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Use of Tools of Health Conditions Arthritic to Know Differences in Parent vs. Child Self-Report

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Abstract: This study aims to use of tools of health conditions arthritic to know differences in parent vs. child self-report. Where demographic information and data were collected from different hospitals in Iraq, 60 patients were included and distributed according to gender (16 male patients, 44 female patients). A comparative study, based on observation, was conducted in pediatric patients who were treated at different hospitals in Iraq during the period from 12-5-2019 to 1-3-2020, and the following questionnaires were applied: Child health assessment questionnaire for quality of life and disease, activity degree, and this was designed the study through the use of these measures, which included (pain vas, Child Quality of Life Inventory TM) of Arthritis). Results which found in this study were Patients distributed according to gender, and the most prevalent female patients in this study were 44 patients with 73.3%, and boys were 16 patients with 26.6%. Results according to according to Childhood Health Assessment Questionnaire Disability Index were Without ANY difficulty found for three patients to, girls and boys, With SOME difficulty For three patients, boys, ten girls, with a statistical significance of p-value 0.05, With MUCH difficulty For 6 Patients Boys With 18 Females. A direct relationship between patients and parents in the disease was found to be directly related to the effect of JIA. However, parents' perception of their children's quality of life is more negative than that of the patients themselves.

Keywords: Juvenile Arthritic, Child Self-Report, Health Conditions.

INTRODUCTION

Juvenile arthritis is an inflammation of children that causes joint inflammation, pain, stiffness, and loss of movement [Wallace, C.A. *et al*., 2004; CHQ, 2008]. It can affect any joint, but it is most common in the knees, hands, and feet, and in some cases, it can also affect internal organs [Tollisen, A. *et al*., 2018; Lovell, D.J. *et al*., 2015].

Juvenile arthritis is an inflammation of children that causes joint inflammation, pain, stiffness, and loss of movement [Brunner, H.I. *et al*., 2004]. It can affect any joint, but it is most common in the knees, hands, and feet, and in some cases, it can also affect internal organs. [Shiff, N.J. *et al*., 2018; Klotsche, J. *et al*., 2018]

Disease can be classified into three categories based on the number and type of joints affected symptoms and their duration, and the presence or absence of specific antibodies produced by the immune system. [Tarkiainen, M. *et al*., 2015; Moorthy, L.N. *et al*., 2010; Petty, R.E. *et al*., 1998] These three things often help doctors determine the development of JRA: [Eyckmans, L. *et al*., 2011]

This type of joint JRA occurs in about 50 % of children with the disease, and it affects four or fewer joints. It usually affects large joints, such as the knees, ankles, or elbows. [Miller-Hoover, S. *et al*., 2005]

This type of disease most often affects girls up to the age of seven and boys over the age of eight. [Lundberg, V. *et al*., 2012; Upton, P. *et al*., 2008]

Type II polyarticular. Approximately 30 % of children with JRA have this form of the disease, which affects five or more of five joints. [Eiser, C. *et al*., 2013; De Los Reyes, A. *et al*., 2005]

The polyarticular type is more serious and tends to affect small joints, such as those in the hands or feet. It often appears on both sides of the body, and this type of JRA affects girls more than boys. [Andersson, G.B. *et al*., 1993]

Genes on chromosome 6 encode HLA antigens that play an important role in disease susceptibility and resistance, and the development of many common disorders is influenced by specific HLA antigens. Some of these disorders, such as JRA, are autoimmune and multifactorial. It is thought that when a child has the specific type of HLA antigen associated with this disease, he or she is more likely to develop the disorder. [Waters, E. *et al*., 2003]

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The HLA-associated antigen associated with JRA is known as DR4, and children with HLA DR4 antigen are thought to have a higher chance (or "genetic susceptibility") of developing JRA.

Juvenile idiopathic arthritis (JIA) is the most common chronic rheumatic disease in children. It is a multisystem, dynamic, genetically heterogeneous disease of unknown etiology.

The International Association of Rheumatologic

Societies (ILAR) defines it as swelling or restriction of joint movement accompanied by heat or pain of unknown etiology, which begins before the age of 16 and persists for at least six weeks, and presents with two or more of the following signs: spontaneous pain or pressure, or Local hyperthermia, functional impairment, or restricted movement. This disease destroys joints until it reaches functional deterioration and is one of the causes of the greatest acquired disability in this age group, which usually begins between the first and third years of life. [Haverman, L. *et al*].

