



“A Study To Assess The Effectiveness Of An Information Booklet On Knowledge Regarding Care Of Children With Nephrotic Syndrome Among Staff Nurses At Selected Hospitals In Jabalpur City”

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ABSTRACT

The term Nephrotic Syndrome is coined from two words: kidney and Syndrome denoting a group of symptoms.

Nephrotic Syndrome is a set of symptoms related to kidney dysfunction, and not a disease, in and of itself. Nephrotic Syndrome is a disorder characterized by loss of proteins in the urine. In realism, Nephrotic Syndrome can be the first sign of various diseases that damage the kidneys, especially tiny blood-filtering units (glomeruli) in the kidneys, where urine is formed. This causes fall in the protein levels in the blood, and water to move into body tissues, causing swelling and bloating of body (edema/Oedema). **Material**

and methods: - A pre experimental study with one group pre- test –post test group design was carried out to assess the effectiveness of Booklet teaching programme in selected area of Jabalpur city. Total 60 subjects were selected. booklet teaching programme was given to the staff nurse about knowledge of nephrotic syndrome. Data collection tool included structured knowledge questionnaire and booklet teaching programme. The finding shows that mean post test knowledge score (25.6) is apparently higher than the mean pretest knowledge score (13.1). The score (SD=3.33) is less than that of the post test score (SD=1.02) and computed paired' value shows that there is significant difference between pretest and post test mean knowledge score ($t=8.863$) this. **Conclusion** After detailed analysis, the study detailed following conclusion. The finding shows that mean post test knowledge score (25.6) is apparently higher than the mean pretest knowledge score (13.1). The score (SD=3.33) is less than that of the post test score (SD=1.02) and computed paired' value shows that there is significant difference between pretest and post test mean knowledge score ($t=8.863$).

INTRODUCTION-

The growth and development and even functional capacity of child are hampered by health problems. Some of the illness may make them disable temporarily or permanently. Infections are responsible for high morbidity and mortality due to severe infections such as pneumonia, primary peritonitis and septicemia leading to multi organ failure. The milder forms of infections like upper ARI, diarrhea and urinary tract infections may be responsible for exacerbation of proteinuria and recurrent relapses of Nephrotic syndrome.

The infection of the genitourinary system commonly seen in children is Nephrotic syndrome. It is one of the several manifestations of glomerulonephritis. Nephrotic syndrome in children differs from that of adults in several aspects like etiology clinical manifestations, prognosis and outcome, hence require a special consideration.

The first recorded description of Nephrotic syndrome dates to the 15th century. Later, Volhard and Fahr¹ popularised the term Nephrosis, using it to describe a major classification of bilateral renal disease. Today, Nephrotic syndrome is recognised as a common chronic illness in childhood. Although Nephrotic syndrome may be associated with many renal diseases, the most common form in childhood is Primary Nephrotic Syndrome, which develops in the absence of features of nephritis or associated primary external disease.

In a recent survey done in Paraguay shows, out of 4655 ill children registered, the distribution of main renal disease was acute glomerulonephritis in 42 cases (9 per 1000), Nephrotic syndrome in 40 cases (8.5 per 1000), systemic lupus erythematosus in 28 cases (6 per 1000), and hematuria alone in 11 cases .

The incidence of idiopathic Nephrotic syndrome in the United States has been reported to be 2.7 new cases per 100,000 children per year, and the cumulative prevalence rate is 16 per 100,000 children. The ratio of males to females is approximately 2:1 during childhood, but the sex difference wanes by adolescence. There is an increased familial incidence, particularly among siblings.

Primary Nephrotic syndrome (PNS) is a common renal disorder in the paediatric age group and minimal change disease (MCD) is the most common underlying histopathological lesion (80–90%). Majority of children with MCD are steroid sensitive and long term prognosis is benign. However, 40-50% show frequent relapses and a prolonged course of illness may pose children at risk of life threatening infections, thromboembolic complications and side effects of therapy.

Infection is an important cause of morbidity and mortality in Nephrotic children especially in developing countries. About 5 -8 Children with PNS have increased susceptibility to bacterial infections and various infections may result in relapses or steroid resistance or may trigger the onset of disease. Relapses in steroid sensitive Nephrotic syndrome often follow infections of upper airway or gastrointestinal tract. It is estimated that 52–70% of relapses among children in developing countries chiefly follow the upper

respiratory tract infection. Common infections associated with either onset of disease or during the course of disease are acute upper and lower respiratory infections (ARI) including pneumonia with or without empyema, skin infections including impetigo and cellulites, acute gastroenteritis (watery diarrheal) or dysentery, urinary tract infections (UTI) and primary peritonitis.

