

CONSTIPATION IN HOSPITALIZED PATIENTS: PREVALENCE AND ASSOCIATED FACTORS.

Hypothesis / aims of study

To identify and to analyze the prevalence of constipation and sociodemographic and clinical variables associated with their occurrence in hospitalized patients.

Study design, materials and methods

This is an observational, cross-sectional, analytical and descriptive epidemiological study, where the study sample consisted of 345 adult and elderly patients hospitalized at a University Hospital. The data were collected through interviews, physical examination and medical records, using the following instruments: Sociodemographic and Clinical Data and The Bowel Function in the Community. The prevalence was obtained in a single day in four consecutive months (point-prevalence), in the same day of each month, in order to meet the calculated sample size for the associated factors' analysis. The sample size calculation was based on the overall prevalence of 26%, according to a general population rate found by a previous national study (1). A sample size of 290 was required for the present study. This study considered as constipated the patients who met two or more Rome III Criteria (2). Data were analyzed using chi-square and Fisher tests for categorical variables, t-student and Mann-Whitney tests for numerical variables, and logistic regression for the identification of associated factors. $P < 0.05$ was used for statistical significance, except for regression analysis variables insertion ($p < 0.1$); 95% Confidence Interval was also analyzed.

Results

The sample was characterized by women (194 / 56.3%) and Caucasians (165 / 47.8%); mean age of 48.9 years (SD = 21.2); low level of education (mean of 8.3 /; SD=4.5 years of study) and 106 (30.7%) retired; 151 (43.8%) had two or more comorbidities; Arterial hypertension (134 / 38.8%) and Diabetes mellitus (80 / 23.2%) were the most common; 76 (22%) had Insomnia and 50 (14.5%) were obese; 58 (16.8%) were smokers; 272 (78.8%) patients were taking medications, with anti-hypertensives (126 / 36.5%), antibiotics (115 / 33.3%) and anticoagulants (95 / 27.5%) as the most frequent; 76 (22%) patients had some functional limitation and 39 (11.3%) were bedridden.

The constipation prevalence was 14.9% (51/ 345), 15% (29/345) for women and 14.7% (22/ 345) for men. Among the constipated patients, 19 (37.3%) reported that the problem had started during hospitalization.

There were statistically significant differences between the groups with and without constipation for the following variables: study years ($p=0.028$), diarrhea ($p < 0.001$) and pelvic or abdominal radiotherapy ($p < 0.001$). For women, there was no statistically significant difference between the groups with and without constipation for any variable, while for men, the only variable that emerged with a statistically significant difference between the groups with and without constipation was sexual impotence ($p < 0.001$).

In the regression model, the variables that appeared associated with constipation were: years of study and use of laxatives (Table 1).

Table 1. Variables associated with the presence of intestinal constipation.

Variables	B	S.E.	Wald	df	Sig.	Exp(B)	95% CI for EXP(B)	
							Lower	Upper
Years of Study	-0,085	0,036	5,683	1	0,017	0,918	0,856	0,985
Laxative use	2,090	0,444	22,175	1	0,000	8,081	3,387	19,282

Interpretation of results

The prevalence of constipation among hospitalized patients has been considerably lower than the results obtained by other recent international study (38%) performed with elderly patients (3).

According to the logistic regression model (Table 1), each year of study decreases the odds of constipation by 8.2%. Chronic use of laxatives increased the chance of constipation eight-fold.

Concluding message

The prevalence and associated factors obtained in the present study contributes to the scarce National and International literature related to hospitalized adults and elderly people. Longitudinal studies are necessary to confirm the relationships found between the studied variables, contributing to a more accurate diagnosis of the causality of these conditions and, therefore, the establishment of more effective measures on prevention and treatment of constipation in the hospital setting.

References

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Disclosures

Funding: There was no source of funding. **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Research Ethics Committees of the School of Nursing of the University of São Paulo (Protocols numbers CAAE 51278715.0.0000.5392) Research Ethics Committees of the University Hospital of the University of São Paulo (Protocols numbers CAAE 51278715.0.3001.0076) **Helsinki:** Yes **Informed Consent:** Yes