Psychosocial aspects of nephrotic syndrome among children and their caregivers

Fadia Zyada[a], Amira Elbatrawy[d], Doaa Khalifa[d], Sherif G. Waly[b], Eman M. Mouawad[b] and Dalia Ahmed[c]

Departments of [a]Psychiatry, [b]Pediatric, [c]Public Health and Community Medicine, Faculty of Medicine, Cairo University and [d]Department of Psychiatry, Ain Shams University, Cairo, Egpyt

Correspondence to Amira Elbatrawy, MD, Department of Psychiatry, Cairo University, 127496 Jeddah, 21352 Cairo, Egpyt
Tel: +20 122 174 585; fax: +96626835874; e-mail: ahazzou@gmail.com

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Aim
Nephrotic syndrome in children has biological, behavioral, and social manifestations that have implications on the mental health, social and personality development of the child, and family coping.

Objective
This study was carried out to detect the psychosocial impact of nephrotic syndrome on children suffering from this disorder and their caregivers.

Patients and methods
Forty patients with nephrotic syndrome were recruited from the inpatient and outpatient nephrology clinics of new children hospital, Cairo University. In addition, 40 healthy participants matching in age and sex were also included as a control group. Both groups were subjected to different psychometric tests. The patients were subjected to the Stanford–Binet test, the Achenbach Child Behavior Checklist, the Child Depression Inventory, and the anxiety scale for children. The mothers of the children were subjected to the Quality of Life Scale, a social score to calculate social standards of families, and the Social Readjustment Rating Scale.

Results
The results showed that there was a statistically significant difference between children with nephrotic syndrome and controls as regards the mean intelligence quotient. There was a highly statistically significant difference between both groups as regards the mean psychometric scores on the Child Depression Inventory. There was no statistically significant difference as regards the means anxiety score. Among nephrotic syndrome patients, 47.5% had moderate anxiety, 37.5% had severe anxiety, and 15% had mild anxiety. According to Child Behavior Checklist, among nephrotic syndrome patients, the mean score was higher on the internalizing subscale (anxiety, depression, and withdrawal) compared with the externalizing subscale (aggressiveness and delinquency). Moreover, the mean score on the internalizing problems subscale was higher among patients nephrotic syndrome compared with controls. There was a statistically significant difference between the two groups as regards withdrawal, anxiety/depression, and thought and attention problems. There was a highly statistically significant difference between the two groups as regards quality of life.

Conclusion
Nephrotic syndrome in children has a significant impact on intellectual functions and behavioral aspects, including anxiety and depression. Parents of children with nephrotic syndrome are more likely to develop psychosocial problems, have less social adjustment, and have a poorer quality of life compared with parents of healthy children.

Keywords:
children, nephrotic syndrome, psychosocial aspect

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Introduction

Nephrotic syndrome is one of the chronic illnesses of childhood that has a significant association with behavioral problems [1].

A vast majority of children with nephrotic syndrome suffer from a high relapse rate. The chances of a relapse after a first episode are still as high as 30–40% [2]. Therefore, not only the medical but also the psychosocial burden is high for patients with nephrotic syndrome, their parents, and other caregivers [3].

As is the case with any chronic illness, nephrotic syndrome in children also has biological, behavioral, and social manifestations that have implications for the mental health, social and personality development of

the child, and family coping. This would apply naturally to patients with nephrotic syndrome because of its relapsing and remitting course. Prolonged steroid treatment may also contribute to behavioral disturbances in this especially vulnerable population [1].

In contrast, there have been a few studies documenting the behavioral difficulties in children suffering from nephrotic syndrome; however, these need to be replicated clinically and in community-based populations [4].

The aim of our study was to identify the psychosocial impact of nephrotic syndrome on children and their caregivers.

Patients and methods

Forty patients with nephrotic syndrome were recruited from the inpatient and outpatient nephrology clinic of new children hospital, Cairo University. Forty healthy children matched for age and sex were included as controls.

The children were divided into two groups.

Group I

This group comprised 40 children suffering from nephrotic syndrome. The mean age at onset was 8.9 ± 1.8 years and the mean disease duration was 5.6 ± 1.7.

