

A comparative study to assess the quality of life in children (2-18 years) with chronic renal disorders and chronic non-renal disorders in a selected hospital, Shillong, Meghalaya.

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Abstract

Quality of life of a child refers to the child’s or the primary caregiver’s perception of the degree to which the child is healthy, comfortable and able to participate in or enjoy life events with regard to physical, social, emotional and school functioning. Renal diseases are among the major health problems that cause major changes in patients’ lifestyle and affect their over-all health functioning.

Children with chronic renal health disorders are exposed to repeated follow-ups, regular medications, acute exacerbations of illness, steroid dependency, relapses, frequent hospitalizations, and many progress to serious health complications which includes chronic renal failure. Children with other chronic diseases also share these similar life experiences.

The study aims to assess the quality of life among children with chronic renal health disorders in comparison with the quality of life among children with chronic non-renal disorders. There was a total of 120 participants in the study, where 60 were children (2-18

years) with chronic renal disorders and another 60 were children with chronic non-renal disorders. A standardized tool the Pediatrics Quality of Life 4.0 (PedsQL) Generic Core Scale, was used to assess the quality of life among these children.

The findings of the study revealed that, the Pediatrics Quality of Life (PedsQL) total quality of life mean \pm SD score was 63.04 ± 24.213 among the chronic renal group and 70.81 ± 21.133 among the chronic non-renal group. Statistically significant difference was found between the two groups in regard to the over-all psychosocial health ($p=0.010$) and emotional functioning (0.019).

On item analysis, it was found that majority of the school going children in both groups faced problems like “Missing school because of not feeling well” or “Missing school to go to the doctor or hospital” (54 participants i.e., 93.1% among the chronic renal group and 44 participants i.e., 86.3% among the chronic non-renal group).

No association was found between the quality of life and selected socio-demographic variables of the participants.

Chronic renal disorders and chronic non-renal disorders does have an impact on the quality of life in children, and the psychosocial functioning of children with chronic renal disorders differs from those with chronic non-renal disorders.

Keywords: Quality of life, child, chronic renal disorders, chronic non-renal disorders.

Introduction

Renal diseases are among the major health problems that cause major changes in patients' lifestyle and affect their over-all health functioning. Children with chronic renal health disorders are exposed to repeated follow-ups, regular medications, acute exacerbations of illness, steroid dependency, relapses, frequent hospitalizations, and many progress to serious health complications which includes chronic renal failure.

Children with other chronic diseases also share similar life experiences as such which includes increased physician visit, hospitalization, emergency events, complex and prolonged medication regimens, painful procedures, days lost from school, and decreased social interaction with peers. Where lengthy hospitalisation is necessary, opportunities to participate in normal activities gets very limited.

Physical appearance and body image can be affected by the disease or its treatment. Treatments may also be associated with long-term complications and/or make the child feel listless and tired, irritable or aggressive, and learning may be compromised.

Children may experience limited physical skills and consequently be unable to take part in everyday social and physical activities. The way in which children respond to such adversity is difficult to predict.¹⁻³

According to WHO, Quality of life is defined as individuals' perceptions of their position in life in the context of the culture and value systems in which they

live in relation to their goals, expectations, standards and concerns.

A formal evaluation of the impact of the disease on physical, emotional, social, and school performance and quality of life (QOL) is imperative to provide comprehensive and holistic patient care. In 2017, James W Varni and et. al. conducted a study on impaired health-related quality of life in children and adolescents with chronic health conditions on over 2,500 pediatric patients using the PedsQL 4.0 Generic Core Scales.

It was found that Pediatric patients with chronic health conditions have progressively more impaired overall health-related quality of life than healthy children.⁴ Only few published studies have been found on the assessment of quality of life in children with chronic renal health disorders in India. Further, most of the studies both nationally and internationally focuses on end stage renal disease (ESRD) or chronic kidney disease (CKD) rather than the entire spectrum of chronic renal conditions.⁵⁻¹⁰ Study results showed varying levels of quality of life among different chronic conditions.^{4,11}

It is not possible to generalise the findings of these few studies on quality of life in children with chronic renal health disorders on the entire pediatric population of India, and/ or on the entire spectrum of chronic renal health disorders in the Indian pediatric population. Studies should be conducted on different population in different parts of the country, so as to achieve a comprehensive understanding of what impact the disease process have on the quality of life in children with chronic illnesses.

