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Maternal Knowledge And Readiness For Pediatric Colostomy Management In A Tertiary Care Hospital

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Abstract

In the present time of competition there is a race of existence in which those are having will to come forward succeed. Project is like a bridge between practical and theoretical working. With this willing we joined this particular project. First of all we would like to thank the supreme power of Almighty God who is obviously the one has always guided me the right path of life. Without His grace this project could not become reality.

Next to Our Parents whom we greatly appreciative for brought up with love and encouragement to this stage and highly thankful them for their tremendous support in very millennium of my life We are oblige in taking the opportunity to sincerely thanks to **Madam Syeda Sidra Tasneem** (The Director of Superior collage of Nursing Lahore, Campus) and special thanks to **Madam Rubina Jabeen (**The Principal of Superior Collage of Nursing Lahore Campus) who organize the field visit and this research project. We are highly Oblige to our worthy teacher **Madam Zunira for** her tremendous effort her great experience and generous attitude and friendly behavior for completing this project. We are also very thankful to **Ms. Amtul Inyat, Mr. Nickson Subeston Anthony, and Mr. Kosheel Bhatti** for their supports us throughout the project and helping for the data collection.

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Introduction

Colostomy is a surgical formation or a passage between colon and the abdominal wall which is permit to the passage of faces from the body. This artificial opening is called 'Stoma'(Mohsen, 2016). An intestine opening (Stoma) is made when a section of gastrointestinal tract is open on the skin surface for the purposes of fecal elimination when there is problem arise when victim is not pass stool from natural way. Colostomy is a very common surgical treatment of the world wide of congenital disorders and condition in children like hirschsprung disease, anorectal malformation, Crohn disease, and enteric perforation are the major signs of colostomy in neonates, infants and children as well (Mohammad & Al Amin, 2015).This opening stoma either temporary or permanent according to disease. It might be made for few weeks, months, years or may be permanent. It usually had done when the problem came in gastrointestinal tract due to hirschsprung disease, congenital mega colon and anorectal malformation (Mohsen, 2016).

In colostomy surgery, normal bowel function is interrupted and waste is passed through the abdominal wall through an opening called a stoma into an appliance that must be emptied periodically (Pringle and Swan, 2001). The basic types of stomas include colostomy, ileostomy and urostomy (ileac channel) (Wondergem, 2007). The stoma is made depend on the part is effected of the intestine. Some are the large some are small, some are made at the right side of the abdomen which is called (Cecostomy) and some are the left side. (Kalia, Walia, & Rao, 2004). Mohammad and Al Amin (2015) reported that the most common indication of performing colostomy was hirschsprung disease in 29 patients (58%). Anorectal malformations are the causative factors in19 patients (38%). Other causes include, perianal malignancy in 1 patient (2%), traumatic rectal injury in 1 patient (2%).

Worldwide, specialist nurses are taking responsibility of the advanced field of stoma therapy, and nursing interventions include a broad area, covering aspects of practical handling of the pouch, to counselling patients living with a stoma. Recent data have revealed that nurse specialty stoma nurse has a significant role in the prevention and treatment of emotional, physical and social problems (Lo et al., 2011). The care of the children with colostomy is a difficult, challenging and long process, however colostomy in a child is often temporary. Most parents worry about their child's life span, ability to work, adjustment to living with a colostomy, and in later years, marriage and family. (Mohsen, 2016) Education of parents and general awareness of mother in the public regarding the management of stoma is an additional factor which will improve the conditions preventing various complications of colostomy (Prinz et al., 2015).

The aim of the study of to assess the knowledge of mother's regarding the stoma, usage of stoma appliance primarily proper application, disposal and care of stoma bag.

Objectives

To assess the knowledge of mother's regarding the colostomy (Stoma).

To evaluate the practices of the usage, proper disposal and care of stoma bag.

Research Questions

Do the mothers have proper knowledge regarding the colostomy (Stoma)?

Do the mothers have proper knowledge regarding the usage, proper disposal and care of stoma bag?