NEED FOR THE STUDY-

“There are lives I can imagine without children but none of them have the same laughter & noise.”

Brian Andreas

Nephrotic syndrome occurs when the kidneys do not work properly and leak large amounts of protein into the urine. It can affect people of any age, but is usually first seen in children aged two to five years old. It affects more boys than girls. The condition is usually first diagnosed between the ages of two and five years old. Nephrotic syndrome is rare and affects about 1 in 50,000 children a year. It tends to be more common in families with a history of allergies. In the UK, it is more common in Asian families.

A chronic disease constitutes not only the major health problems on children but also the nation primary health problem prior to 1960 and the primary focus on pediatric medicine was on the treatment of acute infection diseases. However major advance in the treatment of this disease through immunization antiviral agents, and antibiotics, the mortality rate is reduced. Now one child in every ten suffers from a chronic illness by the age of 15 and has cared for by their families in the home. In Nephrotic syndrome 84.5% of all children with primary Nephrotic syndrome have minimal change Nephrotic syndrome, 9.5% have focal segmental glomerulosclerosis, 2.5% have mesangial proliferation, and 3.5% have membranous nephropathy or another cause of the diseases.

There are also differences in epidemiology between the sexes; the disease is more common in men than in women by a ratio of 2 to 1. The epidemiological data also reveals information regarding the most common way that symptoms develop in patients with nephrotic syndrome: spontaneous remission occurs in up to 20% or 30% of cases during the first year of the illness. However, this improvement is not definitive as some 50% to 60% of patients die and / or develop chronic renal failure 6 to 14 years after this remission. On the other hand, between 10% and 20% of patients have continuous episodes of remissions and relapses without dying or jeopardizing their kidney. The main causes of death are cardiovascular, as a result of the chronicity of the syndrome, and thromboembolic accidents.

Parents should be educated to pay attention to child's health, but do not overprotect the child. Child needs to continue his or her usual activities, such as attending school and seeing friends. Parents should continue to treat this child like all other children in the family. After the discharge of the child from hospital if the child is taking prednisone or become ill, the doctor will recommend a low salt diet, which will minimize swelling. The child will be allowed to drink as much he or she wants, however. The first sign that your child is getting sick again is the return of protein in the urine. Because of this, many doctors will ask the parents to check child's urine regularly.

Home monitoring of urine protein and fluid status is an important aspect of management. All patients and parents should be trained to monitor first morning urine proteins at home with urine dipstick. Urine testing at home is also useful in monitoring response (or non response) to steroid treatment.

The quantity of parental information concerning symptoms of Nephrotic syndrome disease recurrence is insufficient. Therefore upgrading parental awareness and knowledge through educational courses and providing comprehensive and necessary information concerning disease, signs and symptoms, and prevention of its complications can greatly improve the quality of the cares levels and to live healthy as well as productive life. So, the researcher is motivated to provide education through information booklet regarding home care management of Nephrotic syndrome.

PROBLEM STATEMENT-

“A Study To Assess The Effectiveness Of An Information Booklet On Knowledge Regarding Care Of Children With Nephrotic Syndrome Among Staff Nurses At Selected Hospitals In Jabalpur City ”

OBJECTIVES-

1. Assess the pre test level of knowledge regarding nephrotic syndrome among staff nurse.
2. Assess the post test level of knowledge regarding nephrotic syndrome among staff nurse .
3. Assess Effectiveness of an information booklet of knowledge on nephrotic syndrome among staff nurse .
4. Association between pre-test knowledge scores with selected demographic variables regarding nephrotic syndrome among staff nurse.

HYPOTHESIS-

H1:- There will be significant difference in mean pre test and mean post test knowledge scores among staff nurse regarding nephrotic syndrome.

H2:- There will be significant association between the pre test knowledge score of staff nurse regarding nephrotic syndrome with their selected socio demographic variables.

DELIMITATIONS-

- The study is delimited to 60 samples.
- In selected hospitals of Jabalpur city
- Who are willing to participate in study
- Staff nurses only who are providing care of children during nephrotic syndrome

RESEARCH METHODOLOGY-

RESEARCH APPROACHES- Quantitative Evaluative approach

RESEARCH DESIGN- Pre experimental one group pre-test and post-test research design .