Assessment of quality of life in children with chronic illnesses will not only help understand their perception of health status but also the overall outcome of health care provided to the child, it is also vital for proper assessment of health care needs and provision of optimum care.

Further, nursing care for children with chronic diseases, calls not only for expert technical skill but sensitivity to the specific needs of the child.

Providing individualized and comprehensive care to the chronically ill child as well as to his/her family is the priority of a nurse, calls for focussing on the over-all health functioning of the child which includes not only the physical but the psychosocial aspect as well. This is possible only when a nurse is able to understand the differences in the needs of children with different health disorders.^{1,4.}

Materials and methods

In the present study, pediatric OPD, haemodialysis unit and all wards (wherever children aged 2-18 years were admitted, which includes cardiology ward, orthopaedic ward, urology ward, neurology ward, pediatric general ward, general surgery and medicine ward, CTVS ward) of NEIGRIHMS Hospital were chosen purposively as the study setting.

A descriptive comparative research study design was selected for the present study. The study was conducted in NEIGRIHMS hospital, Shillong, Megha laya from 25th April to 21st of May 2022.

There was a total of 120 participants in the study, where 60 were children (2-18 years) with chronic renal disorders and another 60 were children with chronic non-renal disorders. Convenience sampling technique was utilized for selecting study participants.

Criteria for Selection of sample

Inclusion Criteria

- Children (2-18 years) available at the time of the study.
- Children (2-18 years) diagnosed with chronic renal disorders and chronic non-renal disorders since 3 or more than 3 months.

Exclusion Criteria

- Children (2-18 years) or respondents (parents/legally acceptable representative) who are not willing to participate.

• Children (2-18 years) with acute exacerbation of illness. The research topic was first approved by the Research Committee, College of Nursing, NEIGRIHMS. The topic was then approved by the board of NEIGRIHMS Scientific Advisory Committee (NSAC) and the Institute Ethical Committee (IEC) NEIGRIHMS under the thesis number T70/2021/70. Formal permission was obtained from the Medical Superintendent, NEIGRIHMS. All the participants and respondents (parents/other primary caregivers) were explained about the purpose of the study and a written information sheet containing all the information related to the study was made clear to them. The participants and respondents (parents/other primary caregivers) were allowed to clear their doubts before they gave their consent. Then the informed written assent and LAR form was obtained. Freedom to deny participation, and withdrawal was allowed in the study. Confidentiality of their identity and responses was maintained by assigning a code number instead of the names to each of the participant.

Data was collected from either the child or other respondent (parent/other primary caregiver), through a self - administered questionnaire which includes, a structured questionnaire for collecting the socio demo graphic details, as well as a standardized tool the Pediatrics Quality of Life 4.0 (PedsQL) Generic Core Scale to assess the quality of life among children (2-18 years) with chronic renal disorders and chronic non-renal disorders. Data analysis and interpretation was done based on study objectives using descriptive and inferential statistics which were carried out through SPSS ver 25.0 (SPSS Inc. Chicago, IL)

Results

Socio-demographic data of study participants.

Table 1: Frequency and percentage distribution of study participants according to demographic characteristics. N=120

Socio-demographic variables	Chronic Renal Group (n=60)		Chronic Non-Renal Group (n=60)	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Age (in years)				
2-4	5	8.3	11	18.3
5-7	6	10.0	13	21.7
8-12	21	35.0	17	28.3
13-18	28	46.7	19	31.7
Gender				
Male	30	50.0	30	50.0
Female	30	50.0	30	50.0
Religion				
Christian	43	71.7	38	63.3
Hindu	7	11.7	18	30.0
Islam	2	3.3	1	1.7
Others	8	13.3	3	5.0
Education level of the child				
Higher Secondary	5	8.3	1	1.7
Secondary	26	43.3	21	35.0
Primary	27	45.0	29	48.3
No Formal Schooling	2	3.3	9	15.0
Duration of illness (in years)				
≤1	27	45.0	20	33.3
>1-5	23	38.3	24	40
>5	10	16.7	16	26.7
Primary caregiver				
Parents	55	91.7	59	98.3
others	5	8.3	1	1.7

