

# Knowledge and Attitude towards Psoriasis among non-medical students at Qassim University, Saudi Arabia

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## ABSTRACT

**Background:** Psoriasis is a common dermatologic disorder with a prevalence rate of 1%-2%. The social acceptance of psoriatic patients is largely dependent on perceptions of this disease in a given population.

**Objectives:** This study aimed at determining the knowledge, ideas and attitudes of university level students about psoriasis with a view to assess the need for improved health education of public at large.

**Subjects and methods:** A cross-sectional survey was done using a self-administered questionnaire from January to April 2009. The study sample was selected at random from the healthy non-medical Saudi students at Qassim University. Out of 1000 distributed questionnaires, 948 completely filled forms were returned by the students.

**Results:** This survey had a response rate of 94.8%. The respondents were 476 (50.2%) males and 472 (49.8%) females. The mean age of the sample was  $21.01 \pm 2.38$  years. One hundred and twenty eight (13.5%) respondents had no information about the disease. The most frequent source of information was media (40.7%). The nature of the disease was unknown to 45.6% and 21.5% respondents considered it non treatable. A high degree of negative feelings towards psoriatic patients were demonstrated by the respondents; 70% would not approve their daughter's marriage to a psoriatic patient, and 62.9% would not eat food prepared or served by a patient. Those respondents who had sought information through books or their doctor were significantly more prone to show positive attitude towards psoriatic patients.

**Conclusions:** Significant lack of knowledge exists among the university level students regarding psoriasis. Our results emphasize the need to design health education and health promotion activities to address this knowledge gap to reduce social stigmatization of psoriatic patients.

**Key words:** Psoriasis, knowledge and attitude, survey

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## INTRODUCTION

Psoriasis is a common, chronic, recurrent inflammatory disease of the skin that affects 1.5% to 2% of the population in Western countries.<sup>1</sup> It is a comparatively prevalent disorder in Qassim region of Saudi Arabia. The hospital based studies have reported a prevalence rate varying between 1.5% to 5.3%.<sup>2,3</sup> The clinical presentation of psoriasis varies in individuals from only a few localized plaques to generalized skin involvement. Psoriatic lesions like other chronic dermatologic diseases such as vitiligo, atopic dermatitis, and acne vulgaris can seriously affect the quality of life of the afflicted patients due to both physical and psychologic scarring<sup>4</sup>. It is well reported that psoriasis affects all aspects of quality of life; including physical, psychological, social, and occupational elements<sup>5-8</sup>.

Because psoriatic lesions are usually visible, the disease can profoundly affect a patient's self-image, self esteem, and sense of well-being<sup>8,9</sup>. The psoriatic

patients often experience difficulties like maladaptive coping responses due to feelings of stigma, shame and embarrassment regarding their appearance. They are often disturbed by a perception of being evaluated by others based on their disfigurement. The stigmatized individuals have been shown to be more distressed about symptoms and reported greater interpersonal impact and lower quality of life than their non-stigmatized counterparts. Stigmatization has been reported to be the most significant factor in predicting depression in psoriasis<sup>10</sup>.

The amount of stigmatization is associated with the level of community awareness and knowledge about psoriasis. The social acceptance of psoriatic patients is largely dependent on perceptions of this disease in a given population. The general population's erroneous perceptions and negative attitudes concerning psoriasis can create frustration and disappointment and impair the social functioning of psoriatic patients. The local scientific literature is lacking regarding the level of community awareness in the shape of prevailing ideas and attitude in general population towards psoriatic patients that may be affecting the quality of life by acting as a barrier to patient's well being and community mixing.

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This study aimed at determining the knowledge, ideas and attitudes of university level students about psoriasis with a view to assess the need for improved health education of public at large.

## SUBJECTS AND METHODS

This cross-sectional survey was performed during the period from January 2009 through April 2009. The study sample was selected at random from the healthy non-medical Saudi students at Qassim University. The medical students were excluded from this survey. The survey was conducted by administering a self reported questionnaire that consisted of 20 questions in Arabic language. The first section of the questionnaire was aimed at gathering demographic information about the respondents such as age, sex, class of study, ethnicity, and place of residence. The respondents were then asked whether or not they had heard of psoriasis; those that had not, did not proceed with the study. The family history of the disease was obtained. The respondents were asked if they had known anyone personally who is suffering from psoriasis. The respondent's knowledge about the disease was assessed by a series of questions related to the sources of information, nature and etiology of psoriasis, availability and effectiveness of treatment. Further questions assessed respondent's attitude towards a patient of psoriasis.

