

## Effects of chewing gum on abdominal discomfort, nausea, vomiting, and drug compliance for the patients taking polyethylene glycol solutions in the preparation of undergoing colonoscopy

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**Purpose:** Sham feeding with chewing gum has been shown to promote bowel motility. This study is to determine whether sham feeding with chewing gum improves abdominal discomfort, nausea, vomiting, and drug compliance for the patients taking polyethylene glycol (PEG) solutions before colonoscopy.

**Methods:** The study was conducted from August 15 to October 15, 2012. The participants were 131 patients who underwent colonoscopy at a hospital in Korea. The eligible patients were randomly allocated into two groups: a control group (n=65) and a gum-chewing group (n=66). The patients in the control group had PEG solutions according to the general protocol. The patients in the experimental group had PEG solutions while chewing one stick of sugarless gum during the resting phase. The categorical variables were analyzed using the Chi-square or t-test.

**Results:** The experimental group chewing gum reported significantly lower abdominal discomfort ( $p=0.005$ ), nausea, and vomiting ( $p=0.002$ ) than the control group. Also, the drug compliance for the experimental group to PEG solutions was better than the control group ( $p=0.006$ ).

**Conclusion:** Chewing gum was effective for abdominal discomfort, nausea, and vomiting for the patients in the preparation undergoing colonoscopy. Therefore, chewing gum is recommended as an effective, safe, inexpensive, and practical nursing intervention.

**Keywords:** Chewing gum, nausea, drug compliance, and colonoscopy

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