

Assessment of Nurse Navigating Programme on Mean Pain Score of Patients Undergoing Open Abdominal Surgery Between Control Group Versus Experimental Group

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Abstract: The operation of abdominal organs to repair incidental injuries, peritonitis, abdominal abscess, and digestive tract diseases is referred to as abdominal surgery. Complications following abdominal surgery are prevalent, such as pulmonary infection, abdominal distension, intestinal adhesion, and venous thrombosis. The objective of the study is to assess the nurse navigation programme on mean pain score of open abdominal surgery patients. There were 135 participants in the test group and 135 in the Control group. The pain score was classified with a range of 1 to 10. Results depicted that pain intensity has been decreased in the patients from post operative day (POD 0 to POD 5). Providing patients with professional information is one of the main benefits of having a nurse navigator. When told of their diagnosis, patients often experience anxiety and seek help from a trusted friend right away. A nurse navigator can offer knowledgeable information about the condition and its treatments.

Keywords: Nurse navigating programme, Pain Score, Patients, Open Abdominal Surgery

1. INTRODUCTION

The most recent concept in nurse navigation is the delivery of quality care and the nurses' preservation of continuity of care. The nurse empowers patients by identifying their requirements and providing them with guidance and education in a variety of contexts (Pallas et al., 2022). No single definition of a nurse navigator is universally recognized (Lee and Yoon, 2021).

The factors that induce stress in surgical patients, as they have articulated them, include the following: surgery postponement, harm from surgical errors, insufficient attention from caregivers, failure to awaken after surgery, short intraoperative and postoperative analgesia, ineffective intraoperative analgesia, unsuccessful surgery, hospital bills, and losses, unfamiliar surroundings, complications from anaesthesia, hospital smells and noise, and postoperative nausea and vomiting (Sharma et al., 2022). Patients who are anxious necessitate increased intraoperative and postoperative analgesic medication (Bahnasawy et al., 2021). In order to mitigate anxiety, patients are administered premedication prior to surgery, as anxiety has the potential to trigger sympathetic stimulation and tension (Wang, 2021).

The open abdominal surgical patient is provided with critical information regarding the surgical treatment and anticipated patient behaviours and potential outcomes following the procedure through preoperative education (Daly and Pauly, 2022). It also provides reassuring therapeutic communication for the patient and fosters a positive mental and physical state (Bryne et al., 2022). It has been noted that nurses encounter challenges in establishing and implementing an appropriate preoperative teaching protocol for surgical patients (Nourse, 2021). The aim of the study is to assess the nurse navigation programme on mean pain score of open abdominal surgery patients.

2. MATERIAL AND METHOD

The research used intentionally chosen samples to recruit 270 patients at both AGMC & GBP Hospital and IGM Hospital of Tripura between February 1, 2024 and May 24, 2024, in compliance with the inclusion parameters. There were 135 participants in the test group and 135 in the Control group. There was an equal distribution of participants within the two group.

Scale of Evaluation This section addressed the patient's reaction to discomfort during the postoperative period. Pain was a physical sensation that was disagreeable and arose in response to an injury. The Numeric Pain Rating Scale was a standardised instrument that was employed to evaluate the intensity of pain experienced by patients on each postoperative day (POD) from 1 to 5. The pain score was classified as follows, with a range of 1 to 10, and the severity of the pain was assessed:

“Score 0 - No Pain”

“Score 1 to 3 - Mild Pain (Well controlled Pain)” “Score 4 to 6 - Moderate Pain (Controlled Pain)

“Score 7 to 10 - Severe Pain (Poorly Controlled Pain)”

When the controls group was first included in the study, they were given conventional hospital treatment. The information on the final values was obtained using equipment from POD 0–5. Subsequently, the individuals of the Experimental group received preoperative administration of the Nurse Navigating Programme by the professor, which entailed an informative leaflet and Video-Assisted Education. The instruments derived from POD 0-5, then, were used to get the group's ending data.

Statistical methods were collected: Use the "F" ratio, "p" value, and A multiple sample "t" test to determine if the participants in the control and experimental groups are homogeneous with regard to their demographic factors. The mean and standard error of the daily pain ratings from POD 0 to 5 in the experimental and control groups. The percentage and frequency distributions of participants in each category based on their daily maximum pain ratings (from POD 0–5) in comparison to the control and experimental groups.

3. RESULT AND DISCUSSION

The Numeric Suffering Reporting Scales will show a substantial variance, at the 0.05 value of relevance, in the mean pain ratings among people having open abdomen surgeries in academic institutions compared the treatment and experimental sets from POD 0–5.