Materials & Methodology

This was a descriptive cross-sectional study conducted to assess mothers' knowledge and practices regarding colostomy care, including the application, disposal, and maintenance of stoma appliances. The study setting was a tertiary care hospital where dedicated pediatric surgical facilities are available. Data were collected over a period of four months, from 15 September 2016 to 15 January 2017. The study population consisted of mothers of children with colostomy who were admitted for the management of stoma-related complications. The inclusion criteria consisted of mothers having children with a temporary or permanent colostomy, presenting in the hospital during the data collection period, and giving informed consent. The exclusion criteria included mothers who were unwilling to participate or unable to fill out the questionnaire, or mothers whose children had ostomies other than colostomy.

A purposive sampling technique was adopted to include 100 mothers who met the inclusion criteria. Data collection was done with a structured questionnaire adapted from Pandey et al., 2015. The questionnaire was divided into two sections: Section I and Section II. Section I elicited demographic details pertaining to the mother's age, educational status, occupation, type of surgery undergone by the child, duration of living with stoma, postoperative hospital stay, and previous experience related to the stoma care education. Section II elicited mothers' knowledge and practices related to colostomy care, with regard to their understanding about the care of the stoma, the application and removal of the stoma bags, cleaning and maintenance of the stoma site, disposal of appliances safely, and prevention of complications. Knowledge was rated using a five-point Likert scale ranging from 1 (not confident) to 5 (extremely confident) (Pandey et al., 2015).

Data collection occurred in a private, comfortable area within the hospital to ensure comfort and confidentiality. The questionnaire was translated into urdu language to ensure the appropriate data collection from the mothers to enhance comprehension and accuracy, and responses were recorded directly by the researchers. Ethical approval was obtained from the hospital administration, and informed verbal consent was secured from all participants. Confidentiality and anonymity were maintained; participation was entirely voluntary, and the mothers were assured of their right to withdraw at any time without adverse consequences. All the data collected were coded and then entered into SPSS, IBM version 26, for statistical analysis. For descriptive data analysis, frequencies, percentages, tables, and graphical presentations were used to summarize demographic characteristics and knowledge levels of the participating mothers.

Results

This chapter presents the findings of the study conducted to assess mothers' knowledge and practices regarding colostomy care for their children. The results are organized according to the major components of the research tool, including demographic characteristics, mothers' exposure to stoma care education, and their confidence and practices related to the application, maintenance, and prevention of stoma-related complications. Data have been summarized using frequencies, percentages, tables, and charts to provide a clear and comprehensive understanding of the mothers' level of knowledge and their ability to manage colostomy care effectively.

Table 1 presents the demographic characteristics of mothers who had a child living with a colostomy. The bar chart corresponding to these data shows that more than half of the mothers were illiterate, which contributed to their limited understanding of colostomy care. The findings further indicate that approximately 78% of the mothers

had never received any formal pre- or postoperative stoma care education, reflecting the lack of standardized training in the study setting.

In the first section of the assessment, although 54% of the mothers reported receiving some form of teaching from both doctors and nurses, this education was insufficient and did not constitute structured or standardized stoma care training. The second part of the assessment, which measured mothers' knowledge and confidence related to stoma care, revealed several important trends.

Regarding the application of stoma collection appliances, 31% of mothers reported being highly confident, while 38% were only slightly confident in preventing leakages. Despite this, Table 1 shows that 93% of mothers were fairly confident in taking care of the stoma at home, indicating moderate confidence despite a lack of formal training.

