



ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 5.2
IJAR 2019; 5(8): 208-212
www.allresearchjournal.com
Received: 01-06-2019
Accepted: 03-07-2019

Prinkle Chauhan

M.Sc. Nursing Student,
Akali College of Nursing,
Baru Sahib, Himachal
Pradesh, India

Jasvinder Kaur Saini

Department of Nursing,
Akali College of Nursing,
Baru Sahib, Himachal
Pradesh, India

Correspondence

Jasvinder Kaur Saini
Department of Nursing,
Akali College of Nursing,
Baru Sahib, Himachal
Pradesh, India

Prevalence and risk factors of constipation among hospitalized patients

Prinkle Chauhan and Jasvinder Kaur Saini

Abstract

Constipation is a condition characterized by inability to pass stools that become hard and more difficult to pass. Bowel habits are unique to all individuals. Constipation affects all individuals at any age or at least once in their lifetime. It can lead to hard, lumpy, or small stools passage as well. Severity of the condition may vary from person to person. The study was aimed to find out the prevalence and risk factors of constipation among hospitalized patients. A Quantitative research approach with descriptive study design was used to assess the prevalence and risk factors of constipation among Hospitalized patients. The study was conducted in surgical unit of selected Hospital. Purposive sampling technique was used to select the three hundred Subjects from the population. ROME III Criteria was used to measure the prevalence of constipation and Constipation Risk assessment scale was used to measure the risk factors of constipation. The result of the study shows that overall prevalence of constipation among hospitalized patients were found to be 44% and 56% were having no constipation. Majority of the patients 20.3% were at higher risk of getting constipation. 17.7% of the patients at medium risk while 6% of the patients at low risk of getting constipation. Majority of the patients were at higher risk of getting constipation. Health education and awareness programmes can help to decrease the prevalence of constipation.

Keywords: Prevalence, risk factors, constipation, hospitalized patients

Introduction

Constipation is one of the most frequently reported functional gastrointestinal disorders among general population. In 1980s, it is accounted for 2.5 million physician visits per year in the United States. It is a symptom not a disease. Its Causes may be classified as primary and secondary. Primary causes of constipation are related to the problems that are inherent to the intestine and secondary causes are related to the gastrointestinal disorders, neurological conditions, congestive cardiac insufficiency, psychogenic disorders, dehydration and the use of medications etc.

A standardized definition for constipation is given in the ROME III Criteria that is standardized tool. The versions I, II, and III, version of this standardized tool were developed in the 1980s, to classify Functional gastrointestinal disorders that is based on clinical symptoms. According to ROME III Criteria, the term constipation is defined as when 2 or more of the following symptoms are present [1].

Constipation is a disorder of gastrointestinal tract, which can result in the infrequent stools, difficult in stool passage with pain and stiffness. Acute constipation can cause closure of the intestine, which may require surgery. Many definitions of chronic constipation are related to scientific considerations such as secondary causes (medications), neurological, or systemic diseases. However, it is considered primary or idiopathic. Pathogenesis is multifactorial with focusing on genetic predisposition, socioeconomic status, low fibre, consumption lack of mobility, disturbance in the hormone balance, side effects of medications, or anatomy of the body etc. It is a common gastrointestinal problem, which causes many expenses for the community with an estimated prevalence of 1% to 80% worldwide [2].

Constipation more frequently occurs in hospitalized patients and reasons for this are multifactorial. Factors that are responsible to increase the risk of constipation are age, diet, being bedridden, drugs etc [3].

Constipation is an abnormal infrequency or irregularity of defecation, abnormal hardening of stools that makes their passage difficult and sometimes painful, a decrease in stool volume or

Retention of stool in the rectum for a prolonged period with a sense of incomplete evacuation after defecation. It is estimated that 4.5 million Americans are clinically constipated. Between 12% and 19% of the American population may be affected periodically and women and adults older than 65 years are disproportionately constipated [4].

Objectives

1. To assess the prevalence and risk factors of constipation among hospitalized patients.
2. To find out association between prevalence score with selected socio-demographic variables.

