

Bullying and Stigma in Children with Nephrotic Syndrome

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Abstract

Introduction: Children with nephrotic syndrome are vulnerable to bullying and a sense of stigma. Encouraging patients to express their feelings and addressing their psychological needs may be an essential measure to confront with this disease. **Aim of the study:** The objectives of our study were to identify the differences between children with nephrotic syndrome and normal children in both dealing with bullying behavior and stigma, assess the correlation between dealing with bullying behavior and stigma in children with nephrotic syndrome and if there are differences between males and females with nephrotic syndrome in dealing with bullying behavior and in stigma. **Methods:** This study is a comparative case control which was conducted on 60 pediatric patients suffering from nephrotic syndrome in Pediatric Department, at Benha University Hospital, and 60 apparently healthy children, after obtaining informed consent from children's parents. All participants were subjected to full history examination and psychometric assessment. **Results: this study show that** there were statistically significant differences between the average scores of control group and those with nephrotic syndrome in both methods of dealing with bullying behavior and dimensions of stigma in favor of children with nephrotic syndrome. We found that there is an inverse relationship between the methods of dealing with bullying behavior and the feeling of stigma **Conclusion:** it is important to research dealing with bullying behavior and stigma and their impact on children with nephrotic syndrome, to avoid the harms caused by bullying and stigma, and to improve the condition of children who are victims of it.

Key words: nephrotic syndrome, bullying, stigma.

Introduction:

Nephrotic syndrome in children is hypoalbuminemia, edema, and proteinuria (protein-creatinine ratio > 2000 mg/g or protein > 300 mg/dL or 3+ on urine dipsticks⁽¹⁾. Nephrotic syndrome (NS) is a

chronic kidney disease that is relatively common in children, with an annual incidence of 2 to 7 per 100000.⁽²⁾ Bullying can be defined as an aggressive behavior repeated over time with the intention to

harm the victim. It is characterized by an imbalance of power between the bully and the victim⁽³⁾.

Bullying among children is a serious global health problem given its profound physical and psychological consequences on both bullies and victims. Bullying includes aggressive, intentional acts conducted repeatedly and over time against victims to control them, while the victim has limited abilities to cope because of the dominant power of the perpetrator in comparison with the victims⁽⁴⁾.

Stigma is a social process involving identifying and discriminating against a person or group based upon a perception of difference. Suggests that this constitutes disqualification from 'full social acceptance' and sees social stigma as a process by which the reaction of others 'spoils normal identity'. This may encompass adverse social judgment, exclusion and rejection. It follows that the internalization of stigma can result in feelings of shame and guilt, with long-term consequences. These may include negative emotional, psychological, behavioral outcomes for children of the nature summarized by⁽⁵⁾.

Variations in the definition of stigma have not been objected to because of the complex nature of the phenomenon and the multidisciplinary involvement of sociologist, psychologist, social workers and others⁽⁶⁾.

Strong evidence has been documented about associations between bullying and various social and health problems⁽⁷⁾.

It has been suggested that children chronic conditions have an increased risk of being bullied and stigmatized a child who is

physically different is an easy target for victimization⁽⁸⁾

Any chronic illness, especially in children, has biological, behavioral, and social manifestations that have implications for health and personality development of the child. This would naturally apply to children with nephrotic syndrome too, because of its long drawn relapsing and remitting course⁽⁹⁾. Psychological vulnerabilities, such as reduced self-esteem or a negative body image, of these children may increase the risk of being bullied⁽¹⁰⁾.

Symptoms of the disease or treatment regimens may cause peers to perceive them as being different. For example, children with facial and body disfigurement may not meet the beauty standards of their peer group. In addition, children with chronic illnesses may be perceived as physically weaker, and are therefore vulnerable to victimization⁽¹¹⁾.

People with chronic illness have a sense of shame about their illness that bleeds into their entire identity. When we understand that stigma is imposed upon us by other people, we can begin to sort out how much of that judgment we are willing to take on as our inner truth⁽¹²⁾.

People suffering from chronic illnesses present with behavioral deviations from what other people expect in social interactions, which are precursors of stigma. Once an individual is pronounced or labeled ill, a sense of stigma is induced⁽¹³⁾.

Importantly,⁽¹⁴⁾ it have been developed a model of illness-related stigma suggests that negative psychosocial outcomes result from an affected individual experiencing,

perceiving, and anticipating negative social reactions.

