Menstrual management in adolescent transgender males

Julia Eisenberg
*Thomas Jefferson University, julia.eisenberg@students.jefferson.edu*

Sarah Felleman
*Thomas Jefferson University, sarah.felleman@students.jefferson.edu*

Benjamin Bear, MPH

Arielle Effron, MD
*Thomas Jefferson University, arielle.effron@jefferson.edu*

Anne Kazak, PhD, ABPP

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Introduction

- **Transgender** individuals are those whose gender identity is incongruent with sex assigned at birth.\(^1\)
- Transgender adolescents have an increased risk of suicide, depression, anxiety, self-harm, substance abuse, and eating disorders due to **gender dysphoria**.\(^2\)
  - Gender dysphoria is a diagnosis that indicates the conflict or distress associated with gender incongruence.\(^1\)
- Though individuals of all gender identities can menstruate, many perceive it to be a strictly female bodily function.\(^3\) Anecdotal evidence suggests that, because of its feminine association, puberty and menarche can be distressing events for transgender males and may contribute to gender dysphoria.\(^4\)
- The use of menstrual management in treating gender dysphoria in this population has never been fully evaluated.
Objectives and Hypothesis

- **Objective**: evaluate the use of menstrual management to alleviate gender dysphoria in adolescent transgender males.

- **Hypothesis**: adolescent transgender male patients that use menstrual management will have decreased gender dysphoria related to menses.
**Methods: Population and Data Collection**

- The target population is transgender male adolescents who have reached menarche and were assigned female sex at birth.
- Data was collected on all patients presenting with gender dysphoria seen in the Gender Wellness Program (GWP) clinic at Nemours from 2018-2020.
- Our study sample includes the patients who:
  - Were under 18 at the initial visit.
  - Self-reported their gender identity as transgender male.
  - Assigned female sex at birth and have reached menarche.
  - Were not prescribed hormone therapy or puberty blockers.
  - Reported gender dysphoria related to menses.
Methods: Design and Data Collection

- This was a retrospective cohort study
- Data was collected from a comprehensive chart review of provider notes at the GWP clinic
- Chart information documented in REDCap
- Patients were split into cohorts based on their choice to use or not use menstrual management at the initial visit
- Improvement in gender dysphoria in each cohort was then assessed at the 1 year follow up visit
### Examples of Data Collection (Initial Visit)

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>On testosterone currently?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>History of prior menstrual management method (MMM) use?</td>
<td>Yes, No, Not reported</td>
</tr>
<tr>
<td>Current MMM use?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Desires MMM?</td>
<td>Yes, No, Not reported</td>
</tr>
</tbody>
</table>

- **History of prior menstrual management method (MMM) use?**
  - Yes
  - No
  - Not reported
  
  For menstrual management (not contraception) but can be for both; If for contraception only, answer is No

- **Current MMM use?**
  - Yes
  - No
  
  At initial GWP DOS; for menstrual management (not contraception) but can be for both; If for contraception only, answer is No

- **Desires MMM?**
  - Yes
  - No
  - Not reported
  
  Regardless of current use; For menstrual management (not contraception) but can be for both; If only wants for contraception, answer is No
## Examples of Data Collection (Initial Visit)

<table>
<thead>
<tr>
<th>Reasons for MMM use/desire</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amenorrhea</td>
<td></td>
</tr>
<tr>
<td>Regular periods</td>
<td></td>
</tr>
<tr>
<td>Less frequent periods</td>
<td></td>
</tr>
<tr>
<td>Improved bleeding</td>
<td></td>
</tr>
<tr>
<td>Improved menstrually-related pain</td>
<td></td>
</tr>
<tr>
<td>Improved non-menstrually-related pain</td>
<td></td>
</tr>
<tr>
<td>Improved menstrually-related symptoms</td>
<td></td>
</tr>
<tr>
<td>Improved menstrually-related moods</td>
<td></td>
</tr>
<tr>
<td>Improved menstrually-related dysphoria/distress</td>
<td>✔</td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plan to start new MMM?</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Maybe/Unsure</td>
<td></td>
</tr>
<tr>
<td>Not reported</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MMM prescribed by GWP provider?</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

Including method change (but not refill of current MMM); by Gyn, AM, or Endo (ok if not official GWP visit)

