Psychiatric Outcomes in Transgender Persons After Hormone Therapy or Gender-Affirming Surgery: A Systematic Review

Melissa Lee, BHSc,1 Ronald Leung, BHSc,2 Reha Kumar, BHSc1

1 MD Student, University of Toronto, Toronto, ON 2 MD Student, McMaster University, Hamilton, ON

Background
- Transgender individuals experience higher rates of mental health issues, including gender dysphoria, depression, and anxiety
- Assessing changes in psychiatric outcomes after hormone therapy or gender-affirming surgery could guide recommendations and client expectations for treatment

Objective
- Review the evidence on how hormone therapies and gender-affirming surgeries affect psychiatric outcomes in transgender persons over time
- Outcomes of interest:
  1. Depression
  2. Anxiety (general)
  3. Gender dysphoria, body image
  4. Global psychological functioning, distress

Method
- MEDLINE, PsychINFO, Embase searched from inception to Jan 2017
- Free-text + controlled vocabulary (MeSH, APA Psych Index, Emtree) search strategy
- Title/abstract screen, full-text review by two independent reviewers (kappa = 0.57, 0.94); conflicts resolved by third reviewer
- Inclusion criteria: prospective cohort design, transgender participants, hormonal or surgical intervention to modify 1° or 2° sex characteristics, before-after outcomes measured using validated psychometric scales
- Exclusion criteria: non-English, retrospective, cross-sectional, case series, reviews, qualitative outcomes, missing or cisgender-only baseline comparison group

Results

Table 1. Studies included in the review

![Table 1](image)

Fig 1. PRISMA flow diagram

![Fig 1](image)

Conclusions
- Hormonal and surgical treatment is usually followed by improved depression, anxiety, gender dysphoria/body image, and global psychological measures over months to years
- No change/stability in psychometric scores after treatment is common
- No change or worsening is more likely to occur with no treatment than with treatment