Aim of the study

The objectives of our study were to identify the differences between children with nephrotic syndrome and normal children in both dealing with bullying behavior and social stigma, assess the correlation between dealing with bullying behavior and social stigma in children with nephrotic syndrome and establish if there are differences between males and females in dealing with bullying behavior and in stigma

Methods

This study was Comparative case control study which carried out in nephrology unit or clinic, pediatric department, at Benha University hospital during the period between November 2021 and December 2022. It was conducted on 60 pediatric patients suffering from nephrotic syndrome and 60 healthy children after obtaining informed written consent from children's parents. The study was approved by Institutional Review Board of Benha University {M s.21.11.2021 }

The study was under the following inclusion and exclusion criteria; Inclusion criteria: Both sexes will be included , Age 6-18 years , Diagnosed with nephrotic syndrome for at least 1 year, Both child and parent able to read questionnaires independently. Exclusion criteria: children < 6 year or > 18 years, patients who is known to have any psychiatric or neurological disorders

All participants were subjected to the following:

A semi-structured interview about: The demographic data as age, sex, residency, education, the history of the illness, symptoms , onset, course and duration of disorder, symptoms of any other psychiatric or organic disorder, treatment received, history of hospitalization, current treatment (type, dose, duration, compliance, response to treatment and any drug combinations). Family history, similar condition or neuropsychiatric disorders. Past history of medical or surgical condition or trauma,

Clinical examination: General examination: (weight, height, and body mass index), face, color (pallor, jaundice, cyanosis), limb edema and skin rash, chest, heart, neurological and Local abdominal examination.

Psychometric assessment:

First: The Stigma Scale (Prepared by Samira and Raad, 2020) ⁽¹⁵⁾.

Description of the scale: The scale consists of (41) statements distributed over four dimensions: **The psychological dimension (phrases 1-11):** It describes the individual's inner feeling and the effect of this feeling on the individual's perception of himself compared to others. **The social dimension (phrases 12-23):** It describes the inner feeling of an individual that makes him socially distant from others. **The discriminatory dimension (phrases from 24-34):** It describes the individual's perception of the unfairness of others towards patients.

The religious dimension (Phrases from 35-41): It describes the individual's spiritual feeling and the effect of illness on this feeling. In front of each statement, four optional alternatives were placed on the Likert scale, which represent a gradation of the individual's responses to the statements of the scale, and these alternatives are: strongly agree, agree, disagree, and strongly disagree. Positive statements are corrected by (4-3-2-1) respectively, while negative statements are corrected in reverse. The score on the scale as a whole ranges between (41-164), and the higher the score, the higher the stigma level.

Second: dealing with bullying behavior scale

(prepared by El-Desouki)⁽¹⁶⁾.

Scale description: This scale aims to know the methods of dealing with bullying in children, and the scale consists of (30) statements distributed on four methods or dimensions. (Looking for support, Ignoring, self-defense, self-blame)

Procedures: This questionnaire was applied individually. Every child had given 2 questionnaire sheets (one for bullying behavior & the other for stigma). The questionnaire was explained for all children & how to answer it after having their agreement to share in this study.

Informed written consent was taken from the parents.

Statistical analysis

The collected data was revised, coded, tabulated and introduced according to Statistical package for Social Science (IBM Corp. Released 2011. IBM SPSS Statistics for Windows, Version 24.0. Armonk, NY: IBM Corp.). Suitable analysis was done

according to the type of data obtained for each parameter. Mean, Standard deviation (\pm SD) for parametric numerical data, while Median and range for nonparametric numerical data.

- Student t Test
- Correlation analysis
- Independent T Test
- Chi-square test
- Regression analysis

Results

- This comparative case control study was carried on 60 pediatric patients suffering from nephrotic syndrome and 60 apparently healthy children of both sexes after obtaining an informed consent from the children parents. Ages of the children ranged from 6 to 18 years and there was no significant difference between groups regarding age; the mean age was 10.87 ± 1.96 years in children with nephrotic syndrome and 10.43 ± 1.81 years in healthy control group and there was no significant difference between groups regarding sex.
- Regarding anthropometric measurement: Weight was significantly higher in children with nephrotic syndrome compared to normal children. There was no significant difference between groups regarding height. BMI was significantly higher in children with nephrotic syndrome compared to normal children.

There was no significant difference between groups regarding heart rate, SBP and DBP, oxygen saturation and Temperature.

Majority of cases were steroid dependent (95%). (96.7 %) have no other diseases.

Ninety five percent of cases have no family history. All cases have history of hospital admission.

There were statistically significant differences between the average scores of healthy children and those with nephrotic syndrome in the methods of dealing with bullying behavior (seeking support, self-defense, ignoring, and self-blame)." In favor of children with nephrotic syndrome. **(Figure 1) (Table 1)**

There were statistically significant differences between the average scores of children with nephrotic syndrome and healthy control group in the dimensions of social stigma (the psychological, social, discriminatory, and religious dimension) and the total score." In favor of children with nephrotic syndrome **(Figure2) (Table 2)**.

