

# Health Mindset and Psychosocial Factors in Patients with Sellar Pathology Undergoing Transsphenoidal Surgery

## Introduction

- Health mindset and optimism have been associated with differential outcomes in both surgical and medical conditions
- A 'growth mindset', defined as the belief that abilities and behaviors can improve over time, has been associated with improved outcomes
- Whereas a 'fixed mindset views abilities as unchangeable which can impact outcomes
- This study aimed to characterize mindset, symptom burden, and demographics in a cohort of patients undergoing endoscopic transsphenoidal surgery (ETSS) for Sellar pathology

## Methods

- Retrospective review on adult patients (>18 years old) with sellar lesions undergoing ETSS
- All patients completed the following pre-operative questionnaires:
  - Health Mindset Survey (HMS) to assess health mindset
  - Revised Life Orientation Test (LOT-R) to assess optimism
  - Brief Health Literacy Screen (BHLS) to assess health literacy
  - Perceived Health Competence Scale (PHCS) to assess self efficacy
- Higher scores correlated with more positive health perspectives
- Clinical and demographic data were collected alongside Sinonasal Outcome Test (SNOT-22) and Skull-Base Inventory
- Statistical analyses ANOVA, paired t-tests, and linear correlation were used to highlight pairwise relationships and variabilities amongst variables

## Results

Table #1: Cohort Characteristics Amongst Patient with Sellar Pathologies

Characteristic (n=14)	Value
Age mean (years)	50 ± 23
Male n(%)	8 (57)
Female n(%)	6 (43)
Race n(%)	
• White	11 (79)
• Other: Black, Asian, 2 or more	3 (21)
Education Level n(%)	
• High School	8
• College	3
• Post-Graduate	3
Cohort Survey Results (mean ± SD)	
• HMS (growth vs fixed mindset)	16.1±2.5
• LOT-R (patient optimism)	16.3±5.4
• PCHS (self-efficacy)	14±2.8
• BHLS (healthcare literacy)	13±2.1

Table 2: Symptom Burden and Distribution of Psychosocial Score Amongst Patients with Sellar Lesions

Characteristic (N=14)	LOT-R Mean ± SD	HMS Mean ± SD	PCHS Mean ± SD	BHLS Mean ± SD	Pre-OP SNOT-22 Mean ± SD	Pre-OP SBI Mean
Age <40	11.5(15)	14(12)	12 (8.7)	12.3 (4.9)	12.3(12.3)	61.43
Age 40+	18.2 (22.6)	16.9(2.1)	14.8(5.7)	13.3(4.5)	17.3(15.6)	85.93
P-value	0.029	0.203	0.151	0.45	0.029	0.15
<b>*Symptoms:</b>						
Incidental Finding	15.7(44.3)	17(3)	16(7)	14(0)	0	97.8
Vision Loss	17.2(39.7)	15.2(0.2)	14(2.5)	12.5(6.3)	27.8	68.7
Endocrinopathy	15.8(24.6)	16.3(13.1)	13(11.6)	13(5.5)	11.6	80.5
P-value	0.91	0.61	0.33	0.64	0.015	0.029

\*= patient symptoms at initial presentation when diagnosed with the sellar lesion.

### Associations Between Age and Psychosocial Metrics

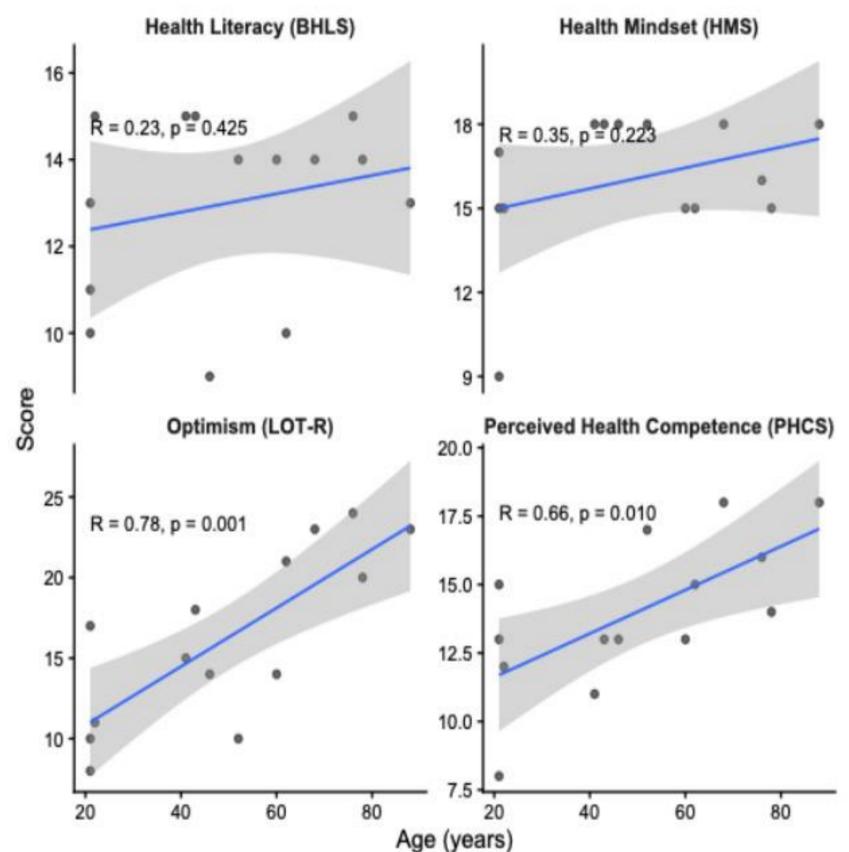


Figure 1: Association Between Age and Psychosocial Metrics

## Conclusions

- Patients with a growth mindset had significantly higher skull base quality of life, when compared to those with a fixed mindset. This suggests that mindset could play an important role in reducing the perceived impact on quality of life in this population and could be a target area for pre-operative education.
- Older age at presentation was independently associated with greater optimism and self-efficacy.
- Incidentally, discovered lesions were associated with higher psychosocial scores and lower symptom burden, suggesting clinical context may shape psychosocial profiles

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## References

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