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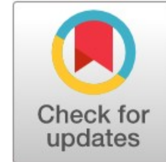

Public Knowledge towards Vitiligo

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PUBLIC KNOWLEDGE TOWARDS VITILIGO

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Abstract. Vitiligo is an acquired pigmentary skin disorder. For investigating knowledge among general population towards Vitiligo, a cross-sectional questionnaire study design was done. We developed a questionnaire to collect information on knowledge of the participants. Demographic data and knowledge towards Vitiligo were recorded. Total 49 subjects completed the questionnaires. Less than one-fourth of the participants realized that it was a hereditary disease and could be triggered by psychological stress. Less than half of participants knew that Vitiligo was not associated with specific food, the nature of disease which associated with immune system, and not associated with internal organ abnormality. Not more than two-third knew that it was not a contagious disease and not caused by poor hygiene. The only question which more than 70% of the participants answered correctly was that it was not life-threatening disease. Understanding the public's misconceptions could help in finding the solution for the negative feeling towards Vitiligo.

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INTRODUCTION

Vitiligo is a common skin disorder which is characterized by a progressive loss of functional melanocytes in the skin that causes circumscribed, depigmented, and asymptomatic macules [1]. The cause is still unknown but it is proposed that it might be the result of an autoimmune process directed against the melanocytes with a strong genetic component [2], [3], [4], [5]. The prevalence of Vitiligo ranges from 0.5-2.0% [6]. Also, the worldwide prevalence of childhood/adolescent and adult Vitiligo is not different [7]. Although there are various treatments, Vitiligo still has no curative treatment. Because Vitiligo is often visible to others, it significantly affects patients quality of life [8], [9]. Especially, in patients who had an active social life aged 20-59 years would associate with a heavy functional burden [10]. People living with Vitiligo may stigmatize from invasive stares and negative interaction which would bring the difficulty and discomfort in daily life.

In previous studies of perceptions, knowledge and attitudes of Vitiligo patients had revealed the publics reaction towards them, the feeling of depression and stigmatization, and the impact on their daily life [11], [12], [13], [14]. So far, few studies revealed public knowledge towards Vitiligo patients, especially in Southeast Asia which has the different skin type and culture from Europe or Western Asia (Arab) cultures. Our studies aimed to document the prevalent knowledge including misconceptions in general public towards Vitiligo. Understanding publics perspective might be promising to give explanations for some of the negative feelings that patients suffer from which would be initial steps to bring the better psychological well-being to Vitiligo patients.

MATERIAL AND METHODS

This cross-sectional survey of visitors attending Thammasat Hospital was carried out using a self-reported questionnaire. We recruited a total of 49 participants in the study. The study was approved by the Research and Ethics Committee of Thammasat University, Thailand. The participants were Thai citizens, who were older than 18 years old. The participants must not be Vitiligo, and have no immediate relatives with Vitiligo. However, participants who were unable to read the Thai language were excluded from the study.

Statistical Analysis: STATA/SE software (version 11, StataCorp, College Station, Tx) was used for statistical analysis. p-values lower than 0.05 were considered significant.

RESULTS

Total of 50 participants were included in the study. The response rate was 98%, with 49 of the 50 completed questionnaires being returned; 9(18.4%) were male, and 40(81.6%) were female. The mean age was 30.9 $\pm$ 8.62. The majority were single and worked as employee with well-educated and moderate income. Most of them had no family occupation associated with healthcare worker.

The mean knowledge score of the participants was 7.04 $\pm$ 3.64. According to Table 1, females had not significantly higher knowledge score compared with males (7.47 $\pm$ 3.35 versus 5.79 $\pm$ 3.36, p = 0.084). Older subjects (3150 and $>$ 50 years) had a higher knowledge score compared with younger subjects (1830 years), (7.23 $\pm$ 3.22 and 8.67 $\pm$ 4.93 versus 7.16 $\pm$ 3.50, respectively), but the difference was not

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statistically significant, p = 0.758. The marital status, divorced showed the highest score than single, married, and separated but that was not significantly associated with the knowledge score, (8.20 ± 1.64 and 7.15 ± 3.47 versus 7.33 ± 2.52, respectively), p = 0.934. Regarding education, high school showed the higher knowledge than university level and elementary or lower level, (7.60 ± 2.70 and 7.16 ± 3.70 versus 3.50 ± 0.71, respectively), but the difference was not statistically significant, p = 0.239. According to occupation, students revealed the highest knowledge score (11.0 ± 0) while the lowest score was reported among housewives (3.5 ± 0.71); however, the difference was not statistically significant, p = 0.186. Those who reported to have family occupation associated with healthcare worker had a higher knowledge score but not significantly compared with those who had not or were not sure (8.25 ± 2.42, 7.06 ± 3.54 versus 7.80 ± 2.49, p = 0.490, respectively). Lastly, the income per month also showed no significant difference at all levels.

