

A quality improvement program to increase accuracy of delirium care in the gastrointestinal ward

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Introduction: Delirium is a significant health problem that affects patient safety and medical quality. Previous studies indicated 18-35% of patients experienced delirium symptoms during hospitalization, and the incidence rate in medical wards is as high as 11-42%. Delirium can be triggered by a single factor or multiple factors, and early detection of symptoms is challenging. Consequently, this affects the prognosis of patients, increases the risk of complications and contributes to abnormal events such as falls and self-extraction of tubes, and ultimately prolonging the length of hospital stay.

Methods: In 2019, there were numerous incidents of patient falls and abnormal behaviors. The primary reason was that the nursing staffs' failure to promptly detect the patient's condition and react appropriately with the nursing measures correctly (Figure 1). Therefore, a dedicated task force was established to improve the nursing staffs' ability to recognize and address patients' needs more accurately (Table 1).

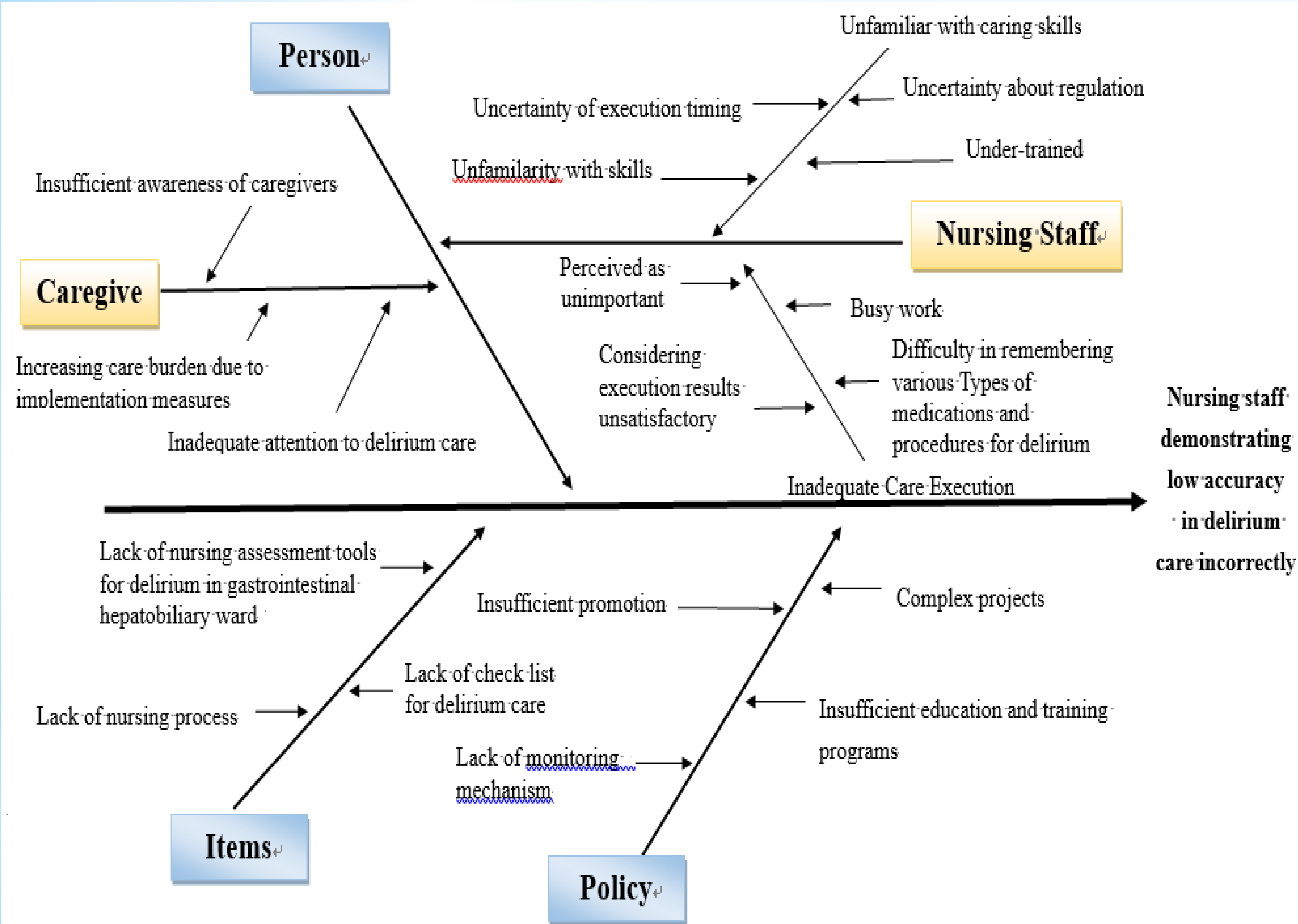


Table 1. Decision matrix analysis for delirium nursing care accuracy improvement					
Question	Strategy	Feasible	Convenient	Benefit	Economic
Nursing staff undertrained	Conduct on-the-job training in delirium assessment and care	13	13	11	11
	Delirium literature search and hold a conference	9	9	5	11
Nursing staff unfamiliar with skills	Conducting evidence-based nurse workshops and training sessions on delirium care	7	5	7	5
	Weekly delirium care simulation training	7	7	11	7
	Design chart cards for common delirium-causing drug classes	13	15	11	15
	Making prompt chart cards and simple pithy formula for delirium care	13	15	11	15
Caregivers lack appropriate nursing guidance and insufficient awareness of delirium care	Developing a smart link map for nursing guidance in delirium care	11	9	9	5
	Conducting interactive groups for delirium care guide	13	11	13	7
	Making a nursing guidance manual for delirium care	9	9	11	5
Lack of care processes and review tools	Develop a process for the evaluation and management of delirium care with Gastroenterology and Hepatology	15	11	15	15
	Development of guidelines for delirium care with Gastroenterology and Hepatology	7	7	7	5
	Development of monitoring plan and check list on delirium care with Gastroenterology and Hepatology	15	11	15	13