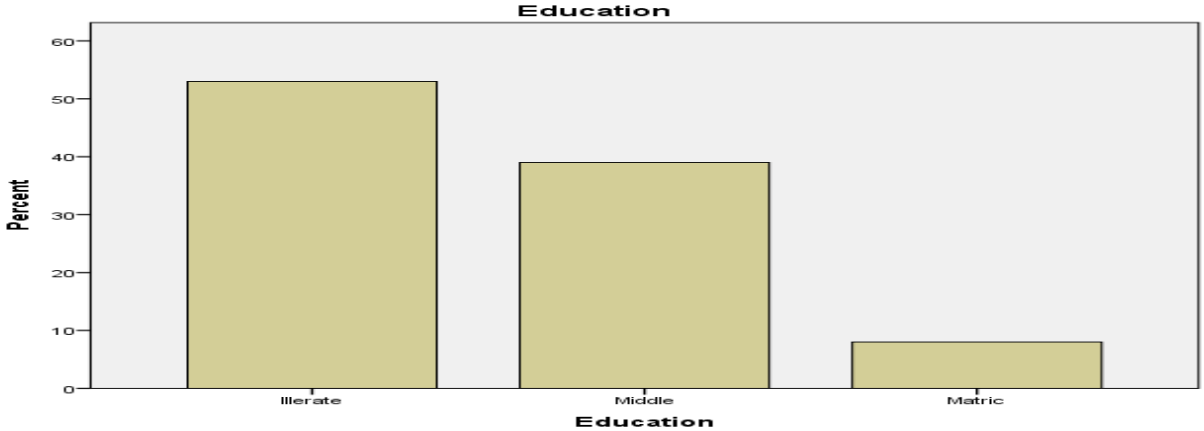
Table 2 presents mothers' confidence levels in preventing skin complications. The results show that 71% of mothers were fairly confident in preventing skin problems around the stoma site. Similarly, 46% of mothers were fairly confident in preventing stoma bleeding or tissue damage. However, given that 54% of the sample consisted of illiterate mothers, this confidence may reflect practical experience rather than structured knowledge.

Table 3 shows that 62% of mothers were fairly confident in preventing stoma obstruction, a condition that often requires hospitalization. Additionally, 44% of mothers were fairly confident in following nurses' instructions, and 38% were fairly confident in following doctors' advice related to stoma care and nutrition.

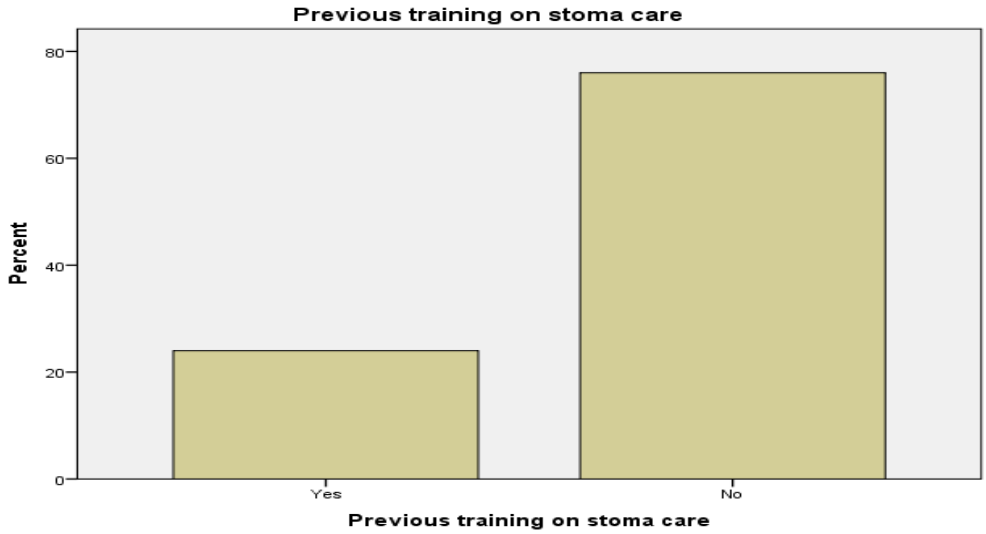
Table 5 illustrates mothers' confidence in managing stoma care outside the home. The majority, 92%, reported being fairly confident in taking care of the stoma during outdoor activities, while 8% were extremely confident.

Overall, the results indicate that although many mothers reported being "fairly confident" in various aspects of stoma care, their confidence levels did not align with their limited knowledge, low educational background, and lack of formal stoma care training. The findings highlight a clear gap in standardized education, suggesting that mothers rely primarily on informal learning and experience rather than evidence-based instruction. Consequently, the study demonstrates a significant deficit in knowledge and proper colostomy care practices among mothers, underscoring the need for structured pre- and postoperative stoma care training programs.

