> Although patient satisfaction with health services has been studied widely, little empirical work that assesses patient satisfaction with dermatological services, especially in Saudi Arabia, currently exists.

Adolescents form an important age group of the community considered a common target for health service research and interventions. This age group has been selected for the study essentially because early exposure to the risk factors of skin diseases has been shown to have a crucial impact on later development of these diseases. Moreover, children and adolescents are probably more receptive than adults to ideas on health promotion and prevention. For these reasons, as well as

reasons of feasibility, adolescents of the secondary school age were selected as study subjects.<sup>14</sup>

This study was designed to investigate the experiences, needs and satisfaction of adolescents in the Saudi community, of the dermatological services provided in the outpatient ambulatory facilities. The ultimate goal of this study is to make recommendations for appropriate and effective dermatological services that take cognizance of the patients' expectations.

## METHODOLOGY

This is a cross-sectional study carried out on 700 secondary school students of both genders, aged 15-29 years, from all five geographic areas (north, south, east, west and central) of Riyadh, Kingdom of Saudi Arabia. Two schools, one for boys and one for girls, were selected randomly from each geographic area. One class from each grade was randomly selected and permission to conduct the study was obtained from the school authorities. A self-administered questionnaire was given to the students during their regular class times to be completed anonymously. The questionnaire was designed to measure students' knowledge, experiences, expectations and satisfaction with dermatological services.

Analysis of the data was done using the Statistical Package for Social Sciences (SPSS 9.0). Frequency distributions of all variables were calculated. All p-values were based on 2-sided test, and the cut-off value for statistical significance was set at 0.05. Chi-square analysis was used to test differences in proportions.

**Table 1:** Demographic characteristics of respondents among secondary school students

Variables	Male (n=267) No. (%)	Female (n=250) No. (%)	Chi-square	p-value
Age:			0.98	0.61
<17	135 (50.6)	124 (49.6)		
17-19	109 (40.8)	98 (39.2)		
>19	23 (8.6)	28 (11.2)		
Nationality:			0.31	0.58
Saudi	234 (86.6)	223 (89.2)		
Non-Saudi	33 (12.4)	27 (10.8)		
Family Income:			0.03	0.86
<SR 10,000	175 (65.5)	162 (64.8)		
>SR 10,000	92 (34.5)	88 (35.2)		

**Table 2:** Students' perception of importance and prevalence of dermatological diseases (N=517)

Variables	No. (%)
Public health importance:	
High	146 (28)
Moderate	350 (68)
Low	21 (4)
Most common dermatological diseases:	
Allergy	157 (30.1)
Acne	122 (23.4)
Eczema	32 (6.1)
Vitiligo	28 (5.4)
Chickenpox	22 (4.2)

**Table 3:** Demands of settings and personnel for dermatological services (N=517)

Variables	No. (%)		
Preferred setting:			
Governmental	308 (60)		
Private	204 (39)		
Both	5 (1)		
Availability of dermatologist*:			
In each PHCC	383 (74)		
In group of PHCC	77 (15)		
Only in hospitals	57 (11)		
Nationality of dermatologist:			
Saudi	294 (57)		
Non-Saudi	203 (39)		
No difference	20 (4)		
Preferred Gender:†			
	<b>MD</b> <b>FD</b> <b>NP</b>		
	<b>No. (%)</b> <b>No. (%)</b> <b>No. (%)</b>		
Male	141 (53)	118(44)	8(3.0)
Female	77 (31)	167 (67)	6 (2.0)
Total	218	285	14

\*Adolescents †Chi square=26.4 p<0.001  
MD=Male dermatologist, FD=Female dermatologist, NP=No preference

## RESULTS

A total of 700 students were contacted. Of these, 517 responded (response rate 73.9%). The age range was 15-29 years with a mean of  $18.1 \pm 1.8$  years. Of the 517 respondents, 267 (51.6%) were males and 250 (48.4%) were females, 337 (65.2%) had a family income of less than SR 10,000. Of the total, 457 (88.4%) were Saudis. Overall, the social and demographic characteristics of male and female students were similar and there were no statistically significant differences regarding their age, nationality, family income (Table 1). The majority considered dermatological diseases as of high and moderate public health importance 496 (96%) and 279 (53.5%) perceived allergy and acne as the most prevalent dermatological diseases (Table 2).

