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Original Article

Knowledge and attitude towards vitiligo in Qassim Locality, Saudi Arabia

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Abstract

Background Vitiligo is a common depigmentary disorder of the skin with a prevalence rate of 1-2%. The social acceptance of people with vitiligo is largely dependent on perceptions of this disease in a given population and often represents a considerable problem for patients and their families.

Objectives To know our population's attitude towards vitiligo, including people's knowledge of the disease, sources of information and reaction towards vitiligo patients.

Subjects and methods This cross-sectional survey was done using a self-administered questionnaire. Subjects were recruited from the graduate students, and employees of Qassim University from April, 2006 to July, 2006. The data were collected and analyzed using Statistical Program for Social Sciences (SPSS release 15.0). $p<0.05$ was accepted for statistical significance.

Results The study included 423 subjects; 325 (76.2%) were males and 98 (23.8%) were females. One hundred and thirty five subjects (31.9%) had no information about vitiligo while 78.7% of them reported that available sources of information about the disease in general are not enough**.** The main source of information for males was their physicians and for females were the newspapers ($p>0.05$) The disease was regarded as genetically transmissible by 58.2% and 55.6% thought it could be aggravated by stress. About 83% of surveyed subjects declined to marry a diseased person.

Conclusion Community education is needed to clear some false perceptions in the mind of general population regarding vitiligo. This chronic skin disease prevents healthy life style, and better understanding of this disease by general public can result in better adaptation of vitiligo patients in the society.

Key words
Vitiligo, knowledge and attitude

Introduction

Vitiligo is a common idiopathic acquired skin disease due to loss of normal melanin pigment and functioning melanocytes from otherwise healthy looking skin. It is the most common depigmentary disorder of the skin and hair.[1,2] The disease has a worldwide prevalence ranging from 0.5% to 2%.[3,4] It often induces severe cosmetic disfigurement in patients and may significantly affect their quality of life.[5]

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Social acceptance of people with vitiligo is largely dependent on perceptions of this disease in a given population and often represents a considerable problem for patients and their families. The society's response towards vitiligo is also reflected on patient's well being, quality of life, sense of stigmatization and may extend to affect treatment.[6,7]

So far, few studies were found addressing public attitude, general knowledge, and reaction towards patients with vitiligo, particularly in the Eastern cultures like Saudi Arabia. This study aimed at exploring the knowledge of the disease, sources of information and attitude of community towards vitiligo.

Subjects and methods

This cross-sectional survey was carried out using a self-reported questionnaire. The respondents were normal Saudi citizens including graduate students, employees and non-medical staff working at Qassim University. The survey was done during time period starting April, 2006 through July, 2006. A questionnaire was designed that had four main categories, and comprised 17 questions in Arabic language along with a list of possible responses. The respondents were asked to choose the most appropriate response to each question. The questions were designed to elicit the general information about the disease, specific information in terms of cause and nature of the disease, treatment availability and effectiveness, family history and attitude towards vitiligo patients. Ethical approval was obtained from the Qassim University Medical School Ethics Committee.

The returned questionnaires were analyzed using Statistical Program for Social Sciences for Windows (SPSS Release 15.0). The $p<0.05$ was accepted for statistical significance.

Results

The study included 423 subjects; 325 (76.2%) were male and 98 (23.8%) were female. The mean age was 28.5±8.8 years. All responders were resident of Qassim region.

One hundred and thirty five subjects (31.9%) had no information about the disease, and there was no statistically significant gender difference (p=0.945) (**Table 1**). The sources of information about the disease were diverse. The commonest source of information for male was their physicians and for female it was the newspapers; yet the gender differences were statistically non significant (p=0.086). When asked about the availability of information, 333 (78.7%) of the subjects claimed that enough sources of information were not available (p=0.013). Among those subjects who claimed to have information about vitiligo; a significant number 67 (75%) expressed a perceived lack of availability of information as well. There was no significant difference between both genders regarding their view of the availability of information (p=0.086).

Two hundreds and forty-six (58.16%) believed that vitiligo had a genetic background. Among the less likely causes mentioned were diet and infection. There was no significant difference between males and females regarding their perception of

Table 1 Availability of information about vitiligo among surveyed subjects

Studied parameter	*Total n (%)*	*Males n (%)*	*Females n (%)*	*p*
Have got any information	*423 (100)*	*325 (100)*	*98 (100)*	
Yes	288 (68.09)	221 (68.0)	67 (68.37)	0.945
No	135 (31.91)	104 (32.0)	31 (31.63)	
*Source of information**	*292 (100)*	*223 (100)*	*69 (100)*	
Physician	65 (15.37)	56 (25.11)	9 (13.04)	0.086
Newspapers	51 (12.06)	30 (13.45)	21 (30.43)	
Internet	29 (6.86)	25 (11.21)	4 (5.80)	
TV	33 (7.80)	24 (10.76)	9 (13.04)	
Friends	23 (5.44)	18 (8.07)	5 (7.25)	
School	22 (5.20)	16 (7.17)	6 (8.70)	
Parents	16 (3.78)	12 (5.38)	4 (5.80)	
Others	53 (11.58)	42 (18.84)	11 (15.94)	

* Source of information is given only for the surveyed subjects who stated that they did have information about vitiligo (292/423)

Table 2 Specific information about vitiligo in terms of nature of the disease, feasibility for treatment and its prevalence in the area.

