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Original Article

Effect of Video assisted Teaching versus Teach- Back Method on Mothers' Knowledge, Practice and Self-efficacy regarding Colostomy Care of their Children.

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ABSTRACT

A colostomy is an abdominal incision made surgically when a portion of the colon (large intestine) is placed outside the abdominal wall to form a stoma. Mothers of children undergoing colostomy need to receive sufficient information about colostomy care. **The study aimed to** evaluate the effect of video-assisted teaching versus the teach-back method on mothers' knowledge, practice, and self-efficacy regarding colostomy care of their children. **Design**: Quasi experimental research design was used in this study. **Setting**: the study was applied at the Pediatric Surgical Unit at Tanta Main University Hospital and the Pediatric Surgical Unit at Universal Teaching Hospital. **Subject**: A purposive sample of 60 children undergoing colostomy and their mothers. **Four** tools were utilized: **Tool I**: Structured Interviewing Questionnaire composed of two parts. **Tool II**: Mothers' Knowledge Regarding Colostomy which contained three parts, **Tool III**: Mothers' Reported practice regarding colostomy care, and **Tool IV:** Mothers' Self-Efficacy Scale. **The results** clarified that there were a high statistically significant difference in mothers' knowledge, reported practice, and their self-efficacy immediately after and post two weeks than pre in the video-assisted teaching and teach-back method group compared to a control group. **Conclusion**. The study concluded that both video-assisted teaching and teach back method were effective in improving mothers' knowledge, reported practice, and their self-efficacy regarding colostomy care of their children. **The study recommended that** developing periodic technology-based or electronic teaching training programs and incorporating teach-back method for mothers all were effective teaching methods during the discharge planning for their children with colostomy.

Keywords: Video Assisted Teaching, Teach-Back Method, Mothers' Knowledge, Practice, self-efficacy, and Colostomy Care.

Introduction

Colostomies are surgically created openings (stomas) in the colon, or large intestine when a portion of the colon (large intestine) is placed outside the abdominal wall to form a stoma. The colon's healthy end is pulled through an incision

in the anterior abdominal wall and sutured into position in combination with an attached ostomy system. In low-middle-income countries, there is a need for stomas in various pediatric surgical conditions. These conditions can be either congenital, such as anorectal malformations and Hirschsprung's Disease, or acquired diseases like intestinal perforation caused by typhoid or gangrenous ileocolic intussusception. Colostomy also may be occasionally performed for pelvic and perineal tumors, Crohn's disease, and rectal perforation. Anorectal and colon abnormalities are common congenital malformations that reach from 100-200 neonates performing colostomy in Europe annually. (Massenga**, et al. 2019; Boroni, et al.2020**)

The incidence of complications after colostomy is reported to be between 10% to 74 %. Following surgery, complications might show up right away or later, months or years later. Early problems that may occur (within the first three months): hemorrhage, retraction, fistula, abscess, wound infection, and small intestinal blockage. Prolapse, strictures, para-stomal hernias, and severe skin excoriation are examples of late complications (after the first three months). In children, peristomal skin problems affect 18% to 73%. The pouching system leaks can cause discomfort, anxiety, and severe social isolation, ranging from minor irritation to full-thickness ulcerations. After the first operation, peristomal skin issues may potentially appear months or even years later; such as skin color (erythema), turgor (flaccid and firm), and integrity (irritation, rash, ulcer, erosion, and skin breakdown). **(Malik, et al. 2018; Zamil, et al. 2018; Abd- Elhay, et al.2019).**

Effective education can lower healthcare costs, increase patient and family satisfaction, enhance health, and decrease readmissions to hospitals. Nurses should therefore use practical and efficient methods to ensure patient understanding of instructions. Self-efficacy is the confidence one has in their ability to carry out a specific behavior and anticipate the outcomes. In reality, a mother's self-efficacy reflects the confidence in her ability to raise her children and is influenced by the family's and the child's performance. Because of their low self-efficacy, mothers tend to parent in a negative manner and use fewer resources and treatment programs for their children. (**Mohammed, et al.2024; Goudarzi, et al.2019)**

The role of the nurse in stoma care includes preoperative education and counseling, postoperative teaching and emotional support, emptying and changing pouching systems, explaining dietary and fluid guidelines, identifying potential complications, monitoring medications, managing gas and odor, and teaching patients to seek help if they experience changes in output, skin, or stoma complications. Pediatric nurses are also responsible for ongoing rehabilitative care for children and their families, discharge planning, and outpatient follow-up. To enhance mothers' understanding and skills, a

variety of instructional techniques are employed, including lectures, demonstrations, discussions, self-education, and video-assisted instruction. The technology of electronically taking, storing, transmitting, and rebuilding a series of pictures that depict moving scenes is known as video. (**Uslu, et al.2019; Joel , et al. 2021; Li, et al.2019)**

Mothers learn better through the video teaching method, which presents straightforward explanations of difficult subjects and problems using sight, sound, and action. Additionally, it has the ability to bridge educational gaps by presenting information in a way that spoken descriptions or conversations are not enough. Using the teach-back method, a patient or caregiver should explain the information they have received from a professional and provide clarification on their feedback. It shows that the patient has understood the directions that are meant to be followed. The teach-back approach is predicated on the ideas in cognitive psychology that short informational sequences can be repeated to enhance memory. Teach-back will improve patients' self-management abilities and knowledge while increasing their adherence to illness management. The teach-back technique is recommended as a 'universal precaution' by the Agency for Healthcare Research and Quality (AHRQ) and the National Quality Forum (**Nagy, 2018; Oh et al.2021; Jagodage et al.2024; Agency for Healthcare Research and Quality, 2018**)

Significance of the study

Colostomy is a common procedure performed in pediatric surgery that is associated with morbidity and mortality. Several studies reported that the incidence of problems linked to colostomies varies between 28–74% worldwide. The overall morbidity from colostomies might range from 42 to 75% However, with appropriate surgical methods and nursing care, these complications can be avoided. Because colostomy causes a significant shift in elimination pattern and necessitates adapting to a new way of life, high-quality care is necessary. Mothers have an incredible role in providing care for their children with colostomy and preventing complications. Hence, it is necessary to have adequate knowledge and practice regarding caring for their children with colostomy. The development of technology has opened up several possibilities to improve the ways of educating patients about their health. Educational barriers can be managed by using video-assisted instruction, which can communicate knowledge in a way that spoken descriptions or talking alone are not enough to transfer the correct information. The teach-back method is a way to make sure patients understand the information about their health. In order to determine whether mothers have understood the instructions they have been given by their healthcare providers, they are asked to repeat them. If they do not, the instruction is either reteach or modify the content. **(Dehsorkhi et al.2020; Wray et al.2021; Oh et al.2023**) So, the study aimed to evaluate the effect of video-

assisted teaching versus the teach-back method on mothers' knowledge, practice, and self-efficacy regarding colostomy care of their children.

Aim of the study

The study aimed to evaluate the effect of video-assisted teaching versus teach-back method on mothers' knowledge, practice, and self-efficacy regarding colostomy care of their children.

Research design

Quasi-experimental research design was used in this study.

Research hypothesis:

1. Mothers of children with a colostomy who received discharge instruction through video-assisted teaching method are expected to have a higher level of knowledge, practice, and more self-efficacy than mothers who received discharge instruction through the routine method.
2. Mothers of children with colostomy who received discharge instruction through teach-back method are expected to have a higher level of knowledge, practice, and more self-efficacy than mothers who received discharge instruction through the routine method.

