

## INTRODUCTION

- The Patient-Reported Outcomes Measurement Information System (PROMIS) has been validated for use in many populations and is increasingly utilized.
- The correlation of PROMIS to hip legacy PROs in patients under 18-years-old are unknown.
- Correlating PROMIS domains to Legacy PROs and establishing baseline values are important because many young adult hip conditions span this age threshold during treatment and clinical followup.

## OBJECTIVES

The purpose of the current study was to correlate pediatric PROMIS scores with legacy hip PROs and to establish baseline values for adolescent patients with symptomatic acetabular dysplasia or femoroacetabular impingement (FAI).

N = 102	Mean (SD)
Age at Surgery	16.4 (1.1)
BMI	21.5 (3.6)
	No. (%)
Male Hips	13 (12.7%)
Right Side Hips	59 (57.8%)
FAI	30 (29.4%)
DDH	72 (70.6%)

Table 1. Demographic characteristics of the cohort.



## METHODS

- We identified 102 consecutive hips (age 14-18 years) who underwent operative treatment for acetabular dysplasia or femoroacetabular impingement.
- Demographic and patient-reported outcomes (PROs) data were collected and included
  - Pediatric PROMIS domains – mobility and pain interference
  - Hip Legacy PROs -, mHHS (modified Harris Hip score), HOOS (Hip disability and Osteoarthritis Outcome), SF-12
- Descriptive analysis and correlation were performed.
- Floor/ceiling effects were considered significant if 15% or more of the patients responded with the lowest/highest possible score, respectively.
- Pearson correlation (R) was negligible if  $R < 0.3$ , weak if  $R = 0.3-0.5$ , moderate if  $R = 0.5-0.7$ , and strong if  $R > 0.7$ .

PROs	Pearson Correlation			
	PROMIS PI	PROMIS PR	PROMIS UE	PROMIS MOB
HOOS Symptoms	-0.38	0.14	0.21	0.23
HOOS Pain	-0.52	0.14	0.30	0.40
HOOS ADL	-0.50	0.08	0.37	0.38
HOOS S&R	-0.48	0.05	0.32	0.49
HOOS QOL	-0.31	0.00	0.26	0.46
UCLA	-0.28	0.31	0.38	0.29
mHHS	-0.30	0.08	0.22	0.30
SF12 PCS	-0.23	-0.07	0.09	0.22
SF12 MCS	-0.34	0.52	0.35	0.25

Table 2. Pearson Correlation of Pediatric PROMIS Domains with Legacy PROs. PROMIS PI, PROMIS Pain Interference; PROMIS PR, PROMIS Peer Relationships; PROMIS UE, PROMIS Upper Extremity; PROMIS MOB; PROMIS Mobility.

Table 3. Baseline PROMIS Scores of the cohort presented as means and standard deviations.

## RESULTS

- None of the PROMIS domains demonstrated floor or ceiling effects (all 1-4%).
- PROMIS Pain Interference showed moderate correlations to HOOS Pain ( $R = -0.52$ ) and HOOS ADL ( $R = -0.50$ ).
- PROMIS Mobility showed weak correlations to HOOS S&R ( $R = 0.49$ ) and HOOS QOL ( $R = 0.46$ ).
- For PROMIS-PI, negative linear relationship was observed with legacy scores

## CONCLUSIONS

- PROMIS is an attractive alternative to legacy scoring measures but in the current study we demonstrate only weak to moderate correlations in hips less than 18 years old.
- This lends evidence for the concurrent use of legacy scoring instruments, rather than replacement of legacy PROs.
- Further correlation of PROMIS against well-established Legacy PROs in adolescents with various causes of hip pain will be important to establish baseline PROMIS values.