

Journal Homepage: [www.journalijar.com](http://www.journalijar.com)

## INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI:10.21474/IJAR01/11027  
DOI URL: <http://dx.doi.org/10.21474/IJAR01/11027>



### RESEARCH ARTICLE

#### KNOWLEDGE AND ATTITUDE TOWARDSTHALASSEMIA: INFLUENCING FACTORS AMONG ADULT POPULATION IN SHARJAH, UAE

Mustafa H Kareem<sup>1</sup> and Sura H Kareem<sup>2</sup>

1. MBBS University of Sharjah, Full GMC Registration.
2. MBBS University of Sharjah, Ophthalmology Resident in Iraq.

#### Manuscript Info

##### Manuscript History

Received: 22 March 2020  
Final Accepted: 25 April 2020  
Published: May 2020

#### Abstract

**Introduction:**Thalassemia is an inherited disorder of red blood cells in which there is a defect in the production of normal hemoglobin. (Kukreja, Khan, Xian, Razley and Rahim, 2011). Like in many other countries, thalassemia poses an important public health problem in the United Arab Emirates.

**Aim:**Our aim through this study is to evaluate the participants' general knowledge towards thalassemia and the different attitudes towards controversial issues surrounding thalassemia.

**Methodology:**A cross-sectional study design was used. The study subjects were chosen to represent the adult population of Sharjah, UAE. A custom made self-administered questionnaire was used to collect the data of a sample size that included 400 adults. The program SPSS 21 was used to enter and analyze the data.

**Results:**Out of the total 400 respondents, 259 (64.8%) heard of Thalassemia previously. The main source of knowledge was through television (36.7%) while on the other hand the least was through health care providers (10.8%). Almost all of the respondents were aware of the definition (94.2%) of Thalassemia. While most of them knew how thalassemia was diagnosed, treated and transmitted, many were unaware of its method of inheritance and its types. Furthermore analytical study of the data showed that there is a statistically significant association between the overall awareness of thalassaemia and individuals that have been ever married (P=0.009) as well as individuals who had underwent postgraduate studies (P=0.006). When it came to the attitudes towards thalassemia almost half had a more positive attitude when it came to prenatal testing, marrying a thalassemia carrier and other issues.

**Conclusion:** The overall awareness of the respondents towards thalassemia was significantly higher than expected. This may be attributed to the awareness efforts of this widespread disease in the UAE.

Copy Right, IJAR, 2020,All rights reserved.

**Corresponding Author:-Mustafa H Kareem**

Address:-MBBS University of Sharjah, Full GMC Registration.

**Introduction:-**

Thalassemia is an inherited disorder of red blood cells in which there is a defect in the production of normal hemoglobin. (Kukreja, Khan, Xian, Razley and Rahim, 2011). Thus, it is a group of anomalies in the synthesis of the beta chains of hemoglobin resulting in different degrees of severity that ranges from severe anemia to clinically asymptomatic individuals. Hemoglobin is the protein molecule in red blood cells that carries oxygen. Moreover, like in many other countries, especially south east Asian countries, thalassemia poses an important public health problem in the United Arab Emirates. There are 2 main types of thalassemia which are beta and alpha thalassemia, which are the defect in synthesis of the beta and alpha chain respectively. Also, in both types of thalassemia it can be severe or a mild disease. The clinical presentations of thalassemia includes, weakness, pale or yellow skin, abnormal skull shape, dark urine, and enlarged abdomen. Inheritance of thalassemia will depend on how many genes are missing from the parents, therefore if two genes are missing, the result will be thalassemia major, however if one gene is missing, it will lead to thalassemia trait or minor. The gene defect is deletion of chromosome 11 in thalassemia beta and chromosome 16 in thalassemia alpha. While thalassemia major usually present in very early life with severe anemia, symptoms of thalassemia trait can hide for years. Furthermore, transmission of beta thalassemia is autosomal recessive which means both genes has to be missing in order to have thalassemia major. The diagnosis of thalassemia is usually made on hematological and genetic testing. While the treatment of thalassemia often involves blood transfusion, a regular blood chelation is required which wash out the excess blood in the body. However, bone marrow transplant can be sometimes used especially in children. For that, genetic counselling is given to the family of the affected patients. Also, the outcome of the disease has improved significantly due to the advancement in the medication or procedures that are required for blood transfusion, removal of excess iron, or ways of treating the complications of the disease.

**Aim:**

Our aim through this study is to evaluate general knowledge towards thalassemia of 400 adult participants who live in Sharjah, UAE. And the different attitudes towards all aspects as well as controversial issues about thalassemia, including definition, diagnosis, transmission, consanguinity, prognosis, management, carriers, inheritance, and types. The knowledge was tested by using a questionnaire that contains questions for each category of thalassemia, and samples were selected randomly.