HHHH Out of the 120 children age 2-18 years, among the chronic renal group(n=60), the highest number of participants, i.e., 28 (46.7%) were in the age group 13-18 years, while among the chronic non-renal group (n=60), 17(28.3%) were in the age group of 8-12 years, and 19(31.7%) were in the age group of 13-18 years. There were 30(50%) male and 30(50%) female in both chronic renal and chronic non-renal group. A higher number of participants were Christians in both groups, i.e., 43(71.7%) among the chronic renal group and 38(63.3%) among the chronic non-renal health group. A higher number of participants, i.e., 27(48.3%) among the chronic renal group and 29(48.3%) among the chronic non-renal group were in primary schooling. Among the chronic renal group, 27(45.0%) had duration of illness less than or equal to

Chronic Renal Group (n=60) Frequency (f) Percentage (%) Chronic Non-Renal Group (n=60) Frequency (f) Percentage (%) Age (in years) 2-4 5 8.3 11 18.3 5-7 6 10.0 13 21.7 8-12 21 35.0 17 28.3 13-18 28 46.7 19 31.7 Gender Male 30 50.0 Female 30 50.0 Religion Christian 43 71.7 Hindu 7 11.7 Islam 2 3.3 Others 8 13.3 Education level of the child Higher Secondary 5 8.3 Secondary 26 43.3 Primary 27 45.0 No Formal Schooling 2 3.3 Duration of illness (in years) ≤1 27 45.0 >1-5 23 38.3 >5 10 16.7 Primary caregiver Parents 55 91.7 others 5 8.3 1 year, while among the chronic non-renal group (n=60), 24(40.0%) had duration of illness more than 1 year up to 5 years (Table 1).

Table 2: Frequency and percentage distribution of the study participants according to family characteristics. N=120.

SOCIO-DEMOGRAPHIC VARIABLES	Chronic renal group (n=60)		Chronic non-renal group (n=60)	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Type of Family				
Nuclear	41	68.3	39	65.0
Joint	19	31.7	21	35.0
Number of Siblings				
0-3	30	50.0	41	68.3
4-7	19	31.7	18	30.0
≥8	11	18.3	1	1.7
Marital Status of parents				
Married	47	78.3	52	86.7
Divorced/Widowed	12	20.0	8	13.3
Dead	1	1.7	0	0
Mother's highest level of education				
Uneducated	14	23.3	8	13.3
Primary	14	23.3	10	16.7
Secondary	23	38.3	21	35.0
Higher secondary	4	6.7	10	16.7
Graduate	5	8.3	9	15.0
Post graduate	0	0.0	2	3.3
Mother's occupation				
Employed	28	46.7	28	46.7
Unemployed	29	48.3	30	50.0
Dead	3	5.0	2	3.3
Father's highest level of education				
Uneducated	11	18.3	11	17.7
Primary	23	38.3	5	8.3
Secondary	17	28.3	23	38.3
Higher secondary	4	6.7	5	8.3
Graduate	5	8.3	13	21.7
Post graduate	0	0.0	3	5.0
Father's occupation				
Employed	50	83.3	52	86.7
Unemployed	4	6.7	5	7.7
Dead	6	10.0	3	5.0
Monthly family income (in Rupees)				
≤10000	34	56.7	20	33.3
>10000 - 20000	14	23.3	16	26.7
>20000 - 30000	5	8.3	8	13.3
> 30000	7	11.7	16	26.7