MATERIALS AND METHODS

Demographic information and data were collected from different hospitals in Iraq, where 60 patients were collected. Several measures were used in this study to assess the quality of life of patients. In this study, patients were distributed according to ages from 8-16 years, and patients were distributed according to gender (16 boys, 44 girls).

Include patients over the age of 8-16 years. Patients with cognitive impairment and associated chronic diseases that could interfere with pain, as well as patients <8 years of age, were excluded.

A questionnaire was created, allowing a multidimensional assessment of JIA. It is automatically applicable to individuals over seven years of age and contains 15 domains of assessment of the following: Functional status as measured by the Arthritis Function Scale, which contains many questions about activities of daily living using a Visual Analog Scale (VAS).

Child Quality of Life Inventory (TM) of Arthritis assessment with the JIA Quality of Life Scale, a 5-item measurement.

The data were analysed using the SPSS statistical analysis program and were represented by the real value and standard regression, and the statistical relationship was extracted to know the type of relationship in this study.

The hypothesis in this study was that the p-value < 0.05 had a direct statistical relationship.

RESULTS

Table 1: Distribution of patients according to age, N=60

Age	F	P%	CHI-SQUARE
6-9	30	(50)	
10-13	19	31.6	8.98
14-16	11	18.3	

Table 2: Distribution of patients according to sex, N=60

Type	F	p	P-value
Boys	16	26.6	0.00298
Girls	44	73.3	

Table 3: Distribution of patients according to Childhood Health Assessment Questionnaire Disability Index

Type	Boys	Girls	P-value
Without ANY difficulty	3	3	0.99
With SOME difficulty	5	10	0.05
With MUCH difficulty	6	18	0.001
UNABLE to do	4	15	0.0003