**Methods:-****Design:**

A cross-sectional study design was used.

**Sample:**

The study subjects were chosen to represent the adult population of Sharjah, UAE.

**Instrument:**

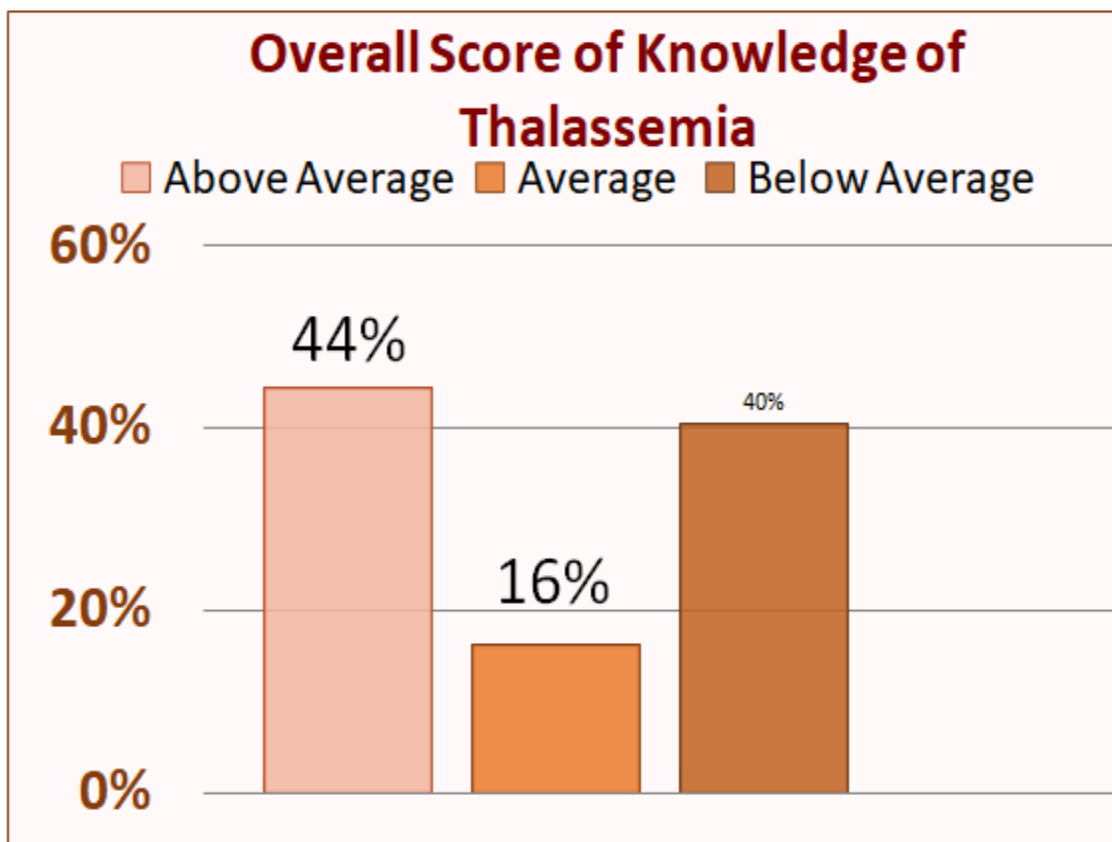
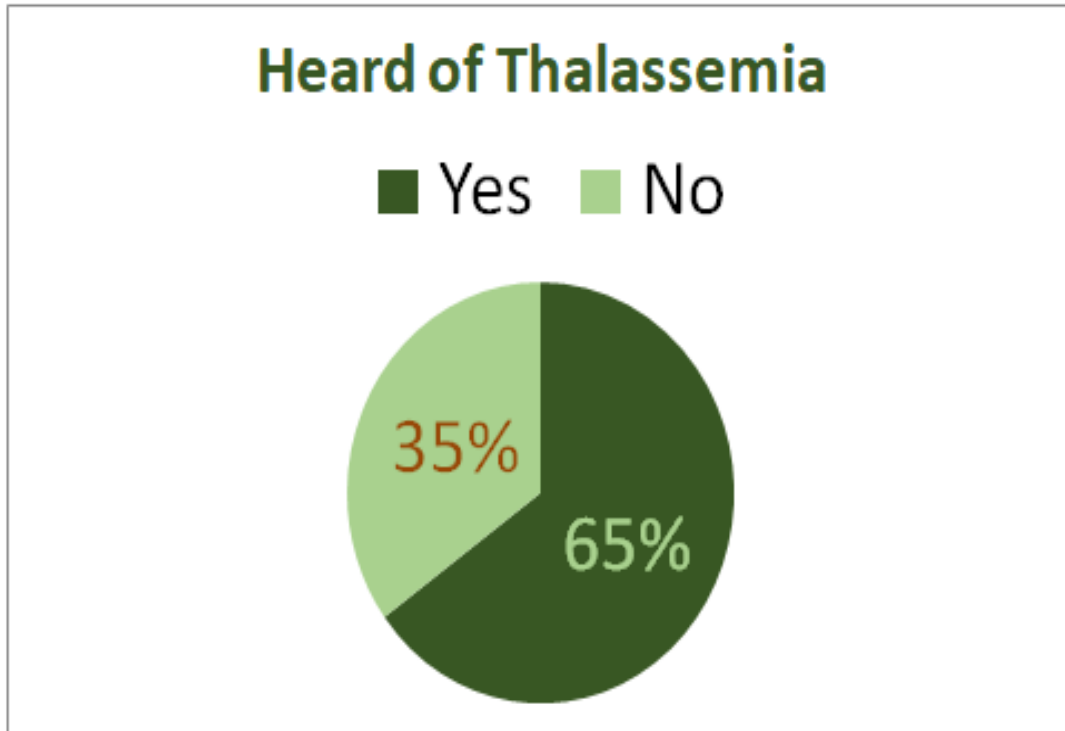
A custom made self-administered questionnaire was used to collect the data of a sample size that included 400 adults.