O1 _____ X _____ O2

SAMPLING TECHNIQUE- Purposive sampling technique

RESEARCH VARIABLES-

INDEPENDENT VARIABLE

In this study the independent variable is **booklet teaching program**.

DEPENDENT VARIABLE

The variables that are used to describe or measure the problem under the study are called dependent variable. In the study the dependent variable is staff nurse knowledge

DEMOGRAPHIC VARIABLE : age, gender, profession qualification ,total work experience, have you attended any inservice programme or national seminar on pediatric nephrotic syndrome attended.

SETTING

The study is being conducted in selected hospitals of Jabalpur city.

POPULATION-

The population in this study consists of staff nurses in selected hospitals of Jabalpur city.

TARGET POPULATION

The target population means the set of elements one desires to apply the findings of the study . Staff nurse in hospitals of Jabalpur.

ACCESSIBLE POPULATION- staff nurse present in selected hospital of Jabalpur.

SAMPLE AND SAMPLING TECHNIQUE:-

In this study, the samples include 60 staff nurse in the selected area of Jabalpur city
Purposive sampling technique will be used

TOOL OF DATA COLLECTION:-

- **Section A: socio demographic data**

- Socio- demographic profile included age, gender, proffession qualification, total work experience, have you attended any inservice programme or national seminar on pediatric nephrotic syndrome attended.

Section B: knowledge questionnaire

It consisted of 30 items covering the knowledge regarding knowledge of nephrotic syndrome for staff nurse. Each item had four responses in the form of answers and among the four of responses one correct answer has to be selected.

Score on each item refers to poor knowledge, average knowledge, and good knowledge.

- Poor knowledge score was 0-10
- Average knowledge score was 11-20
- Good knowledge score was 21-30

METHOD OF DATA COLLECTION-

After obtaining permission from concerned authority, researcher will take an informed consent from samples and will collect the data.

Phase 1- Pre-test was conducted to assess the knowledge among staff nurse regarding nephrotic syndrome

Phase 2-information booklet Teaching Programme on nephrotic syndrpme

Phase3- After 1week post-test was administered to evaluate the effectiveness of booklet assisted teaching programme on knowledge regarding nephrotic syndrome through knowledge questioner

Organization and Presentation of Data

- The data was analyzed and interrupted using descriptive and inferential statistics. The data are organized and presented under the following headings.
- **Mean knowledge score of staff nurses attending pediatric ward regarding nephrotic syndrome**
- Total samples: - 60
- Total question asked 30
- **Section I** It deals with the analysis of demographic data of the sample.
- **Section II** It deals with the analysis of the data related to knowledge score before and after administration of the information booklet teaching
- **Section III** It deals with the analysis of the effectiveness of the information booklet teaching on knowledge of the staff nurse
- **Section IV** It deals with the association between pretest knowledge with selected demographic variables.
- Note: - 01 mark given for answer YES and 0 marks for answer NO.

SECTION: 1

- Finding of Demographic Variables**

the demographic characteristics of the study were age of staff nurse sex of staff nurse, professional qualification of staff nurse, total work experience of staff nurse, work experience in the pediatric setting of staff nurse, and attended any inservice programme regarding nephritic syndrome.

Table No – 02**Demographic distribution of the samples (N=60)**

S.NO	Variables	frequency	Percentage
1	AGE IN YEARS:		
	25-35	41	68.3
	36-45	15	25
	46-55	4	6.7
	56-65	0	0
2	SEX		
	MALE	5	8.33333
	FEMALE	55	91.6667
3	PROFESSIONAL QUALIFICATION		0
	G.N. M.	10	16.6667
	POST BASIC BSC.	4	6.66667
	BSC NURSING	46	76.6667
	MSC NURSING	0	0
4	TOTAL WORK EXPERIENCE		
	BELOW 6months	0	0
	6months-2year	10	16.6667
	2year-5years	30	50
	6years-above	20	33.3333
5	WORK EXPERIENCE IN THE PEDIATRIC SETTING		
	Below 6 months	0	0
	6months-2years	10	16.6667
	2years-5years	30	50
	5years old	20	33.3333
6	6.HAVE YOU ATTENDED ANY INSERVICE PROGRAMME		
	Yes	5	8.33333
	No	55	91.6667

SECTION II- Assessment of pre-test of staff nurse**Table No -07****Assessment of Pretest Knowledge of staff nurse (N = 60)**