Table 1 “Comparison of Mean Pain Score of Patients Undergoing Open Abdominal Surgery Between Control Group versus Experimental Group on POD 0”

Group	Frequency	Mean Pain Score	Mean Difference	SD	Df	‘t’ value (critical ‘t’)	‘p’ value
Control	135	8.42	0.46	0.56	268	5.74* (1.97)	<0.01*
Experimental	135	7.96		0.73			

The data in Table 1 & Figure 1 show that on POD 0, the experimental group (7.96) had a lower mean rating for pain (8.42) than the control group (8.42) among those having open abdomen surgeries. The 't' measurement of

5.74 for the total amount of liberty (268) on POD

0 indicates that the overall mean disparity between pain ratings comparing both of the categories was 0.46, which was considered statistically noteworthy at the 0.05 level level severity. On POD 0 at, there was a significantly different pattern in the respondents' reports of pain between the two groups. $p < 0.01 < \alpha = 0.05$.

Table 2 “Comparison of Mean Pain Score of Patients Undergoing Open Abdominal Surgery Between Control Group versus Experimental Group on POD 1”

Group	Frequency	Mean Pain Score	Mean Difference	SD	Df	‘t’ value (critical ‘t’)	‘p’ value
Control	135	7.53	1.06	0.76	268	9.02* (1.97)	<0.01*
Experimental	135	6.47		1.13			

“Minimum score- 0 Maximum Score- 10”

* “significant $p < 0.01 < \alpha = 0.05$ ”

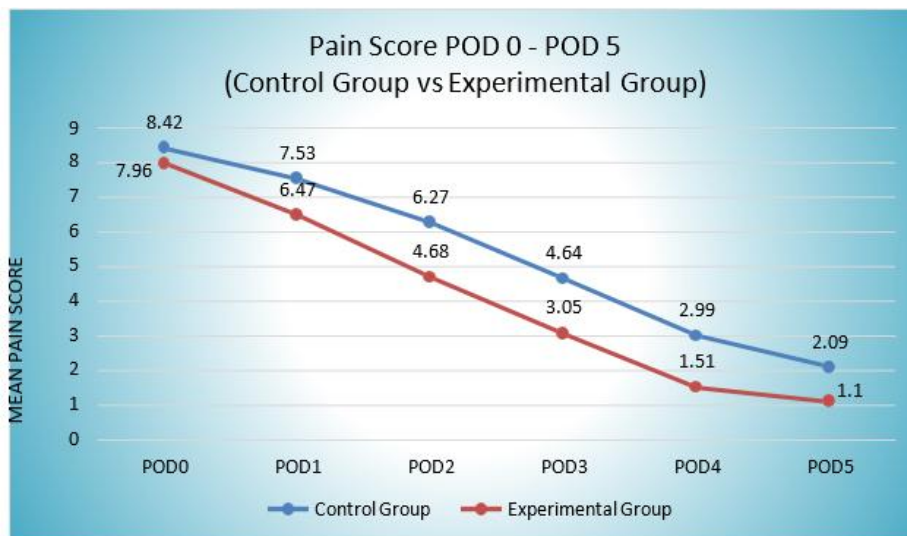
Average discomfort score on POD 1 for patients receiving open Surgery on the abdomen was

6.47 in the group receiving the experimental procedure and 7.53 in the controls group of people, according to information provided in the tables above and Diagram 1. The 't' of ninety-two for the range of degrees of anonymity (268) on POD 1 indicates that the average disparity in pain ratings comparing the two categories was 1.06, and this was considered significant at the 0.05 mark of importance. On POD 1, there was a statistically significant disparity in the respondents' reports of pain between the two groups at $p < 0.01 < \alpha = 0.05$.

Table 3 “Comparison of Mean Pain Score of Patients Undergoing Open Abdominal Surgery Between Control Group versus Experimental Group on POD 5”

Group	Frequency	Mean Pain Score	Mean Difference	SD	Df	‘t’ value (critical ‘t’)	‘p’ value
Control	88	2.09	0.99	1.63	173	4.49* (1.97)	<0.01*
Experimental	87	1.10		1.33			

The typical pain scale of patients receiving invasive abdominal surgery reached 2.09 in the control group on POD 5 compared to 1.10 in the trial group, according to data in Table 3 and Diagram 1. The 't' number of 4.49 for the corresponding degree of anonymity (173) indicates that the average pain score that distinguished the two different group on POD 5, with a coefficient of 0.99, was statistically noteworthy at the level of 0.05 of importance. On POD 5, there was additionally a significantly different pattern ($p < 0.01 < \alpha = 0.05$) in the individuals' reported pain between the two groupings.



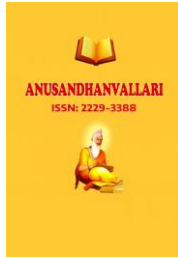
“Figure 1: Line Chart showing Comparison of Subject Distribution by Mean Pain Scores from POD 0-5”

4. CONCLUSION

It was concluded that there was a substantial disparity (POD 0–5) in the mean pain rating among patients conducting open abdominal surgeries in tertiary care medical centres across the two groups of patients, as assessed according to the numerical code Pain Rating Dimension at the 0.01 level of relevance. In light of this, the study indicating the use of the Nurse Navigating Course was successful in helping the experiment's patients manage their pain through POD 0 and 5.

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