Setting:

The study was conducted at the Pediatric Surgical Unit at Tanta Main University Hospital and the Pediatric Surgical Unit at Universal Teaching Hospital which is affiliated to the Ministry of Higher Education and Scientific Research.

Sampling: A purposive sample of 60 children undergoing colostomy and their mothers from the previously mentioned setting and they divided randomly into three groups with sample calculation based on type I error 0.05 and confidence level 95%.

Mothers and their children were divided randomly into three equal groups:

1. **Video Assisted Teaching Group: Twenty children and their mothers:** who taught through a self-developed video on colostomy care in simple Arabic language**.** The colostomy video displayed the anatomy and physiology of the human digestive system, colostomy care, diet management, and prevention of colostomy-related complications.
2. **Teach-Back Method Group: Twenty children and their mothers.** The researcher explained a teach-back method to mothers and colostomy care and then re-assessed mothers' retention of discharge instruction. The educational content was repeated and reviewed in case of incomplete understanding or mistakes regarding colostomy care.
3. **Control group: Twenty children and their mothers** who received routine hospital care and routine discharge instructions without any intervention.

Inclusion criteria

- Children undergoing the surgical operation of a colostomy for the first time regardless of the indications for a colostomy (congenital or acquired surgical disorders)
- Children age from birth to 6 years.

Exclusion criteria

- Children with multiple congenital anomalies.
- Children who were admitted for colostomy closure.
- Critically ill children.
- Mothers who have previous experience regarding caring for colostomy.

Tools of data collection: four tools were used:

Tool I: Structured Interviewing Questionnaire. It was developed by the researcher after reviewing the related literature **Abd El Aziz& Sheir, (2020)& Abd El-Rahman, et al., (2020).** It comprised of two parts:

Part I:Sociodemographic characteristics of the studied mothers: (age, level of education, occupation, marital status, family members, number of children, consanguinity, and residence).

Part II: Bio-social characteristics of studied children: such as age, sex, birth order, history of the previous hospitalization, child's diagnosis, time of discovering the disease, past medical history, colostomy data as type, type of colostomy pouch, colostomy appearance, and type of feeding.

Tool II: Mothers' Knowledge Regarding Colostomy: It was developed by the researcher after reviewing the related literature. **Puri. 2018, Elzeky et al. 2022 & Abd- Elhay, et al. 2019**: it includes: three parts

- **Part I**: Mothers' knowledge regarding colostomy: meaning of colostomy, indication, characteristics of healthy stoma, types of colostomy, dietary recommendations, and follow-up of colostomy.
- **Part II**: Mothers' knowledge regarding colostomy post-operative complication:

1- Peristomal skin complications of color (erythema), turgor (flaccid and firm), and integrity (irritation, rash, ulcer, erosion, and skin breakdown).

2- Colostomy complication: early complication: infection, abscess, fistula, retraction, bleeding, and small bowel obstruction. Late complications (after the first three months) include a para-stomal hernia, prolapse, stricture, stoma blockage, stoma leakage, and stoma ischemia.

- **Part III**: Mothers' knowledge regarding Teach-back method: meaning, advantages, and the importance of it in the discharge plane.

Each question scored from (0-2) points. Complete correct answers were scored 2 points,

incomplete correct answers scored 1 point, and zero for wrong or I don't know.

The mothers' level of knowledge was categorized as follows:

- Equal or more than 75% represented a high level of knowledge.
- From 50-< 75% represented moderate knowledge
- Less than 50% represented a low knowledge level

Tool III: **Mothers' Reported Practice regarding Colostomy Care**: It was adapted from **Bowden, et al., 2016& Dantas et al., 2021** to evaluate mothers' practice of colostomy care. The checklist was modified and simplified by the researcher to fit the capabilities of the mothers.

Mothers' reported practices were classified as:

- Done and complete was scored 1
- Not done was scored 0

Scoring system was categorized as the following:

- Unsatisfactory reported practice: < 70 of the total score.
- Satisfactory reported practice: ≥70 of the total score.

Tool IV: Mothers' Self-Efficacy Scale

This scale was developed by **Schwarzer & Jerusalem., 1995** and adopted form the researcher. Ten items scale will be utilized to assess perceived mothers' self-efficacy regarding colostomy care of their children as (the ability of the mothers to achieve the health needs of her child, the ability of the mothers to deal with emergency events that may happen to her child….) with total score 40 degrees.

1 = Not at all true

2 = Hardly true

3 = Moderately true

4= Exactly true

The total score for self-efficacy will be classified as the following

- High self-efficacy≥ 60
- Low self-efficacy<60

Method

1.**Administrative process:** the administrators of the pediatric surgical units at Tanta University Main Hospital and Universal Teaching Hospital approved the data collection.

2. **Obtaining ethical committee:** the committee of ethics at the Faculty of Nursing granted authorization before the study was carried out with approval number. 546 10-2024.

3. **Ethical and legal considerations:**

a. The nature of the study did not cause any harm or discomfort to the entire sample.

b. Confidentiality and privacy were taken into account when collecting the data.

c. Mothers consented to the study after being advised of their right to withdraw at any time.

4. **Content validity**: A jury of five pediatric experts assessed the study tool's validity to ensure that the questions were pertinent, comprehensive, and distinctive. Each item's content validity index (%) was 94%.

5. **Content reliability**: The pilot participants tested the research tool during the first session, yielding a Cronbach's alpha of 0.891, which was used to assess reliability.

6. **A pilot study:** Before data collection began, a pilot study was carried out on 10% of nurses to test the clarity, applicability, and feasibility of modifying the sheet tools and also to determine the approximate time required for each intervention. The pilot study is the most important step in the whole research process to discover problems. The results of the pilot study were not included in the total study sample.

7. **Tools development**: The researchers developed and modified the study's tools based on an assessment of recent literature. Four tools were utilized in this study.

Phases of the study: The study was done in four stages:

1- Assessment Phase:

- The researchers explained the purpose of the study to all study participants.
- The researchers gathered baseline data, assessed mothers' needs to evaluate children who met the inclusion criteria for the study, and evaluated mothers' knowledge, practice, and self-efficacy regarding colostomy care of their children. **(Tool I, II, III, and IV)**.
- The researchers were present in the study settings two days a week to evaluate the mothers' knowledge, and assign to the reported mothers' practice and self-efficacy regarding colostomy care of their children before, immediately, and two weeks after the implementation of the two teaching approaches.
- Articles on video discharge instruction and teach back methods for colostomy care teaching were chosen after browsing and scanning article titles and abstracts.

2-Planning phase comprised the following steps:

- Establishing goals
- The colostomy care video was prepared by the researchers and validated by pediatric nursing experts and pediatric surgeons for **video-assisted teaching group**. The researchers explained the purpose of videography to the parents.
- The researchers considered the child's privacy and did not reveal the child's identity; blurred the child's face and only focused on the colostomy site. The colostomy video comprised of anatomy and

physiology of the human digestive system, colostomy care, diet management, and prevention of colostomy-related complications.

- The researcher developed a PowerPoint presentation, booklet, and handouts on teach-back method guidelines and colostomy care for mothers in **teach-back method group.**
- Mothers in video-assisted teaching group and teach-back method group were divided into four subgroups each subgroup containing five mothers and their children.

