

Knowledge and Attitude Regarding Prevention of Constipation among Post-Operative Orthopedic Patients of a Tertiary Hospital, South India

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Abstract: Constipation is the most common chronic gastrointestinal disorders in adults. Among patients who undergo surgery, it is one of the common complication experienced by majority of the patients. Starvation, decreased mobility, effect of anaesthesia and drugs, decreased intake of food and preoperative anxiety lead to constipation. This causes discomfort and sometimes prolongs the hospital stay. This study was done to assess the knowledge and attitude of patients undergoing orthopedic surgeries regarding postoperative constipation. The findings reveal that 53.33% of patients have inadequate knowledge and 66.7% of the subjects had positive attitude towards the management of postoperative constipation.

Keywords: postoperative, constipation, knowledge, attitude, orthopedic

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I. Introduction

Constipation is the most common chronic gastro-intestinal disorder in adults, 12% of the population world-wide report having constipation. American college of GEC chronic constipation task forces defined chronic constipation is unsatisfactory defecation characterized infrequent stool, difficult stool passage or both at least for previous 3 months. Chronic constipation accounts for 3% of all visits annually to pediatric out-patient clinics. Constipation related health care cost is approximately 8.9 billion in the US annually. More than 4 million people in America have frequent constipation of whom 2.5 million have physician visits a year. In India, a survey reveals that 14% of urban population are suffering constipation (American College of Gastroenterology, 2005). Bharucha et al (2013) stated that constipation refers to bowel movements that are infrequent or hard to pass. The stool is often hard and dry. The normal frequency of bowel movements in adults is between 3 per day and 3 per week. Being constipated means bowel movements are tough or happens less often than normal. Almost everyone goes through it one time or other. Constipation is common post operative complaint by many postoperative patients.

Trades, et al (2015) report that among 186 patients with hip fracture who were actively involved in their own care in preventing constipation were significantly less constipated 30 days after surgery than control patients, increases in fluid and fiber intakes had significant effects on reducing the risk of developing constipation and Nyrop et al (2007) have estimated a mean total annual cost of \$7,522 for health care provided to each constipated patient. The common cause of hospitalized patients is attributed to the effects of drugs used in treatment (Fragakis, 2018).

Many people suffer constipation after surgery due to starvation before and after surgery, effects of both general and spinal anaesthesia, intake of pain killers which have the side effects of inhibiting bowel movements, loss of appetite and inadequate dietary intake for the first few days will be very less. There exists a period of subsided peristalsis and little or no bulk in the bowel which leads to constipation in patient undergoing surgery. Preoperative anxiety also augments to the mentioned causes. Stienen and Nicolas et al (2014) in their study among 99 patients with Thoroco - lumbar surgery report, states that 44 patients had constipation, occurrence of constipation is associated with longer mean operation times and higher mean morphine dosages in the 0-7 post-operative days. Similar findings are reported by Lee and Lee (2011) and Sevim Celik et al, (2015).

This article focuses on the knowledge and attitude regarding prevention of constipation among orthopaedic post – operative patients. The aim of the study was to assess the knowledge of patients on constipation and to encourage the use of high fiber diet and early ambulation to prevent constipation.

II. Methodology

A descriptive research was used to assess the knowledge and attitude of the patient regarding preventive of constipation, among the post - operative orthopedic patient in a Tertiary hospital of South India. Convenience sampling technique was used to select 30 participants who were in their 3rd post- operative day and were able to comprehend and write Tamil, Hindi, and English. Patients unwilling to participate and those with altered sensorium were excluded.

Data collection instrument had three parts: 1. Patient proforma consisted of demographic and clinical variables. Demographic variables included age, sex, education status, occupation, and monthly income. Clinical variable included types of surgery, types of anesthesia, number of post – operative day, analgesics, NPO status, physical mobility, bowel movement, toileting facilities [using bedpan or commode], daily fluid intake, laxative, smoking, exercise [mobility, active and passive exercise]. Part 2 was a self - administered questionnaire on knowledge regarding constipation after orthopedic surgery. It had 7 items. Each correct response carried 1 mark. There were 21 correct responses and the total score was 21 which was converted to percentage and interpreted as adequate knowledge (80 – 100 %), moderately adequate knowledge (51 – 79 %) and inadequate knowledge (≤ 50 %). Part 3 was a self- administered scale on attitude regarding prevention of constipation after orthopedic surgery which was a Likert scale with 10 items. Each statement had 5 reponses scored as 1, 2, 3, 4, 5 as highly negative, negative, neutral, positive, and highly positive respectively. Total score was converted to percentage and interpreted as highly negative attitude (<50 %), moderately positive attitude (51% to 79%), and positive attitude (>80 %)

Data were collected for a period of 2 months from participants on 3rd postoperative day after obtaining verbal consent. An average of about 4 – 5 samples were selected per day.