Material and Methods

A Quantitative research approach with Descriptive Research

design was used for the study to assess the prevalence and risk factors of constipation among hospitalized patients. The study was conducted in surgical unit. Three hundred patients were purposively selected from the population. The sample of the study was surgical patients above Eighteen years. Who were hospitalised for at least Three days in surgical ward. ROME III Criteria was used to measure the prevalence of constipation and Constipation Risk assessment scale was used to measure the risk factors of constipation. Ethical committee and administrative permission was taken from the concerning authority. Informed consent was obtained from the study participants before commencement of the study.

Results

Table 1: Frequency (f) and percentage (%) distribution of hospitalized patients on the basis of Socio demographic variables (N=300)

S. No	Sample Characteristics	Frequency(f)	Percentage (%)
1.	Age		
	18-45ys	131	43.7
	46-6yrs	101	33.7
	6075yrs	68	22.7
2.	Gender		
	Male	150	50
	Female	150	50
3.	Marital Status		
	Married	186	62
	Unmarried	50	16.7
	Divorced	17	5.7
	Widowed	47	15.7
4.	Religion		
	Hindu	236	78.7
	Muslim	31	10.3
	Sikh	33	11
5.	Education		
	No formal education	97	32.3
	Primary education	58	19.3
	Secondary education	80	26.7
	Graduation and above	65	21.7
6.	Occupation		
	Farmer	61	20.3
	Labourer	39	13
	Private employee	51	17
	Govt employee	54	18
	Unemployed	95	31.7
7.	Area of residence		
	Urban	60	20
	Semi Urban	106	35.5
	Rural	134	44.7
8.	Family Type		
	Nuclear Family	138	46
	Joint family	162	54
9.	Family income		
	<10,000	4	1.3
	11,000-20,000	103	34.3
	21,000-30,000	143	47.7
	.>30,000	50	16.7
10.	Diet		
	Vegetarian	128	42.7
	Non vegetarian	172	57.3
11.	Personal habits		
	Smoking	105	35
	Alcohol	63	21
	Betel Chewing	8	2.7
	Others then specify	4	1.3
	None of the above	120	40

12.	Do you perform physical activity regularly		
	Yes	157	52.3
	No	143	47.7
13.	Duration of physical activity per day		
	No physical activity	144	48
	15 mins per day	77	25.7
	30 mins per day	66	22
	< 2 hrs. per day	13	4.3
14	Duration of hospitalization		
	1-5 days	76	25.3
	5-10 days	169	56.3
	More than 10 days	55	18.3

Table: 1 depicts that Majority (43.7%) of the patients were the age group of 18- 45years. Almost half (50%) of the patients were male. Majority (62%) of the patients were married. Majority (78.7%) of the patients were Hindu. Majority (32.2%) of the patients were having no formal education. Majority (31.7%) of the patients were Unemployed. Majority (44.7) patients were belongs to rural area. Majority (54%) of the patients were belongs to joint family. Majority (47.7) patients were having the family income 21,000-30,000per month. Majority (57.3%) of the patients were non vegetarian Majority (40%) of the participants were having no personal habits. Majority (47.7%) of the patients do not perform any regular physical activity. Majority (48%) of the patients were not perform

physical activity perday. Majority (56.3%) of the patients were hospitalized for 5-10 days.

Table 2: Prevalence of constipation among hospitalized patients (N=300)

S. No	Score level	Frequency(f)	Percentage (%)
1.	<2	168	56
2.	>2	132	44

Table: 2 showed that Majority56% of the hospitalized patients were reported that no history of constipation and 44% of the hospitalized patients were reported that history of constipation.