S.No	Category	Frequency	Percentage	Mean	SD
1	Poor	14	23.3333333		
2	Average	46	76.6666667	13.1	3.33
3	Good	0	0		

Table no-7 shows that out of 60 sample of staff nurses knowledge indicate Pretest: poor-14(23.333%), average-46 (76.666%), good-0(0%)

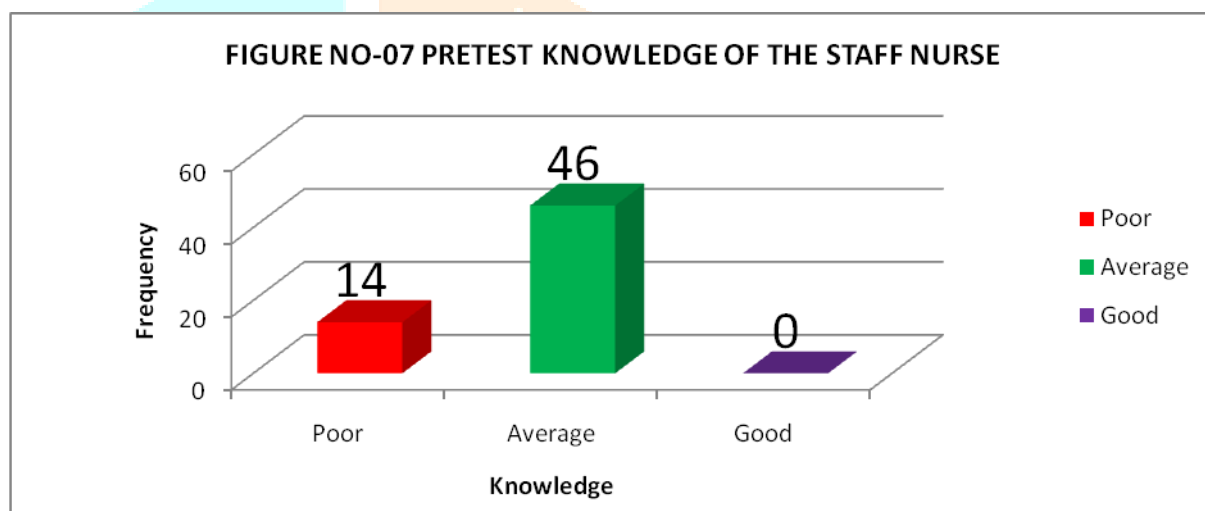


figure no-7 shows that out of 60 sample of staff nurses knowledge indicate Pretest: poor-14(23.333%), average-46 (76.666%), good-0(0%)

Table No -08**Assessment of posttest Knowledge of staff nurse (N = 60)**

S.No	Category	Frequency	Percentage	Mean	SD
1	Poor	0	0		
2	Average	13	21.6666667	25.61	4.025
3	Good	47	78.3333333		

Table no-8 shows that out of 60 sample of staff nurses knowledge indicates- posttest :poor-0(0%), average-13(21.66%), good-47(78.333%)