Figure 1 Cause and effect analysis diagram of nursing staff demonstrating low accuracy in delirium care incorrectly

Results: A comprehensive delirium assessment and treatment process was formulated through the development of an organized diagnostic assessment and nursing education intervention. For instance, common drug types and drug cards for scorpion-prone patients were designed, along with the Delirium Nursing Module reminder chart cards. The plan also included interactive delirium nursing group guidance and formulation of delirium nursing monitoring plans and audit methods. After the implementation of the multicomponent quality improvement plan, the accuracy rate of delirium nursing increased significantly from 64.4% to 91.6% (Table 2) (Figure 2). Furthermore, the incidence of delirium decreased from 9.4% to 5.9%, and the number of delirium-related negative patient events dropped to 0.

Table 2. Accuracy of delirium care between baseline and post-project		
Approach	Baseline (%) N=30	Post-project (%) N=60
1. Correct assessment	80.0	90.0
2. Sleep enhancement	53.3	90.0
3. Maintain a safe environment	86.7	91.6
4. Provide lighting	50.0	91.6
5. Cognitively stimulating activities	46.7	90.0
6. Orientation training	60.0	100
7. Transfer and follow up	66.7	100
8. Adequate hydration and feeding assistance	73.3	81.6
9. Encourage all patients to engage in active, range-of-motion exercises	33.3	100
10. Making nursing plans and nursing guidance	40.0	81.6
Average	64.4	91.6

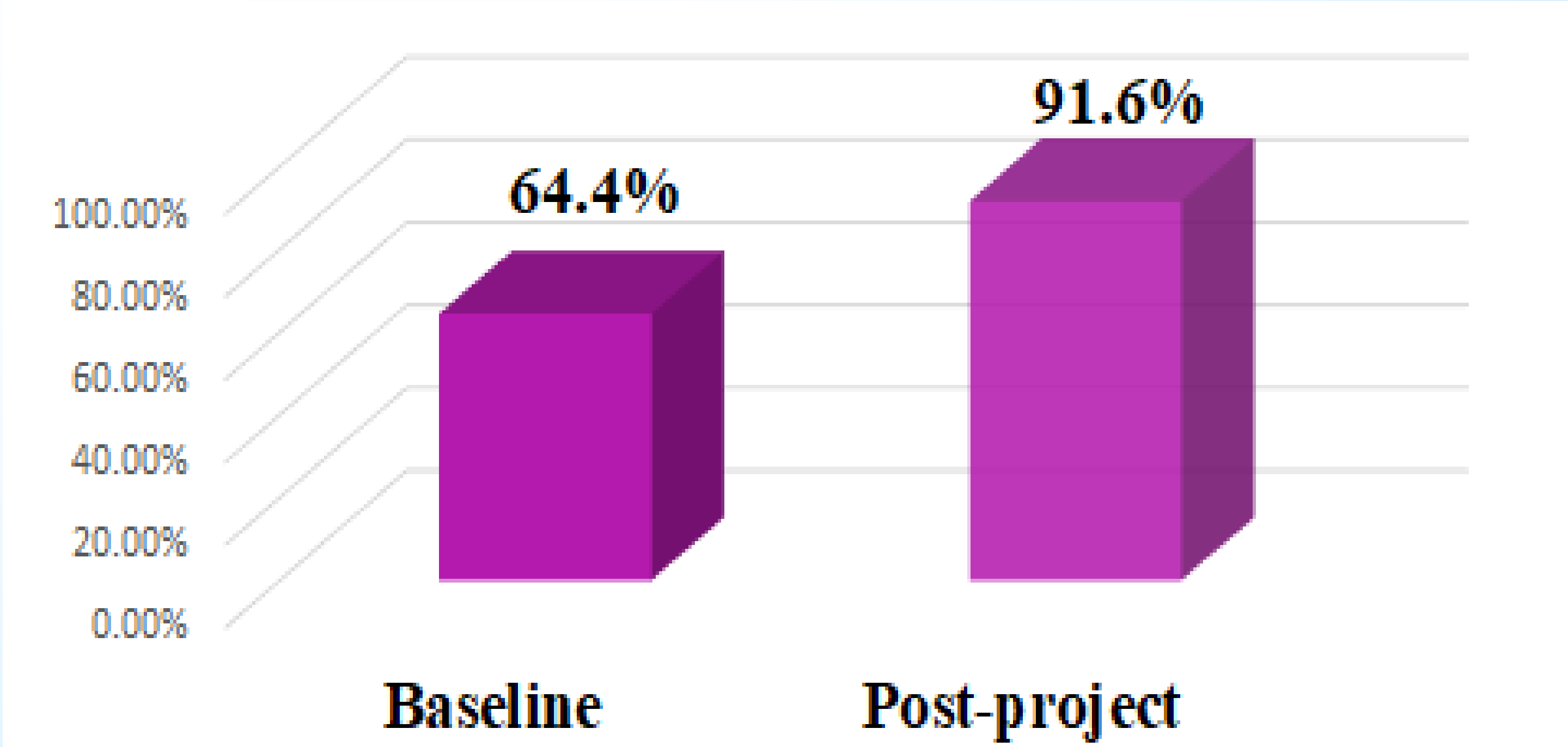


Figure 2. Accuracy of delirium care at a gastrointestinal ward

Conclusion: The results of the program demonstrated a successful implementation of standardized care procedures for delirium, leading to a significant decrease in the incidence of delirium. This achievement not only enhanced patient safety but also improved the overall quality of care.