Table 3: Frequency (f) and Percentage (%) distribution of risk factors of constipation among hospitalized patients (N=132)

S. No	Demographic variables	Frequency (f)	Percentage (%)
1.	Mobility		
	Independently mobile	13	4.3
	Dependent on walking aids	61	20.3
	Restricted to bed/ chair	50	16.7
2.	Spinal cord injury	8	2.7
	Fibre Intake		
	5 piece fruit/ veg or more consumed daily	19	6.3
	3 to 4 piece fruit/veg consumed daily	61	20.3
3.	2 piece fruit/ veg consumed daily	52	17.3
	Bran products		
	Yes	68	22.7
4.	No	64	21.3
	Fluid Intake		
	10 cups/ glasses or more consumed daily	23	7.7
	6 to 9 cups consumed daily	70	23.3
5.	5 cups/ glasses daily	39	13
	Personal beliefs		
	Yes	63	21.3
6.	No	69	23
	Laxatives		
	Yes	34	11.3
7.	No	98	32.7
	Difficulty in using hospital toilets		
	Yes	95	31.7
8.	No	37	12.3
	Difficulty in using Commode pan		
	Yes	92	30.7
9.	No	40	13.3
	Physiological condition		
	Metabolic disorders	12	4
	Neuromuscular disorders	20	6.7
10.	Endocrine disorder	67	22.3
	Colorectal disorder	33	11
	Antiemetic's		
11.	Yes	75	25
	No	57	19
	Analgesics		

	Yes	68	22.7
	No	64	21.3
12.	Psychological conditions		
	Yes	10	3.3
	No	122	96.7
13.	Calcium channel blockers		
	Yes	24	8
	No	108	36
14.	Iron Supplement		
	Yes	42	14.7
	No	90	30
15.	Anticholinergic		
	Yes	18	6.0
	No	114	38

Table: 3 shows that Majority (20.3%) of the patients were dependent on walking aids. Majority (20.3%) of the patients were consumed 3 to 4 pieces of fruits daily. Majority (22.7%) of the patients were taking bran products. Majority (23.3%) of patients were taking 6-9 cups of fluids daily. Majority (21.3%) of the patients having no personal beliefs related to constipation. Majority (32.7%) of the patients were not using laxatives. Majority (31.7%) of the patients were having difficulty in using hospital toilets. Majority (30.7%) having difficulty in using commode pan. Majority (22.3%) of the patients were having endocrine disorders. Majority (25%) patients were taking antiemetic's drugs. And 22.7 % of the patients were taking analgesics drugs. Majority (96.7%) of patients were not having any Psychological conditions. Majority (36%) were not taking

Calcium channel blockers and 30% patients were not taking iron supplements. Majority (38%) patients were not taking anticholinergic.

Table 4: Risk Factors of Constipation on the basis of Constipation Risk Assessment Score) (N=132)

S.NO.	Score	Frequency(F)	Percentage (%)
1	Low risk <10	18	6
2	Medium risk 11-15	53	17.7
3	High risk >16	61	20.3

Table no: 4 Shows that majority(20.3%) of the patients were at higher risk of getting constipation. 17.7% of the patients at medium risk while 6% of the patients at low risk of getting constipation.

Table 5: Association between prevalence score with selected socio-demographic variables. (N=300)

S. No	Sample Characteristics	<2	>2	Chi square	df	P value
1.	Age			1.33	2	0.51
	18-45	78	53			
	45-60	55	46			
	60-75	35	33			
2.	Gender			0.05	1	0.81
	Male	83	67			
	Female	85	65			
3.	Religion			1.90	2	0.37
	Hindu	134	102			
	Muslim	19	12			
	Sikh	15	18			
4.	Marital Status			0.47	3	0.92
	Married	107	79			
	Unmarried	27	23			
	Divorced	9	8			
	Widowed	25	22			
5.	Education			1.38	3	0.70
	No formal education	50	47			
	Primary education	35	23			
	Secondary education	45	35			
	Graduation and above	38	27			
6.	Occupation			1.29	4	0.86
	Farmer	34	27			
	Labourer	23	16			
	Private employee	30	21			
	Govt.employee	32	22			
	Unemployed	49	46			
7.	Area of residence			2.74	2	0.25
	Urban	28	32			
	Semi Urban	63	43			
	Rural	77	57			
8.	Type of family			2.45	1	0.11
	Nuclear family	84	54			