There were no statistically significant differences between males and females with nephrotic syndrome in the methods of dealing with bullying behavior (seeking support, self-defense, ignoring, and self-blame) **(Figure 3)**.

There were statistically significant differences between males and females with nephrotic syndrome in the dimensions of stigma in favor of females **(Figure 4)**.

There was a negative and statistically significant correlation at level (0.01) between dealing with bullying behavior and

stigma dimensions (psychological, social, discriminatory, and religious) and the total score. The same result in cases and control **(Table 3, 4)**

(Table 5, 6) explain that:

The psychological dimension can be predicted by dimensions of dealing with bullying (Looking for support, self-blame, and ignoring), the value of the square correlation coefficient is (0.512). This value indicates that the predictive variables together explain about 51.2% of the variance in Psychological Dimension. The social dimension can be predicted by dimensions of dealing with bullying (Looking for support, self-blame, and self-defense), The value of the square correlation coefficient is (0.486). This value indicates that the predictive variables together explain about 48.6% of the variance in Psychological Dimension.

The discriminatory dimension can be predicted by dimensions of dealing with bullying (Ignoring, self-blame, and Looking for support), the value of the square correlation coefficient is (0.482). This value indicates that the predictive variables together explain about 48.2% of the variance in Psychological Dimension.

The religious dimension can be predicted by dimensions of dealing with bullying (Looking for support, self-defense, self-blame, and Ignoring), the value of the square correlation coefficient is (0.720). This value indicates that the predictive variables together explain about 72 % of the variance in Psychological Dimension.

Table (1): Results of using the t-test to indicate the differences between the mean scores of healthy children and those with nephrotic syndrome in the methods of dealing with bullying behavior.

Variable	the group	N	Mean	SD	df	T	Sig
Looking for support	control	60	23.45	2.59	118	23.50	0.01
	Cases	60	37.12	3.69			
Ignoring	control	60	12.50	2.28	118	18.85	0.01
	Cases	60	20.05	2.10			
Self-defense	control	54	9.35	1.82	118	15.87	0.01
	Cases	92	14.80	1.94			
Self-blame	control	60	8.92	1.64	118	16.13	0.01
	Cases	60	14.63	2.20			
Dealing with bullying behavior	control	60	54.22	5.01	118	32.28	0.01
	Cases	60	86.60	5.94			