Studied parameter	*Total n (%)*	*Males n (%)*	*Females n (%)*	*p*
Disease seriousness	*423(100)*	*325 (100)*	*98 (100)*	
Benign	244 (57.7)	188 (57.8)	56 (57.14)	0.407
Serious	38 (9.0)	26 (8.0)	12 (12.24)	
Don't know	141 (33.3)	111 (34.2)	30 (30.61)	
Feasibility for treatment				
Yes	325 (76.8)	232 (71.4)	69 (70.41)	0.852
No	98 (23.2)	93 (28.62)	29 (29.59)	
Prevalence of the disease				
<1%	70 (16.5)	62 (19.08)	8 (8.16)	0.0001*****
1-5%	174(41.13)	142 (43.69)	32 (32.65)	
5-10%	126(29.79)	89 (27.38)	37 (37.76)	
10-15%	53 (12.53)	32 (9.85)	21 (21.43)	

*significant $p<0.05$

Table 3 Attitude of surveyed subjects regarding their acceptance of affected patients of opposite sex in marriage.

	Total n (%)	*Yes n (%)*	*No n (%)*	*p*
Gender				
Males	325 (100%)	45 (13.8)	280 (86.2)	0.001*****
Females	98 (100%)	28 (28.6)	70 (71.4)	
Family history				
Positive	64 (100%)	21 (32.8)	43 (67.2)	0.001*****
Negative	359 (100%)	52 (14.5)	307 (85.5)	
Total	423 (100%)	73 (17.3)	350 (82.7)	

* significant $p<0.05$

etiology (p=0.266).

Regarding their knowledge about the nature of the disease, 244 (57.7%) of the respondents expressed an assuring opinion that vitiligo is not a serious disease (**Table 2**), and 67.6% said that it is non-contagious to touch. While expressing their opinion regarding effectiveness of the treatment of vitiligo, 71.2% of subjects were optimistic that the disease was curable. When asked about treatment duration, 59.1% said that the disease was curable in less than a year and 2.4% thought it would take only few days to heal. The estimation of prevalence of vitiligo in Qassim region varied greatly among the surveyed subjects. The estimated rate ranged below 1% to as high as 15% (**Table 2**).

Table 3 indicates the inclination of surveyed individuals regarding their acceptance of affected patients of opposite sex in marriage. An overwhelming majority (82.7%) said that they would decline a marriage proposal by a vitiligo patient. However, presence of a vitiligo patient in the family was found to have a positive effect on the attitude of surveyed individuals. The subjects with positive family history of vitiligo were more inclined to marry a diseased patient (p=0.001). Surprisingly, 28.6% of the females showed their willingness to marry a vitiligo patient in contrast to only 13.8% of their male counterparts. This difference was statistically significant (p=0.001). The level of education had no significant effect on this paternal decision, although the nature of the job was found to affect it. High social class workers as university staff as well as students were less willing to marry a vitiligo patient in contrast to low social class employees.

Discussion

Vitiligo is an acquired, idiopathic disorder characterized by depigmented macules that result from damage to and destruction of melanocytes. Although the disease can occur at any age, 50% of patients acquire it before age 20 years. Two of the major theories of the pathogenesis of vitiligo are the autoimmune theory and the autocytotoxicity theory.[1,8] Patients have numerous treatment options available, but none is universally effective. Even among patients who respond to treatment, there is a high potential for relapse.[1,4,9] Vitiligo can have devastating psychological effects on the patient due to cosmetic disfigurement and treatment difficulties.[9] A paramount factor for treatment compliance and psychological well being of the patient is society’s response in general towards victims of this disease. The perception of population towards vitiligo differs in terms of disease seriousness, infectivity, availability of treatment and duration of therapy. In an interesting study from Belgium investigating the attitude of treating dermatologists, it was revealed that due to pessimistic attitude of treating physician themselves about expected treatment results, only 36% of them had encouraged their patients to undergo treatment.[10] This attitude can also be reflected by the patient him/herself. It has been shown by a previous study that children with vitiligo either dealt with the disease well or were devastated by it, depending on the attitude of their parents, relatives, teachers, friends, baby sitters etc.[11]

Although we surveyed a relatively educated population, the results of our study have shown that 31.9% of our subjects had no information about the disease. This reflects the lack of medical information delivered to the students, and may lead to disseminate wrong information to the community.

The source of information in this study is similar to the study by al Robaee[12] to understand the knowledge and belief of acne in University students. This reflects the importance of health professionals and media in transferring the information to the population.

The presence of vitiligo may act as a barrier for the patients mixing into the society, and may hinder their marriages. Our survey results revealed that 82.7% of the subjects declined the idea of accepting a vitiligo patient for marriage. Regrettably this hypothetical refusal is transformed into real situation as reported by Parsad *et al.*[13] that a young woman with vitiligo may have less chance of getting married. Similarly, a married woman developing vitiligo after marriage may have marital problems perhaps ending in divorce.

An important observation in our study was that the presence of a vitiligo patient in the family had a positive effect on the individual's decision to marry an affected person. This is related to the fact that exposure to an affected person provides better chance to understand this disease resulting in less hesitation to socially accept the vitiligo patients. Similarly, the females were found to be more inclined to marry vitiligo males as compared to their counterparts (28.6% females vs. 13.8% males, $p<0.05$). We have no possible explanation for this gender difference except for more sympathetic nature of women. The individuals belonging to better social class were more reluctant to accept a vitiligo partner in marriage, possibly because they enjoyed better choice in marriage proposals due to their better financial status.

The data presented by us clearly indicate the need to educate general masses to clarify some false perceptions in the minds of general population regarding vitiligo. This chronic skin disease is an obstacle to the healthy life style of the patients, mostly in social and psychological terms. Better understanding of this disease by general public will result in better adaptation of vitiligo patients in the society.

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