

# The Impact of Hormone Therapy on Rates of Suicidality in Transgender Youth

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## INTRODUCTION

- Transgender and gender diverse (TGD) youth experience a higher rate of mental health challenges with 82% considering suicide at some point in their lives (Newcomb et al., 2020).
- Access to gender-affirming care for transgender youth is being attacked while there is increasing evidence of self-harm and suicidality among transgender youth (Rimes et al., 2017).
- Twenty-one states within the U.S. have banned gender affirming care for youth 18 years and younger with an additional seven states considering the legal ban (Human Rights Campaign, n.d.).
- State Bill 14 went into effect September 1, 2023, and prohibits providers from implementing gender-affirming care to transgender youth (Equality Texas, 2023). This bill also prohibits insurance companies from covering any gender-affirming treatment for TGD youth, including life-saving care (Equality Texas, 2023).
- Gender-affirming hormone treatment (GAHT) is a treatment that falls within gender-affirming care.
- GAHT with either increased estrogen or testosterone hormones will allow the individual to develop secondary sex characteristics that will more closely parallel the gender they identify with (Boyle, 2022).
- This intervention supports the healthy mental outcomes of transgender youth by decreasing suicidality and creating a higher quality of life (Baker et al., 2021).

## PURPOSE

- The current political actions to ban gender-affirming care to transgender youth is attempting to erase and invalidate the transgender population (Abreu et al., 2022).
- A systematic review is pertinent to demonstrate the need for gender-affirming care access to protect the mental health and wellness of our transgender youth.
- The purpose of this project is to continue the research into discovering the connection between TGD youth suicidality and the use of GAHT.
- This review has employed Neuman's framework to provide guidance in comprehending how stressors affect the psychological, physiological, developmental, and sociocultural aspects of TGD youth

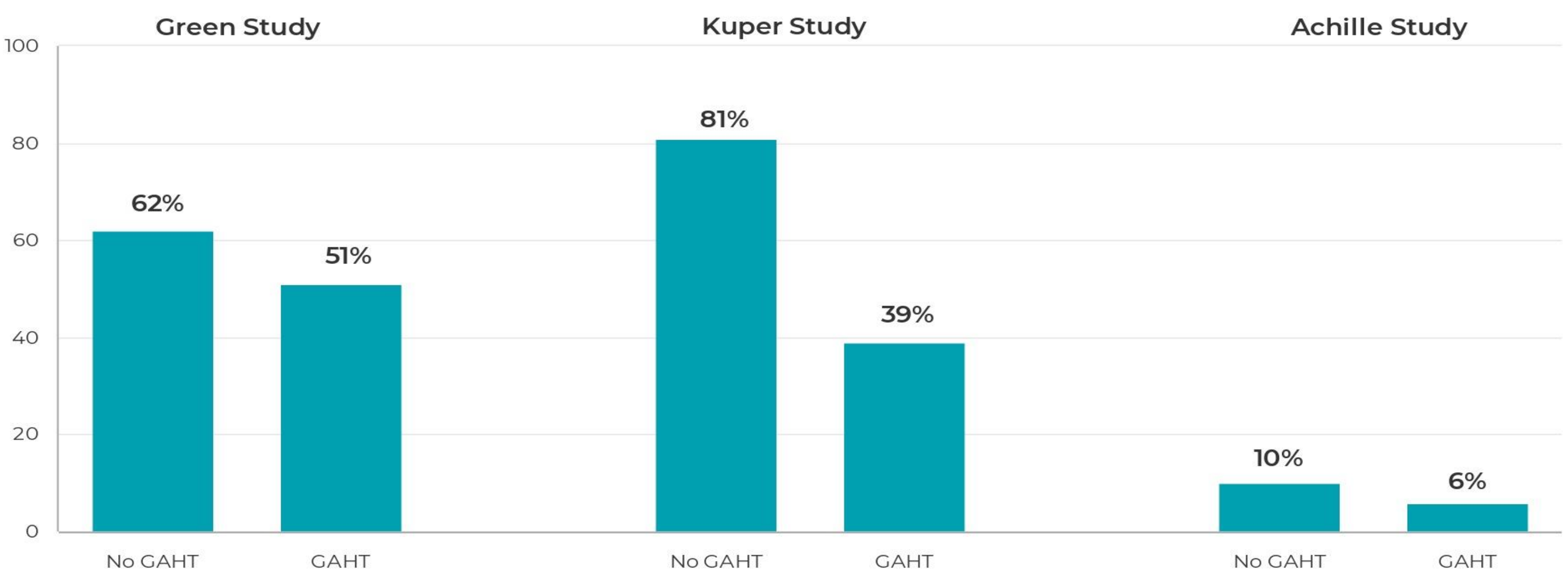
## PICO

In transgender individuals ages 13-18, how does the use of GAHT compare with those who have no access to GAHT influence suicidality risk.