3- Implementation phase is composed of the following steps:

- The researchers used the selected teaching method for each group about colostomy care separately by conducting the following sessions in relation to the assessment of the study mothers' actual needs.
- The teaching session consisted of four sessions, for video assisted teaching group two sessions /week, and five sessions for teach- back method group two sessions in the first week and three sessions in the second week. Each session lasted about 30-45 minutes, which included discussion times depending on the mothers' feedback and progress.
- For the control group, the researchers assessed mothers' retention of discharge instruction by the routine discharge process through the lecture method.
- Data was gathered over the course of four months from October to January.
- Each group attended the following sessions except the fifth session was only for teach-back method group**.**

- **The first session:** Focused on: the meaning of colostomy, its indication, characteristics of a healthy stoma, the importance of colostomy care, dietary recommendations, danger signs, and follow-up of colostomy.
- **The Second Session:** Focused on: Peristomal skin complications of color (erythema), turgor (flaccid and firm), and integrity (irritation, rash, ulcer, erosion, and skin breakdown).
- **The Third session**: Focused on: early complications: infection, abscess, fistula, retraction, bleeding, small bowel obstruction, and stoma ischemia. Late complications include a para-stomal hernia, prolapse, stricture, stoma blockage, and stoma leakage.
- **The Fourth Session**: It focused on: the steps of colostomy care with or without a bag.
- **The Fifth Session**: It focused on the teach-back method: meaning, advantages, and importance of it in the discharge plane.

Implementation of teach back method that applied to mothers through face to face in systematic steps as follows:

1. Informing mothers that teach back method is not a test of their knowledge but it is the way how the researchers explain the concept.
2. Planning the approach (It is the way how the researchers asked the mothers to back the information,
3. Chunking and Checking (Chunk out information into small segments and allow the mothers to recall it back at the middle of the session and check the clarity and correct of their information),
4. Clarifying and checking again (Explain things many times to prevent misunderstanding, using a different approach then allow mothers to describe the information in their own words),
5. Starting teach back method slowly and consistently with all mothers in the selected group.
6. Teach-back method should be done without distraction and handouts with colorful pictures to help mothers remember instructions at home as booklet and brochures.

4-Evaluation Phase: The same assessment tools were used to reassess mothers' knowledge, practice, and self-efficacy regarding colostomy care of their children immediately after and two weeks after implementation of the selected teaching method and these results were compared to pretest values. At the same time period, the control group was evaluated.

Statistical analysis:

SPSS software (Statistical Package for the Social Sciences, version 26; SPSS Inc., Chicago, IL, USA) was used to arrange, tabulate, and statistically analyze the data that had been obtained. The range, mean, and standard deviation were determined for quantitative data. Chi-square test X^2 was used for qualitative data, which characterizes a categorical set of data by frequency, percentage, or proportion of each category of comparison between two groups or more. The F value for the ANOVA test was computed while comparing more than two parametric data means. Pearson's correlation coefficient (r) was used to assess the relationship between the variables. For the interpretation of the findings of tests of significance, significance was defined at $P < 0.05$, and high significance at $P < 0.001$. White. **2019.**

Results:

Table (1) clears that nearly half(45%) of the studied mothers in video-assisted teaching and control group ages ranged from 30 to less than 35years old, while in the teach-back group, their ages were 35 and more, with mean ± SD= 33.250 ± 3.76, 33.000 ± 4.70, 33.100 ± 3.90 respectively in video-assisted teaching, teach back and control group. The table also clarifies that 25% of studied mothers in video-assisted teaching had secondary and university education,

while 35% and 30% had university education in the teach-back and control groups respectively. It was found that nearly two-thirds (60%) of the studied mothers were housewives in video-assisted teaching and control group, while half of the mothers in teach back group were housewives and employees. It was noted that three-quarters (75%) of studied mothers were married in teach-back group, while 70 % of them were married in video-assisted teaching and control group. It was illustrated that half (50%) of family members in video-assisted teaching and control group were five or more, while 40% of family members in the teach-back group were three and five or more. The table represents that 35% of mothers in video-assisted teaching and control group had one or three children in their family, while in teach back group 40% of them had one child in teach back group. It was found that 70%, and 75% of mothers in video-assisted teaching, control, and teach back groups respectively had no consanguinity between mother and father, and 75%,70% in video-assisted teaching, control, and teach back groups respectively were from rural areas.

Table (2) illustrates that 45% of studied children their age ranged from 4 to six years old in the video-assisted teaching and control group, while 40% of them their age were from birth to less than two years and from four to six years old in the teach-back group with mean ± SD=3.350 ± 2.12, 3.062 ± 2.03, 3.149 ± 2.10 respectively in video-assisted teaching, teach back and control group. It was noted that three-quarters (75%) of the studied children in the video-assisted teaching and teach-back group were boys and 80% of them were also boys in the control group. Regarding birth order, the table shows that 30%,35% of studied children in video-assisted teaching and teach back groups respectively were first and second birth order in their family, and 40%of them were the second birth order in their family in the control group. It was noted that 70%,80% of the studied mothers had a history of previous hospitalization in video assisted teaching and control group while 45% of studied children in teach back group had a history of previous hospitalization.

Regarding the time of discovering the disease, it was observed that 60%,40%,65% of studied children their disease were discovered from birth in video assisted teaching, teach back and control group respectively. It was noted that 45% of studied children in video assisted teaching and teach back group were diagnosed with anorectal malformation respectively, while 45% of them were diagnosed with Hirschsprung disease in the control group. All children in the three groups had temporary, not permanent colostomy. It was observed that 60%, 65% of studied children in video assisted teaching teach back and control group respectively had sigmoid colostomy. Regarding the type of colostomy pouch, it was noted that 65%,60% of studied children in video assisted teaching, teach back and control group respectively had colostomy without a pouch and 85% of them had unhealthy stoma in video-assisted teaching group, three-

quarters of them had unhealthy stoma in teach back and control group. Regarding the type of feeding, it was illustrated that type of feeding of 65% of children in video-assisted teaching and control group were meals and 60% in teach back group also had meals.

Table (3) illustrates that 90% of studied mothers had a low level of knowledge related to colostomy pre video assisted teaching, while these percentages improved to 80%, 70% respectively immediately and two weeks after video assisted teaching. Regarding teach back group. It was found that 85% of studied mothers had a low level of knowledge related to colostomy pre teach back intervention, these percent improved to 95%, 90% high level of knowledge respectively immediately and two weeks after teach back intervention, while there was no improvement in mothers' knowledge related to colostomy pre, immediate and post two weeks in the control group.

It was found that mothers' knowledge regarding colostomy postoperative complication had improved from 85% low level of knowledge pre video assisted teaching to 75%, 70% respectively immediately and post two weeks. In teach back group; mothers ' knowledge improved from 85% low level of knowledge pre teach back intervention to 95%, 90% high level of knowledge respectively immediately and two weeks after teach back intervention, while there was no improvement in mothers' knowledge related to colostomy postoperative complication pre, immediate and post two weeks in control group. It was noted that mothers' knowledge regarding teach back method had not improved pre, immediate and post two weeks in video assisted teaching and control group. Regarding teach back group; mothers' knowledge improved from 90% low level of knowledge pre teach back intervention to 95%, 85% high level of knowledge respectively immediately and two weeks after teach back intervention.