Table 1: The demographical characteristics of the mothers who had a child with colostomy



In this bar chat more than 50% of mothers are illiterate and have no knowledge toward the colostomy of their children.



These percentage are highly increases because of there was no standardized education and training provided to the mothers. In this bar chart approximately 78% mothers was not trained by the special pre and post stoma care education.

In Part 1: Approximately 54% teaching is given to the mothers by both Doctors and Nurses but there was no proper standardized training was provided to the mothers regarding children with colostomy (Stoma).

In Part 2: This session was consisting of information and knowledge of mothers regarding stoma care was highly significant. The result shows in a percentage.

31% mothers was highly confidence to apply the stoma collection material before leakages appears. 38% mothers was slightly confident for preventing these leakages.

Table 1: Education for taking care of stoma in the right way at home

Education

Take care of stoma in the right way at home	Mean	N	Std. Deviation	% of Total N
Slightly confident	1.00	7	.000	7.0%
Fairly confident	1.59	93	.647	93.0%
Total	1.55	100	.642	100.0%

Although 31% mothers was highly confidence to apply the stoma collection material before leakages appears. 38% mothers were slightly confident for preventing these leakages. But it was a very significant % of mothers which was 93% mothers was fairly confident to take care of stoma in the right way at home (table 1).

Table 2: Education for Preventing problem

Education

Prevent having skin problem	Mean	N	Std. Deviation	% of Total N
Not confident	1.00	7	.000	7.0%
Slightly confident	1.50	14	.519	14.0%
Fairly confident	1.56	71	.691	71.0%
Extremely confident	2.00	8	.000	8.0%
Total	1.55	100	.642	100.0%

71% mothers was fairly confident to prevent from skin problems related to stoma site. Same as 46% mothers was fairly confident to prevent having stoma bleeding and damage.
In study setting there was an approximately 54% ratio of illiterate mothers there for 31% mothers are fairly confident to apply stoma collection material in a right way were they learned to do.

Table 3: Education for Preventing stoma obstruction

Education

Prevent having obstruction	Mean	N	Std. Deviation	% of Total N
Not confident	1.00	7	.000	7.0%
Slightly confident	1.35	23	.487	23.0%
Fairly confident	1.63	62	.707	62.0%
Highly confident	2.00	8	.000	8.0%
Total	1.55	100	.642	100.0%

62% mothers was fairly confident to prevent from having obstruction and they need hospitalization. There was 44% mothers are fairly confident to follow the nurses instructions for handling the stoma. Same as 38% mothers was fairly confident to follow the doctor's advice for taking of stoma and nutrition pattern.

Table 5: Education for taking stoma care in the right way outdoors.

Education

Take care of the stoma in the right way outdoors.	Mean	N	Std. Deviation	% of Total N
Fairly confident	1.51	92	.655	92.0%
Extremely confident	2.00	8	.000	8.0%
Total	1.55	100	.642	100.0%

At the last 92% mothers was fairly confident to take care of the stoma in the right way outdoors or at home.
In all these percentages mentioned above are classified that there is a significant poor knowledge and information of mothers toward colostomy. There is no significance in mothers to apply the stoma collection material before leakages appears. But in other hands above result shown that mothers have not enough knowledge about the colostomy care of their children

Discussion

There is no vast studies are conducted on pediatric colostomies and their statically data but some studies are conducted and has shown their results, Therefore it's very difficult to search contrary results. In study setting there was an approximately 54% ratio of illiterate mothers there for 31% mothers are fairly confident to apply stoma collection material in a right way were they learned to do. 62% mothers was fairly confident to prevent from having obstruction and they need hospitalization. There was 44% mothers are fairly confident to follow the nurses instructions for handling the stoma. Same as 38% mothers was fairly confident to follow the doctor's advice for taking of stoma and nutrition pattern.71% mothers was fairly confident to prevent from skin problems related to stoma site. Same as 46% mothers was fairly confident to prevent having stoma bleeding and damage. 92% mothers was fairly confident to take care of the stoma in the right way outdoors or at home. In this study has shown

higher significant the knowledge and information of mothers regarding colostomy care of their children ($p>0.05$). These results are agreed with the below studies.