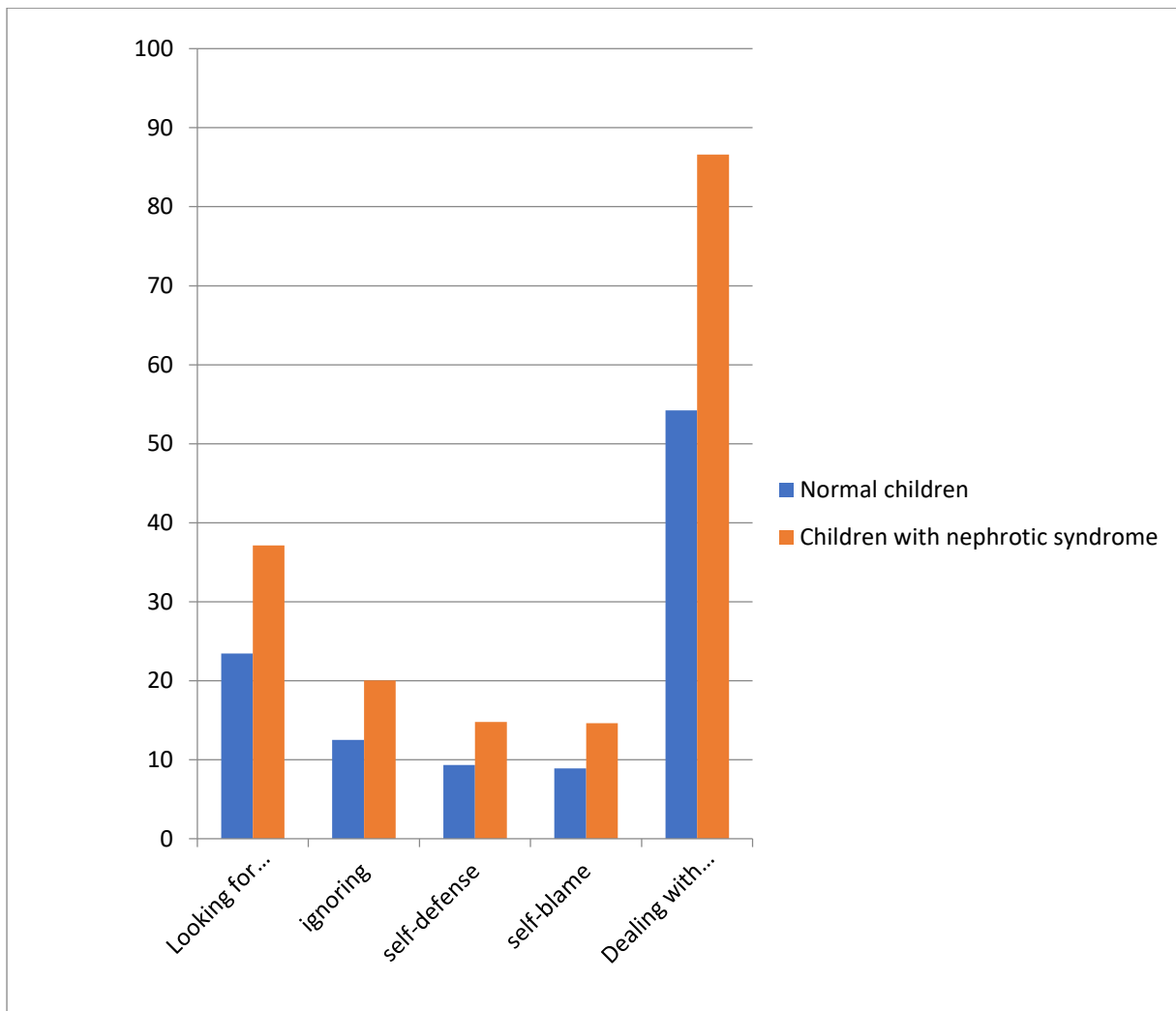


Fig (1): Histogram for comparison between mean scores of children with nephrotic syndrome and healthy control group in dealing with bullying behavior dimensions and total score.

Table (2): The results of using the t-test to indicate the differences between the average scores of healthy control group and those with nephrotic syndrome in stigma.

Variable	the group	N	mean	SD	DF	T	Sig
Psychological dimension	control	60	19.72	2.79	118	22.89	0.0
	cases	60	32.62	3.45			
Social dimension	control	60	22.45	3.00	118	29.67	0.01
	Cases	60	38.40	2.88			
Discriminatory dimension	control	60	19.97	2.64	118	32.08	0.01
	cases	60	35.22	2.57			
The religious dimension	Control	60	13.38	2.35	118	11.31	0.01
	cases	60	19.40	3.39			
Social stigma	Control	60	75.52	6.34	118	41.44	0.01
	Cases	60	125.63	6.90			