**Analysis:**

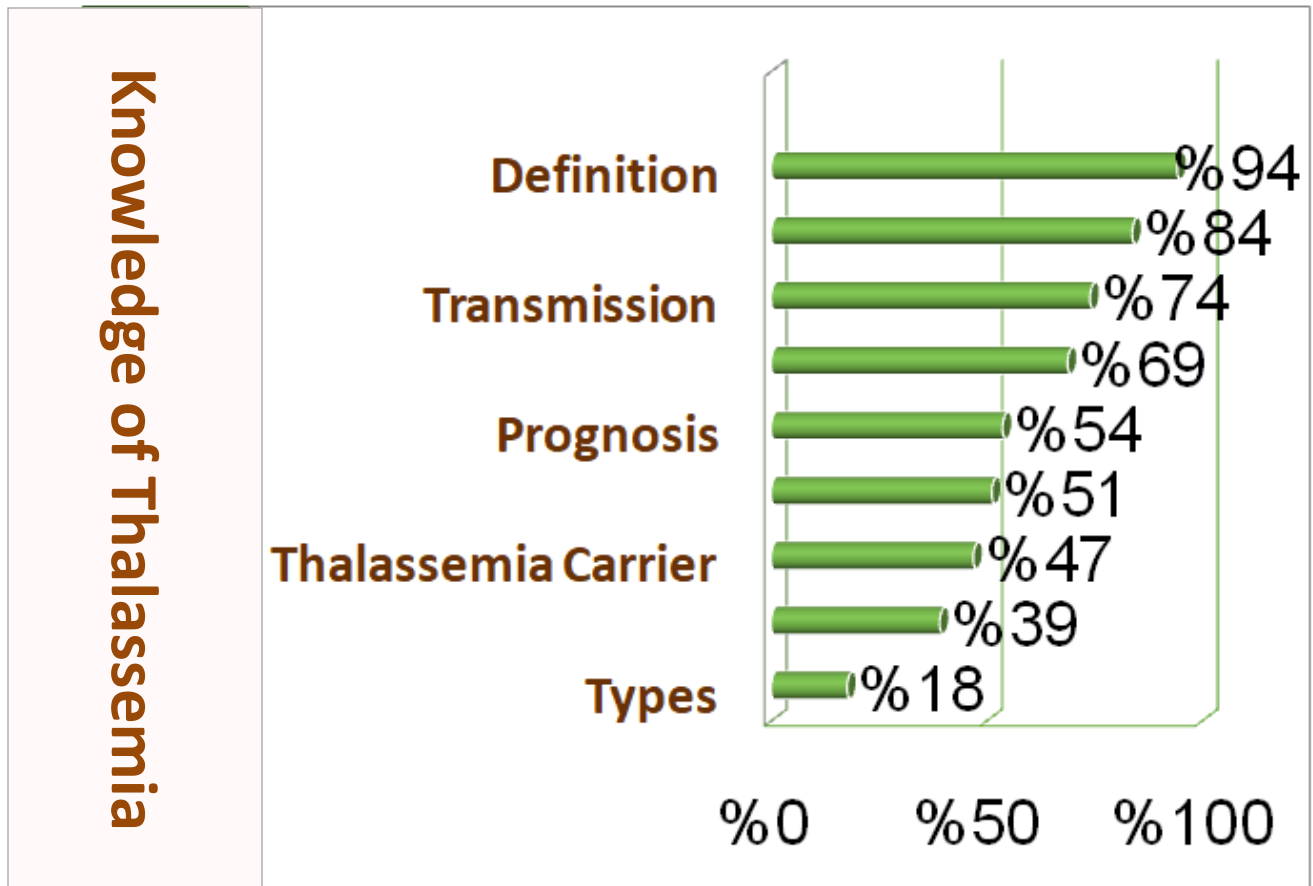
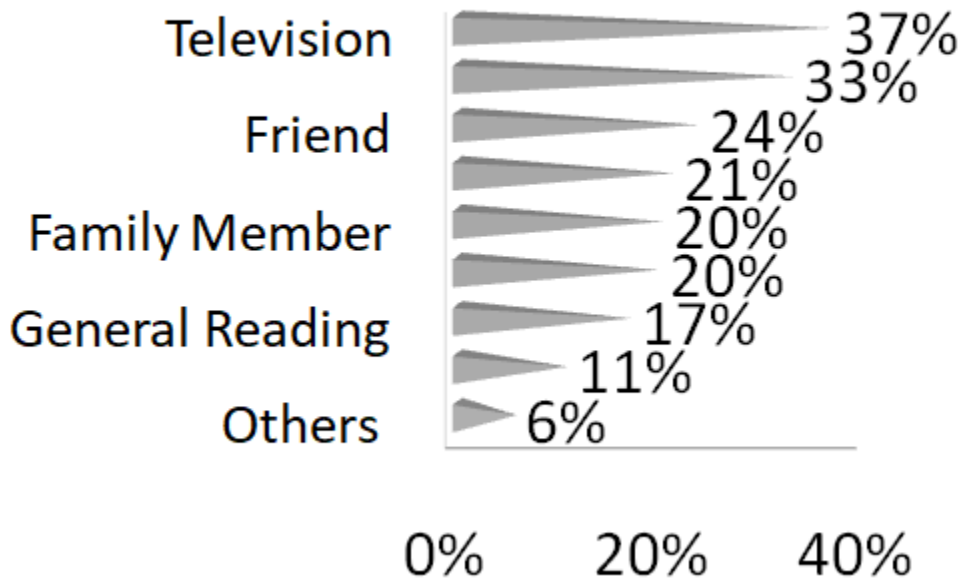
The program SPSS 21 was used to enter and analyze the data.