## METHODS

- The articles found in this search were obtained from the following databases: PubMed, CINAHL, MEDLINE Complete, Academic Search Complete, and ScienceDirect.
- The following keywords that were used to conduct the search for articles included: “transgender youth, suicidality, hormone therapy, gender-affirming care, and mental health”. Boolean operators “AND” and “OR” were utilized to increase the search results.
- Inclusion criteria: Include the age range 13-18 years in the results, be U.S. based, and include results for mental health and suicidality.
- Exclusion criteria: Articles older than 5 years, international research, and articles that did not specifically include suicidality in the data.
- With the use of the rapid critical appraisal checklist, only articles that scored a 70% or better were chosen.
- A total of 258 articles were initially pulled within the search phrases and included terms “transgender youth” and “hormone therapy” and “mental health”.
- After a thorough selection process to examine inclusion and exclusion criteria, seven articles were extracted that included one cross-sectional study, five prospective cohort studies, and one case-control study.

## Suicidality rates



Achille, C., Taggart, T., Eaton, N. R., Ospelt, J., Talluri, K., Lane, A., & Wilson, T. A. (2020). Longitudinal impact of gender-affirming endocrine intervention on the mental health and well-being of transgender youths: Preliminary results. *International Journal of Pediatric Endocrinology*, 2020(1), 1–5. <https://doi.org/10.1186/s13633-020-00795-2>

Green, A. E., Dechant, J. P., Price, M. N., & Davis, C. K. (2022). Association of genderaffirming hormone therapy with depression, thoughts of suicide, and attempted suicide among transgender and nonbinary youth. *Journal of Adolescent Health*, 70(4), 643–649. <https://doi.org/10.1016/j.jadohealth.2021.10.036>

Kuper, L. E., Stewart, S., Preston, S., Lau, M., & Lopez, X. (2020). Body dissatisfaction and mental health outcomes of youth on gender-affirming hormone therapy. *Pediatrics*, 145(4), e20193006. <https://doi.org/10.1542/peds.2019-3006>