Group II

This group comprised 40 healthy controls matched for age and sex.

Children aged between 4–12 years of both sexes who were diagnosed with Idiopathic Childhood Nephrotic Syndrome, which is characterized by heavy proteinuria, hypoalbuminemia, and hyperlipidemia and is often associated with edema, both sexes were included [5].

We excluded patients with nephrotic syndrome who had associated chronic medical illnesses. Children with a history suggestive of congenital nephrosis, psychiatric disorders, organic brain injury, and mental retardation were also excluded.

An informed consent was obtained from families of patients, and an agreement was obtained from the hospital ethical committee to carry out the research in the nephrology department.

All patients were subjected to a psychiatric examination by means of a semistructured interview using the child psychiatric sheets of Kasr El Aini Hospital.

Psychiatric disorders were diagnosed according to the *Diagnostic and Statistical Manual of Mental Disorder*, 4th ed. by a senior psychiatrist consultant.

All participants were subjected to the following psychometric tools.

For the patients

The Stanford–Binet test

This is a comprehensive intelligence test. The form of this test used at present to measure the intellectual level with a standardized intelligence quotient (IQ) test was developed by Terman and Merril [6].The test was translated and standardized by Melleka to be used in an Arabic version. It is used to assess verbal and performance, early learned, timed and untimed, and culture-bound skills and abilities.

The Achenbach Child Behavior Checklist

This test was developed by Achenbach and Edelbrock [7]; a recent modification of this was developed in 2001.The Arabic version of the Child Behavior Checklist (CBCL) was published by El Dafrawy and colleagues in 1995. It was designed to assess the behavioral problems and psychosocial competence of children aged between 4 and 18 years. It contains 113 items concerning behavioral, emotional, and social problems covering different areas of psychosocial functioning of the child, including anxiety, depression, withdrawal, somatic complaints, social problems, thought problems, attention problems, delinquent behavior, and aggression. A total problem score is calculated by summarizing all scores on the 113 items. The test consists of a total scale and two subscales, namely, internalizing problems (emotionally reactive, anxious/depressed scales, somatic complaints, and withdrawn behavior) and externalizing problems (attention problems and aggressive behavior). *T* scores were calculated for each patient for the total, internalizing, and the externalizing subscales. *T* scores below 60 imply an insignificant problem, those in the range of 60–70 indicate serious behavioral problems, and those above 70 signify severe behavioral or emotional problems.

The Child Depression Inventory

The Child Depression Inventory (CDI), invented by Kovacs [8], has excellent psychometric properties, which means that it measures depression in children accurately and reliably when used properly. The questionnaire consists of 27 groups of statements. Each group has three statements, and the child is asked to choose a suitable one (about his feelings, experiences, and thoughts). Each of the three statements has a score (0, 1, and 2); the highest score is 54°. The raw score obtained by the child is transformed into an equivalent score according to tables designed, depending on the age and sex of the child. According to the table, 49 is a significant score for depression. Only patients in the age range of 7.5–16.5 years are eligible to undergo this test [8]. The Arabic version of the CDI was published by Abdu El Fattah in 1989.

The anxiety scale for children

This test consists of 53 items. Scores up to 18 denote mild anxiety. Scores between 19 and 20 denote moderate anxiety. A score above 29 indicates severe anxiety. Only patients in the age range of 7.5–14 years are eligible to undergo this test. The Arabic version of the anxiety scale for children was published by El-Belbawy in 1987 [9].

For the parents

The Quality of Life Scale

This questionnaire consists of 30 questions to assess somatic problems, thinking problems, mood problems, social stressors, economic problems, and special problems.

The test was translated and standardized by Akram Kamal to be used in an Arabic version [10].

Social score to calculate social standards of families

This type of social score is used to correlate the social standard with the knowledge, attitudes, and practices of certain groups with certain health problems related to culture. The model has been modified with the addition of certain social indices, which include the presence or absence of audiovisual aids of information inside houses. The indices used are the education level of the father, education level of the mother, per-capita income of family members, a crowding index, sanitation in general, family size, and others. The total score summed is 37. A total score of 20–25 denotes a low social standard. A middle social standard is determined by a total score of 26–30. A high social standard is represented by a total score of 31–37 [11].