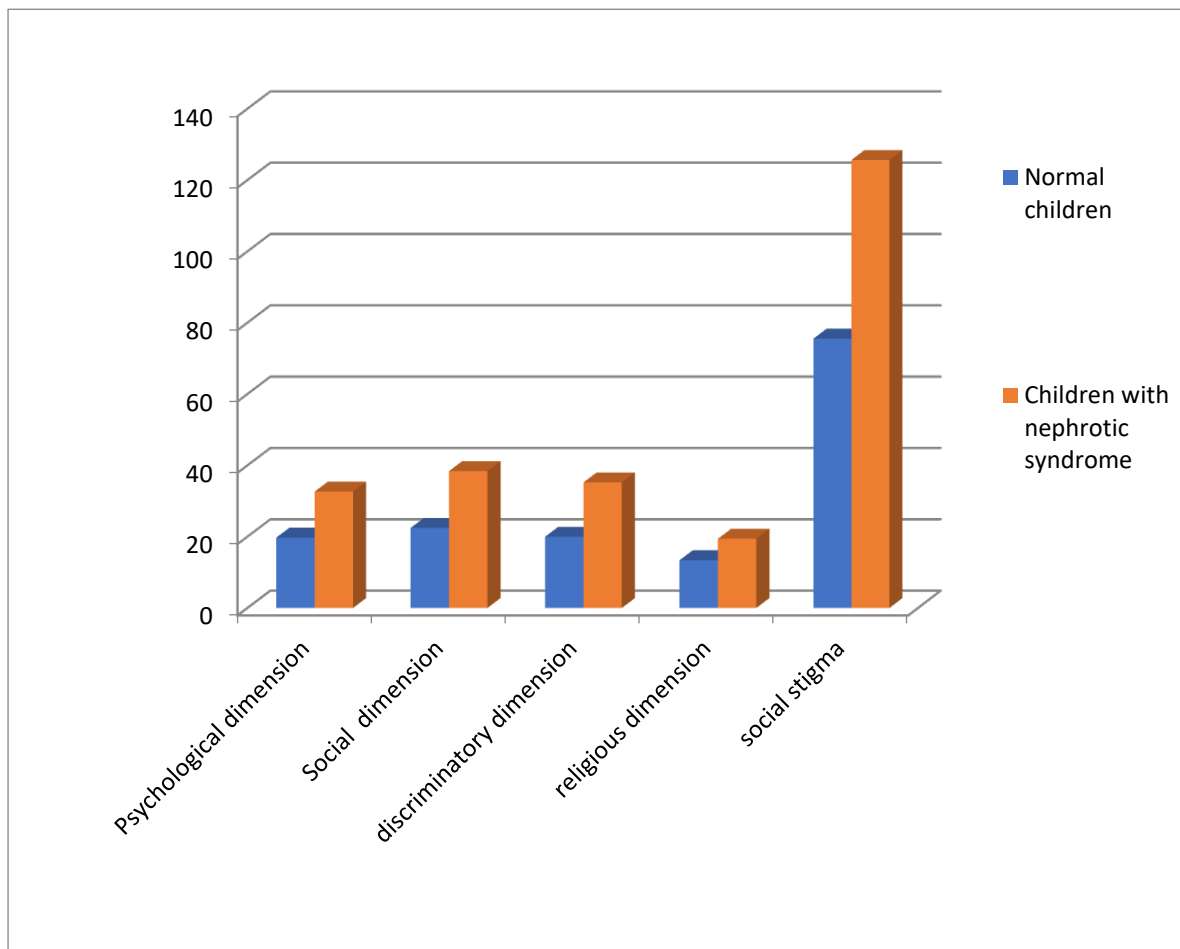


Fig (2): Histogram for comparison between mean scores of children with nephrotic syndrome and healthy control group in stigma dimensions and total score.

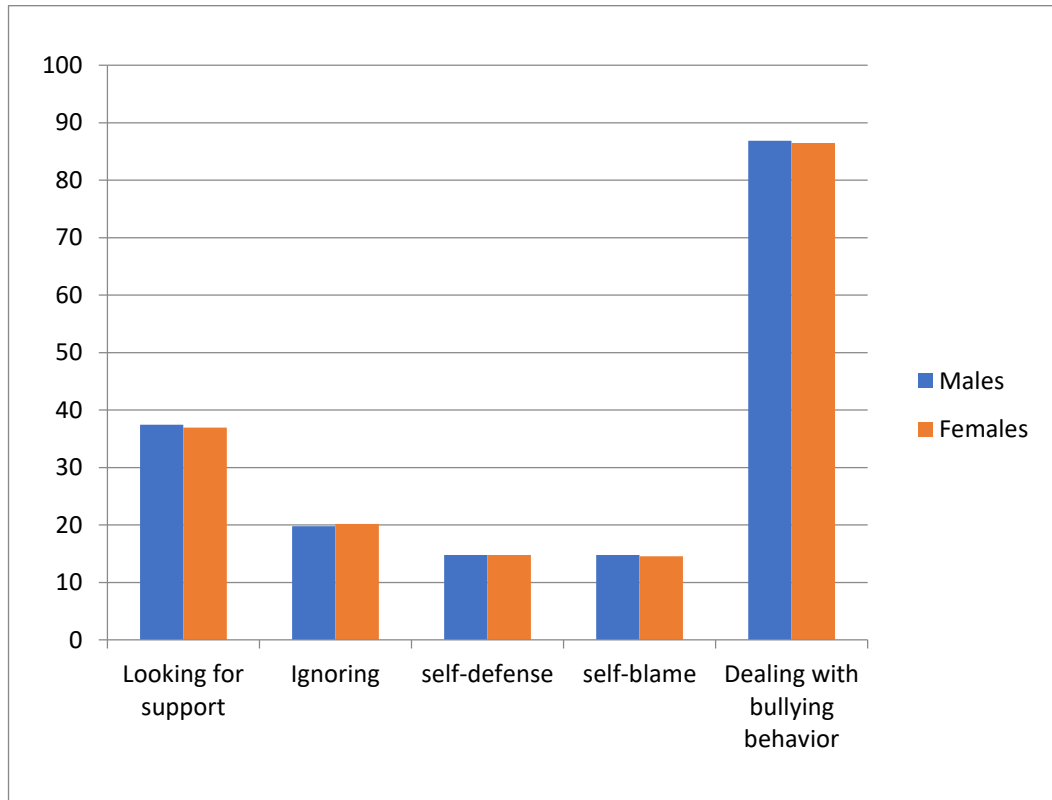


Fig (3): Histogram for comparison between males and females with nephrotic syndrome in dealing with bullying behavior dimensions and total score

