Family Matters: Exposure to Gender-Affirming or -Denying Practices Following Gender Identity Milestones

By TRAVIS CAMPBELL AND SAMUEL MANN AND YANA VAN DER MEULEN RODGERS AND NATHANIEL M. TRAN*

Gender minorities experience unique identity development milestones such as first telling others that one is transgender or first realizing that one is transgender. These milestones are common among gender minority youth but are associated with a higher risk of suicide attempt and running away from home (Campbell et al., 2023*b*). Although family support plays a key role in mitigating these increased risks, little is known about the mechanisms through which family support protects transgender youth from the increased risk of suicide attempt around the timing of gender identity milestones. The current study explores a likely mechanism: exposure to gender-affirming or gender-denying practices.

As minors, the health care that transgender youth experience is largely directed by their parents. Depending on state laws around age of consent for medical decision-making, adolescents may not have the legal authority to make their own medical decisions (Byne, 2016). Unsupportive parents often encourage or coerce their transgender children into undergoing gender identity change efforts (commonly known as conversion therapy), while supportive parents may assist their children in accessing gender-affirming care (Kidd et al., 2021). However, exposure to gender denying- as opposed to gender affirming-practices has serious consequences for the mental health of transgender youth.

Conversion therapy has deleterious effects, including significantly higher rates of suicide attempt (Campbell and Rodgers, 2023; Turban et al., 2020)). In contrast, gender-affirming care (which aims to diminish the primary and secondary sex characteristics of sex assigned at birth, and to establish congruence between primary and secondary sex characteristics with one's gender identity, through the initiation of services such as puberty blockers, hormone replacement therapy (HRT), and/or vocal therapy) is associated with improvements in mental health (Mann, Campbell and Nguyen, 2022; Campbell et al., 2023*a*).

This paper uses the 2015 United States Transgender Survey (USTS) to examine the relationship between four different gender identity milestones and exposure to conversion therapy and HRT among transgender youth, and how that relationship is contingent on family support. To estimate these relationships, our event study approach compares changes in exposure to each outcome among transgender youth who initiate gender identity milestones with those who initiate such milestones a year later, stratified by level of family support.

Our results indicate that transgender children undergoing gender identity milestones in supportive family environments are shielded from conversion therapy and often receive HRT, whereas children in unsupportive family environments often receive conversion therapy and have limited access to HRT. These results provide new evidence on the welfare outcomes associated with gender identity milestones and how family support mediates this relationship.

I. Data Description and Methodology

A. *2015 United States Transgender Survey*

The 2015 USTS has 27,715 transgender respondents from across the United States and includes detailed information on education, employment, race, family life, health status, and gender identity milestones. Our sample is categorized into three groups: "supportive family," "neutral family," and "adverse family." Respondents in the supportive group self-report having

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a supportive family when they grew up and do not report any rejection behaviors.[1] Respondents in the adverse group self-report having an unsupportive family when they grew up, and report at least one rejection behavior. The neutral category comprises all other respondents. We use the term "unsupportive family" as shorthand for the average outcome of the neutral and adverse family groups. Our sample excludes one quarter of all respondents who said their family was not aware of them being transgender.

The analysis focuses on two outcomes (conversion therapy and HRT) and four gender identity milestones (ever feeling one's gender was different, ever thinking of oneself as transgender, ever telling another that one is transgender, and ever living full-time as the gender of one's gender identity). On average these events occur in chronological order, starting with feeling that one's gender was different.[2]

B. Methodology

To assess the effects of gender identity milestones on gender-affirming or -denying practices, we compare changes in exposure to conversion therapy and HRT among transgender youth who initiate a gender identity milestone compared to those who initiate a year later, stratified by level of family support. This event study design relies on the assumption that the milestone initiation age is independent of other factors that may also influence the likelihood of receiving conversion therapy or HRT.

In our retrospective panel, each analysis sample is a "stack" of cohorts in which each cohort represents a specific age group when initiating a particular gender identity milestone. The treated group within each cohort consists of respondents who initiated the milestone at the same age, while the corresponding control group initiated the milestone one year later. Within each cohort, the event window includes the five years before and one year after the treated group initiated the gender identity milestone, and event-time is aligned with the age at which the treated group initiated.

To prevent having too small of a sample, we allow individuals within each cohort to be born in different calendar years (although they are the same age relative to the timing of the event). To account for this, we include age by calendar year fixed effects in the regression specification. Cohorts with fewer than fifty control units are excluded from the analysis, as are cohorts under age four or over age 17. Within each cohort, we apply synthetic unit weights to balance the outcome between the treated and control individuals over the five years before each gender identity milestone.

