1. INTRODUCTION

Gender affirming surgery (GAS) in patients with gender dysphoria undergoing male to female transition leads to an irreversible loss of reproductive potential. Hormone therapy alters fertility potential in unclear ways. Current technology allows for cryopreservation of sperm prior to, or at the time of, GAS allowing for these patients to have biologic children. Little is known about reproductive knowledge and desires in this population.

2. OBJECTIVE

The objective of this study is to determine the knowledge and desire for cryopreservation of sperm for future reproduction in patients presenting for male to female GAS.

3. METHODS

The electronic medical record (EMR) for patients presenting for male to female GAS from May 2015 to October 2017 at a gender affirming clinic were retrospectively reviewed. Basic demographic data, length of hormonal therapy, duration of dressing in most comfortable gender, presence of children, knowledge of cryopreservation, and desire for cryopreservation were all obtained.

4. RESULTS

- Seventy-nine patients were identified. Average age was 34 years old (range 16-68 years)
- Mean duration of hormonal therapy was 5.6 years (range 1-27 years)
- Mean duration of dressing as female gender was 9.8 years (range 1-52 years)
- 9.6% of patients had at least one child at time of evaluation
- 100% expressed understanding of the option for cryopreservation
- 11.4% expressed definite or possible interest in cryopreservation of sperm for future reproduction

<table>
<thead>
<tr>
<th>Patients Interested in Cryopreservation (N=9)</th>
<th>Patients Not interested in Cryopreservation (N=70)</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average age (years)</td>
<td>26 (16-39)</td>
<td>36 (18-68)</td>
</tr>
<tr>
<td>Duration of dressing in female gender (years)</td>
<td>8.4 (1.5-17)</td>
<td>9.8 (1-52)</td>
</tr>
<tr>
<td>Duration of hormone therapy (years)</td>
<td>6.9 (1-17)</td>
<td>5.4 (1-27)</td>
</tr>
<tr>
<td>Patients with prior children</td>
<td>0 (0%)</td>
<td>7 (10.9%)</td>
</tr>
</tbody>
</table>

- Average age of patients interested in cryopreservation was 26 years, compared with 36 years old those not interested in cryopreservation (p=0.04)
- Average duration of dressing in the female gender was 8.4 years in patients interested in cryopreservation, compared with 9.8 years in those not interested (p=0.61)
- Average duration of hormone therapy was 6.9 years in patients interested in cryopreservation, compared with 5.4 years in those not interested (p=0.35)
- Patients who had children were less likely to be interested in cryopreservation (0% versus 10.9%), but this was not statistically significant (p =0.25)

5. CONCLUSIONS

Our data set shows that 100% of patients presenting for male to female gender affirming surgery were aware of the option for cryopreservation of sperm prior to, or at time of surgery, but only a minority (11.4%) of these patients were interested in pursuing this option for future reproduction at initial presentation for GAS surgery. Patients interested in biologic fertility options were younger compared to those not interested (p=0.04).