The Social Readjustment Rating Scale

Holmes *et al.* [12] developed a so called schedule of a recent-experience questionnaire to quantify the degree of adaptation required by diverse life events. A gradual build up of lifestyle changes has been observed to occur during the course of several months before the onset of illness. The scale was derived from the culturally adjusted version by Okasha and colleagues, who found that the Egyptian population presents some differences when compared with the American population, but overall the rank orders of the two are highly similar.

Statistical analysis

All data from parents and children were computed using SPSS software (version 11.0 for windows 2003; IBM Company, New York, USA) for statistical analysis. Descriptive statistics was used for illustrating the mean and SD for qualitative data. Statistical tests were used to determine significant differences between the results of patients and controls. The Student *t*-test was used for quantitative variables, and the χ^2-test was used for qualitative variables. The level of significance for both tests was less than 0.05.

Results

Demographic and clinical data of the 40 patients and the matched controls are presented in Table 1.

Table 1 shows that the mean age of children with nephrotic syndrome was 8.8 years. Male sex was predominant in the sample studied. Among the studied sample, 2.5% of children with nephrotic syndrome had a positive family history of psychiatric disorders. There was no statistically significant difference between the two groups.

Table 2 shows that the mean duration of illness in nephrotic patients was 5.6 ± 1.7 years. Among the studied sample, 55% of patients had had more than two admissions.

Table 3 shows that the mean IQ among children with nephrotic syndrome was 89 and that among the control group was 93.2, with a statistically significant difference between the two groups. The mean anxiety score among children with nephrotic syndrome was 23 and that among the control group was 25.2, with no statistically significant difference between the two groups. The mean psychometric scores on the CDI were higher among children with nephrotic syndrome compared with controls, with a highly statistically significant difference between the two groups.

Table 4 shows that 10% of children with nephrotic syndrome had borderline IQ, 42.5% had a dull average IQ, and 47.5% had an average IQ. As regards the anxiety score, 47.5% of patients with nephrotic syndrome had moderate anxiety, 37.5% had severe anxiety, and 15% had mild anxiety. According to the CDI scale, 75% of patients had no depression, 15% had mild depression, and 10% had moderate depression. There was no statistically significant difference between the two groups.

Table 5 shows the mean psychometric scores among patients with nephrotic syndrome compared with those of controls. The mean score of the patients on the internalizing subscale was higher than that on the externalizing subscale. Moreover, the mean score of the patients on the internalizing problems subscale was higher than that of controls. There was a statistically significant difference between the two groups as regards withdrawal, anxiety/depression, and thought and attention problems

Table 6 shows that the mean score on Social Readjustment Rating Scale achieved by patients with nephrotic syndrome was 201.1 and that achieved by controls was 211.3. These scores imply that the probability of developing a stress-related disorder is moderate for both groups and that they have an $\sim$50% chance of becoming ill in the near future.

Table 7 showed that the mean psychometric scores on the Quality of Life Scale achieved by the parents (mother) of children with nephrotic syndrome were higher than those achieved by parents of controls. Parents of children with nephrotic syndrome had a poorer quality of life (QOL) compared with parents of controls. There was a highly statistically significant difference between the two groups as regards QOL.

Discussion

Children with chronic physical illnesses are generally considered at increased risk for behavior difficulties. Illnesses not only affect their psychosocial development but also increase behavior problems in siblings, with an added burden of the disease on family life. The literature on chronic illnesses provides evidence that conditions such as insulin-dependent diabetes mellitus, cancer, cystic fibrosis, juvenile rheumatoid arthritis, and asthma, among others, are associated with increased psychopathologies, including behavioral problems in children [13].

