BMI and Associated Variables in A Pediatric Gender Clinic Sample

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BMI and Associated Variables in A Pediatric Gender Clinic Sample

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Disclosure

• No disclosures to report
Background

• Transgender/gender diverse (TGD)
• High prevalence of overweight/obesity
• Concern for unhealthy weight control behavior
  • Weight manipulation
    • 63% reported intentional weight manipulation

Avila, et. al., 2019; Bishop, et. al., 2020, Martinson, et. al., 2020; Nagata, et. al., 2020; Grammer, et. al., 2019
Gaps in the Literature

- Overall health of TGD individuals
  - TGD youth
- BMI status of TGD youth
  - Treatment naïve
- BMI associated variables of TGD youth
Objective

1. Describe BMI of treatment naïve TGD youth
2. Explore associated variables
   • Medication use
   • Well-being
     • Caregiver & Patient
   • Recreational activities
Inclusion Criteria

• 9-19 years old
• Treatment naïve
• Attend 1\textsuperscript{st} session
• Caregiver present
• Completed measures
Measures

- Demographics
- Medication
- Height & Weight
- Gender Identity & Recreational Activities
- Well-Being
  - Pediatric Quality of Life Inventory (PEDS-QL WB)

Skinner & Skelton, 2018 Varni et al., 1999
Results: Patient Characteristics

Sex Assigned at Birth
- Female: 76.2%
- Male

Self-Described Gender Identity
- Masculine: 76.9%
- Feminine
- Non-binary
- Gender fluid
- Not sure

Ethnicity
- White: 86.2%
- Multiracial
- Hispanic
- Black or African American
- Asian
- Native Hawaiian or Pacific Islander
Results: Weight Status

- **Obese**: 39.7%
- **Average**: 30.1%
- **Overweight**: 20.6%
- **Underweight**: 9.5%
Results: Weight Status

Overweight & Obese >85th

50.7%
Results: Weight Status

TGD Youth
- Underweight & Average: 30.1%
- Overweight: 20.6%
- Obese: 43.2%

General Population
- Underweight & Average: 19.87%
- Overweight: 18.73%
- Obese: 61.4%

Skinner & Skelton, 2018
Results: BMI by SAB

F(1, 280) = 3.63, p = .05
Results: BMI by Medication

- 54.3% on medication

- Not taking medication was associated with a decrease in BMI z-scores ($t = -2.12, p = 0.035$)

- 28.4% on SSRI/SNRI
## Results: BMI by Medication

<table>
<thead>
<tr>
<th>Medication</th>
<th>On Medication</th>
<th>Not on Medication</th>
<th>t (df)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>gastrointestinal</td>
<td>1.90 (10)</td>
<td>0.78 (272)</td>
<td>7.53 (16.13)</td>
<td>p = .000</td>
</tr>
<tr>
<td>antihypertensive</td>
<td>2.48 (2)</td>
<td>0.81 (280)</td>
<td>1.91 (280)</td>
<td>p = .05</td>
</tr>
<tr>
<td>anti-emetic</td>
<td>2.29 (6)</td>
<td>0.79 (276)</td>
<td>12.80 (13.69)</td>
<td>p = .000</td>
</tr>
<tr>
<td>anxiolytic</td>
<td>1.43 (11)</td>
<td>0.80 (271)</td>
<td>3.04 (13.27)</td>
<td>p = .009</td>
</tr>
<tr>
<td>diabetes</td>
<td>2.12 (5)</td>
<td>0.80 (277)</td>
<td>2.39 (280)</td>
<td>p = .017</td>
</tr>
<tr>
<td>endocrine</td>
<td>1.88 (5)</td>
<td>0.80 (277)</td>
<td>1.93 (280)</td>
<td>p = .05</td>
</tr>
<tr>
<td>mood stabilizer</td>
<td>1.67 (14)</td>
<td>0.78 (268)</td>
<td>2.65 (280)</td>
<td>p = .009</td>
</tr>
<tr>
<td>vitamins</td>
<td>1.23 (44)</td>
<td>0.75 (238)</td>
<td>2.38 (280)</td>
<td>p = .018</td>
</tr>
<tr>
<td>SSRI/SNRI</td>
<td>1.08 (80)</td>
<td>0.72 (202)</td>
<td>2.21 (280)</td>
<td>p = .028</td>
</tr>
</tbody>
</table>
Results: BMI by Well-Being

\[ b = -0.02, \ p = 0.002, \ R^2 = 0.06 \]
Results: BMI by Recreational Activities

Caregiver Report

$ t = 2.0, p = 0.047 $
Results: BMI by Recreational Activities
Youth Self Report

Youth Self-Reported Watching/Listening to Media

$t = 3.62, p = 0.000$
Results: BMI by Recreational Activities

Youth Self Report

Youth Self-Reported Spending Time with Family and Friends

\[ t = -2.12, \ p = 0.035 \]
Takeaway Message

1. Increased rates of overweight and obesity in TGD youth

2. BMI is associated with social and medical factors

3. Research on TGD youth is lacking
   • Treatment naive
Implications

• TGD youth may be high risk for overweight & obesity
  • Monitor weight

• Improve connection with friends and family

• Decrease sedentary activities

• So much more to learn!
Acknowledgments

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