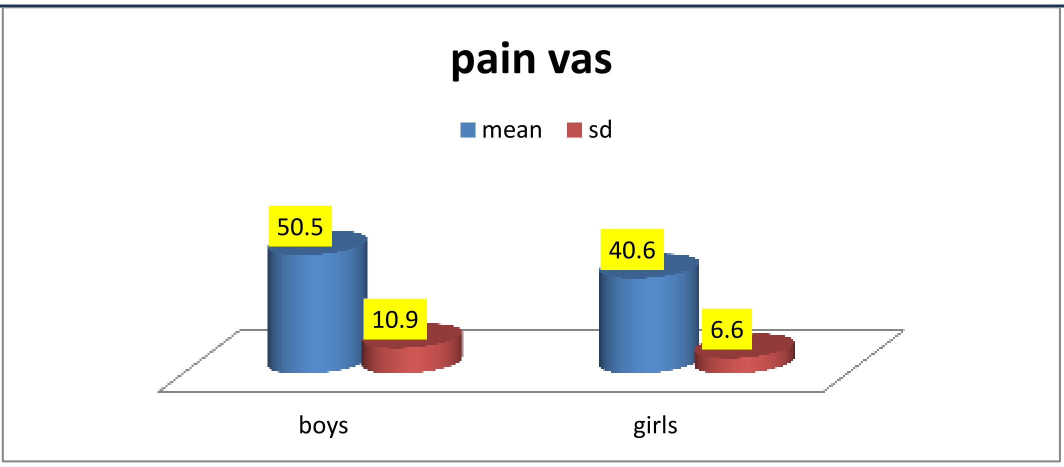

Fig 1: Assessment of quality of life according to Pain VAS

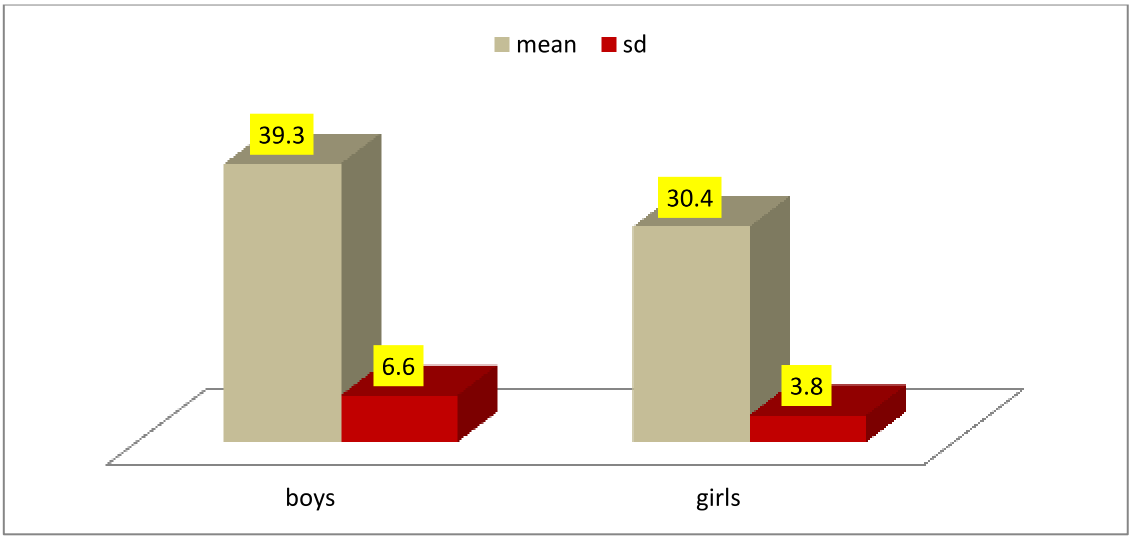

Fig 2:- Assessment of quality of life according to Well-being VAS

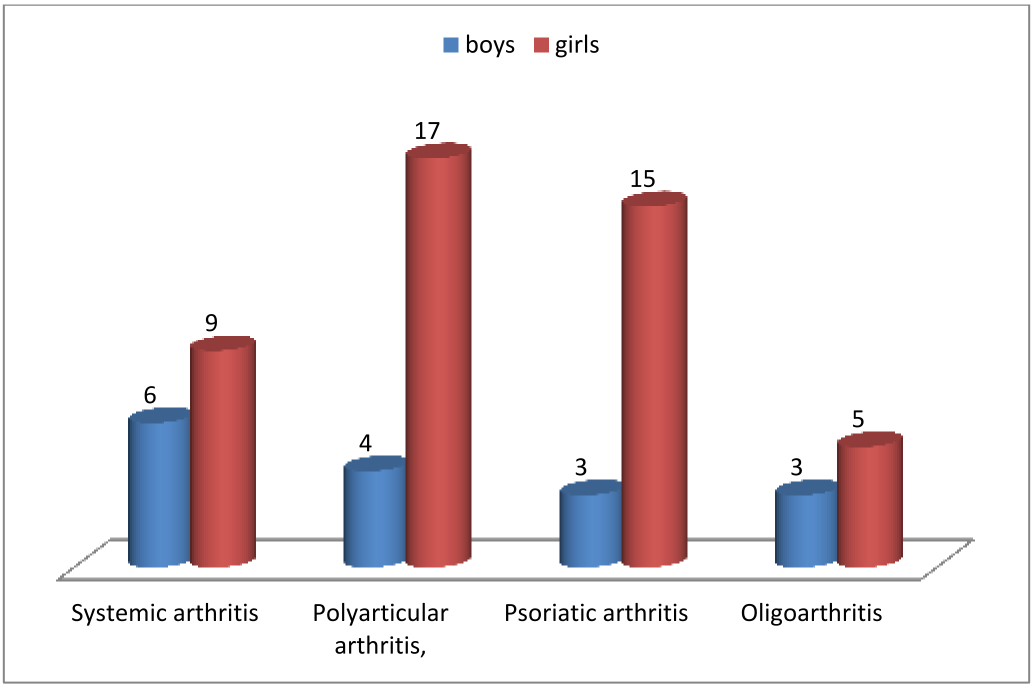

Fig 3: Distribution of patients according to diagnosis defined by the International League of Associations for Rheumatology

Table 4: Outcome of boys with parents according to the Child Quality of Life Inventory TM) of Arthritis