As is the case with any chronic illness, nephrotic syndrome in children has biological, behavioral, and social

Table 1 Sociodemographic data, family history, and past history of children with nephrotic syndrome and controls

Variables	Nephrotic syndrome ($n=40$)	Control ($n=40$)	Test value	P value
Age (mean ± SD) (years)	8.9 ± 1.8	8.8 ± 1.3	$t=0.28$	0.777
Sex [n (%)]			$\chi^2=1.15$	0.284
Male	33 (82.5)	29 (72.5)		
Female	7 (17.5)	11 (27.5)		
Social class [n (%)]			$\chi^2=6.40$	0.094
Very low	23 (57.5)	13 (32.5)		
Low	10 (25.0)	11 (27.5)		
Middle	6 (15.0)	13 (32.5)		
High	1 (2.5)	3 (7.5)		

Table 2 Duration of illness and the number of admissions among patients with nephrotic syndrome

Variables	Nephrotic syndrome ($n=40$)
Duration of illness (mean ± SD)	5.6 ± 1.7
Number of admissions (%)	
Once	10
Twice	35
More than two admission	55

manifestations that have implications on the mental health, social and personality development of the child, and family coping. This would apply naturally to patients with nephrotic syndrome because of its relapsing and remitting course. Prolonged steroid treatment may also contribute to behavioral disturbances in this especially vulnerable population [1].

The presence of behavioral problems is often related to the severity and duration of the disease [14].

In the present study, the mean duration of illness was 5.6 ± 1.7 years for nephrotic patients. Among nephrotic patients, 55% had had more than two admissions during their illness. This is in agreement with the results of another study that reported that a considerable proportion of patients, reaching more than 75% in some series, experience relapse of nephrotic syndrome [15].

In our study, as regards the IQ, 10% of patients with nephrotic syndrome had borderline IQ, 42.5% had a dull average IQ, and 47.5% had an average IQ. Moreover, the mean IQ among children with nephrotic syndrome was 89 and that among controls was 93.2, with a statistically significant difference between both groups.

Children with medical illnesses may not develop at the same rate as healthy children because of delayed neurocognitive development, disruptions in education, and limited social experiences, in addition to the medical condition and treatment influences on intellectual and somatic growth and maturation [16]. This is in agreement with the results of another study by Gipson *et al.* [17] on children with chronic kidney diseases; they suggested that there is an increased risk for delays in neurocognitive development, particularly among toddlers. This result is also in agreement with the results of Fennell *et al.*[18], who reported lower memory scores for children with chronic kidney disease compared with controls. Anemia, hypertension, and malnutrition are possible key factors contributing to the cognitive deficits among children with chronic kidney disease [18].

Chronic renal disease may be accompanied by a variety of derangements of higher cortical functioning, mental processes, and behavior. Many treatable, toxic, metabolic, degenerative, and structural processes may occur as a result of the progression of the renal disease itself or due to associated medical conditions or secondary neurological complications [19].

This study shows that 47.5% of patients with nephrotic syndrome had moderate anxiety, 37.5% had severe anxiety, and 15% had mild anxiety. The mean anxiety score among children with nephrotic syndrome was 23 and that among controls was 25.2, with no statistically significant differences.

According to the CDI scale, 75% of patients had no depression, 15% had mild depression, and 10% had moderate depression. Moreover, the mean psychometric score on the CDI was higher among patients with nephrotic syndrome compared with controls, with a highly statistically significant difference between the two groups.

In this study, as regards the mean psychometric scores on the CBCL, the mean scores achieved by patients with nephrotic syndrome on the internalizing subscale (anxiety, depression, and withdrawal) were higher than those achieved by them on the externalizing subscale (aggressiveness and delinquency). Moreover, the mean score on the internalizing problems subscale achieved by patients with nephrotic syndrome was higher than that achieved by controls. There was a statistically significant difference between both group as regards withdrawal, anxiety/depression, and thought and attention problems. These results are consistent with those of another study that concluded that in nephrotic syndrome, internalizing problems, such as anxiety and depression, and externalizing problems, such as aggression and noncompliance, are potential concerns that need support and encouragement for the first year after diagnosis [20].