The table demonstrates that total mothers' knowledge had improved in video assisted teaching from 80% low level of knowledge pre to 70%, 60% high level of knowledge immediately and post two weeks of teach back intervention and improved from 85% low level of knowledge pre teach back intervention to 95%, 90% high level of knowledge respectively immediately and two weeks after teach back intervention, while there was no improvement in total mothers' knowledge pre, immediate and post two weeks in the control group. The table shows also that there were high statically significant differences in total mothers' knowledge and total mean scores immediately and post two weeks of intervention in the three groups p= **0.0001.**

Figure (1): displays that total mean scores of mothers' knowledge regarding colostomy had improved from mean ± SD= 5.05 ± 6.20 pre-video assisted teaching to 20.90±2.26, 19.01±1.40 respectively immediately and two weeks after in video assisted teaching group. The

figure clears that total mean scores of mothers' knowledge regarding colostomy had improved from mean ± SD= 6.55 ±5.50 pre teach back intervention to 22.30± 1.59, 20.55±0.48 respectively immediately and two weeks after in teach back group, while there was no improvement in total mean scores of mothers' knowledge regarding colostomy pre, immediate and post two weeks in control group.

Table (4): illustrates that mothers' reported practice regarding care of colostomy without pouch had improved from 95% unsatisfactory performance pre-video assisted teaching to 85%,75% satisfactory performance respectively immediately and two weeks after. It was noted that mothers' reported practice regarding care of colostomy without pouch had improved from 95% unsatisfactory performance pre teach back intervention to 95%,90% satisfactory performance respectively immediately and two weeks after, while there was no improvement in mothers' reported practice regarding care of colostomy without pouch pre, immediate and post two weeks in control group. This table represents that mothers' reported practice regarding care of colostomy with pouch had improved from 95% unsatisfactory performance pre video assisted teaching to 90%,80% satisfactory performance respectively immediately and two weeks after. It was found that mothers' reported practice regarding care of colostomy with pouch had improved from 90% unsatisfactory performance pre teach back intervention to 95%,90% satisfactory performance respectively immediately and two weeks after, while there was no improvement in mothers' reported practice regarding care of colostomy with pouch pre, immediate and post two weeks in the control group.

Regarding total mothers' reported practice related to the care of colostomy, it was noted that total mothers' reported practice related to care of colostomy had improved from 95% unsatisfactory performance pre video assisted teaching to 90%, 80% satisfactory performance respectively immediately and two weeks after. In teach back group also total mothers reported practice related to care of colostomy had improved from from95% unsatisfactory performance pre teach back intervention to 95%, 90% satisfactory performance respectively immediately and two weeks after teach back intervention, while there was no improvement in total mothers' reported practice pre, immediate and post two weeks in control group with high statically significant difference in total mothers' reported practice and total mean scores immediate and post two weeks of intervention in the three groups P= 0.0001.

Figure (2): demonstrates total mean scores of mothers' reported practice regarding colostomy care had improved from mean ± SD= 10.85 ± 2.43 pre-video assisted teaching to 19.60±1.78, 16.75±1.51 respectively immediately and two weeks after in video assisted teaching group. The figure describes that total mean scores of mothers' reported practice

regarding colostomy care had improved from mean ± SD= 11.25±2.04 pre teach back intervention to 21.10± 0.89, 18.50±2.43respectively immediately and two weeks after in teach back group, while there was no improvement in total mean scores of mothers' knowledge regarding colostomy pre, immediate and post two weeks in the control group.

Table (5) illustrates that total mothers' self-efficacy regarding colostomy care had improved from 95% low self-efficacy pre in video assisted teaching and improved to 90%.80% high self-efficacy respectively immediately and two weeks after in the video-assisted teaching group. In teach back group total mothers' self-efficacy had improved from 95% low self-efficacy pre in video assisted teaching and improved to 95%.90% high self-efficacy respectively immediately and two weeks after in teach back group, while there was no improvement in total mothers' self-efficacy regarding colostomy care pre, immediate and post in control group, with a high statically significant difference in total mothers' self-efficacy and total mean scores immediate and post two weeks of intervention in the three groups p= 0.0001

Figure(3) displays that total mean scores of mothers' self-efficacy regarding colostomy care had improved from mean ±SD= 14.55± 0.51 pre video assisted teaching to 32.60± 0.68, 28.64±3.8 respectively immediately and two weeks after in video assisted teaching group. The figure describes that total mean scores of mothers' self-efficacy regarding colostomy care had improved from mean ±SD= 14.35± 0.54pre teach back intervention to 35.60± 1.88,31.25±2.68 respectively immediately and two weeks after in teach back group, while there was no improvement in total mean scores of mothers' self-efficacy regarding colostomy pre, immediate and post two weeks in control group.

Table (6) illustrates that there was a positive correlation between mothers' knowledge and reported practice pre, immediately and two weeks after in video assisted teaching group with r=,0.568, 0.349 and statically significant difference at P=0.002,0.033 respectively immediately and 2 weeks after. It was noted that there was a positive correlation between mothers' knowledge and self-efficacy immediately and two weeks after in video assisted teaching group with r=0.493, 0.349, and statically significant differences at P=0.049,0.001 respectively immediately and 2 weeks after. Regarding teach back group, it was found that there was a positive correlation between mothers' knowledge and reported practice immediately and two weeks after in teach back group with r=0.712, 0.637and high statically significant difference at P=0.003, 0.001 respectively immediately and 2 weeks after. This table shows also that there was a positive correlation between mothers' knowledge and self-efficacy immediately and two weeks after in teach back group with r=0.478, 0.583 and statically significant differences at

P=0.013,0.010 respectively immediately and 2 weeks after.

Table (1): Percentage distribution of studied mothers related to their sociodemographic characteristics (n=60).

Mothers' sociodemographic characteristics	Video Assisted Teaching Group (n=20)		Teach- Back Method Group (n=20)		Control Group (n=20)		$\chi 2$ P
	No	%	No	%	No	%	
Age (years):							
25 - > 30	3	15.0	5	25.0	3	15.0	1.047
30 – > 35	9	45.0	7	35.0	9	45.0	0.903 NS
- ≤ 35	8	40.0	8	40.0	8	40.0	
Range	**27 – 40**		**25 – 40**		**26 – 40**		**F value, P**
Mean ± SD	**33.250 ± 3.76**		**33.000 ± 4.70**		**33.100 ± 3.90**		0.018, 0.982 NS
Level of education							
Illiterate	4	20.0	4	20.0	4	20.0	
Read and write	3	15.0	2	10.0	2	10.0	0.762
Basic education	3	15.0	3	15.0	3	15.0	0.999 NS
Secondary	5	25.0	4	20.0	5	25.0	
University	5	25.0	7	35.0	6	30.0	
Occupation							
Housewife	12	60.0	10	50.0	12	60.0	0.543
Employee	8	40.0	10	50.0	8	40.0	0.762 NS
Marital status							
Married	14	70.0	15	75.0	14	70.0	0.164
Divorced	6	30.0	5	25.0	6	30.0	0.921 NS
Family members							
Three	7	35.0	8	40.0	7	35.0	
Four	3	15.0	4	20.0	3	15.0	0.577
Five or more	10	50.0	8	40.0	10	50.0	0.966 NS
Number of children							
One	7	35.0	8	40.0	7	35.0	
Two	4	20.0	4	20.0	4	20.0	0.191
Three	7	35.0	6	30.0	7	35.0	1.000 NS
Four or more	2	10.0	2	10.0	2	10.0	
Consanguinity							
Yes	6	30.0	5	25.0	6	30.0	0.164
No	14	70.0	15	75.0	14	70.0	0.921 NS
Residence							
Rural	15	75.0	14	70.0	15	75.0	0.170
Urban	5	25.0	6	30.0	5	15.0	0.918 NS

NS Not Significan

Table (2): Percentage distribution of studied children related to their bio-social demographic characteristics (n=60).

