

# The importance of weight and racial/ethnic minority status on risk stratification in pediatric chronic pain

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## Introduction

- Youth with chronic pain from marginalized groups (e.g. those from racial/ethnic minority groups and/or those with elevated weight status) are at increased risk for experiencing poor health outcomes as well as healthcare biases.

## Aims

This study examined:

- The intersection of weight and racial/ethnic minority status on risk stratification using the **Pediatric Pain Screening Tool (PPST)**.

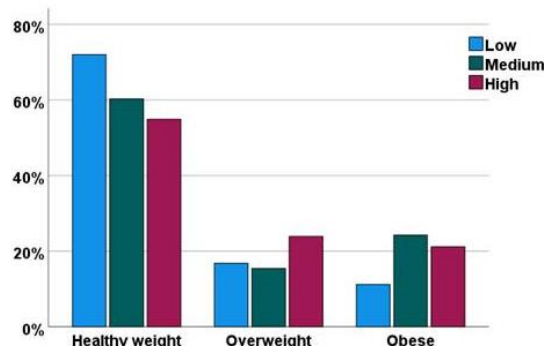
## Methods

- Participants: 813 patients completed the PPST at the child's initial pain clinic evaluation.
- Weight status: Patient BMI percentile was classified as Healthy Weight (HW), Overweight (OW), or Obese (OB), based on growth charts for age and sex.
- Racial and ethnic group status was dichotomized as white/non-Hispanic or as racial/ethnic minority.

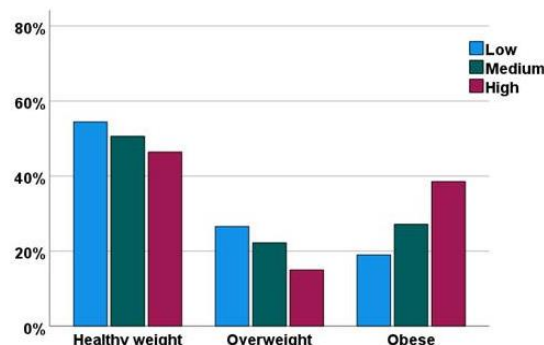
## Results

<b>Age (M, SD)</b>	12.2	3.3
<b>Female (n, %)</b>	533	65.6
<b>Race/Ethnicity (n, %)</b>		
White, Non-Hispanic	485	59.7
Racial and/or Ethnic Minority	328	40.3
<b>Weight Group (n, %)</b>		
Healthy Weight	466	57.4
Overweight	156	19.2
Obese	190	23.4

### PPST Risk Groups White/Non-Hispanic



### Racial and/or Ethnic Minority



## PPST Risk Stratification

### Low Risk

- Total score 0-2

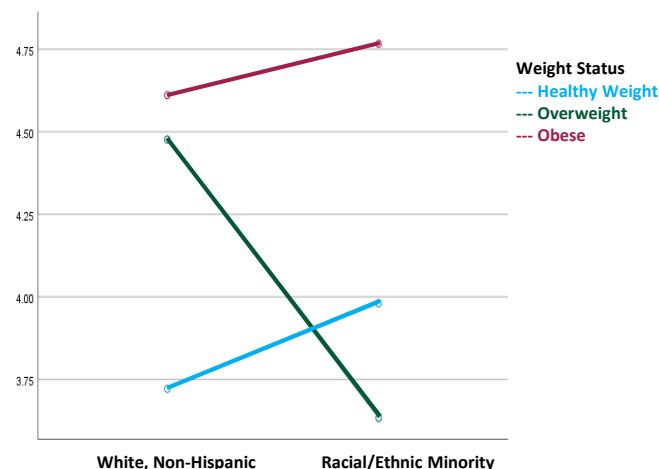
### Medium Risk

- Total Score  $\geq 3$
- Psychosocial Score 0-2

### High Risk

- Total Score  $\geq 3$
- Psychosocial Score  $\geq 3$

### Interaction between Weight Status and Racial/Ethnic Minority Status on PPST Scores



### Pediatric Pain Screening Tool (PPST)<sup>1</sup>

Thinking about the past two weeks, would you agree or disagree with the following statements:

- In the past two weeks, pain is in more than one body part.
- I can only walk a short distance because of my pain.
- It is difficult for me to be at school all day.
- It is difficult for me to fall asleep and stay asleep at night.
- In the past two weeks, it's not really safe for me to be physically active.
- I worry about my pain a lot.
- I feel that my pain is terrible and it's never going to get any better.
- In general, I don't have as much fun as I used to.
- Overall, how much has pain been a problem in the last 2 weeks?

Not at all   A little   Some   A lot   A whole lot

- Patients in racial/ethnic minority groups were more likely to have a higher BMI than white/non-Hispanic patients ( $p=.005$ ).
- Main effects for weight group were significant with patients in the OB group reported higher PPST scores than other weight groups regardless of racial/ethnic minority status ( $p<.001$ ).
- Weight group significantly interacted with racial/ethnic minority group, such that those with OW from racial/ethnic minority groups had significantly lower PPST scores than all other groups ( $p<.001$ ).

## Conclusions

Weight and racial/ethnic minority status influence risk stratification with patients with OB reporting highest risk and patients from minority groups with OW reporting lowest risk.

## Reference

<sup>1</sup>Simons, LE, et al. Pediatric Pain Screening Tool (PPST): Rapid identification of risk in youth with pain complaints. *Pain*. 2015;156(8):1511.

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