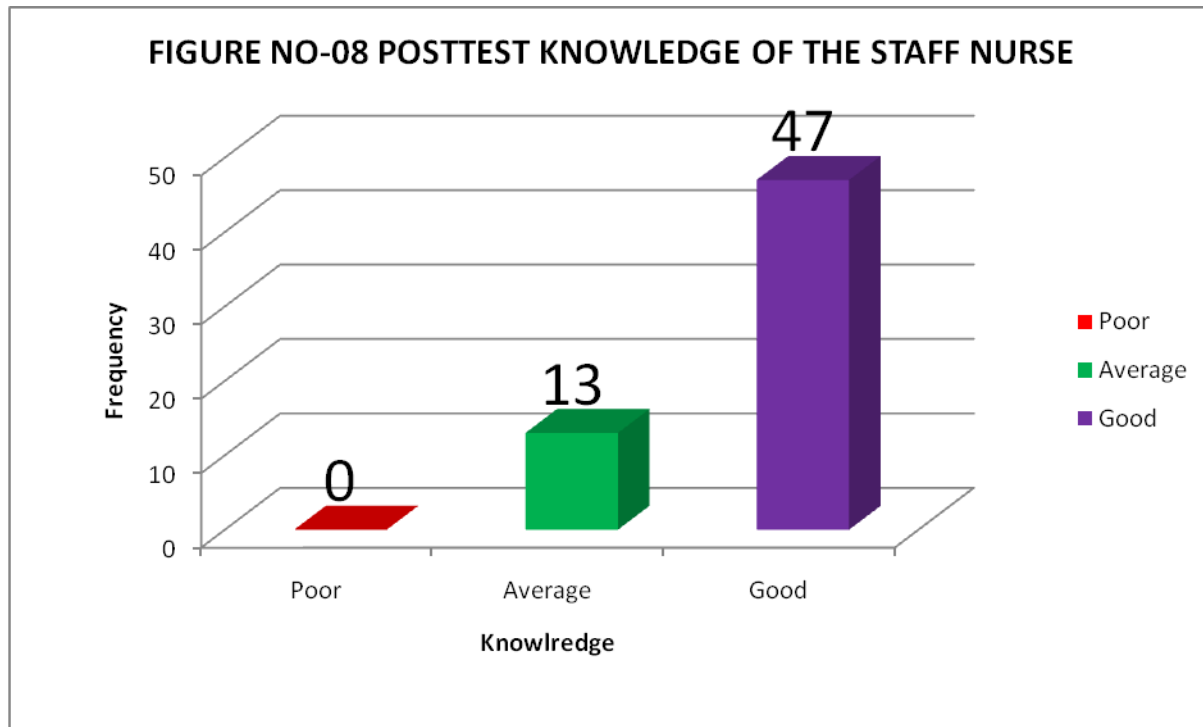


figure no-8 shows that out of 60 sample of staff nurses knowledge indicates- posttest :poor-0(0%), average-13(21.66%), good-47(78.333%)

Table No -09

Comparison of pretest and posttest knowledge

	pretest	Posttest
Poor	14	0
Average	46	13
Good	0	47

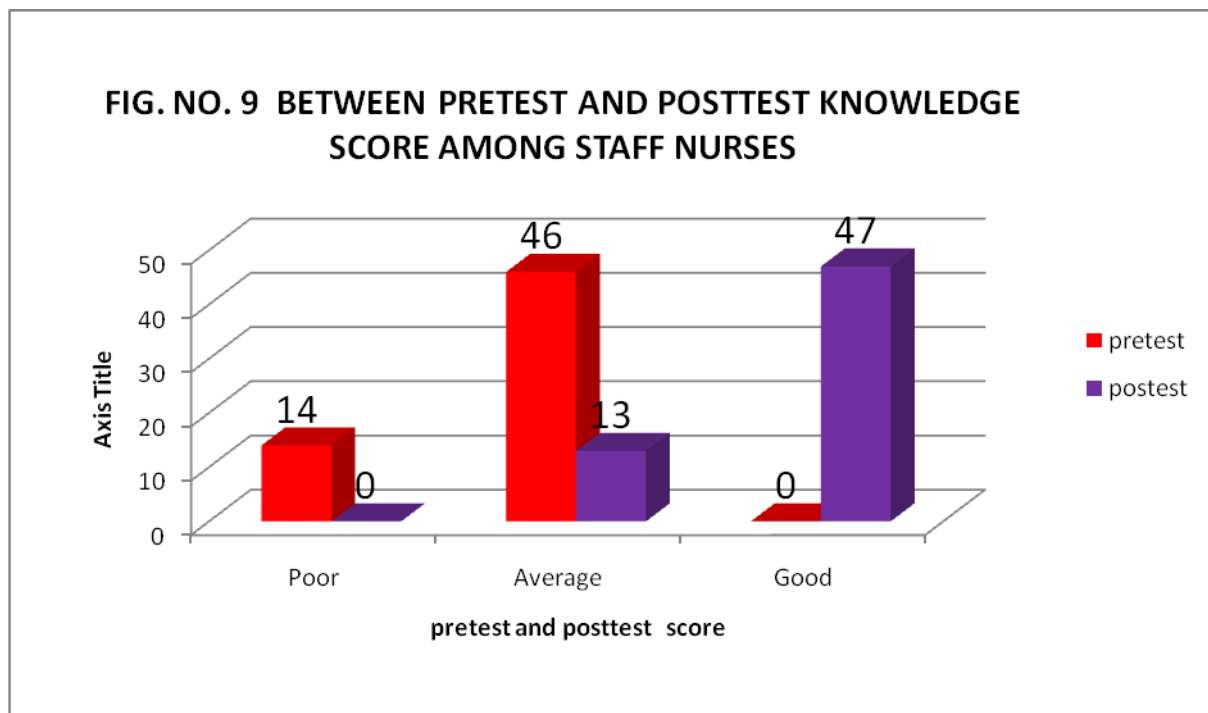


Fig . no. 9 shows that out of 60 sample staff nurses knowledge Pretest: indicate poor-14(23.333%), average-46 (76.666%), good-0(0%) posttest :indicate poor-0(0%), average-13(21.66%), good-47(78.333%)