In addition, the results of this study are in agreement with those of another study that concluded that the most common internalizing symptoms are depression, anxiety, somatic complaints, and social withdrawal. As many as 29% of children who have kidney disease experience internalizing problems, and more than 20% of children experience externalizing problems during the first year of diagnosis [21].

High stress as a result of the illness, feelings of hopelessness, concerns about self-worth, perceived competencies, and maladaptive attribution styles may con-

Table 3 The mean intelligence quotient, the mean Child Depression Inventory score, and the anxiety score for children with nephrotic syndrome and controls

	Nephrotic syndrome ($n=40$)		Control ($n=40$)			
Variables	Mean	SD	Mean	SD	*t*	*P* value
Intelligence quotient	89.0	5.4	93.2	9.7	2.39	0.019
Child Depression Inventory Score	12.0	5.9	7.3	4.1	4.14	<0.001
Anxiety score for children	23.0	7.9	25.2	6.3	1.38	0.172

Table 4 Comparison of the intelligence quotient, anxiety scale scores, and depression scale scores for children with nephrotic syndrome and controls

Variables	Nephrotic syndrome ($n=40$) [*n* (%)]	Healthy control ($n=40$) [*n* (%)]	χ^2	*P* value
IQ				
Borderline IQ	4 (10.0)	3 (7.5)	0.82	0.663
Dull average IQ	17 (42.5)	21 (52.5)		
Average IQ	19 (47.5)	16 (40.0)		
Anxiety scale				
Mild anxiety	6 (15)	4 (8.6)		
Moderate anxiety	19 (47.5)	22 (54.3)	0.65	0.721
Severe anxiety	15 (37.5)	14 (37.1)		
Depression scale				
No depression	30 (75.0)	37 (92.5)		
Mild depression	6 (15.0)	2 (5.0)	4.53	0.104
Moderate depression	4 (10.0)	1 (2.5)		

IQ, intelligence quotient.

Table 5 Comparison of the mean psychometric scores on the Achenbach Child Behavior Checklist for children with nephrotic syndrome and controls

	Nephrotic syndrome ($n=40$)		Healthy control ($n=40$)			
Variables	Mean	SD	Mean	SD	*t*	*P* value
Withdrawal	60.1	6.2	57.3	6.5	1.97	0.052
Somatic complaints	67.2	10.3	67.1	10.9	0.04	0.966
Anxiety/depression	62.9	8.3	59.1	7.6	2.25	0.027
Social problems	60.3	11.1	57.0	6.8	1.60	0.113
Thought problems	59.7	9.9	54.8	7.0	2.56	0.013
Attention problems	61.7	8.1	57.0	7.7	2.66	0.009
Delinquent behavior	59.5	9.7	57.4	7.9	1.06	0.294
Aggression	54.9	6.7	54.2	5.9	0.50	0.621
Sexual problems	57.5	11.4	56.4	9.7	0.46	0.643
Internalizing subscale	62.2	9.3	59.8	9.8	1.12	0.265
Externalizing subscale	54.3	8.9	52.6	8.5	0.87	0.385

Externalizing subscale: aggressiveness and delinquency.
Internalizing subscale: anxiety, depression and withdrawal.

Table 6 Mean values on the Social Readjustment Rating Scale for parents of children with nephrotic syndrome and parents of controls

	Nephrotic syndrome ($n=40$)		Healthy control ($n=40$)			
Variables	Mean	SD	Mean	SD	*t*	*P* value
Social Readjustment Rating Scale	201.1	83.7	211.3	111.3	0.46	0.644

Table 7 Comparison of mean psychometric scores for the quality of life of parents of children with nephrotic syndrome and parents of controls

	Nephrotic syndrome ($n=40$)		Healthy control ($n=40$)			
Variables	Mean	SD	Mean	SD	*t*	*P* value
Somatic problems	71.3	20.5	23.6	11.9	12.73	<0.001
Thinking problems	75.8	25.9	23.7	14.7	11.04	<0.001
Mood problems	50.5	26.6	19.6	10.7	6.82	<0.001
Social problems	64.5	22.0	26.5	10.3	9.89	<0.001
Economic problems	53.0	29.4	17.8	11.8	7.03	<0.001
Self centered problems	60.3	39.2	21.4	7.6	6.16	<0.001

tribute to the elevated levels of depression among patients with chronic kidney disease [22].