	Joint family	84	78			
9.	Family income			2.82	3	0.42
	<10,000	2	2			
	11,000-20,000	58	45			
	21,000- 30,000	75	68			
	>30,000	33	17			
10.	Diet			0.61	1	0.43
	Vegetarian	76	52			
	Non vegetarian	92	80			
11.	Personal habits			3.49	4	0.47
	Smoking	54	51			
	Alcohol	33	30			
	Betel Chewing	4	4			
	Others	3	1			
	None of the above	74	46			
12.	Physical activity			1.38	2	0.50
	Yes	92	66			
	No	76	66			
13.	Duration of physical activity			10.24	3	0.01*
	None	78	66			
	15 mins per day	54	23			
	30 mins per day	31	35			
	<2 hrs per day	5	8			
14.	Duration of hospitalization			1.51	2	0.67
	1-5 days	43	32			
	5-10 days	91	78			
	More than 10 days	33	22			

The data presented in table: 5 showed that there was no significant association between Prevalence score with personal profile variables like-age, gender, Religion, Marital status, Education, Occupation, Area of residence, Type of family, Family income, Diet, Personal habits, Physical activity, Duration of hospitalization except with duration of physical activity.

Discussion

Majority (20.3%) of the patients were at higher risk of getting constipation. 17.7% of the patients at medium risk while 6% of the patients at low risk of getting constipation. These study findings were consistent with study done in Zonguldak, Turkey. Showed the Patients were at moderate risk for constipation with average scores 11.71 before the surgery. A total of 77 patients (72%) did not have bowel elimination problem during post-operative periods [7].

Majority of hospitalized patients were reported that no history of constipation and 44% of the hospitalized patients were reported that history of constipation. These study findings were consistent with study done to examine the prevalence and risk factors of constipation in a large sample of 2400 persons. Constipation was found in 8% of the total sample with no significant increase in the prevalence of constipation with age. Neurological diseases, cerebral palsy, immobility and physical inactivity were risk factors associated with constipation [8].

Conclusion

Prevalence of constipation was high. Many risk factors were present among hospitalized patients. Majority of the patients were at higher risk of getting constipation. Health education and awareness programmes can help to decrease the prevalence of constipation.

References

1. Schmidt Queiroz F, Santos D, Conceicao V. Prevalence of constipation in the General Adult population: An

- Integrative Review. Journal of wound ostomy and continence Nursing. 2014; 41(1):70-76.
2. Forootan M, Bagheri N, Darvishi M. (Systematic review and Meta-analysis) chronic constipation Review of literature, 2018. doi:10.1097/MD. www.ncbi.nlm.nih.gov
3. Ueki T, Nagai K, Ooe N, Nakashima NM, Nishida K, Nakamura J *et al.* Case controlled study on risk factors for the development of constipation in Hospitalized patients, 2011, 469-476. DOI: 10.1248./yakushi.131.469 <https://www.researchgate>
4. Smeltzer SC, Bre GB, Hinkle LJ, Cheever HK. Textbook of Medical-Surgical Nursing published by Lippincott Williams &Wilkins 12th Edition, 2014, 1.
5. Junqueira J, Norton C, Santos C. Constipation in Hospitalized patients: prevalence and associated factors: King's College London, 2017. <https://www.ics.org>
6. Noiesen E, Trosborg I, Bager L, Herning M, Lyngby C, Konradsen H. Constipation- prevalence and incidence among medical patients acutely admitted to hospital with a medical attention, 2014, 2295-302. doi:10.1111/jocn.12511. Epub 2013 Dec26.
7. Celik S, Atr YA, Ozturk N, Mendes G, Kuytak F *et al.* Iranian Red Crescent Medical Journal Constipation Risk in Patients Undergoing Abdominal Surgery, 2015. doi 10.5812
8. Morad M, Nelson N, Merrick J, Davidson, Carmeli E. Prevalence and risk factors of constipation in adults intellectual disability in residential care centres in Israel. 2007; 28(6):580-586.