Bio-social demographic characteristics	Video Assisted Teaching Group		Teach- Back Method Group		Control Group		χ^2 P
	No	%	No	%	No	%	
Age (years):							
From birth to > 2 years	7	35.0	8	40.0	7	35.0	0.168
2 - >4	4	20.0	4	20.0	4	20.0	0.997 NS
4 - 6	9	45.0	8	40.0	9	45.0	
Range	**3 months – 6 years**		**3 months – 6 years**		**6 months – 6 years**		**F value, P**
Mean ± SD	**3.350 ± 2.12**		**3.062 ± 2.03**		**3.149 ± 2.10**		0.100, 0.905 NS
Sex							
Boy	15	75.0	15	75.0	16	80.0	0.186
Girl	5	25.0	5	25.0	4	20.0	0.911 NS
Birth order							
First	6	30.0	7	35.0	5	25.0	
Second	6	30.0	7	35.0	8	40.0	2.092
Third	5	25.0	2	10.0	4	20.0	0.911 NS
Fourth and more	3	15.0	4	20.0	3	15.0	
History of previous hospitalization							
Yes	14	70.0	15	45.0	16	80.0	0.533
No	6	30.0	5	25.0	4	20.0	0.766 NS
Time of discovering the disease							
From birth	12	60.0	8	40.0	13	65.0	
9 Months	2	10.0	1	5.0	1	5.0	
1 year	2	10.0	4	20.0	2	10.0	8.773
2 years	2	10.0	2	10.0	2	10.0	0.554 NS
3 years	0	0.0	3	15.0	0	0.0	
4 years	2	10.0	2	10.0	2	10.0	
Medical diagnosis							
Hirschsprung disease	8	40.0	7	35.0	9	45.0	
Intussusception	3	15.0	4	20.0	3	15.0	0.527
Anorectal malformation	9	45.0	9	45.0	8	40.0	0.971 NS
Type of colostomy							
Temporary	20	100.0	20	100.0	20	100.0	-
Location of colostomy							
Transverse	3	15.0	2	10.0	2	10.0	
Ascending	2	10.0	2	10.0	1	5.0	0.938
Descending	3	15.0	3	15.0	4	20.0	0.988 NS
Sigmoid	12	60.0	13	65.0	13	65.0	
Type of colostomy pouch							
One piece	3	15.0	5	25.0	4	20.0	
Two pieces	3	15.0	3	15.0	2	10.0	2.804
Two pieces adhesive	1	5.0	0	0.0	2	10.0	0.833 NS
No pouch	13	65.0	12	60.0	12	60.0	
Colostomy appearance							
Healthy	3	15.0	5	25.0	5	25.0	0.789
Unhealthy	17	85.0	15	75.0	15	75.0	0.675 NS
Type of feeding							
Breast feeding	4	20.0	4	20.0	5	25.0	
Bottle feeding	3	15.0	4	20.0	2	10.0	0.873
Meals	13	65.0	12	60.0	13	65.0	0.928 NS

Table (3): Percentage distribution and mean scores of studied mothers' knowledge regarding colostomy (n=60)

Mothers' knowledge level	The studied *mothers* (n=*60*)																		χ^2 P *Pre*	χ^2 P *Immediate*	χ^2 P *After 2 weeks*
	Video Assisted Teaching Group (n=20)						Teach- Back Method Group (n=20)						Control Group (n=20)								
	Pre		*Immediate*		*After 2 weeks*		*Pre*		*Immediate*		*After 2 weeks*		*Pre*		*Immediate*		*After 2 weeks*				
	No.	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	N o	%			
Mothers' knowledge regarding colostomy																					
Low knowledge	18	90.0	0	0.0	0	0.0	17	85.0	0	0.0	0	0.0	17	85.0	17	85.0	16	80.0	*2.234*	***53.636***	***50.750***
Moderate knowledge	2	10.0	4	20.0	6	30.0	2	10.0	1	5.0	2	10.0	3	15.0	3	15.0	4	20.0	*0.676*	***0.0001 *****	***0.0001*****
High knowledge	0	0.0	16	80.0	14	70.0	1	5.0	19	95.0	18	90.0	0	0.0	0	0.0	0	0.0	*NS*		
Range	**0 – 8**		**7 – 12**		**6 – 10**		**0 – 10**		**8– 12**		**8 – 11**		**0 – 8**		**0 – 8**		**0 – 8**		*F value= 0.037*	***F value= 162.146***	***F value= 105.413***
Mean ± SD	**2.20 ± 2.96**		**9.25± 0.91**		**7.65 ±0.87**		**2.55± 0.98**		**11.80± 0.52**		**10.10±1.02**		**2.75± 2.38**		**2.75± 2.38**		**2.93± 0.56**		*P= 0.930*	***P= 0.0001*****	***P= 0.0001*****
Mothers' knowledge regarding colostomy post-operative complication																					
Low knowledge	17	85.0	1	5.0	1	5.0	17	85.0	0	0.0	0	0.0	18	90.0	18	90.0	17	85.0	*1.038*	***52.022***	***55.707***
Moderate knowledge	2	10.0	4	20.0	5	25.0	2	10.0	1	5.0	2	10.0	2	10.0	2	10.0	3	15.0	*0.904*	***0.0001*****	***0.0001*****
High knowledge	1	5.0	15	75.0	14	70.0	1	5.0	19	95.0	18	90.0	0	0.0	0	0.0	0	0.0	*NS*		
Range	**0 – 6**		**2 – 6**		**2 – 6**		**0 – 5**		**4 – 6**		**4 – 6**		**0 – 5**		**0 – 5**		**0 – 5**		*F value= 2.620*	***F value= 62.230***	***F value= 52.246***
Mean ± SD	**1.55 ± 1.94**		**5.15± 0.31**		**5.06 ±0.68**		**2.35±1.46**		**5.65±1.22**		**5.54±1.29**		**1.95± 1.35**		**1.95± 1.35**		**1.99± 1.65**		*P= 0.231*	***P= 0.0001*****	***P= 0.0001*****
Mothers' knowledge regarding Teach-back method																					
Low knowledge	17	85.0	16	80.0	16	80.0	18	90.0	0	0.0	1	5.0	16	80.0	17	85.0	17	85.0	*1.118*	***48.403***	***41.410***
Moderate knowledge	2	10.0	3	15.0	3	15.0	1	5.0	1	5.0	2	10.0	3	15.0	2	10.0	2	10.0	*0.891*	***0.0001*****	***0.0001*****
High knowledge	1	5.0	1	5.0	1	5.0	1	5.0	19	95.0	17	85.0	1	5.0	1	5.0	1	5.0	*NS*		
Range	**0 – 6**		**0 – 6**		**0 –6**		**0 – 6**		**4 – 6**		**2– 6**		**0 – 6**		**0 – 6**		**0 – 6**		*F value= 1.785*	***F value= 64.713***	***F value= 32.135***
Mean ± SD	**1.40 ± 1.78**		**1.56± 0.84**		**1.83 ±0.69**		**1.25±1.48**		**5.55± 0.74**		**5.21±0.48**		**1.40± 1.60**		**1.31± 1.80**		**1.31± 1.80**		*P= 0.098*	***P= 0.0001*****	***P= 0.0001*****
Total knowledge level																					
Low knowledge	16	80.0	2	10.0	3	15.0	17	85.0	0	0.0	0	0.0	17	85.0	17	85.0	17	85.0	0.326	**44.498**	**41.087**
Moderate knowledge	3	15.0	4	20.0	5	25.0	2	10.0	1	5.0	2	10.0	2	10.0	2	10.0	2	10.0	0.988	**0.0001****	**0.0001****
High knowledge	1	5.0	14	70.0	12	60.0	1	5.0	19	95.0	18	90.0	1	5.0	1	5.0	1	5.0	NS		
Range	**0 – 18**		**11 – 24**		**11 – 17**		**0 – 23**		**17 – 23**		**17– 22**		**0 – 19**		**0 – 19**		**0 – 19**		*F value= 2.158*	***F value= 121.000***	***F value= 81.840***
Mean ± SD	**5.05 ± 6.20**		**20.90±2.26**		**19.01±1.40**		**6.55 ±5.50**		**22.30± 1.59**		**20.55±0.48**		**6.10± 5.00**		**6.05± 5.00**		**6.60± 5.10**		*P= 0.876*	***P= 0.0001*****	***P= 0.0001*****