In addition, the hospital or clinical environment is often distressing or may even be traumatic for the chronically ill child. Injections, procedures, and surgeries are highly stressful experiences for children. Pain from both medical conditions and treatments can provoke anxiety and affect later pain sensitivities and neurological development [23].

Children with nephrotic syndrome showed features of depressed, hyperactive, or aggressive behavior. Somatic complaints, social withdrawal, and poor school performance were also observed. This might be, in part, related to steroid-induced psychosis, which is one of the serious adverse effects of corticosteroid therapy [24]. Behavioral and psychosocial adjustments are impaired in children with steroid-sensitive idiopathic nephrotic syndrome (SSNS). Steroid treatment, both short-term and long-term, is an important contributor among other determinants. The exact mechanisms by which steroids lead to behavioral alterations in humans are unclear [3].

Some studies have shown that symptoms of depression are common as early as 1 to 3 months after diagnosis of a pediatric illness and that 4–14% of children are clinically depressed at that time [25].

Another study reported that children with nephrotic syndrome had higher degrees of somatization, interpersonal sensitivity, depression, anxiety, hostility, fear, and paranoid attitude compared with controls [26].

In our study, impaired psychosocial readjustment was observed in both groups. The mean score on Social Readjustment Rating Scale was 201.1 for nephrotic syndrome patients and 211.3 for controls. These scores imply that the probability of developing a stress-related disorder is moderate for both groups and that they have an $\sim$50% chance of becoming ill in the near future.

Our results are consistent with those of another study that reported that parents and siblings of children with nephrotic syndrome are more likely to develop psychosocial problems compared with those of healthy children [27].

The results of our study also correlate with those of another study in which, according to the QOL subscale, 'social functioning' was impaired in children with nephrotic syndrome compared with controls; parents rated four of a total of seven subscales as abnormal. Illness-related variables, such as steroid dependency and cytotoxic treatment, are determinants for the negative impact; however, the number of relapses was not the only variable having a significant negative impact on the QOL. However, family atmosphere, especially maternal distress, negatively affected both behavioral and psychosocial adjustment and QOL [28].

Psychosocial adjustment is poorest during the first 6 months to 1 year. Studies indicated that when maladaptive coping and poor adjustment persist, interventions that were designed to promote the use of problem-focused coping strategies result in positive findings [29].

Because of the burden chronic illness places on children's daily lives, affected children have been found to have a higher risk of negative psychosocial outcomes [30].

In our results, the QOL was more impaired among parents of children with nephrotic syndrome compared with that of parents of controls. This result is consistent with that of another study that reported that parents of children with chronic illnesses have substantially high levels of social, financial, and emotional burden [31].

Moreover, the results of our study are in agreement with those of another study that reported that the QOL was impaired for patients with nephrotic syndrome, and, notably, parents evaluated their children's QOL more pessimistically than did the children themselves. Psychosocial adjustment was disturbed not only at home but also in school. Although self-reported physical well-being appeared unaffected, impairment of social functioning, that is, interaction with family members and peers, indicated that the QOL in patients with SSNS is not normal [32].

Our results are in agreement with those of another study that reported that parents of children with nephrotic syndrome showed increased introversion and neuroticism compared with parents of controls [26].

Moreover, relatively few studies have examined the consequences of a child's chronic medical condition and most have focused on the effects on the mother or siblings. Generally, the results suggest that a variety of problems are experienced by other family members but there are few clues to help identify other factors that may be associated with these problems [27].

The families should be offered certain exceptional privileges to compensate for the increased demands places upon them by the child's disability. As regards healthcare, these positive privileges should include provision of an easily available, competent, and comprehensive care, with priority to continuous physician and nurse contacts in both specialized and primary care. Family approach in primary care settings, competence of primary care clinics and current contacts with almost all child families are important prerequisites when offering families of disabled children comprehensive services [33].