Majority, i.e.47(78.3%) of the study participants' parents in the chronic renal group(n=60) and 52(86.7%) of the study participants' parents among the chronic non-renal group (n=60) were married. Among the chronic renal group, a higher number of participants, i.e., 23(38.3%) had secondary schooling, while among the chronic non-renal group, 21(35.0%) had secondary schooling. Among the chronic renal group, a higher

N=120 number of the study participants' mother, i.e., 23(38.3%) had primary schooling, while among the chronic non-renal group, 23(38.3%) had secondary schooling. 28(46.7%) of the study participants' mothers were employed, 29(48.3%) were unemployed among the chronic renal group(n=60), while among the chronic non-renal group, 28(46.7%) of the study participants' mothers were employed, 30(50.0%) were unemployed. Majority,

i.e., 50(83.3%) of the study participants' fathers among the chronic renal group(n=60) and 52(86.7%) of the study participants' fathers among the chronic non-renal group (n=60) were employed. Among the chronic renal group, 34 (56.7%) of them belongs to households with monthly family income of less than or equal to 10,000 rupees, while among the chronic non-renal group (n=60), a higher number of participants, i.e., 20(33.3%) of them belongs to households with monthly family income of less than or equal to 10,000 rupees. 30(50.0%) of the respondents were parents, 27(45.0%) were children and 3(5.0%) were other primary caregivers, while among the chronic non-renal group, 34(56.7%) of the respondents were parents, 21(55.0%) were children and 5(8.3%) were other primary caregivers. Majority of the study

participants' caregivers in both groups were parents, where 55(91.7%) of the primary caregivers among the chronic renal group (n=60) and 59(98.3%) among the chronic renal group (n=60) were parents. A high number of study participants i.e., 41(68.3%) among the chronic renal group and 39(65.0%) among the chronic renal group belong to nuclear family. A higher number, i.e., 30(50.0%) of the participants have 0-3 siblings, 19(31.7%) have 4-7 siblings and 11(18.3%) have ≥8 siblings. Likewise, among the chronic non-renal group, 41(68.3%) of the participants have 0-3 siblings, 18(30.0%) have 4-7 siblings and 1(1.7%) have ≥8 siblings (Table 2).

Quality of Life of the study participants

Table 3: Mean scores and Standard Deviation for the PedsQL 4.0 Generic Core Scales among chronic renal group (n=60) and chronic non-renal group (n=60). N=120.

Pediatrics Quality of Life (PedsQL) Scale	Group	n	Mean	Std. Deviation
Total quality of life score	Chronic renal group	60	63.04	24.213
	Chronic non-renal group	60	70.81	21.133
Physical health	Chronic renal group	60	56.88	28.086
	Chronic non-renal group	60	66.35	30.179
Psychosocial health	Chronic renal group	60	62.32	19.962
	Chronic non-renal group	60	71.63	18.727
Emotional functioning	Chronic renal group	60	65.25	24.709
	Chronic non-renal group	60	75.17	20.728
Social functioning	Chronic renal group	60	72.75	24.589
	Chronic non-renal group	60	77.67	23.908
School functioning	Chronic renal group	60	48.79	24.031
	Chronic non-renal group	60	55.59	23.699

The Pediatrics Quality of Life (PedsQl) total quality of life mean ± SD scores was 63.04 ± 24.213 among the chronic renal group and 70.81 ± 21.133 among the chronic non-renal group. These scores showed that the quality of life in both the groups are impaired as these scores did not achieve perfect total mean scores in the

Pediatrics Quality of Life 4.0(PedsQl) generic core scale which is 100.

The physical and psychosocial health mean ± SD scores in the chronic renal group were 56.88 ± 28.086 and 62.31 ± 19.962 respectively, while among the chronic non-renal group, the physical and psychosocial mean ± SD scores were 66.35 ± 30.179 and 71.63 ± 18.727 respectively.

Further, the mean ± SD scores of the chronic renal group in the emotional, social and school functioning were 65.25 ± 24.709, 72.75 ± 24.589 and 48.79 ± 24.031 respectively, while among the non-renal group the emotional, social and school functioning mean ± SD

scores were 75.17 ± 20.728, 77.67 ± 23.908 and 55.59 ± 23.699 respectively. These values showed that the physical and psychosocial health (emotional, social and school functioning) are impaired among children with chronic renal disorders and chronic non-renal disorders.