NS Not Significant ** Highly Significant Difference at (P<0.01), * Significant Difference at (P<0.05),

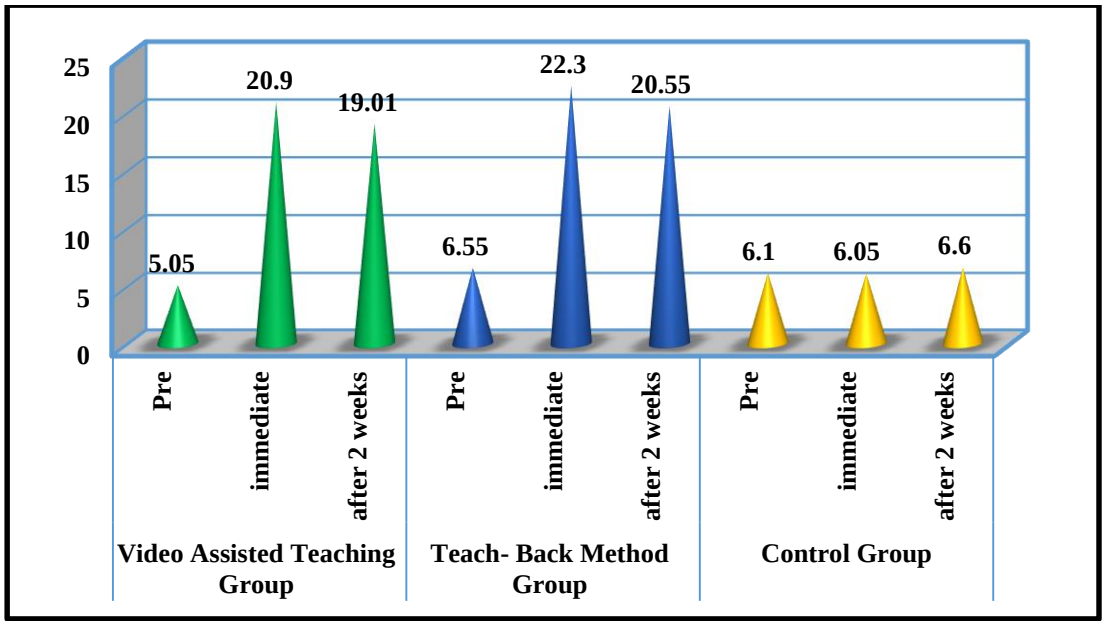

Figure (1): Total mean scores of mothers' knowledge regarding colostomy (n=60)

Table (4): Percentage distribution and mean scores of studied mother's reported practices (n=60)

Mother's reported practices	The studied mothers (n=60)																		χ^2 P *Pre*	χ^2 P *Immediate*	χ^2 P *After 2 weeks*
	Video Assisted Teaching Group (n=20)						Teach- Back Method Group (n=20)						Control Group (n=20)								
	Pre		Immediate		After 2 weeks		Pre		Immediate		After 2 weeks		Pre		Immediate		After 2 weeks				
	No.	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%			
Care of colostomy without pouch																					
Unsatisfactory reported practice	19	95.0	3	15.0	5	25.0	19	95.0	1	5.0	2	10.0	19	95.0	19	95.0	19	95.0	*0.000*	***41.175***	***33.529***
Satisfactory reported practice	1	5.0	17	85.0	15	75.0	1	5.0	19	95.0	18	90.0	1	5.0	1	5.0	1	5.0	*1.000*	***0.0001 *****	***0.002*****
Range **Mean ± SD**	**5 –7** **5.06 ± 0.22**		**6 – 11** **9.65± 1.13**		**4 – 9** **7.65 ±1.26**		**4 – 6** **4.95± 0.51**		**6– 11** **10.65± 0.48**		**5 – 10** **8.60±1.83**		**4 –7** **4.95± 0.39**		**4 – 7** **4.99± 0.35**		**4 – 7** **4.99± 0.35**		*F value= 1.221 P= 0.303*	***F value= 116.692 P= 0.0001*****	***F value= 50.857 P= 0.0001*****
Care of colostomy with pouch																					
Unsatisfactory reported practice	19	95.0	2	10.0	4	20.0	18	90.0	1	5.0	2	10.0	19	95.0	19	95.0	18	90.0	*0.536*	***44.067***	***31.667***
Satisfactory reported practice	1	5.0	18	90.0	16	80.0	2	10.0	19	95.0	18	90.0	1	5.0	1	5.0	2	10.0	*0.765*	***0.0001*****	***0.0001*****
Range **Mean ± SD**	**2 – 9** **5.55 ± 2.48**		**8 – 10** **8.75± 0.44**		**6 – 9** **7.60 ±1.46**		**3 – 9** **6.30±2.00**		**6 – 11** **10.55±0.82**		**6 – 11** **9.00±2.02**		**2 – 9** **5.60± 2.39**		**2 – 9** **5.60± 2.39**		**2 – 9** **5.95± 1.73**		*F value= 0.467 P= 0.629*	***F value= 40.460 P= 0.0001****	***F value= 16.128 P= 0.0001*****
Total practices level																					
Unsatisfactory reported practice	19	95.0	2	10.0	4	20.0	19	95.0	1	5.0	2	10.0	19	95.0	19	95.0	18	90.0	*0.000*	***44.067***	***31.667***
Satisfactory reported practice	1	5.0	18	90.0	16	80.0	1	5.0	19	95.0	18	90.0	1	5.0	1	5.0	2	10.0	*1.000*	***0.0001*****	***0.0001****
Range **Mean ± SD**	**7 – 14** **10.85 ± 2.43**		**17 – 20** **19.60±1.78**		**10 – 17** **16.75±1.51**		**8 – 14** **11.25±2.04**		**19 – 22** **21.10± 0.89**		**11 – 20** **18.50±2.43**		**6 – 14** **10.55± 2.43**		**6 – 14** **10.59±2.43**		**8 – 18** **10.94± 1.58**		*F value= 0.498 P= 0.610*	***F value= 138.040 P= 0.0001*****	***F value= 54.019 P= 0.0001*****

NS Not Significant ** Highly Significant Difference at (P<0.01), * Significant Difference at (P<0.05),