	Variable	Boys	Parents	P-value
Peds QL 4.0-Generic	Physical	70.3±20.9	72.1±22.2	0.44
	Emotional	66.4±22.9	73.2±18.8	0.34
	Social	69.9±21.9	72.1±22.2	0.77
	Psychosocial	69.9±19.9	74.4±20.9	0.78
Child Quality of Life Inventory TM) of Arthritis	Pain and Hurt	73.3±17.1	80.5±15.9	0.01
	Daily Activities	68.5±18.8	79±19.1	0.6
	Treatment	66.2±11.1	71.1±15.3	0.09
	Worry	68.8±13.3	80.1±9.9	0.73
	Communication	50.5±12.9	60.8±18.3	0.23

Table 5: Outcome of boy's patient with parents according to Child Quality of Life Inventory TM) of Arthritis

	Variable	Girls	Parents	P-value
Peds QL 4.0-Generic	Physical	67.8±19.3	73.1±19.9	0.03
	Emotional	67 ±21.1	74.1±19.1	0.45
	Social	66±22	71.1±20.3	0.80
	Psychosocial	68.9±8.9	74.4±19.7	0.78
Child Quality of Life Inventory TM) of Arthritis	Pain and Hurt	69.1±9.9	88±10.1	0.3
	Daily Activities	65.2±10.2	81±8.4	0.988
	Treatment	65.6±19	80±14.1	0.06
	Worry	68.1±11.1	76±11.1	0.80
	Communication	48.6±16.6	68.4±15.5	0.66

Table 6: Assessment of difficulties to study patients and their satisfaction with the current situation

	Satisfaction with the current situation	Boys	Girls
R correlation	1.00	-0.3	0.1
sig	---	0.001	0.04
N		14	46

DISCUSSION

A cross-sectional study was conducted on children suffering from juvenile idiopathic arthritis, and in this study, 60 children were included.

Patients were distributed according to age, with ages 6-9 years being the most frequent in this study for 30 patients with 50 %, 10-13 years for 19 patients with 31.6% with chi aqua 8.98.

Patients were distributed according to gender ,and the most prevalent female patients in this study were 44 patients with 73.3%, and boys were 16 patients with 26.6%.

In table 3 distributions of patients according to the Childhood Health Assessment Questionnaire Disability Index.

Without ANY difficulty found for three patients to, girls and boys, With SOME difficulty for three patients, boys, ten girls, with a statistical significance of p-value 0.05, With MUCH difficulty for 6 Patients, Boys With 18 Females.

The simplest and most common method is to record pain intensity using rating scales where a numerical rating scale has been used, consisting of a sequential series of numbers from 1 to 5 or even 10.

(VAS) contains a set of pain descriptive words that reflect the degree of pain increase, numbered sequentially from least severe to greatest: none (0), mild pain (\), moderate pain (2), severe pain (3), very severe pain (4), unbearable pain (unbearable)

(5). The Visual Analog Scale (VAS) is a straight line 100 mm long, with or without millimetre divisions, The starting point of the line means no pain, and the end point means unbearable pain.

According to the index, the mean S.D. of pain assessment was found for boys 50.5+10.9, while for girls 40.6+6.6 Despite the time of the study on JIA and the paucity of previous studies in assessing the quality of life in child patients with rheumatic diseases. According to the World Health Organization, quality of life is an individual's perception of their place in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and interests.

The most relevant aspects in JIA patients are autonomy, emotion, social inclusion and exclusion, physical limitations, and pharmacotherapy, with the parental perception being the most explored approach.

The assessment of emotional health and quality of life is necessary for a full assessment of the impact of the disease on the child, as the impact on the quality of life of chronically ill patients stems mainly from the inability to perform activities compared to the healthy group. Therefore, the Child Quality of Life Inventory TM was used. Arthritis to assess the quality of life in patients with this disease.

Difficulties with daily activities varied among child patients, boys and girls, but in boys' patients, they reported a greater inability to perform activities.

Disease activity assessed by the Child Quality of Life Inventory TM Questionnaire tends to be greater in boys, with a statistically significant difference between the two groups.

All of this can be explained by external factors, such as the environment around them or the conditions they face as well as access to health services, and cultural differences.

CONCLUSION

In this study, similarly, a positive relationship between patients and parents in the disease was found to be directly related to the effect of JIA. However, the parent's perception of their children's quality of life is more negative than that of the patients themselves.

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