(Mohsen, 2016) conculed that Table (2) shows the highest percentage (53.8%) their age group (25-29) years.The most group exposure to the colostomy from mothers response is different, the higher percentage poor answer was house wife represented (47.7%).

The study has shown high significant relationship between information and level of education of the sample with ($p< 0.05$). Table (3)shows no significant relationship between mother's beliefs and mother age, mother's profession with ($p> 0.05$).Also the study; shows high significant relationship between beliefs of the mothers and level of education with ($p < 0.05$) primary study, have highest percentage (64.3%).

This result agreed with (Akanidomo et. al, 2007) study, who found many of parents are living below the poverty line; thus, having the added stress of how to fund the surgery and purchase the needed postsurgical management for the child may be an overbearing burden. Have pointed out that the inability of parents to carry the financial burden has led to their removing the child from the hospital prior to completion of postsurgical management

This result in contract to the finding of (Emmanuel, (2006) who Founded that a comprehensive study for ostomy surgery; has been shown that the colostomy surgical operations number in urban areas were more than the operations in rural areas, because the number of children born in urban area more than rural area.

Conclusions

The mothers have not enough knowledge about the colostomy stoma care, its proper usage and disposal and how to prevent from these complications.

Commonly the mothers have poor information and have no education about the care of colostomy of their children in a standardized way.

Recommendation

There should be organised a multidisplinary team such as (Physicians ,Doctors, Special stoma care nurses, Nutritionist, Psychologist, Surgeons and physiotherapist) that provides health education to the mothers in all dimensions.

Structured a stoma support group for the early detections of problems related to stoma and planning accordingly to prevent from major complications

For enhancing quality of life and parents education outcomes, multiple teaching aids used i.e. traditional lecture method, multimedia, brochure and DVD's.

An educational program should be developed for the mothers having children with colostomy, in order to increase their knowledge and practices toward stoma care.

Organized special classes on weekly basis and used video films or direct demonstration to the parents on the care, proper usage and how to measure poach and application of stoma related material in such a standardized way.

Should recommend for the experimental study for the better results as well as for continue research.

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ANNEXURE

KNOWLEGDE OF MOTHERS REGARDING COLOSTOMY STOMA CARE OF CHILDREN

Two tools will be utilized to collect data pertinent to the current study. Modified questionnaire of **(Pandey et al., 2015).** Is taken with proper permission.

Part- I DEMOGRAPHIC PROFILE

i. Gender □ Male □ Female

ii. **Age (Years)** □ 18 – 27 □ 28 – 37 □ 38 – 47
□ 48 – 57 □58 – 67 □ 68 or above

iii. **Education:** □Illiterate □ Middle (1-8th class) □ Matric (9-10th Class)
□Intermediate (11-12th Class) □Higher Education (above 12)

iv. **Type of Surgery:-**
□ Colostomy □ Ileostomy □ Urostomy
□ Colostomy and Urostomy

v. **Duration of living with stoma** □ One Month □ six months
□ 12 months □ > 12 months

vi. **Duration of post – operative hospitalization: -** □ <15 days □ > 15 days

vii. **Pervious training on Stoma Care: -** □ Yes □ No

viii. **Pre – operative teaching given: -** □ Yes □ No
If Yes……
Then who has provided education □Doctor □ Nurse □company Representative

PART-II Stoma care efficacy scale (Pandey et al., 2015)

Post-surgery days:_____, Follow up day:_____

Mark an "X" in the column that indicates how confident you feel in response to each item.	**1 Not confident**	**2 Slightly confident**	**3 Fairly confident**	**4 Highly confident**	**5 Extremely confident**
1. Apply the stoma collection materials before leakages appear.					
2. Prevent having leakages.					
3. Take care of the stoma in the right way at home.					
4. Prevent having skin problems.					
5. Prevent having stoma bleeding and damage.					
6. Apply the stoma collection materials in the way you learned to do.					
7. Prevent having obstruction.					
8. Follow the nurse's instructions for handling the stoma.					
9. Follow the doctor's advice for taking care of your stoma and nutrition pattern.					
10. Take care of the stoma in the right way outdoors.					
TOTAL					