<table>
<thead>
<tr>
<th>Which MMM prescribed/inserted?</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined OCP</td>
<td></td>
</tr>
<tr>
<td>Progestin-only OCP</td>
<td></td>
</tr>
<tr>
<td>Aygestin (norethindrone acetate)</td>
<td></td>
</tr>
<tr>
<td>Depo Provera Injection</td>
<td></td>
</tr>
<tr>
<td>Nexplanon implant</td>
<td></td>
</tr>
<tr>
<td>Levonorgestrel IUD (Mirena/Liletta/Kyleena/Skyla)</td>
<td></td>
</tr>
<tr>
<td>Copper IUD (Paragard)</td>
<td></td>
</tr>
</tbody>
</table>

Including method change (incl OCP change but not continuation of same)
# Examples of Data Collection (Follow-Up Visit)

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
</table>
| Improved bleeding?                            | ![Yes](true)  
  ![No](false)  
  ![Not reported](false)  
  ![Not applicable (no prior bleeding complaints)](false) |
| Improved pain?                                | ![Yes](true)  
  ![No](false)  
  ![Not reported](false)  
  ![Not applicable (no prior pain complaints)](false) |
| Improved non-pain menstrual symptoms?        | ![Yes](true)  
  ![No](false)  
  ![Not reported](false)  
  ![Not applicable (no prior symptoms)](false) |
| Improved menstrually-related moods?          | ![Yes](true)  
  ![No](false)  
  ![Not reported](false)  
  ![Not applicable (no prior mood complaints)](false) |
| Improved menstrually-related dysphoria/distress? | ![Yes](true)  
  ![No](false)  
  ![Not reported](false)  
  ![Not applicable (no prior menstrually-related dysphoria)](false) |
Methods: Analysis

- Our main predictor was whether the patient chose to use menstrual management at the initial visit.
- Our main outcome was if the patient responded "yes" when the provider asked if the patient had "improved menstrually-related dysphoria" at the one year follow up visit.
  - When a patient responded "yes" that is an outcome of "Reduced dysphoria" (Outcome A).
  - When a patient reported "no" that is an outcome of "Dysphoria" (Outcome B).
- We quantified these outcomes using odds ratio and absolute risk reduction to compare how menstrual management impacted gender dysphoria related to menses at the one year follow up visit.
- Our data collection and analyses were a collaboration with Nemours Children's Hospital.
Results

• 91% of patients who used menstrual management reported improved menstrually-related gender dysphoria after one year.

• Patients who used menstrual management are 209 times more likely to report decreased gender dysphoria relating to menses.

• There is an 87% reduction of gender dysphoria related to menses with menstrual management.

<table>
<thead>
<tr>
<th>Outcome based on Predictor</th>
<th>Reduced Dysphoria (A)</th>
<th>Dysphoria (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used MM (Cohort 1)</td>
<td>55</td>
<td>5</td>
</tr>
<tr>
<td>Did not use MM (Cohort 2)</td>
<td>1</td>
<td>19</td>
</tr>
</tbody>
</table>
Conclusions

- This study assesses the impact of menses and menstrual management on gender dysphoria in post-menarchal adolescent transgender males seen in the GWP clinic since 2018.
- Our results indicate that menses are psychologically distressing to adolescent transgender males and that transgender males who use menstrual management experience an improvement in menstrually-related gender dysphoria.
- Menstrual management is a currently overlooked area that appears to offer a unique intervention in this psychologically vulnerable population.
- Our findings can help inform the delivery of more compassionate and comprehensive care to this community.
Limitations

Chart documentation: This study was limited by incomplete documented patient histories and doctor's notes.

Selection bias: This study includes only patients who are seen at the GWP clinic.

Procedure bias: The two cohorts did not have the same number of follow up visits.
**Future Improvements**

- **Chart documentation**: Create a patient intake form assessing gender dysphoria at initial and follow up visits.
- **Selection bias**: Innovative patient recruitment strategies for future studies.
- **Procedure bias**: Offer more frequent follow up visits to patients who are not using menstrual management.
Next steps

1. Prospective study to evaluate the impact of menstrual management on gender dysphoria and overall mental health in transgender male adolescents

2. Evaluate the efficacy of different menstrual management methods in improving menstrually-related gender dysphoria

3. Develop evidence-based menstrual management interventions and guidelines to improve psychological well-being and avoid adverse outcomes in this population
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• Nemours GWP
References


