

# Review article provides evidence on the biological nature of gender identity

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Medical care of transgender patients, including surgical and hormonal treatment, has largely been met with resistance by physicians in favor of psychiatric treatment, owing to misconceptions that gender identity can be changed. According to a review article in *Endocrine Practice*, there is increasing evidence of a biological basis for gender identity that may change physicians' perspective on transgender medicine and improve health care for these patients.

The article was led by researchers at Boston University School of Medicine.

Disorders of gender identity affect as many as 1 in 100 people. Transgender individuals are those who identify with a gender that differs from their natal sex. Different etiologies have been suggested as the cause of transgender identify however none have been proven definitively.

The researchers conducted a literature search and reviewed articles that showed positive biologic bases for gender identity. These included disorders of sexual development, such as penile agenesis, neuroanatomical differences, such as grey and white matter studies, and steroid hormone genetics, such as genes associated with sex hormone receptors. They conclude that current data suggests a biological etiology for transgender identity.

"This paper represents the first comprehensive review of the scientific evidence that gender identity is a biological phenomenon," explains corresponding author Joshua D. Safer, MD, FACP. "As such it provides one of the most convincing arguments to date for all medical providers to gain the transgender medicine skills necessary to provide good care for these individuals," he added.

According to the researchers the article does have some limitations due to the small numbers of individuals studied and therefore conclusions

should be drawn with caution. Safer recommends that further research focus on specific biologic mechanisms for [gender identity](#).

Provided by Boston University Medical Center

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