## FINDINGS

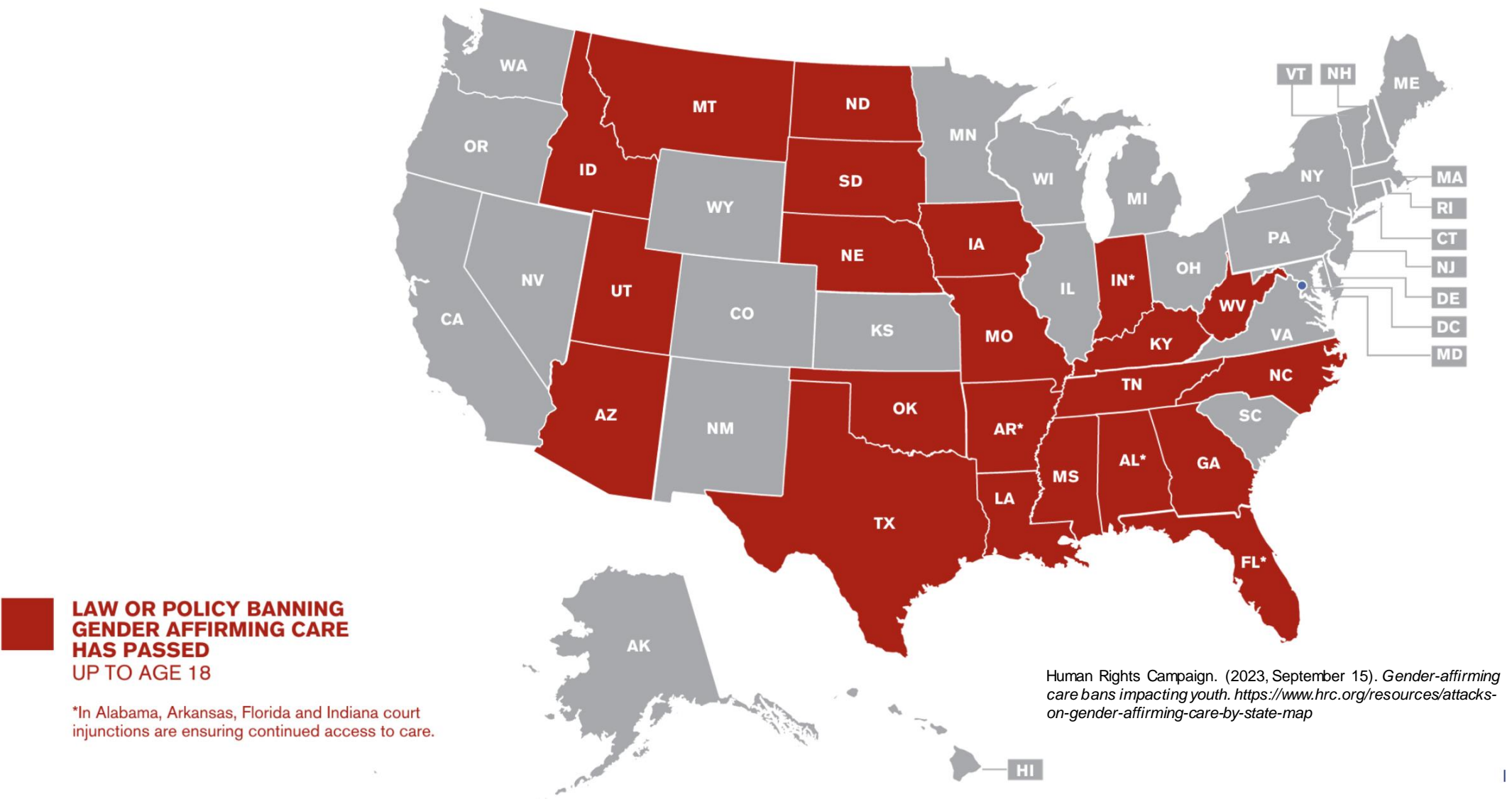
- The research consisted of one cross-sectional study (Green et al., 2022), one case-control study (Campbell et al., 2023), and five prospective cohort studies (Kuper et al., 2020; Tordoff et al., 2022; Achille et al., 2020; Allen et al., 2019; Cantu et al., 2020).
- Two prospective cohort studies demonstrated a substantial reduction in suicidality ranging from 73% to 43% when using GAHT (Kuper et al., 2020; Tordoff et al., 2022).
- One case control study utilized a stacked control group created where participants responded one year after GAHT use (Campbell et al., 2023). This study was significant because TGD youth over the age of 18 did not have a significant reduction in suicidality after hormone therapy use, yet TGD youth ages 14-17 had a 5.7% decrease in suicidality (Campbell et al., 2023).
- The cross-sectional data was gathered through surveys of PHQ-2 scores and revealed a 40% decrease in depression and suicidality among TGD youth ages 13-17 who were using GAHT (Green et al., 2022).
- Only one single study (Cantu et al., 2020) demonstrated no change in suicidality risk, which may be attributed to an outlier due to sample size, a brief follow-up period, and a lack of clarification regarding the timeline for initiating GAHT.

## WEAKNESSES

- Randomized controlled trial is the gold standard of research, yet it is unethical for that design within this population since it is impossible to mask GAHT interventions and psychological and psychosocial interventions.
- Strong family support can skew the data in relation to the general transgender population by creating a higher rates of positive mental health outcomes compared to those with no help.
- Limited studies and variation of study design.

## IMPLICATIONS FOR PRACTICE

- Data and research are extremely critical to make a case for policy change.
- The impact of GAHT on mental health among TGD youth have found the clinical intervention to be favorable (Turban, 2022).
- Making your voice heard and being involved with large and powerful organizations such as the American Association of Nurse Practitioners or Endocrine Society is imperative to bridge the knowledge gap and establish the standard of care for TGD youth (Endocrine Society, 2019).
- We must also continue with studies involving TGD individuals over the age of 18 to continue to provide data demonstrating the impact hormone therapy has on mental health and suicidality.



## RECOMMENDATIONS

- It is imperative to persist in furnishing compelling evidence that necessitates the reversal of the harmful legislation against GAHT currently in effect.
- Clinical decisions within the patient-provider relationship should be free from political influence and guided by evidence based clinical practice guidelines.
- Continue to provide support for the mental health of our TGD youth patients.
- Provide the best possible care for our TGD patients and treat mental health conditions as needed by consistently providing depression and suicidality screenings during each visit and mental health referrals when warranted.

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References available upon request