

Factors affecting Adolescents' Adherence to Therapeutic Recommendations after Thalassemia

Wameedh Hamid Shaker

Assistant lecturer, University of Kufa / faculty of Nursing / Head of pediatric Nursing Branch.

Abstract- Objective: to assess thalassaemic adolescents for their adherence to therapeutic recommendations. To find out whether the patients centered factors, disease and therapy related social and economic factors affective the adolescent's adherence to therapeutic recommendations.

Methodology: The study covered a sample of 399 patient's thalassemia. From January 5th 2014 to December 29th each individual in the sample was interviewed using a specific questionnaire form.

Conclusion: the majority of the study sample are living in rural residential area (60.9%) of the completely sample which are the live resident be far in the thalassemia center (researcher opinion).the dominant age group of the study sample is within the (12-13) years (36.6%) because of the adolescent stage is a gene disorder . the relationship between the studied factors and the patients adherence to medication and follow up is high significant.

Recommendation: Improvement patient care, reinforcement of medical education and enhanced efforts by clinical staff to provide practical knowledge to adolescent with thalassemia major and their parents is binding to significantly improve patient compliance to treatment. Additional researches are needed to investigate factors affecting compliance with treatment regimen. Healthiness oriented mass media in providing information to people about thalassemia and other genetic diseases.

Index Terms- Factors, affecting, Adolescent's, Adherence, Therapeutic recommendations, Thalassemia .

I. INTRODUCTION

Thalassemia is a group of genetic disorders in which the body has reduced or absent synthesis of the normal globin chains of hemoglobin resulting in excessive destruction of red blood cells and severe anemia.(1)

There are many repercussions of low adherence in teens, with obvious consequences for themselves, their families and the health care system. For chronic conditions, low adherence increases morbidity and medical complications (hospitalization), contributes to poorer quality of life (fatigue and school absenteeism) and an overuse of the health care system (unnecessary medical consults and investigations) .(2)

Low adherence increases health care costs and may lead a health care team to withhold treatment. In the case of organ transplantation, low adherence is a leading cause of graft rejection and may cause death. (3)

Several psychosocial factors have been linked to poor compliance; these include elevated reports of psychological distress and / or symptoms consistent with elevated negative affect (e.g., depression, anxiety), the unpleasant demands of subcutaneous methods of , as well as, age (increasing age is associated with lower adherence) and gender (typically females are more adherent).(4)

Nursing role of secondary illnesses or comorbidities in the survival rate of adult patients with transfusion-dependent forms of thalassemia, understanding broader aspects of adherence is an important step in research on patients with this disorder. Like many other diseases previously associated with a very shortened life span, thalassemia may now be considered a disease that poses chronic lifelong challenges that become increasingly complex as patients age. (5)

II. STATEMENT OF PROBLEM

Factors affecting Adolescents' Adherence to Therapeutic Recommendations after Thalassemia in Al-Zahra teaching Hospital

The study aims :

- 1- To assess thalassaemic adolescents for their adherence to therapeutic recommendations.
- 2- To find out whether the patients centered factors, disease and therapy related social and economic factors affective the adolescent's adherence to therapeutic recommendations.

Methodology: The setting of the study, the sample of the study, the study instrument, data collection, statistical data analysis and validity of the questionnaire. (6)

Design of the study: A cross sectional study Descriptive design was conducted .The study covered a sample of 399 patient's thalassemia. From January 5th 2014 to December 29th each individual in the sample was interviewed using a specific questionnaire form.

Setting of the study: The study was carried out in in Al-Zahra teaching Hospital in Al-Najaf al-Ashraf Governorate.

The sample of the study: Sample of study (399), adolescent patient's thalassemia were taken in Al-Zahra teaching Hospital male and female adolescent thalassaemic.

III. RESULTS

Table (1):Distribution of the Study Sample by their Demographic Data

Demographic data	Group	Rating	Frequency	Percent	Cumulative Percent
residency	Rural	1	243	60.9	60.9
	Urban	2	156	39.1	100
gender	Male	1	270	67.7	67.7
	Female	2	129	32.3	100
age (Binned)	<= 11	1	106	26.6	26.6
	12- 13	2	146	36.6	63.2
	14- 15	3	68	17.0	80.2
	16- 17	4	50	12.5	92.7
	18+	5	29	7.3	100
Level of education	Illiterate	1	25	6.3	6.3
	Able to Read and Write	2	33	8.3	14.5
	Primary school Graduated	3	80	20.1	34.6
	Intermediate school Graduated	4	143	35.8	70.4
	Secondary school Graduated	5	118	29.6	100
		Total		399	100

This table shows that the majority of the study sample are living in rural residential area (60.9%) of the completely sample. The above table also shows the more of the study subjects (67.7%) are males. In addition, the dominant age group of the study sample is within the (12-13) years (36.6%). Also in regarding to the subjects levels of education, the results show that most of the study sample are intermediate school graduated (35.8 %). The above table moreover of the study sample are secondary school graduated (29.6).