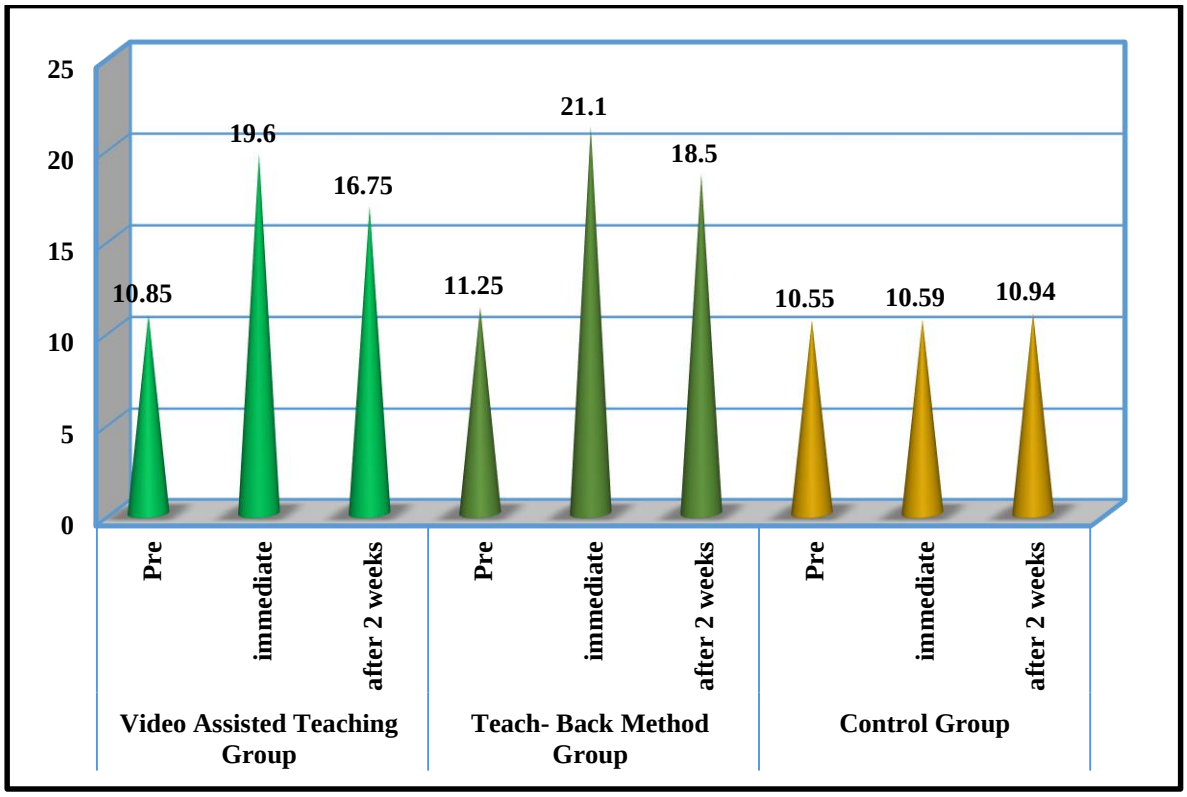

Figure (2): Total mean scores of studied mother's reported practices (n=60)

Table (5): Percentage distribution of total mothers' self-efficacy and mean scores (n=60)

Mothers' Self-Efficacy	The studied mothers (n=60)																		χ^2 P *Pre*	χ^2 P *Immediate*	χ^2 P *After 2 weeks*
	Video Assisted Teaching Group (n=20)						Teach- Back Method Group (n=20)						Control Group (n=20)								
	Pre		Immediate		After 2 weeks		Pre		Immediate		After 2 weeks		Pre		Immediate		After 2 weeks				
	No.	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%			
Colostomy care of children																					
High self-efficacy	1	5.0	18	90.0	16	80.0	1	5.0	19	95.0	18	90.0	1	5.0	1	5.0	2	10.0	*0.000*	***44.067***	***31.667***
Low self-efficacy	19	95.0	2	10.0	4	20.0	19	95.0	1	5.0	2	10.0	19	95.0	19	95.0	18	90.0	*1.000*	***0.0001 *****	***0.0001*****
Range Mean ± SD	**14 – 24 14.55± 0.51**		**20– 36 32.60± 0.68**		**19 – 31 28.64±3.8**		**13 – 24 14.35± 0.54**		**24– 38 35.60± 1.88**		**20 – 35 31.25±2.68**		**13 –25 14.45± 0.60**		**13 –25 14.45±0.60**		**13 –25 14.95± 0.78**		*F value= 0.960 P= 0.389*	***F value= 137.233 P= 0.0001*****	***F value= 65.138 P= 0.0001****

NS Not Significant ** Highly Significant Difference at (P<0.01), * Significant Difference at (P<0.05),

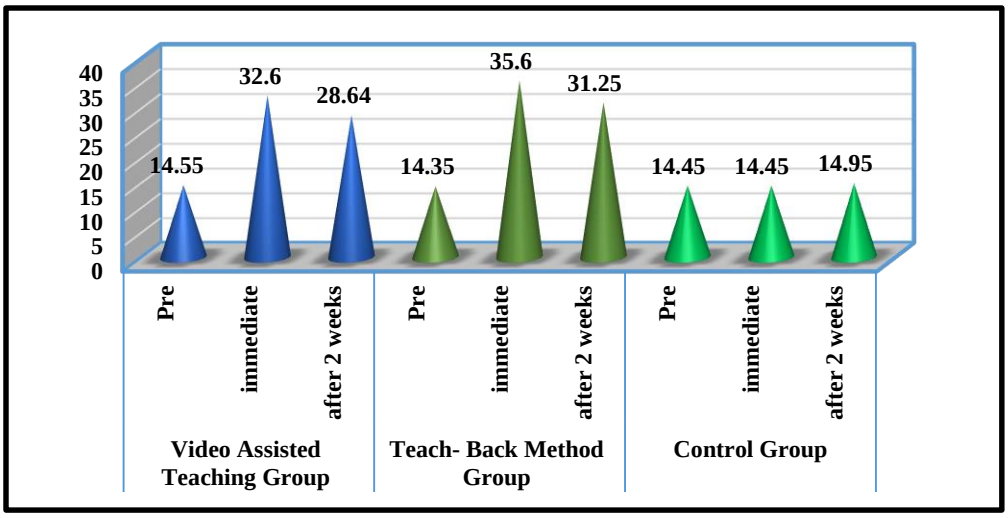

Figure (3): mean score of studied Mother's Self-Efficacy (n=60)

Table (6): correlation between mothers' knowledge regarding colostomy, reported practice and their self-efficacy (n=60)

Variables		Mothers' knowledge regarding colostomy								
		Video Assisted Teaching Group (n=20)			Teach- Back Method Group (n=20)			Control Group (n=20)		
		Pre	Immediate	After 2 weeks	Pre	Immediate	After 2 weeks	Pre	Immediate	After 2 weeks
Mothers' reported practice	r	0.236	**0.568**	**0.349**	0.173	**0.712**	**0.637**	0.189	0.196	0.210
	p	0.359 NS	**0.002****	**0.033***	0.434 NS	**0.003****	**0.001****	0.221 NS	0.236 NS	0.243 NS
Mothers' self-efficacy	r	0.157	**0.493**	**0.746**	0.271	**0.478**	**0.583**	0.163	0.354	0.237
	p	0.098 NS	**0.049***	**0.001****	0.789 NS	**0.013***	**0.010***	0.365 NS	0.148 NS	0..097 NS

NS Not Significant ** Highly Significant Difference at (P<0.01), * Significant Difference at (P<0.05),

Discussion

Colostomies are commonly performed on children to relieve obstruction caused by congenital anomalies such as Hurschprung's disease and anorectal malformation. They are also occasionally performed for rectal perforation, Crohn's disease, pelvic and perineal tumors. Although it is mainly temporary in nature colostomy treatment in children demands competent care and the personal involvement of physicians, parents, and nurses. Rupture, dermatitis, intestinal blockage, adhesions, volvulus, internal hernia, infection, prolapse, retraction, stenosis, fistula, peptic ulcers, bleeding, and problems with fluid and electrolytes all are risks associated with colostomy.

