

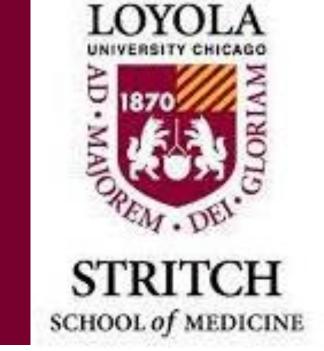
# The Impact of Social Determinants of Health on Postoperative Outcomes Following Arthroscopic Bankart Repair

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#### Introduction

- It is well documented that social determinants of health (SDOH) impact outcomes following orthopaedic surgery procedures.
- There is a paucity of literature regarding how the presence of SDOH impact outcomes following arthroscopic Bankart repair.
- The purpose of this study was to investigate and identify SDOH that have the greatest impact on postoperative complications following arthroscopic Bankart repair for recurrent shoulder instability.

#### Methods

- A retrospective chart review was conducted using the EPIC database to identify patients who underwent arthroscopic Bankart repair at a single institution between 2010-2023.
- Data collected from patient records included age, gender, race, ethnicity, primary insurance coverage type, past medical and surgical history, and operative reports.
- Median household income (HHI) data was gathered from external census data, then cross-referenced with patients' residential ZIP Codes to extrapolate an estimated HHI.
- Complication status (yes/no) was defined as: recurrent instability, revision or additional shoulder surgery, hardware failure, infection and/or pain (when requiring an additional procedure).
- Chi-squared tests for independence were used to evaluate the effects of gender, race, and insurance type on complications. A Welch's t-test was performed to compare median household income corresponding to the patient's zip codes and complications.

## Results

- A total of 364 shoulders were included in analysis representing 360 patients, of which 116 were female (32%) and 244 were male (68%).
- There was a total of 98 (26.9%) complications among the patient population.
- Females experienced significantly more complications than males (p=.016). Similarly, non-commercially insured patients experienced significantly greater complication rates (p=.006) compared to commercially-insured patients.
- There was no significant difference in complication rates based on race (p=0.219) or HHI (p=0.028).

Table 2. Social Determinants of Health with Respect to Complications

	No Complication	Complication	P-Value
Age, mean (SE)	28.72 (0.889)	32.73 (1.465)	0.020
Gender, n (%)			0.016
Female	76 (20.9)	41 (11.3)	
Male	190 (52.2)	57 (15.7)	
Race, n (%)			0.896
White	178 (48.9)	68 (18.7)	
Black/African	31 (8.5)	11 (3.0)	
American			
Other	57 (15.7)	19 (5.2)	
Ethnicity, n (%)			0.559
Non-Hispanic	209 (57.4)	72 (19.8)	
Hispanic	49 (13.5)	23 (6.3)	
Prefers not to answer/Unknown	8 (2.2)	3 (0.8)	
Insurance, n (%)			0.006
Commercial	170 (46.7)	47 (12.9)	
Non-Commercial	96 (26.4)	51 (14.0)	
Household Income (\$), mean (SE)	94104.13 (1754.540)	90299.90 (2407.123)	0.195
Charlson Score	0.44 (0.070)	0.79 (0.145)	0.016

## Limitations

- HHI was used to estimate socioeconomic status based on patients' zip codes but is not fully representative of each individual patient's household income.
- Our data was collected from a single hospital system and therefore may not be generalizable to other areas of the country
- There are potential confounding factors that we were unable to account for in the analysis, such as patient health literacy, pre-existing conditions or differing pain thresholds that may have unknowingly impacted our results.

## Conclusion

- This retrospective chart review found that female patients and patients with non-commercial insurance had an increased risk of postoperative complications compared to male patients and commercially insured patients, respectively.
- Further research is necessary to gain an understanding of the impact that SDOH have on outcomes following arthroscopic Bankart repair.

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