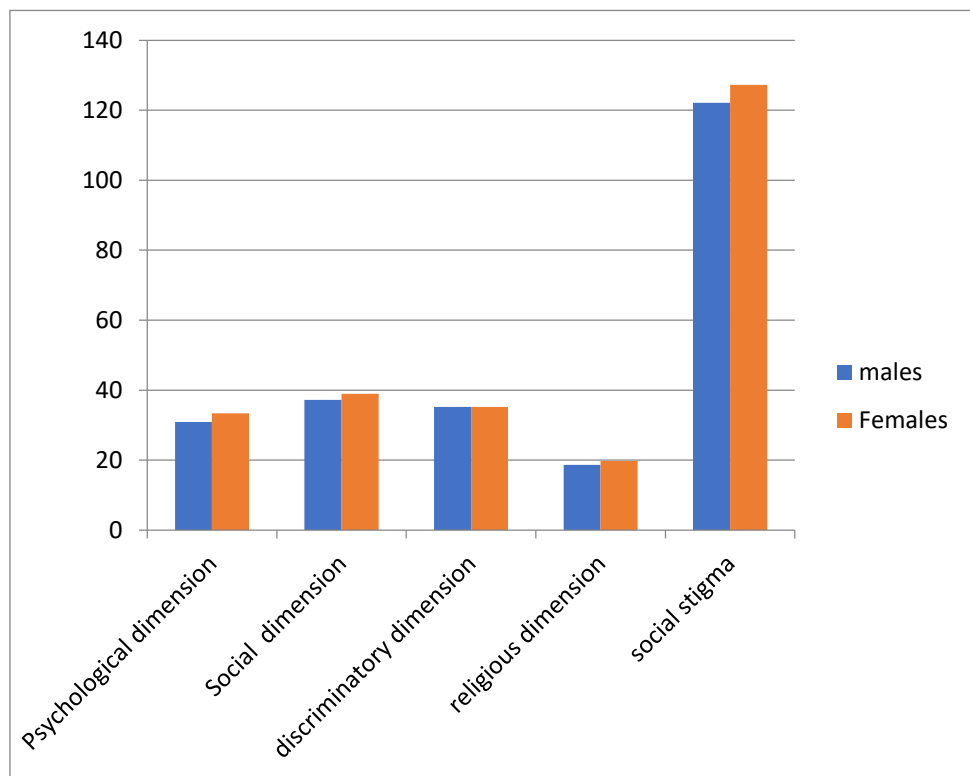


Fig (4): Histogram for comparison between males and females with nephrotic syndrome in stigma dimensions and total score

Table (3): Correlation coefficients between methods of dealing with bullying behavior and stigma in children with nephrotic syndrome (n= 60) .

Methods of dealing with bullying behavior	Social stigma and its dimensions				
	Psychological dimension	Social dimension	Discriminatory dimension	Religious dimension	Overall Degree
Looking for support	-0.618**	-0.578**	-0.495**	-0.485**	-0.678**
Ignoring	-0.516**	-0.497**	-0.624**	-0.462**	-0.649**
Self-defense	-0.480**	-0.488**	-0.395**	-0.562**	-0.610**
Self-blame	0.416**	0.443**	0.374**	0.317*	0.479**
Total marks	-0.569**	-0.529**	-0.522**	-0.526**	-0.671**

Table (4): Correlation coefficients between methods of dealing with bullying behavior and stigma among healthy control group (n = 60).

Methods of dealing with bullying behavior	Social stigma and its dimensions				
	Psychological dimension	Social dimension	Discriminatory dimension	Religious dimension	Overall Degree
Asking for help	-0.374**	-0.499**	-0.603**	-0.310**	-0.566**
Self-defense	-0.446**	-0.484**	-0.489**	-0.457**	-0.586**
Ignoring	-0.358**	-0.488**	-0.568**	-0.386**	-0.568**
Self-blame	0.260*	0.167	0.249	0.404**	0.327*
Total marks	-0.425**	-0.572**	-0.631**	-0.371**	-0.633**

Table (5): Results of the analysis of variance of the multiple regression models at different steps to study the effect of the dimensions of dealing with bullying (independent variables) on stigma and its dimensions (dependent variables).