Shows that out of 60 sample staff nurses knowledge Comparison of pretest and posttest knowledge by t-value-

Comparison of pretest and posttest knowledge by t-value

MEAN DIFFERENCES-12.5

S.No	Test	Mean	Mean difference	SD	T-Value
1	Pretest	13.1		3.33	8.863
2	Posttest	25.61	012.51	1.025	

SECTION – V Association between pre-test knowledge score with selected demographic variable

S.NO	Variables	Poor	Average	Good	Total	DF	Chi-value	P-value	Inference
1	AGE IN YEARS:								
	25-35	10	31	0	41				
	36-45	2	13	0	15				
	46-55	2	2	0	4	6	80	0	MS
	56-65	0	0	0	0				
2	SEX								
	MALE	2	3	0	5				
	FEMALE	12	43	0	55	2	4.32	0.6453	NS

3. PROFESIONAL QUALIFICATION

	G.N. M.	5	5	0	10				
	POST BASIC BSC.	1	3	0	4				
	BSC NURSING	8	38	0	46	6	4.22	0.8545	NS
	MSC NURSING	0	0	0	0				

4. TOTAL WORK EXPERIENCE

	BELOW 6months	0	0	0	0				
	6months-2year	5	5	0	10				
	2year-5years	9	21	0	30	6	5.2456	0.7582	NS
	6years-above	0	20	0	20				

5. TOTAL WORK EXPERIENCE IN PEDIATRIC SETTING

	Below 6 months	0	0	0	0				
	6months-2years	8	2	0	10	6	3.123	0.4562	S
	2years-5years	6	24	0	30				
	5years old	0	20	0	20				

6.ATTENDED ANY INSERVICE PROGRAMME

	Yes	2	3	0	5	2	4.2135	0.5666	NS
	No	12	43	0	55				

*(Result significance at 0.05% level significance)

Abbreviation: -

MS = Most Significant

S = Significant

NS = Not Significant

Description:-changes with selected demographic variables is statistically tested by applying chi- square test only age found most significant and total work experience was significant and other variables were not significant .

Table No -02**Allotment of score for assessment of Knowledge of staff nurse (N = 60)**

S.No	Description	Max. score	Good	Average	Poor
01	Knowledge	30	21-30	11-20	0 – 10

Description :- The Table No 02 indicates the assessment of knowledge by asking total 30 questions to the staff nurse knowledge regarding care of children with nephrotic syndrome. Score can be categorized in to three categories (Good, average, poor).

Table No -03**Assessment of Pretest Knowledge of staff nurse (N = 60)**

S.No	Category	Frequency	Percentage	Mean	SD
1	Poor	14	23.3333333		
2	Average	46	76.6666667	13.1	3.33
3	Good	0	0		

Table No -04**Assessment of posttest Knowledge of staff nurse (N = 60)**

S.No	Category	Frequency	Percentage	Mean	SD
1	Poor	0	0		
2	Average	13	21.6666667	25.61	4.025
3	Good	47	78.3333333		

Table No-05

Comparison of pretest and posttest knowledge by t-value

MEAN DIFFERENCES-12.5

S.No	Test	Mean	SD	T-value
1	Pretest	13.1	3.33	
2	Posttest	25.61	1.025	8.863

Conclusion

After the detailed analysis, this study leads to the following conclusion.

Staff nurse who all are attending pediatric ward did not have 100% improvement in knowledge regarding care of children with nephrotic syndrome. They require further education related to the care of children with nephrotic syndrome.

There was a significant increase in the knowledge of sample after administration of the information booklet teaching programme. the paired t test computed between mean pretest and post test score is (13.1 and 25.61) which indicates a significant increase in knowledge of staff nurse regarding care of children with nephrotic syndrome.

Thus it is concluded that the information booklet teaching programme is care of children with nephrotic syndrome effective as a teaching strategy. Most of the selected demographic variables do not show major role in pretest knowledge score, hence on the basis of above findings it could be concluded undoubtedly that the written material prepared by the investigator in form of booklet information assisted teaching helped staff nurses to improve their knowledge regarding care of children with nephrotic syndrome.

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