A comprehensive investigation identified several determinants of QOL and psychosocial adjustments relevant for the care of patients with SSNS. The severity of the medical course of SSNS had a significant impact on QOL only and not on psychosocial adjustment. With respect to the family atmosphere, the psychological distress of the mother was a negative determinant for QOL and psychosocial adjustment. Mothers were the main caregivers, and they were exposed to the adverse effects of the disorder and its treatment. This resulted in a correlation between the child's QOL and psychosocial adjustment and the mother's psychological distress [34].

The relevance of family climate appears to increase, when medical care can be considered as state of the art, corresponding to current treatment guidelines. Somatic and medical variables, as tested by TACQOL and other

instruments of health-related QOL, appear to be relevant whenever treatment is suboptimal [28].

Psychosocial issues in children, adolescents, and families who suffer from chronic illnesses require careful identification and treatment. As an increasing number of these young people survive into adulthood, their risk of psychosocial distress and psychiatric illnesses is increased, although many adapt well [35].

Conclusion

Nephrotic syndrome in children has a significant association with behavioral problems. Caregivers of children with nephrotic syndrome are more likely to develop psychosocial problems, less social adjustment, and have a poor QOL compared with those of healthy children.

Recommendation

Further studies are needed for better understanding the multiple factors that could affect the psychological and social aspects of nephrotic syndrome in children and their caregivers. Moreover, clinicians should be trained on how to deal with patients of children with nephrotic syndrome and how to detect cases that needs psychiatric interventions.

Limitations of the study

This study has a number of limitations, most notably the small sample size for the nephrotic syndrome group and their caregivers – a larger sample size would have given us power to detect smaller differences between the groups. Moreover, the role of medications, especially steroid therapy and its side effects, which may contribute to anxiety and depressive symptoms among these children, was not much emphasized in our study. There are certain drawbacks to using retrospective data, including the likelihood of a reporting bias. Future studies on patients and their caregivers should consider using a daily retrospective method that assists participants in more accurately reporting how they used their time during the previous day and how they felt while doing each activity.

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Conflicts of interest

There are no conflicts of interest.

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التغيرات السلوكيه و الأضطرابات انفسية المصاحبة لمرض المتلازمة النفروزية عند الأطفال وذويهم

تعتبر المتلازمة النفروزية من أكثر الأمراض الكلوية شيوعا عند الأطفال وقد تأخذ في اغلب الأحيان مسارا مزمنا فإلى جانب التأثيرات الكلوية فهي من الأمراض ذات الصلة الوثيقة بوجود مشاكل سلوكيه و نفسيه أجريت هذه الدراسة من أجل التحقق من احتماليه وجود تغيرات سلوكيه مصاحبة عند الأطفال و اسرهم. المصابين بالمتلازمة النفروزية وكذلك التحقق من احتماليه وجود ضغوط و وجود تغيرات في للأطفال نوعيه الحياه عند امهات هؤلاء المرضي و مقارنتها بامهات الاصحاء .

و الاطفال و لقد أوضحت النتائج وجود اختلافا ذو دلاله إحصائية بين مجموعة مرضى المتلازمة النفروزية وكذ لك متوسط معدل الاكتئاب بينما بينت النتائج عدم وجود الاصحاء بالنسبه لمتوسط مقياس الذكاء اختلافا ذو دلاله إحصائية علي مقياس القلق .كما تبين أن الأعراض الباطنه أو الداخلية

(القلق-الاكتئاب-الانطوائية) علي اختبار وصف الأعراض لدي الأطفال و المراهقين أكثر من الأعراض الظاهرة (العنف-الانحراف في السلوك) و كانت اعلي في مجموعة مرضى المتلازمة النفروزية عنها في الاصحاء مع وجود اختلافا ذو دلاله إحصائية في اختبار وصف الأعراض لدي الأطفال و المراهقين بالنسبه للقلق-الاكتئاب- الانطوائية- التفكير- الانتباه.

كما تبين أن أمهات الأطفال المصابين بالمتلازمة النفروزية هن اقل من حيث التكيف الاجتماعي و ونوعيه الحياه من أمهات الأطفال الاصحاء.