With regard to expectations and preference, 383 (73%) would like to have dermatologists at each PHC center, 308 (60%) preferred a government setting for treatment. Statistically

**Table 4:** Students' knowledge and preference of treatment of dermatological diseases

Availability and preference	No. (%)
Availability of curative therapy:	
All diseases	35 (7)
Most diseases	249 (48)
Some diseases	223 (43)
No diseases	10 (2)
Preferred route of therapy:	
Topical	353 (68)
Oral	111 (22)
Injection	53 (10)
Preference of herbal medicine:	
Totally	60 (12)
Partially	450 (87)
None	7 (1)

**Table 5:** Students' satisfaction and place and purpose of dermatological consultation

Variables	Satisfaction		p-value
	Yes No. (%)	No No. (%)	
Sector:			0.06
Governmental	52 (27.7)	36 (42.3)	
Private	75 (39.9)	27 (31.8)	
Both	61 (32.4)	22 (25.9)	
Purpose:			0.3
Treatment	152 (80.9)	73 (85.9)	
Cosmetic	36 (19.1)	12 (14.1)	
Waiting:			0.001
Too long	34 (18.1)	34 (40.0)	
Average	154 (81.9)	51 (60.0)	

significant ( $p < 0.001$ ) for gender preference was observed; males preferred male dermatologist and females preferred female dermatologist (Table 3).

Only 35 (6%) thought all diseases were curable and the majority believed most and some dermatologic diseases were curable 249 (49%) and 223 (43%), respectively. The most preferred route of therapy was topical 353 (68%), and majority had a partial preference for herbal medicine 450 (87%) (Table 4).

As far as the experience of dermatological services is concerned, 273 (52.4%) had had one or more consultations, 225 (82.4%) had used the services for curative purposes, 91 (33.3%), 104 (38.1%) and 78 (28.6%) had used governmental, private and both facilities, respectively. The majority (68.9%) of patients were satisfied, but of those who had availed themselves of the government services, 36 (42.3%) were not satisfied and 68 (24.9%) thought the waiting time was too long (Table 5).

## DISCUSSION

Health services are now increasingly being made client-oriented, even in developing countries.<sup>11-14</sup> This study explored the perception of a group secondary school students, their expectations and satisfaction with the available dermatologic services in Riyadh city. The study raises more questions than attempts to answer. It is clear that the students feel that the dermatology services are vital since the majority (96%) consider skin diseases are of high and moderate health importance. However, they know little about most common skin problems. As it has been reported by some authors,<sup>15</sup> their knowledge of most common skin problems is rather meager or misconceived.

Interestingly, over two thirds of our respondents were satisfied with the dermatology services; However, of those who had sought for help at governmental facilities, 41% were not satisfied with the care received compared to those seen in the private sector 26%. This may reflect unfulfilled expectation of having a dermatologist in every PHC center and/or the lack of access to the service because of the socio-economic status. Literature supports the finding that those belonging to higher socio-economic stratum were more satisfied.<sup>16-18</sup>

Our study also shows that a small proportion of respondents would prefer total reliance on herbal medicines in treating dermatologic diseases, though a majority of them only use herbal medicines sometimes. Is this true for all age groups? Is it a

healthy trend, or it is an area that needs further investigation.

This study showed that a few students in the studied group would seek cosmetic dermatologic care, but mainly at saloons and beauty centers rather than at dermatology clinics. One wonders whether this is because of the lack of knowledge or access or availability of affordable cosmetic dermatological services.

Gender preference and preference for a Saudi dermatologist may be explained by the Saudi cultural milieu. Other studies demonstrated no gender preference by a majority of both male and female patients for providers of dermatological service.<sup>19</sup>

A major issue in developing countries is that the perceived quality health care is one of the principal determinants of utilization and non-utilization of health services,<sup>11</sup> while in reality, care that meets all medical needs may fail to meet some clients' emotional or social demands, and care that meets psychosocial needs may leave the clients medically at risk.<sup>12</sup> For example, in a Bangladesh study, it was seen that reduction in waiting time and some shortening of the medical consultation time showed a significant improvement in client satisfaction.<sup>13</sup> Therefore, in-depth studies should be carried out to determine various aspects of client satisfaction relative to their cultural background.<sup>12</sup> At the same time, a balance between medically appropriate care and patients' satisfaction need to be maintained.

The main limitations of the study design are that the sample included only adolescents of secondary school age which precludes any generalization of the study conclusions. Besides, satisfaction with the services was based on recall of events from past clinic visits. This past recall could be a source of different kinds of errors and bias. Moreover, the severity of disease associated in many investigations with patient satisfaction cannot be examined in this study, which was based on patient subjective judgment rather than the more objective physician decision. Lastly, it is well known that satisfaction is largely determined by the individual's education, experience and expectation. In this study, the expectation of students on the optimum dermatological service before the visit and its effect on satisfaction were not studied.

## CONCLUSION

This study may be seen as an exploratory attempt or as a pilot study to help raise several operational research questions. Well-designed operational

research studies aimed at focusing on areas of patients' expectations and satisfaction with appropriate sample is required. Furthermore, determinants of patients' satisfaction vary with culture. Careful exploration of these determinants is essential to identify areas where myths and misconceptions may impede medically appropriate care at the cost of the patient. Such studies will facilitate the future work of policy makers and service providers and help them to develop appropriate human and other resources in order to tailor dermatologic services to meet clients' expectations in the future.

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