## Transforming Spine Surgery Care: The Role of Patient Navigators

**Authors:** Antoinette Charles MPH, Dana Rowe BA, Jacqueline Emerson BS, Emily Luo BA, Alissa Arango MS, Edwin Owolo BA, Avery Bernazard, Kristina Schaufele, Mariana Bouchon, Julian Diaz-Ayala, Advika Kumar, Disha Jotsinghani, Cristal Ortiz, Nathan Strang, Jennifer Smith, Rory C. Goodwin MD PhD, Melissa M. Erickson MD MBA

**Introduction:** Spine surgery and the recovery process are both physically and mentally demanding for patients. Sociodemographic disparities impact access to spine surgery and post-operative outcomes, with low-income, older, and non-White patients generally experiencing worse results. Patient navigator programs have been shown to improve quality of life and reduce distress in other medical areas, such as oncology and traumatic brain injury. We developed the Spine Patient Navigators Program to enhance patient quality of life and reduce distress during the perioperative period. The program aims to improve patient healthcare access and resource utilization and provide social support.

**Methods:** In this study, undergraduate and graduate student teams acted as patient navigators, providing comprehensive support to patients undergoing surgery. Their responsibilities included connecting patients with essential resources, conducting post-operative hospital visits, and maintaining bi-weekly phone communication for up to six weeks post-operation. To assess the effectiveness of this intervention, patients were asked to complete preoperative surveys at the time of enrollment and post-operative surveys six weeks after their procedures. These surveys were designed to capture patient experiences and evaluate the impact of the patient navigator program.

**Results:** A total of 12 patient navigators assisted 19 enrolled patients. Each patient was paired with a navigation team consisting of three undergraduates and one medical student. The average patient age was 65 years (SD: 5.9 years), with a gender distribution of 7 women and 12 men. Racial demographics included 63% White, 32% Black or African American, and 5% Asian. Regarding marital status, 57.9% of patients were married. Additionally, 57.9% of patients had a household income of less than \$75,000. Significant findings from the preoperative to postoperative survey comparison include a 50% reduction in reported distress levels among patients. Additionally, 75% of patients expressed satisfaction with the program and a willingness to recommend it, while 63% reported that the program improved their overall spine surgery experience. The program provided patients with personalized support, resource connections, and postoperative mobility support. Undergraduate navigators gained valuable experience in patient interaction and communication, while medical student navigators developed their clinical and leadership skills by leading teams of undergraduate students. These results highlight the positive impact of the Spine Patient Navigators Program on patients and the meaningful educational experiences provided for the student navigators.

**Conclusion:** The Spine Patient Navigators Program demonstrates promise in enhancing the recovery journey for patients undergoing spine surgery. Preliminary results suggest that tailored support through trained navigators may effectively alleviate distress and improve the overall patient experience. The involvement of undergraduate and medical students offers mutual benefits, enhancing patient care and the educational experience for the navigators. These findings demonstrate the importance of patient navigator programs in spine surgery care.