



ABSTRACT PREVIEW

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The Relationship Between Gender-Affirming Hormone Therapy and Depressive Symptoms in an Urban Transgender Population

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Submission Category

Practice Research/ Outcomes Research/ Pharmacoeconomics

Purpose

Transgender/gender non-conforming individuals face higher risks of depression than the general public. Although true prevalence is unknown, estimates of depression range from five to ten times the national average, as high as 62%. Depression is often driven by discrimination and marginalization. Medically transitioning to one's authentic gender identity is one method of decreasing gender dysphoria and improving quality of life. However, further data is needed regarding the role of hormone therapy (HT) and other factors in lowering the risk for depression. This study evaluated the relationship between the presence of depressive symptoms and HT use in addition to other characteristics.

Methods

Using a community-participatory model, a transgender advocacy organization developed an on-line survey that gathered information about daily discrimination burden, coping skills and impact of discrimination among self-identified transgender/gender non-conforming adults at least 18 years old. Data were collected beginning June 2016 with University of Michigan researchers contracted for de-identified database analysis. IRB approval was obtained prior to analysis. Data pertaining to this study included responses about medical transitioning, hormone therapy, the Patient Health Questionnaire-2 item scale (PHQ-2), and the Generalized Anxiety Disorder 7-item Scale (GAD-7), common screening tools for depressive and anxiety symptoms respectively, and demographic and socioeconomic data. Responses to the PHQ-2 were categorized as indicating a risk of depressive symptoms if the PHQ-2 score was 2 or greater. GAD-7 responses were categorized as indicating generalized anxiety if the GAD-7 score was 10 or higher. GAD-7 scores of 15 or higher were categorized as indicating severe anxiety. Using SPSS, data were analyzed using binomial logistic regression to calculate odds ratios (OR) for depressive symptoms. The primary outcome was the likelihood of depressive symptoms with concurrent HT use. Secondary outcomes included the odds of depressive symptoms based on education level, (high school or GED vs. minimum some college education), annual income (less than vs. greater than or equal to \$25,000), age (less than or equal to vs. greater than 25 years), and comorbid severe anxiety.

Results

Sixty-one individuals were included in the database; 1 was deleted due to age less than 18 years. Of the 60 respondents analyzed, mean age was 28 (plus or minus 13) years. The majority was Caucasian (81.67%) and had a high-school diploma or a GED (73.33%). About one-half (51.8%) had an annual household income of at least \$25,000. Forty-five respondents (75%) had a PHQ-2 score of 2 or higher, 31 (51.67%) had a GAD score of 10 or higher, and 22

(35%) had a GAD-7 score of 15 or higher.

Several factors lowered the risk of depressive symptoms. HT users had 76.6% lower risk (OR=0.23, p=0.06). Those who had some post-secondary education had a lower risk of 67.7% (OR=0.32, p=0.15). A significantly lower risk was found with an annual income of at least \$25,000 (OR=0.30, p-value less than 0.05). Older age (greater than 25 years) was associated with a higher likelihood (OR=1.15, p=0.85).

When severe anxiety was added to the regression model, a significant higher risk for depressive symptoms was found (OR=17.38, p-value less than 0.01). Hormone therapy, education, and annual household income continued to show a lower, but statistically insignificant, risk. Older age remained a risk factor for depressive symptoms.

Conclusion

Depression and its associated relationship to suicide is a major concern in the care of transgender/gender non-conforming individuals. Slightly more than half of survey respondents were at risk of depression. Gender-affirming HT use was associated with lower likelihood of depressive symptoms. Education, annual income and younger age also appear to lower risk. Severe generalized anxiety significantly increased the risk of depressive symptoms. Our results emphasize the need to include depression screenings in the care of transgender/gender nonconforming patients and the importance of hormone therapy and anxiety treatment in the care of this population.

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