Table 4: Comparison of Mean scores and Standard Deviation for the PedsQL 4.0 Generic Core Scales between chronic renal group (n=60) and chronic non-renal group (n=60). N=120.

Pediatrics Quality of Life (PedsQL) Scale	Group	n	Mean ± SD	p value
Total quality of life score	Chronic renal group	60	63.04 ± 24.213	0.141
	Chronic non-renal group	60	70.81 ± 21.133	
Physical health	Chronic renal group	60	56.88 ± 28.086	0.077
	Chronic non-renal group	60	66.35 ± 30.179	
Psychosocial health	Chronic renal group	60	62.32 ± 19.962	0.010*
	Chronic non-renal group	60	71.63 ± 18.727	
Emotional functioning	Chronic renal group	60	65.25 ± 24.709	0.019*
	Chronic non-renal group	60	75.17 ± 20.728	
Social functioning	Chronic renal group	60	72.75 ± 24.589	0.269
	Chronic non-renal group	60	77.67 ± 23.908	
School functioning	Chronic renal group	60	48.79 ± 24.031	0.141
	Chronic non-renal group	60	55.59 ± 23.699	

DDDD With regard to the over-all PedsQL score, on comparing the mean scores between the two groups using two independent sample t-test, p value was found to be 0.141, which shows statistically no significant difference in the mean scores of Pediatrics Quality of Life 4.0 (PedsQL) Generic Core Scale between the two groups. The p value for comparison of physical health score, social functioning score and school functioning score using the two independent sample t-test between the two groups were 0.077, 0.269 and 0.141 respectively, which reveals statistically no significant difference in the social and school functioning among children with chronic renal disorders and chronic non-renal disorders. However, there was statistically significant difference in the psychosocial health and emotional functioning among children with chronic renal disorders and chronic non-renal disorders, (psychosocial health score - 0.010* and

emotional functioning - 0.019*; p value significant at ≤0.05) where children with chronic renal health had more impaired psychosocial health and emotional functioning than children with chronic non-renal disorders.

On doing an item analysis of the problems related to physical, social, emotional and school functioning, it was found that in all the items, higher number of participants in the chronic renal group had problems with their health functioning as compared to the chronic non-renal group in all the domains.

Also, almost all of the school going participants in both the groups faced problems like “Missing school because of not feeling well” or “Missing school to go to the doctor or hospital” (54 participants i.e., 93.1% among the chronic renal group and 44 participants i.e., 86.3% among the chronic non-renal group).

Association with socio-demographic details

No association was found between the socio-demographic variables (age of the child, gender, religion, education level of the child, number of siblings in the family, duration of illness, type of family, marital status

of parents, parents' educational level and occupation as well as monthly family income) and the quality of life in children (2-18 years) with chronic renal and non-renal disorders (Table 5, 6).

Table 5: Association of selected socio-demographic variables with Pediatrics Quality of Life (PedsQL) score in children with chronic renal disorders and chronic non-renal disorders. N=120.