Dependent Variables	Model	Sum of Squares	Df	Mean Squares	of F	Sig	R ²
Psychological Dimension	Regression	507.905	3	169.302	19.550	0.000	0.512
	Residual	484.945	56	8.660			
	Total	992.850	59				
Social Dimension	Regression	334.538	3	111.513	17.618	0.000	0.486
	Residual	354.446	56	6.329			
	Total	688.983	59				
Discriminatory Dimension	Regression	339.370	3	113.123	17.365	0.000	0.482
	Residual	364.814	56	6.515			
	Total	704.183	59				
Religious Dimension	Regression	535.126	2	267.563	18.814	0.000	0.398
	Residual	810.607	57	14.221			
	Total	1345.733	59				
Social Stigma	Regression	6738.641	4	1684.660	35.366	0.000	0.720
	Residual	2619.942	55	47.635			
	Total	9358.583	59				

Table (6): Summary of the results of the multiple regression analysis at multiple steps to study the effect of the dimensions of dealing with bullying (independent variables) on the stigma and its dimensions (dependent variables) separately.

Dependent Variables	Predictors	B	B Std.Error	β	T	Sig
Psychological Dimension	Constant	46.044	3.939		11.690	0.000
	Looking for support self-blame	-0.356	0.085	-0.451	-4.205	0.000
	Ignoring	0.363	0.130	0.270	2.790	0.007
Social Dimension	Constant	-0.308	0.142	-0.234	-2.159	0.035
	Looking for support self-blame	48.423	3.526		13.732	0.000
	self-defense	-0.283	0.069	-0.431	-4.114	0.000
Discriminatory Dimension	Constant	0.318	0.114	0.284	2.798	0.007
	Ignoring self-blame	-0.313	0.150	-0.226	-2.090	0.041
	Looking for support self-blame	46.469	3.416		13.602	0.000
Religious Dimension	Ignoring self-blame	-0.512	0.124	-0.462	-4.142	0.000
	Looking for support self-blame	0.246	0.113	0.217	2.182	0.033
	Looking for support self-defense	-0.151	0.073	-0.228	-2.064	0.044
Social Stigma	Constant	41.582	3.837		10.838	0.000
	Looking for support self-defense	-0.848	0.216	-0.439	-3.920	0.000
	Looking for support self-blame	-0.286	0.103	-0.311	-2.778	0.007
Social Stigma	Constant	183.741	10.009		18.358	0.000
	Looking for support self-defense	-0.954	0.203	-0.394	-4.709	0.000
	Looking for support self-blame	-1.216	0.433	-0.239	-2.808	0.007
Social Stigma	self-blame	1.052	0.313	0.255	3.360	0.001
	Ignoring	-1.155	0.352	-0.286	-3.278	0.002

Discussion

In this study the age of studied children ranged from 6 and 18 years with mean (10.87 ± 1.96). This is in agreement with researchers⁽¹⁷⁾ who investigated the children with NS and they found the mean of age was 10.7 ± 3.1 years, and disagree with others⁽¹⁸⁾ who reported that childhood NS can occur at any age but is most common between the ages of 1½ and 5 years.

During study sex distribution in our cases we found the females predominance (68.3%). This is in agree with⁽¹⁹⁾ study in which his study group has also female predominance that represent 55%. Our results were against a study⁽²⁰⁾ which

reported that NS were affected males more than females.

The results of the current study showed no significant differences as regarding age, sex, between the two studied groups. This is in agreement with a former study where it was found that there was no significant difference between patient and control group as regard sex and age^(21,22).

The current study showed that there was a significant difference between groups regarding weight and BMI and there was no significant difference between groups regarding height.

This was comparable with weight and BMI Z-scores and was significantly higher in the

NS patients than the controls, with no significant difference between them regarding the height Z-scores⁽²³⁾. This was in disagreement with a study done before and which state that children with nephrotic syndrome, despite a need for steroid treatment for active disease, can improve their obesity and overweight and also improve their linear growth from their first to last visit with them⁽²⁴⁾.

The current study showed that there was no significant difference between groups regarding SBP; the mean SBP was 113.4±9.17 mmHg in children with nephrotic syndrome and 116±9.04 mmHg in control children.

There was no significant difference between groups regarding DBP; DBP the mean DBP was 72.2±9.1mmHg in children with nephrotic syndrome and 74±10.69 mmHg in control.

This agrees with the study which found that there was no significant difference in systolic blood pressure and diastolic blood pressure between patient group (children with nephrotic syndrome) and control group⁽²⁵⁾ and also with study done before which found no significant difference between NS patients and control group as regard blood pressure⁽²⁶⁾.

On the other hand in a former study, it was found that there was significant increase in systolic blood pressure and diastolic blood pressure between children with nephrotic syndrome compared to control group⁽²⁷⁾.