III. Results and discussion

The study revealed that majority of the participants were less than 45 years of age (60%), male (60%), had schooling above high school (67%), had income more than Rs. 10,000 (46.6%) and were following the Hindu religion (53.3%) (see Table 1).

Table 1:Demographic details of the participants

Demographic Variables	n	%	Clinical Variable	n	%
Age in years			Life style		
18 to 35	11	36.7	Physical mobility initiated		
36 to 45	7	23.3	within 24 hrs	0	
46 to 60	10	33.3	24 to 48 hrs	7	23.30
more than 60	2	6.6	more than 48 hrs	23	76.60
Sex			Bowel movement		
Female	12	40	present after 24 to 48 hrs	6	20
Male	18	60	more than 48 hrs	24	80
Educational status			Toileting facilities		
Elementary	2	6.6	Using bed pan	27	90
Primary	8	26.6	Using commode	3	10
High schools	8	27	Daily fluid intake		
Undergraduate	6	20	1000 to 1500 ml	0	
Post graduate	6	20	1600 to 2000 ml	5	16.60
Occupation			more than 2000ml	25	83.30
No occupation	9	30	Laxative		
Skilled work	6	20	Yes	15	50
Unskilled work	7	23.3	No	15	50
Professional work	1	3.3			
Self Employed	1	3.3			
Student	6	20			
Monthly income					
less than 3000	1	3.3			
3001 to 5000	-	-			
5001 to 10000	2	6.6			
more than 10000	27	90			
Religion					
Hindu	16	53.3			
Muslim	9	30			
Christian	5	16.60			

Study revealed that majority of the subjects had inadequate knowledge (53.33%) (See Figure 1). A study by Malarvizhi and Hemavathy (2015) to assess the knowledge of constipation among immobilized patients revealed that majority of the patients (80%) had moderate knowledge. It is the responsibility of Nurses to

provide adequate information on prevention of constipation and to ensure complete understanding of the patients to prevent constipation among surgical patients.

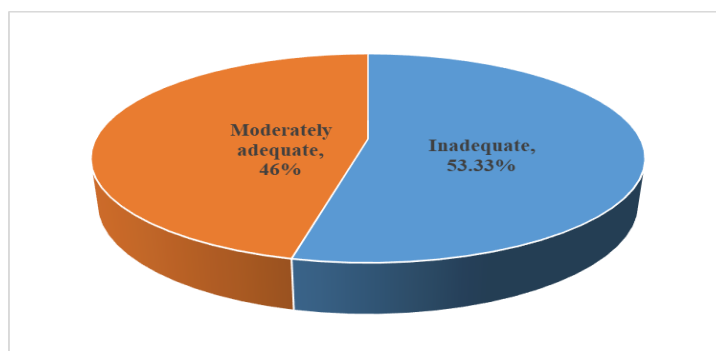


Figure 1. Knowledge of patients on constipation following surgery

The findings of the study also revealed that majority of the patients had positive attitude (66.7%) (see Figure 2) towards management of constipation. Patients need to be educated thoroughly on prevention of postoperative constipation, in order to improve their comfort and enhance quick recovery.

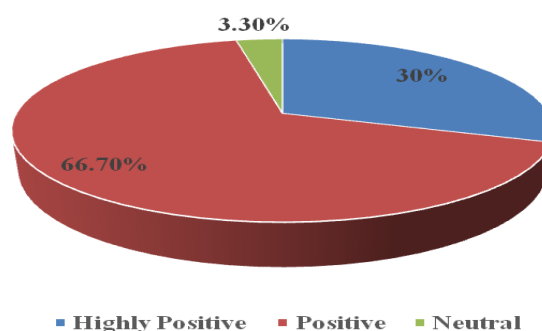


Figure 2: Attitude of participants regarding constipation after surgery

IV. Conclusion

Constipation among surgical patients is unavoidable but definitely preventable. The study throws highlight on the knowledge and attitude of patients regarding prevention of constipation. Though majority patients had a positive attitude towards prevention of constipation there is a lacunae in the knowledge. Nurses provide routine education to preoperative patients on prevention of constipation which is not well understood by the patients. Hence, a written teaching aid will enable the patients to review the care in prevention of complication.

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