All respondents were fully briefed about the objectives of this survey. The respondents were asked to fill in a consent form. They were ensured that their participation is entirely voluntary and anonymous and the data will be used for research purpose only. No identifying information was included in the survey form. The ethical approval was obtained from the Qassim University Medical School Ethics Committee.

A total of 1000 questionnaires were distributed. The completely filled forms were returned by 948 students. The returned questionnaires were analyzed using Statistical Program for Social Sciences for Windows (SPSS Release 15.0). The results were recorded as frequencies. Chi square and Fisher's exact tests were used to get the level of significance of difference between groups. The  $p < 0.05$  was accepted for statistical significance.

## RESULTS

The response rate in this survey was 94.8%. All respondents belonged to Qassim region and were of same ethnicity. Four hundred and seventy six respondents (50.2%) were males and 472(49.8%) were females. The mean age of the sample was  $21.01 \pm 2.38$  years.

To quantify personal experience of the disease, respondents were asked if they had known anyone personally who is suffering from psoriasis; 104 (10.97%) admitted having personal experience with a diseased family member, friend or colleague. History of psoriasis in first degree relative was obtained in 78 (8.2%).

One hundred and twenty eight (13.5%) respondents had no information about the disease. The respondents' responses to questions that assessed the knowledge of the disease in terms of information source, etiology, transmission and treatment of psoriasis are shown in Table-1. The respondents obtained information about the psoriasis from diverse sources. The frequent sources of information were media (40.7%) and friends or family (19.4%). Only 7.3% respondents have sought information through books or their doctors.

Regarding etiology of psoriasis, 21.4% individuals thought that diet had a role to play in the disease process while 30.6% blamed some kind of allergy to be responsible for the development of psoriasis. The nature of the disease in terms of contagious or non-contagious was not known to 45.6% of the respondents and 18.6% considered it contagious. According to 21.5% respondents the psoriasis was a non treatable disease. Out of 744 respondents who considered this disease to be treatable, 677(91%) were of the opinion that medical treatment was best as opposed to herbal medicine (7.7%) for the treatment of psoriasis.

Several questions looked at the respondents' attitude towards psoriatic patients and Table-2 summarizes their responses. A high degree of negative feelings towards psoriatic patients were demonstrated by the respondents; 70% would not approve their daughter's marriage to a psoriatic patient, 62.9% would not eat food prepared or served by a patient, 51.5% would not like their sons to play with a psoriatic and about half the respondents would feel uncomfortable if sat beside a patient. Twenty percent of the respondents thought that psoriatic patients should be isolated.

No clear differences were present in attitudes toward psoriatics according to age, gender or various educational levels of the respondents. The statistically significant parameters affecting the attitude of respondents in this survey were the sources of information and a positive history of personal contact with a psoriatic patient. Those respondents who had sought information through books or their doctor were more prone to show positive attitude towards psoriatic patients (Table-3). Similar was the case of respondents who had known a psoriatic patient personally (Table-4).

Table-1: Respondent's knowledge about psoriasis regarding source of information, etiology, nature, and treatment.

Parameter	=n	%
<b>Source of information</b>		
Media (tv, press)	386	40.7
Doctors	46	4.9
Friends and family	184	19.4
Book	23	2.4
Multiple sources	181	19.1
No information	128	13.5
<b>Etiology</b>		
Allergy	290	30.6
Immunity	83	8.8
Genetic	141	14.9
Infection	56	5.9
Diet	203	21.4
Don't know	175	18.4
<b>Nature</b>		
Non-contagious	340	35.9
Contagious	176	18.6
Don't know	432	45.5
<b>Treatable</b>		
Yes	744	78.5
No	204	21.5
Don't know	0	
<b>Treatment options</b>		
Medical	677	91.0
Herbal	57	7.7
Don't know	10	1.3

Table-3: Relation between source of information and respondent's attitude towards psoriatic cases

Attitude	Source of information					P
	Books (n=23)	Doctor (n=46)	Friends or Family (n=184)	Media (n=386)	Multiple Sources (n=181)	
Hand shaking	21(91.36%)	36(78.3%)	137(74.5%)	260(67.4%)	128(70.7%)	0.001*
Share food with patient	19(82.6%)	25 (54.3%)	132(71.7%)	211(54.7%)	97(53.6%)	0.001*
Be served by a patient	16(69.6%)	25(54.3%)	96(52.2%)	138(35.8%)	74(40.9%)	0.001*
Allow son to play with a patient	19(82.6%)	28(60.9%)	106(57.6%)	206(53.4%)	101(55.8%)	0.001*
Approve daughter's marriage to a pt	6(26.1%)	19(41.3%)	69(37.5%)	121(31.3%)	60(33.1%)	0.013*

**DISCUSSION**

The purpose of this study was to determine the knowledge, ideas and attitudes of university level students about psoriasis. The results of this survey revealed some important lacunae in knowledge and attitude of our university students. As previous research has indicated, college students are lacking in knowledge about common skin problems<sup>11,12</sup>.