TABLE 1
RELATIONSHIP OF KNOWLEDGE ABOUT VITILIGO WITH SOCIODEMOGRAPHIC CHARACTERISTICS

Demographic	n (%)	Knowledge Scores		
		Mean	*SD*	*p*-value
Gender				
Male	9 (18.4%)	5.79	3.36	0.084
Female	40 (81.6%)	7.47	3.35	
Age				
18-30	23 (46.9%)	7.16	3.50	0.758
31-50	22 (44.9%)	7.23	3.22	
> 50	4 (8.1%)	8.67	4.93	
Marital Status				
Single	29 (59.2%)	7.15	3.47	0.934
Married	16 (32.7%)	7.22	3.55	
Divorced	3 (6.1%)	8.20	1.64	
Separated	1 (2%)	7.33	2.52	
Education				
Elementary School or Lower	2 (4.1%)	3.50	0.71	0.239
High School	17 (34.7%)	7.60	2.70	
University or Higher	30 (61.2%)	7.16	3.70	
Occupation				
Housewife	2 (4.1%)	3.50	0.71	0.186
Own Business	6 (12.2%)	6.30	3.25	
Student	1 (2%)	11.00	0	
Retried	2 (4.1%)	9.00	2.83	
Employee	38 (77.6%)	7.49	3.40	
Family Occupation Associated with Healthcare Worker				
Yes	8 (16.3%)	8.25	2.42	0.490
No	39 (79.6%)	7.06	3.54	
Not Sure	2 (4%)	7.80	2.49	
Income Per Month (baht)				
0 10,000	4 (8.2%) 6.00	0.00	0.863	
10,000 50,000	42 (85.7%)	7.11	3.40	
50,001 100,000	1 (2%)	7.55	3.00	
> 100,000	2 (4.1%)	7.78	4.58	

Most of the participants (73.5%) realized that Vitiligo is not a life-threatening condition. Around sixty percent of the subjects were aware that it was not a contagious disease spread via having meal together (61.2%), via breathing (59.2%), and not caused by poor hygiene (59.2%). About half of them knew correctly that it was not contagious by touching (55.1%) or sharing things (49.2%). Also, almost half of them recognized other important features of the disease, including that it was associated with immunological defect (46.9%), it was not associated with an internal organ abnormality (49.0%), and not caused by specific food (44.9%). Around forty percent of them knew that Vitiligo was a treatable disease (38.8%). Only about one-fifth of them recognized that it could be triggered by stress (20.4%) and Vitiligo is a hereditary disease (16.3%).

TABLE 2
RESPONSE OF THE PARTICIPANTS TO KNOWLEDGE QUESTIONS ABOUT VITLIGO

Questions (Correct Answer)	Correct Answers %
Vitiligo is ···	
1. A hereditary disease “Yes”	16.3
2. Triggered by stress? “Yes”	20.4
3. Treatable? “Yes”	38.8
4. Caused by intake of contaminated food? “No”	44.9
5. An immune disease? “Yes”	46.9
6. Associated with an internal organ abnormality? “No”	49.0
7. A contagious disease by use of sharing things? “No”	49.2
8. A contagious by touching? “No”	55.1
9. Due to not keep clean? “No”	59.2
10. Contagious by breath? “No”	59.2
11. Contagious by having meal together? “No”	61.2
12. A life-threatening disease? “No”	73.5

DISCUSSION

Vitiligo has a significant psychological impact due to its cosmetic disfigurement [15]. Due to the nature of its visibility and chronicity, it may cause a significant burden on patients' quality of life [8]. The effect ranges from mild to a severe depression and social anxiety, especially for those who have lesions on exposed skin [9]. Moreover, stigmatization from Vitiligo patients' physical appearance might lead to poor body image, low self-esteem, and social isolation which may finally bring to clinical depression or depression symptoms [16].