Socio-demographic variables	Chronic Renal Group (n=60)			Chronic Non-Renal Group (n=60)		
	Lower PedsQL Score	Higher PedsQL Score	p value	Lower PedsQL Score	Higher PedsQL Score	p value
Age (in years)						
2-4	1(1.7)	4(6.7)	0.547	3(5.0)	8(13.3)	0.187
5-7	3(5.0)	3(5.0)		6(10.0)	7(11.7)	
8-12	10(16.7)	11(18.3)		9(15.0)	8(13.3)	
13-18	16(26.7)	12(20.0)		13(21.7)	6(10.0)	
Gender						
Male	17(28.3)	13(21.7)	0.439	15(25.0)	15(25.0)	1.000
Female	13(21.7)	17(28.3)		16(26.7)	14(23.3)	
Religion						
Christian	18(30.0)	25(41.7)	0.135	19(31.7)	19(31.7)	0.179
Hindu	6(10.0)	1(1.7)		11(18.3)	7(11.7)	
Islam	1(1.7)	1(1.7)		1(1.7)	0(0.0)	
Others	5(8.30)	3(5.0)		0(0.0)	3(5.0)	
Education level of the child						
Higher Secondary	2(3.3)	3(5.0)	0.929	1(1.7)	0(0.0)	0.181
Secondary	14(23.3)	12(20.0)		14(23.3)	7(11.7)	
Primary	13(21.7)	14(23.3)		13(21.7)	16(26.7)	
No Formal Schooling	1(1.7)	1(1.7)		3(5.0)	6(10.0)	
Number of siblings						
0-3	13(21.7)	17(28.3)	0.266	20(33.3)	21(35.0)	0.405
4-7	9(15.0)	10(16.7)		11(18.3)	7(11.7)	
≥8	8(13.3)	3(5.0)		0(0.0)	1(1.7)	
Duration of illness (in years)						
≤1	14(23.3)	13(21.7)	1.000	10(16.7)	10(16.7)	0.822
>1-3	8(13.3)	8(13.3)		9(15.0)	7(11.7)	
>3-5	3(5.0)	4(6.7)		5(8.3)	3(5.0)	
>5	5(8.3)	5(8.3)		7(11.7)	9(15.0)	

Table 6: Association of selected socio-demographic variables of participants with Pediatrics Quality of Life (PedsQL) score in children with chronic renal disorders and chronic non-renal disorders. N=120

Socio-demographic variables	Chronic Renal Group (n=60)			Chronic Non-Renal Group(n=60)		
	Lower PedsQL Score	Higher PedsQL Score	p value	Lower PedsQL Score	Higher PedsQL Score	p value
Primary caretaker						
Others	2(3.3)	3(5.0)	1.000	1(1.7)	0(0.0)	1.000
Parents	28(46.7)	27(45.0)		30(50.0)	29(48.3)	
Type of family						
Joint	10(16.7)	9(15.0)	0.779	8(13.3)	13(21.7)	0.101
Nuclear	20(33.3)	21(35.0)		23(38.3)	16(26.7)	
Marital Status of parents						
Married	24(40.0)	23(38.3)	1.000	27(45.0)	25(41.7)	0.870
Divorced	1(1.7)	2(3.3)		2(3.3)	1(1.7)	
Widowed	5(8.3)	4(6.7)		2(3.3)	3(5.0)	
Dead	0(0.0)	1(1.7)		0(0.0)	0(0.0)	
Mother's education						
Uneducated	7(11.7)	7(11.7)	0.093	6(10.0)	2(3.3)	0.499
Primary	11(18.3)	3(5.0)		5(8.3)	5(8.3)	
Secondary	10(16.7)	13(21.7)		12(20.0)	9(15.0)	
Higher secondary	1(1.7)	3(5.0)		4(6.7)	6(10.0)	
Graduate	1(1.7)	4(6.7)		4(6.7)	5(8.3)	
Post graduate	0(0.0)	0(0.0)		0(0.0)	2(3.3)	
Mother's occupation						
Employed	13(21.7)	15(25.0)	0.695	16(26.7)	12(20.0)	0.718
Unemployed	16(26.7)	13(21.7)		14(23.3)	16(26.7)	
Dead	1(1.7)	2(3.3)		1(1.7)	1(1.7)	
Father's education						
Uneducated	6(10.0)	5(8.3)	0.581	5(8.3)	5(8.3)	0.239
Primary	14(23.3)	9(15.0)		3(5.0)	2(3.3)	
Secondary	6(10.0)	11(18.3)		14(23.3)	9(15.0)	
Higher secondary	2(3.3)	2(3.3)		1(1.7)	4(6.7)	
Graduate	2(3.3)	3(5.0)		8(13.3)	5(8.3)	
Post graduate	0(0.0)	0(0.0)		0(0.0)	3(5.0)	
Father's occupation						
Employed	25(41.7)	25(41.7)	1.000	27(45.0)	25(41.7)	0.870
Unemployed	2(3.3)	2(3.3)		3(5.0)	2(3.3)	
Dead	3(5.0)	3(5.0)		1(1.7)	2(3.3)	
Monthly family income (in Rupees)						
≤10000	17(28.3)	17(28.3)	0.908	10(16.7)	10(16.7)	0.282
>10000 - 20000	8(13.3)	6(10.0)		10(16.7)	6(10.0)	
>20000 - 30000	2(3.3)	3(5.0)		5(8.3)	3(5.0)	
> 30000	3(5.0)	4(6.7)		5(8.3)	11(18.3)	