Repairing the colostomy may even require reoperation in certain circumstances. In order to minimize both immediate and long-term difficulties, mothers must be aware of the emerging conditions for their child to be able to take care of him or her at home, without being dependent on a nurse. Therefore, they prevent repeated medical visits due to complications and readmission of children. Effective education can improve health, reduce hospital readmissions, decrease the costs of healthcare, and improve patient and family satisfaction. **Hamdi., et al (2021)**, **Ekwunife .,et al (2017).**

Nurses should utilize effective and feasible techniques to ensure patient comprehension of instructions. The study illustrated that there was a high statistically significant difference in total mothers' knowledge and total mean scores regarding colostomy, immediate and post-two weeks of intervention in the video-assisted teaching, teach-back method, and control group. This may be attributed that both video-assisted teaching and teach back method were effective in improving mothers' knowledge regarding colostomy care with more improvement of mothers' knowledge in teaching back group. This may be due to video-assisted teaching improved mothers' knowledge as; it provided continuous multi-media, multisensory information about colostomy care that helped mothers to be involved in child care, while teach back method confirmed mothers' understanding through repetition and self-description of discharge instruction. **Alaswad., (2020), Epstein., (2023)**

Consistently **Slater et al. (2017)** showed a positive effect in all patients taught by teach back method, regardless of age and education. **Ghoneim & Fathalla (2018)** were in the same line with our study and noticed that the findings of their study revealed that the majority of mothers of the experimental group (teach back group) were able to describe the discharge instructions clearly in the post-intervention phase than at pre-intervention phase. In agreement with our study **Samuels-Kalow et al., (2016)** mentioned that the majority described teach-back as a self-evident and useful tool to help confirm learning and to avoid forgetting key information. On the contrary **Badaczewski et al., (2017)** stated that both patients and professionals reported that teach-back might be perceived as a patronizing or

condescending way of determining if information is understood.

The result was consistent with **Wang et al., (2021)** who mentioned that compared to traditional instruction, a multimedia patient education intervention led to a larger improvement in self-care knowledge and abilities. Multimedia patient education is a useful instructional tool for colorectal cancer patients who had colostomy surgery. Similarly **Dabas et al., (2020)** stated that the video teaching Program (VTP) proved successful in improving the knowledge and abilities of those who care for children who have colostomies. Parallel to our study **Abouelela et al., (2022)** cleared that patients with low literacy levels experienced a positive impact and an increase in knowledge and self-efficacy thanks to the use of video-discharge instructions for colostomy self-care. In agreement with our study **Halemani et al., (2021)** discovered that the average percentage score of caregivers in anatomy and physiology, the percentage of successful peristomal care after Video-based and digital booklet-guided programs, and the realm of diet management were higher posttest.

The study cleared that there were high statically significant differences in total mothers' reported practice and total mean scores regarding colostomy care immediately and post two weeks of intervention in the video-assisted teaching, teach back method, and control group. This may be attributed that the improvement in mothers' knowledge is directly reflected in their practice and caring of their children with colostomy both in video assisted teaching and teach back method groups with more improvement of mothers' reported practice in teach back groups related to recalling and repetition of every step in colostomy care until understanding. Similarly, **Ekong et al., (2016)** found that teach back training effectively strengthens health professionals' education to care providers and communication skills and improves their attitude and performance regarding illness.

Miller et al., (2016) matched the current study and mentioned that utilizing teach back method had improved patients' understanding of their discharge instructions, and practice, and the majority of patients understood their medication definitely. Parallel to our study **Ordu., (2021)** found that the use of educational tools like digital texts, graphics, video, and audio lets parents use their hearing or seeing skills to actively learn and put what they've learned into practice afterward. Similarly, **Ali, (2021)** illustrated that there is a noticeable difference in the level of knowledge, skills, and attitudes of the parents pre and post-implementation of the guided program, where the video-based group and digital booklet group had a high level of performance regarding colostomy care. On the contrary, **Wang et al., (2021)** stated that it is necessary to contrast video-discharge training techniques with internet-based approaches, and the findings might be used as a guide for successful nurse instruction regarding stoma care postoperatively.

The current study highlighted that high statistically significant difference in total mothers' self-efficacy and total mean scores immediately

and post two weeks of intervention in video assisted teaching, teach back method and control group. This may be attributed that improving mothers' knowledge and practice through video assisted teaching and teach back method was reflected in improving mothers' self-efficacy regarding the care of their children with colostomy and more improvement was observed in mothers' self-efficacy in teach back group related to allowing mothers' to demonstrate what they had learned and providing the opportunity for the mothers' to ask questions are important in terms of colostomy care self-efficacy. Similarly, **Huang et al., (2021)** clarified that the ability and self-efficacy of patients to take care of themselves after online or video assisted teaching may have improved as a result. Patients with excellent self-care had a greater sense of control over their illness, which helped their psychological health**.** In accordance with the current study **Jagodage et al.,(2024)** revealed that teach-back education can positively impact self-management, self-efficacy, and knowledge.

Çetindemir & Cangöl., (2024) were on the same line as our study and stated that mothers who received education through the teach-back method had a higher level of self-efficacy.

The current study illustrated that there was a positive correlation between mothers' knowledge, reported practice and mothers' knowledge, self-efficacy in teach back group and video assisted teaching immediately and post two weeks of applying the selected teaching method this may be attributed to mothers' knowledge, reported practice and self-efficacy all are interrelated and linked to each other and improvement in one of them was reflected in an improvement in others. **Syan et al., (2020)** agreed with the current study and stated that there was a statistically significant positive correlation between studied mothers' total knowledge scores and total practice scores in the post-video-assisted structured teaching program. Parallel to our study **Shah et al., (2018)** clarified that repeated education of the mothers will improve the skills and practices toward the management of their children. **Öztürk et al., (2022)** were in alignment with our study and stated that a positive and significant relationship was between mothers' knowledge scores and their self-efficacy scores.

Conclusion

The study concluded that both video assisted teaching and teach back methods were effective in improving mothers' knowledge, practice, and their self-efficacy regarding colostomy care of their children, while this improvement was more obvious in teach back method group than video assisted teaching group.

Recommendation

Based on the findings of this study, the following recommendations are derived:

1. Applying video-assisted teaching program for mothers of children with colostomy in the Pediatric Surgical Unit is important to improve their knowledge, practices, and self-efficacy and decrease peristomal skin complications that may occur to their children.

2. Developing periodic technology-based or electronic teaching training programs for mothers of children with colostomy to update their knowledge.
3. Nurses should incorporate teach-back method as an effective teaching strategy during the discharge planning for children with colostomy.
4. All pediatric units should have an ongoing in-service training program about the teach-back method to enhance nurses' proficiency in discharge planning.

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