Many studies have showed it to significantly affect the Quality of Life (QoL) of Vitiligo patients especially in cases where visible areas or the genitals were affected [17], [18]. Furthermore, Vitiligo negatively affected marriage potential and caused relationship problems in half of the patients. From the study comparison between Vitiligo, acne, and psoriasis, although all these skin conditions resulted in an increase in anxiety and depression among their patient populations in which the psychosocial problem varied lightly for each disease. However, acne, Vitiligo, and psoriasis can have negative psychosocial impact at different stages throughout the life [19]. Current intervention is effective in short-term benefit by enhancing physical appearance of the patient. However, less effectiveness was achieved for the functional and social dimensions, which are more dependent on social and cultural norms. Beliefs about illness have been linked to psychological adjustment and these beliefs may be influenced by cultural factors. The perception of population towards Vitiligo varied in terms of nature of disease, disease seriousness, infectivity, and availability of treatment.

In our study, we focused on the misconceptions of general population towards Vitiligo. Although most of the participants were well-educated, the result of our study showed nearly half of the subjects did not know that Vitiligo is an immune disease, and not contagious by sharing things or touching, although most of the participants were employed, had own business, and high education. More than one third believed that it could be transmitted via direct contact and indirect contact by airborne. Many diet-related myths are prevalent as shown in the study that less than half of the participants believed. According to many previous studies in Saudi Arabia, Vitiligo was associated with the habitual intake of certain food such as fish, milk, white food, and sour food, etc. [20], [21], [22]. However, one third of them knew that there is an available

treatment for Vitiligo, a lower number than that of Qassim's study (76.9%)[23]. Moreover, about 40% of our study recognized that poor hygiene induced Vitiligo. However, a previous study believed that lack of hygiene could lead to Vitiligo higher than our study around 70-88% [20], [21], [22]. These would lead to a huge negative impact and also could explain the isolation experienced by Vitiligo patients. Females, older ones, students, subjects who had family occupation associated with healthcare workers, and high income were more knowledgeable compared with males, younger ones, ones having other occupations, subjects who did not have family occupation associated with healthcare worker, and low income. However, it did not find any significant difference in all these factors.

Less than 20% of our subjects had not known Vitiligo as an hereditary disease; on the other hand, the study in Saudi Arabia realized it as genetic etiology almost double of our result around 40% [22]. The only question which more than 70% of the participants answered correctly was that it was not a life-threatening condition.

In this study, we focused on the knowledge and also misconceptions in general population regarding Vitiligo and it showed that overall knowledge of participants in our study was still limited. This is of great importance because poor knowledge might lead to negative attitude of the general public. It is probably one of the most important reasons for the depression, isolation, and distress experienced by Vitiligo patients. A study by Al-Ghamdi [13] reported that a number of misconceptions and negative attitudes about Vitiligo among the public are prevalent causing the Vitiligo patients' quality of life to become poor. Another unique in-depth analysis of British South Asians living with vitiligo discovered that they suffer from avoidance and concealment. The cultural values are related to status, and misconceptions so there may be a need for community interventions aimed at dispelling myths [24].

CONCLUSION

Common misunderstandings about Vitiligo were found in this study. The most interesting point to be aware of is that the white patches affecting the skin is the Vitiligo disease which is a hereditary immunological disease but it is not a contagious disease. Vitiligo can be treated by various treatments. However, it could be triggered by stress. Gender, age, occupation, family occupation associated with health-care worker or income per month did not show the relatedness with better knowledge. Nevertheless, the limitation of this study was a small sample size of the subjects and it collected the data by using only one place. Future research should focus on both knowledge and attitude of a general population towards Vitiligo. Moreover, it should allow the participants answer the questions by using a video or picture of Vitiligo patient instead of writing the word "Vitiligo" in the questionnaire.

This research is an important step in awareness of the lack of public understanding of Vitiligo. Educating the public about Vitiligo could lead to having better social integration, and psychological well-being for Vitiligo patients. A better understanding of this disease by the general public would result in a better assimilation of Vitiligo patients within society.

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