Discussion

According to the present study, the quality of life in both the groups are impaired where children (2-18 years) with chronic renal disorders had mean score of 63.04 ± 24.213 and children (2-18 years) with chronic non-renal disorders had mean score of 70.81 ± 21.133. However,

comparison of mean scores using independent sample t-test reveals p value of 0.141 which shows that there is statistically no significant difference (at p value of <0.05) in the Quality of Life between children (2-18 years) with chronic renal disorders and children with chronic non-renal disorders. The study findings are inconsistent with

two other similar studies conducted in different parts of India. Jyoti Sho keen et. Al. (2017, Haryana) found that children with chronic renal diseases have better quality of life as compared to children with other chronic non-renal diseases, mean Quality of Life scores among children with chronic renal disease was 4594.64 ± 304.95 while asthma was 4367.86 ± 264.36 , seizure was 3896.23 ± 419.46 and hepatitis was 3740 ± 247.26 . 4 Sonia Agarwal et.al. in 2017 (JIPMER, Pondicherry) also found that children with chronic primary idiopathic nephrotic syndrome have better quality of life than children with other chronic health disorders The median (interquartile range) total QOL score in children with nephrotic syndrome [65 (59–68.75)] was found to be higher compared to children with other chronic health disorders [62.19 (58.05–65.78)] ($P = 0.012$). 1 Both groups had lowest mean scores in the domain of school functioning where the chronic renal group had mean score of 48.79 ± 24.031 and the chronic non-renal group had score of 55.59 ± 23.699 , which shows that school functioning is most affected in both the groups. This finding is consistent with a study conducted by Jyoti Sho keen et. al. (2017, Haryana) where most affected dimension was about school with mean 277.52 ± 46.53 .⁴

Further, comparing the mean scores in each domain using independent sample t-test, reveals p value for psychosocial health score as 0.010, and 0.019 (statistically significant at p value of <0.05 in the emotional domain, 0.269 in the social domain and 0.326 in the school domain which shows that there is statistically no significant difference in the physical, social and school functioning between the chronic renal group and chronic non-renal group, except for psychosocial health and emotional functioning, where participants with chronic renal health disorders have poorer psychosocial health and emotional functioning as compared to children with

chronic non-renal health disorders. The study findings are inconsistent with the study conducted by Sonia Agarwal et.al. in 2017 (JIPMER, Pondicherry), where it was found that children with nephrotic syndrome had significantly higher QOL scores in over-all psychosocial health - physical ($P = 0.004$), emotional (0.029), and social functioning (0.010) domains as compared to controls, while the school performance was not different from controls.¹

It was also found that, majority of the school going children among the chronic renal group ($n=58$) and most of them among the chronic non-renal group ($n=51$) faced problems like “Missing school because of not feeling well” or “Missing school to go to the doctor or hospital”. This finding is consistent with the study conducted by James W Varni et.al (2007, USA) where all school-going children enrolled in the study, “missed schools to go to the doctor or hospital” or “missed school because of not feeling well”.³

The present study showed that there is no significant association between Quality of Life and the socio demographic variables among children (2-18 years) with chronic renal disorders and chronic non-renal disorders. This finding is partly consistent with other similar study findings, Sonia Agarwal et.al.