Table 2: Overall Assessment for the patients adherence to Medications and follow up

Patients' Main domains	Adherence levels	Frequency	Percent	Valid Percent	Assessment
Medications	Good	87	21.8	21.8	Fair
	Fair	266	66.7	66.7	
	Bad	46	11.5	11.5	
Follow up	Good	2	0.5	0.5	Bad
	Fair	153	38.3	38.3	
	Bad	244	61.2	61.2	
Overall adherence patients	Good	2	0.5	0.5	Fair
	Fair	325	81.5	81.5	
	Bad	72	18.0	18.0	
	Total	399	100	100	

This table shows that the follow up domain study subject's responses are bad. In addition, at the medications domain study subject's responses are fair. Furthermore, the overall assessment for the patients' adherence to therapeutic recommendations is fair.

Table 3: Overall Assessment for the Factors Affecting on Patients' Adherence

Factors affecting patients adherence	levels	Frequency	Percent	Valid Percent	Assessment
Patients centered	Good	3	0.8	0.8	Fair
	Fair	346	86.7	86.7	
	Bad	50	12.5	12.5	
Disease and therapy related factors	Good	61	15.3	15.3	Fair
	Fair	308	77.2	77.2	
	Bad	30	7.5	7.5	
Social and economic factors	Good	12	3.0	3.0	Fair
	Fair	284	71.2	71.2	
	Bad	103	25.8	25.8	
	Total	399	100	100	
Overall assessment for the factors affecting patients' adherence	Good	2	0.5	0.5	Fair
	Fair	387	97.0	97.0	
	Bad	10	2.5	2.5	
	Total	399	100	100	

This table shows relationship between studied factors (patients centered factors, disease and therapy related factors, and socio-economic factors) and the patients adherence.

Table (4) Relationship Between Factors Affecting Patients' Adherence and the Patients' Adherence to Therapeutic Recommendations.

Main domain		Patients adherence			Sig. value (chi-square)	Degree of freedom	p-value
		Good	Fair	Poor			
Factors affecting patients adherence	Good	0	1	0	34.420	4	0.001 HS
	Fair	2	318	59			
	Poor	0	6	13			

This table shows that there is a high significant relationship between the studied factors and the patients adherence at p-value less than 0.01.

IV. DISCUSSION

Discussion of the Socio-Demographic Characteristics for the Adolescents' Adherence to Therapeutic Recommendations after Thalassemia:

Table (1) The findings indicated that (60.9%) of the subject sample were living at rural residential area. Also (7) they studied the factors affecting compliance plan of thalassemic children and their mothers in outpatient clinic participated urban 40.0% and rural 60.0%.

Regarding to the gender, the study results indicate that the majority of the study subjects (76.7%) are male. This result comes along with (8)the results show that the majority of the study subjects are males. Also Psychological problems associated with thalassemia in diyala province, Iraq, participated 40 males(58%), and 28(41%) female.

This result agrees with (9) who showed that the mean age was mean age of 19.5 ± 4.3 years (range 12–38), in the study Quality of life among Iranian patients with beta-thalassemia major using the SF-36 questionnaire.

Discussion of the Overall Assessment for the patients adherence to Medications and follow up

The same table(2) also reveals that the overall assessment for follow up was bad, this may be attributed to the low level of education especially in rural areas, which my reflect in decreased knowledge about the disease and my lead to weaken the internes in adherence with medical instruction on accepting obliging procedures in relation to taking medication or in the stage of disease follow up by the health care providers, (10)Some studies observed that young patient may be more interesting in treatment adherence than older patient.

Discussion of the Overall Assessment for the Factors Affecting on Patients' Adherence

Table (3) show, that there's a relationship between different factors affecting patients' adherence , patient's factors, disease and therapy factor, and social economic factors, this result may come in agreement with (11), and relationship between social support and patient's adherence.

V. CONCLUSIONS

According to the present study findings, the researcher can make the following conclusions:

1. the majority of the study sample are living in rural residential area (60.9%) of the completely sample which are the live resident be far in the thalassemia center (researcher opinion).
2. the dominant age group of the study sample is within the (12-13) years (36.6%) because of the adolescent stage is a gene disorder .
3. the relationship between the studied factors and the patients adherence to medication and follow up is high significant.

VI. RECOMMENDATIONS

- 1- Improvement patient care, reinforcement of medical education and enhanced efforts by clinical staff to provide practical knowledge to adolescent with thalassemia major and their parents is binding to significantly improve patient compliance to treatment.
- 2- Additional researches are needed to investigate factors affecting compliance with treatment regimen.
- 3- Healthiness oriented mass media in providing information to people about thalassemia and other genetic diseases

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AUTHORS

First Author – Wameedh Hamid Shaker. Assistant lecturer.,
University of Kufa / faculty of Nursing / Head of pediatric
Nursing Branch, wamithh.alzubeidi@uokufa.edu.iq