Found significant increase in diastolic blood pressure in patient group than control group especially with steroid resistant NS⁽²⁸⁾.

In our study we no significant difference between NS patients and control group as regard heart rate. Supported that when found that there was no significant difference in heart rate

In our study we found that there were statistically significant differences between the average scores of healthy control group and those with nephrotic syndrome in the methods of dealing with bullying behavior (seeking support, self-defense, ignoring, and self-blame)." In favor of children with nephrotic syndrome⁽²⁹⁾.

This is in agree with a previous research which indicated that children and adolescents with chronic conditions are more likely than their healthy peers to be victims of bullying, mainly because of significant differences in their appearance or behavior⁽³⁰⁾. It was also reported that children and adolescents living with long-term conditions are at greater risk of being bullied compared to their healthy peers⁽³¹⁾.

In the current study we also found that there are statistically significant differences between the average scores of children with nephrotic syndrome and healthy control children in the dimensions of stigma (the psychological, social, discriminatory, and religious dimension) and the total score." In favor of children with nephrotic syndrome, as the disease has a psychological effect that increase the sense of stigma.

This study was in agreement with previous studies:

Demonstrate that participants who internalized stigma and experienced stigma from anticipated greater stigma and so accessed healthcare less and experienced a decreased quality of life.⁽³²⁾

That found people living with chronic illnesses report feelings of internalized devaluation; they are feeling shame, guilt and diminished self-worth⁽³³⁾

That indicated stigma was significantly related to illness intrusiveness, and illness intrusiveness was significantly related to depressive and anxious symptoms⁽³⁴⁾.

We also studied the differences between males and females in using different

methods to deal with bullying behavior, and we concluded that there are no differences between them, as the effect of the disease is the same on them.

This is in agreement with other who did not find any differences related to sex among victims of bullying ⁽³⁵⁾.

Also ⁽³⁷⁾ found that There were no significant gender differences between children who participated in the study and their bullying roles, i.e., an equal spread of bullies, victims, bully/victims, neutrals (with the majority falling into the neutral category) for both boys and girls for direct and relational bullying but ⁽³⁵⁾ believes that despite the prevalence of bullying behavior among males and females, it is more prevalent among males than among females, as males are more inclined to carry out physical attacks than females

Another study that examined participation in bullying behaviors found that girls were more likely to become victims of social bullying than in the case of boys ⁽³⁸⁾

In our study as there are statistically significant differences between males and females with nephrotic syndrome in the dimensions of stigma in favor of females.

This is in agreement with those who suggested that both males and females are affected by stigma, but females are often more affected by stigma than males, especially the psychological and social aspect ⁽³⁹⁾ others also confirmed that females perceive discrimination and stigma twice as often as compared to males, through a study conducted to determine the relationship between stigma and overweight ⁽⁴⁰⁾.

It was found in our study that there is an inverse relationship between the methods of dealing with bullying behavior and the feeling of stigma. As the child with nephrotic syndrome is vulnerable to bullying, which leads him to use multiple methods to deal with this bullying behavior, such as seeking support, ignoring the

problem, or self-defense and so decrease the sense of stigma with the exception of the self-blame method, as the patient faces bullying by blaming himself and that he is the reason for being bullied, which increases his sense of stigma and when compared with healthy control group, the results were the same.

A group of researchers ⁽⁴¹⁾ touched on this topic in his study Stigma-Based Bullying Interventions and state that this stigma-based bullying undermines youths' wellbeing and academic achievement, with lifelong consequences.

In the current study we were looking for the most methods of dealing with bullying behavior that contribute to stigma and its dimensions.

The results concluded that the psychological dimension of stigma can be predicted through the method of (looking for support, ignoring and self-blame).

It is also possible to predict the social dimension through the methods of (searching for support, self-blame, and self-defense), and predicting the discriminatory dimension through the methods of (ignoring, self-blaming, and searching for support), and predicting the religious dimension through methods of (Self-defense and search for support)

Looking for support, ignoring has a positive contribution, meaning that whenever an individual uses these two methods, this reduces his feeling of stigma and vice versa. But self-blame has negative contribution.

This can help in preparing programs to reduce the sense of stigma among these patients by using the most effective methods that contribute to reducing stigma.

Conclusion

Chronic disease, bullying, and stigma: these topics among children and adolescent

are of ongoing concern worldwide and they are closely related.

Common strategies of intervention are needed to cope with these social health challenges.

The link between bullying, stigma, and chronic diseases (e.g. nephrotic syndrome) is a research field that is relatively less explored and need to receive focused attention.

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