Misconceptions and stigma associated with psoriasis are cultural barriers leading to undesirable behavior towards psoriatic patients thereby preventing them from attending social functions and segregating them from the family.<sup>13-15</sup> Tendency to discriminate the patients was evident from the findings of this study. Despite high literacy status, 45.6% respondents were unaware of the nature of the disease, 18.6% considered it contagious and 20% were of the opinion that a psoriatic patient must

Table-2: Negative attitudes towards psoriatic patients in terms of daily activities

	=n	%
Will not approve daughter's marriage to a patient	664	70.0
Will not eat food prepared by a patient	596	62.9
Will not like to be served by a patient	596	62.9
Will not allow son to play with a patient	488	51.5
Will not sit beside a patient	463	48.8
Will not share food with a patient	456	48.1
Will not hire a patient	448	47.3
Will not share workplace or residence with a patient	346	36.5
Will not shake hand with a patient	336	35.4
Will want to isolate a patient	190	20.0

Table-4: Relation between history of personal contact and respondent's attitude towards psoriatic patients

Attitude	History of personal contact		P
	Positive (n=104)	Negative (n=844)	
Will shake hand with a patient	77 (74.0%)	505 (59.8%)	0.02*
Will approve daughter's marriage to a patient	57 (54.8%)	227 (26.9%)	0.01*

be isolated from the society. Such discriminatory acts were also evident from the attitude of the respondents on certain situations, such as avoidance in sharing of food with the patient or disapproval of marriage proposal for their daughter by a psoriasis patient (Table-2).

A conceptual issue that needs to be addressed in studies on dermatologic illnesses is 'self' versus 'social' stigmatization. Studies in general have looked at the self-beliefs, cognitions, and attitudes of the psoriatic patients in determining stigma. In certain dermatologic illnesses such as leprosy, attempts have been made to address the beliefs and attitudes of both patient and society<sup>16</sup>.

Learning to cope up with a chronic, distressing skin condition is not solely the patient's responsibility. Reassurance from the community as a whole is essential and almost obligatory. Social stigmatization of people suffering from psoriasis is in part

associated with unawareness of the public that this condition is not contagious. Reaction and attitude towards patients originates from information; if the surrounding individuals have correct information about the disease, they are more likely to react in a positive manner to the diseased persons.

An important outcome of this study was the observation that a statistically significant change in the positive attitude towards psoriasis patient can result from personal contact with a sufferer because it enables peoples to better understand the disease (Table 4). Similarly attaining knowledge from reliable health resources had a significant impact on the attitude of individuals (Table 3). Both these observations emphasize the importance of health education in general public. Deep-rooted negative attitude in the society needs to be dispelled through intensive health education campaigns so that the social acceptability of the persons suffering from psoriasis improves. An increased awareness regarding the risk factors associated with the disease and improved public attitude regarding sufferers is highly possible by emphasizing the fact that psoriasis is not contagious.

Health education will only be effective in bringing a change in the community attitude if aimed at the total population within Saudi Arabia. A study from Tanzania has shown that health education activities would change knowledge and attitude only in the group addressed<sup>17</sup>. Education should aim to dispel the common misconceptions associated with psoriasis. It is important to recognize that there is likely to be a delay between education and change in attitude and therefore stigma reduction, as demonstrated by a study in Bangladesh.<sup>18</sup> All educational programs must take this lag period into account and a persistent effort is required before an impact on society can be seen.

It must be noted that present study was conducted on university level students in Qassim region of Saudi Arabia and its results could not be generalized. There is a need to perform a community based large scale survey to estimate the prevalent perceptions about psoriasis in the society. Judging from the magnitude of negative perceptions shown by an educated class as indicated by this study, it would be safer to predict a much wider gap between public perception and the scientific literature in community at large.

This study has concluded that a significant lack of knowledge exists among the university level students regarding psoriasis. Our results emphasize the need to design health education and health promotion activities to address this knowledge gap to reduce social stigmatization of psoriatic patients.

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