

# Variability in Surgeons' Knowledge of Recovery Barriers for Patients after Brachial Plexus Injury

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## INTRODUCTION

Increasing emphasis has been placed on multidisciplinary care for patients recovering from traumatic brachial plexus injury (BPI), with a growing appreciation for the impact of psychological and emotional components of recovery. Given that surgeons are typically charged with leading the recovery process after BPI, our objective was to build a greater understanding of how surgeons approach patients' experiences and what types of barriers exist for patients during recovery.

## METHODS

We conducted semi-structured qualitative interviews with 15 surgeons with expertise in BPI reconstruction. The interview guide contained questions regarding the surgeon's practice and care team structure, how treatment plans and priorities are developed, barriers to recovery their patients face, and any steps surgeons take to identify or address those barriers. Inductive and deductive thematic analysis was used for the qualitative data to identify themes and knowledge gaps.

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**“From a healthcare system’s perspective, [addressing psychosocial barriers is] not an efficient utilization of a surgeon’s time.”**

**“I do think that we provide a lot of psychological support to the patients. [...] Spending the time with them and giving them hope and being realistic with them and just them knowing, “we're getting the best we can get and these people care about us”. So, I do think that we contribute that in addition to the technical stuff we do, so I think that makes a big difference.”**

**“...there’s the sixth sense that we all know of that you just meet somebody, you say for whatever reason, that they don’t have resiliency, and they’re not likely to do well.”**

**“The reason [delayed care patients are] there is they’re looking for some kind of miracle that’s—gonna make them normal again, and I tell them that’s not really possible, and they don’t really engage me any further.”**

**“If someone with a complete plexus avulsion injury is like, “I really like playing the piano, and I wanna be able to do that and probably tennis too.” And that’s not realistic. And it helps me to understand and us to understand as surgeons like, they don’t really get it yet. That I have not done a good job educating them yet.”**

**“...we, as surgeons, look at that [elbow flexion], and...that’s success, right? But for the patient, it’s terrible. And it objectively is terrible.”**

## RESULTS

There was a high degree of variability in how surgeons described barriers to care for their patients. Some discussed in-depth patient histories and detailed many ways in which their patients' recoveries and quality of life were impacted, positively or negatively, by factors including the patient's social connections, knowledge of injury, and mental well-being. Of those surgeons aware of such “nonsurgical” barriers, some discussed how they incorporated that knowledge into their approach to treatment, whether by continuing to have such discussions with patients themselves or by building a patient care team that included staff to focus on these matters. Other surgeons described less awareness of how patients' qualitative traits may impact their outcomes, though the potential for those traits to impact recovery outcomes was often acknowledged. Surgeons who noticed such a knowledge gap expressed uncertainty of how they might learn more, or how they might go about addressing those traits with their patients.

## CONCLUSION

Our results demonstrate a wide variety of both awareness of and approach to addressing emotional, psychological, and social barriers to recovery for BPI patients. Further discussion with BPI surgeons can lead to identification of replicable best practices. This can set the stage for prospective evaluation of the impact that these practices may have on patient-reported outcomes and satisfaction after BPI.