**What is the knowledge and attitudes towards thalassemia among adults population in Sharjah, UAE?****Results:-**

A total of 400 adults in Sharjah, UAE participated in this study; 56% (n=219) of whom were Arabs, 30% (n=117) were UAE locals and the remaining percentages were non-Arabs. Of the sample, 55% (n=220) were female, 67% (n=268) were between ages 18-29, 65% (n=259) were single and 71% (n=285) were within the university level.



### Sources of Knowledge



**Percentage of correct:**

1. Around two thirds of the participants heard about thalassemia previously.
2. Most of the people that heard about thalassemia were more likely to be aged between 30-39 years old, females, ever married and UAE locals.

**Discussion:-**

1. The most common source of knowledge was television while educational institutes such as; schools and universities came close to second. On the other hand the least source of knowledge was through health care providers.
2. A high percentage of respondents were aware of the nature of thalassemia and the primary test used for diagnosing it. While in comparison, the respondents showed poor knowledge regarding the different types of thalassemia and its mode of inheritance.
3. The mean knowledge score was 5 out of 9; almost half of the participants were above the average. These findings were higher than expected because according to a similar study done in Malaysia; the participants had a significantly low score of knowledge with a mean of 11.85 out of 21. (Wong, George and Tan, 2011).
4. Analysis revealed a statistically significant relationship showing a higher score of knowledge in ever-married adults ( $P=0.009$ ) and participants who had underwent postgraduate studies ( $P=0.006$ ).
5. The attitude score towards controversial issues surrounding thalassemia had no significant results; positive and negative results were almost the equal.
6. A large percentage of the participants were interested in knowing more about thalassemia mainly in regards to its management.

**Limitations:**

Our study was dictated by a geographically restricted area thus limiting the diversity of our sample. Moreover a large number of individuals refused to fill our questionnaire, and this lack of variable participants as well as unreliable data required us to limit the scope of our analysis.

**Conclusion:-**

The overall awareness of the respondents towards thalassemia was significantly higher than expected. This may be attributed to the many different ways of efforts to raise the awareness of this widespread disease in the UAE.

**References:-**

1. Kukreja, A., Khan, A. R., Xian, L. T., Razley, A., & Rahim, Z. (2011). Awareness Of Thalassaemia Among Rural Folks In Penang, Malaysia. *The Internet Journal of Health*, 12(1).
2. Wong, L. P., George, E., & Tan, J. A. M. (2011). Public perceptions and attitudes toward thalassaemia: Influencing factors in a multi-racial population. *BMC public health*, 11(1), 193.