2017 (JIPMER, Pondicherry) found that socio-demographic variables (age, gender, duration of illness) did not significantly influence the total QOL scores among the nephrotic children. Jyoti Sho keen et. al. (2017, Haryana) also found that socio-demographic (age, gender, mother’s occupation) had no association, however association was found between quality of life and mother’s education, father’s education, father’s occupation, family income per month and type of family.⁴ Sudung Oloan, Pardede, et. al. (Indonesia, 2019) also found that duration of child’s illness, gender and

educational level of the child is associated with the quality of life in children with chronic kidney disease, while the child's age, mother's education, father's education, mother's working status and family income had no association with the quality of life.⁶

Conclusion

Assessing the quality of life of children with chronic renal health disorders or any other chronic illness for that matter, is vital for improving and providing care that actually makes a difference in the health care outcome and over-all quality of life of a child. The findings of the study reveal that, chronic renal and chronic non-renal disorders do have an impact on the over-all quality of life in children and that there are differences in the individual psychosocial health experiences between the two groups. Therefore, each and every aspect, inclusive of both physical and psychosocial health should be a priority of the nurse when caring for children with chronic renal health disorders and chronic non-renal health disorders. Family centred care should also be put into actual practice by every nurse, in their day-to-day care of a child, as a child's health is a product of the biophysiological and psychosocial environment.

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References

1. Agrawal, Sonia & Krishnamurthy, Sriram & Naik, Bijaya Nanda. Assessment of quality of life in children with nephrotic syndrome at a teaching hospital in South

India. Saudi Journal of Kidney Diseases and Transplantation. 2017 July. 28.1319-2442.

2. C Eiser, R Morse. Quality-of-life measures in chronic diseases of childhood.pdf.

3. Varni JW, Limbers CA, Burwinkle TM. Impaired health-related quality of life in children and adolescents with chronic conditions: a comparative analysis of 10 disease clusters and 33 disease categories/severities utilizing the PedsQL 4.0 Generic Core Scales. Health Quality of Life Outcomes. 2007 Jul 16.5(43).

4. Jyoti, Sho keen and Kumar, Yogesh and Kaur, Ms. Assess ment of quality of life among children with chronic diseases; a descriptive study. 2018 April; 6(53)

5. A Review of Pediatric Chronic Kidney C. D.W. Kaspar R. Bholah T.E. Bunch man; Kaspar CD, Bholah R, Bunch man TE. A Review of Pediatric Chronic Kidney Disease. Blood Purif.2016;41(1-3):211

6. Pardede, Sudung & Rafli, Achmad & Gunardi, Hartono. Quality of Life in Chronic Kidney disease children using assessment Pediatric Quality of Life Inventory. Saudi Journal of Kidney Diseases and Transplantation. 2019. 30. 812.

7. Dotis J, Pavlaki A, Printza N, Stabouli S, Antoniou S, Gkogka C, et al. Quality of life in children with chronic kidney disease. Pediatric Nephrology Journal. 2016 Dec;31(12):2309–16.

8. Yadav S, Kandalkar B. Epidemiology of Pediatric Renal Diseases and its Histopathological Spectrum – A Single-Center Experience from India. Saudi J Kidney Dis Transplant 2021 August; Vol.32;1744- 53.

9. Analysis of chronic kidney disease among national hospitalization data with 14 million children. Xinmiao Shi1, Ying Shi2, Luxia Zhang3 and et. al. Analysis of chronic kidney disease among national hospitalization data with 14 million children. BMC Nephrology Journal. 2021May 25;22(1):195.

10. Arwa M. El Shafei, Ibrahim Soliman Hegazy, Fatina Ibrahim Fadel, Eman M. Nagy, "Assessment of Quality of Life among Children with End-Stage Renal Disease: A Cross-Sectional Study", *Journal of Environmental and Public Health*, 2018 August. 54(2);85-96.

11. Kiliś-Pstrusińska, Katarzyna, Medyńska and et.al. Perception of health-related quality of life in children with chronic kidney disease by the patients and their caregivers: Multicenter national study results. *Quality of life research: an international journal of quality-of-life aspects of treatment, care and rehabilitation*. 2013 July. (22). 234-556.