We efficiently aggregate the within-cohort estimates using a stacked regression with dynamic treatment effects and estimate a separate regression for each family support group. We test for selection bias by allowing the trends in outcomes to deviate between treated and control individuals for five years prior to the gender identity milestone of interest. The baseline specification is:

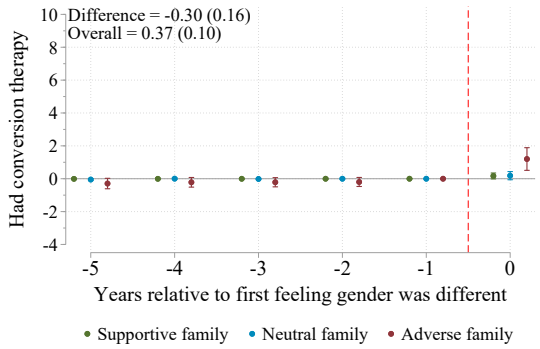
$$Y_{c,i,t} = \mu + \sum_{k=-5}^{0} \beta_k D_{k,c,i,t} + X'_{c,i,t}\kappa + \alpha_{c,i} + \delta_{c,y,t} + \varepsilon_{c,i,t} \quad (1)$$

where Y denotes an indicator for person i of cohort c ever being exposed to conversion therapy (or initiating HRT) as of event-time t, D_k are leads and lags of an indicator variable for the particular gender identity milestone under observation, X is a vector of cohort-specific controls for other gender identity milestones in case they are concurrent, $\alpha_{c,i}$ are cohort-specific individual fixed effects, $\delta_{c,y,t}$ are cohort-specific age-calendar year fixed effects, and $\varepsilon_{c,i,t}$ is the error term. The regression is weighted by the cohort-specific synthetic unit weights. Standard errors are clustered at the individual level, the level at which the treatment occurs. The main identifying assumption is parallel trends in the outcome.

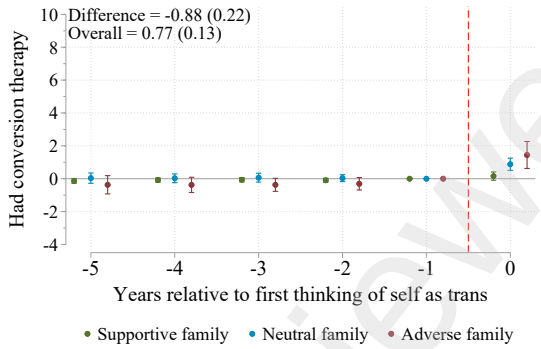
If the year-to-year timing of a gender identity milestone is quasi-random, then the treated and control groups should not be observably different prior to initiation. While the number of observables is limited, a comparison of the few pretreatment covariates available in the data indicates there is no meaningful imbalance in the

[1] Rejection behaviors include: stopped speaking to you for a long time or ended your relationship; were violent towards you; kicked you out of the house; did not allow you to wear the clothes that matched your gender; and sent you to a therapist, counselor, or religious advisor to stop you from being trans.

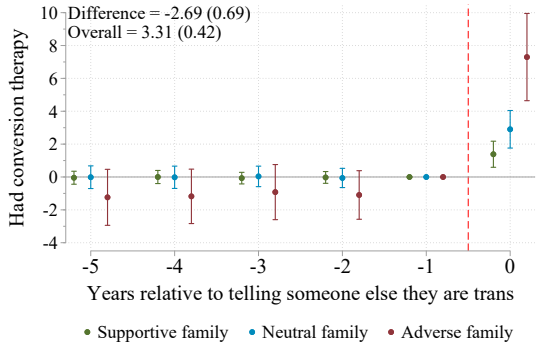
[2] For additional information on how we construct the retrospective panels or on the retrospective questions on the USTS, see Appendix B of Campbell and Rodgers (2023).



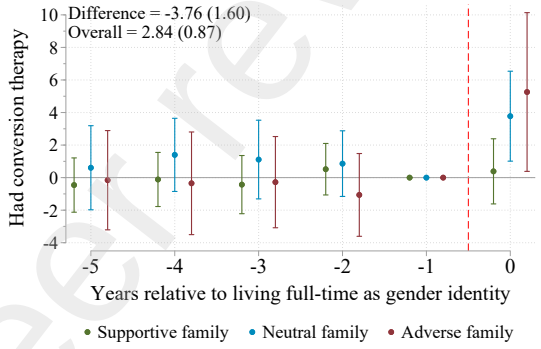
(a) First felt gender was different



(b) First thought of self as transgender



(c) First told someone else they are transgender



(d) Started to live full-time as gender identity

Figure 1. Event Study Estimates of the Effect of Gender Identity Milestones on Starting Conversion Therapy for Transgender Youth by Level of Family Support.

Notes: The vertical bars are the 95% confidence interval based on robust standard errors clustered by individual. "Difference" is the difference between the supportive family group and a weighted average of the neutral and adverse family groups, where the weights correspond to the sample shares. "Overall" is a weighted average of the three family support groups, where the weights correspond to the sample shares. The standard errors are in parenthesis. Sample sizes and coefficient estimates are reported in the online Appendix.

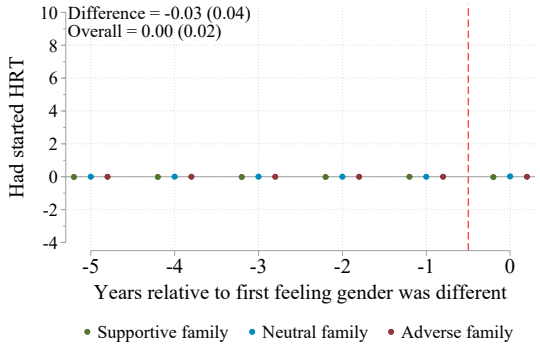
race, region of birth, or mental health of respondents before the milestone, although transgender youth assigned female at birth are more likely to initiate gender identity milestones earlier.[3] Most importantly, the share of respondents who had received either conversion therapy or HRT is remarkably similar. Moreover, the trends in these outcomes were notably parallel over the five years before the milestone.

II. Event Study Results

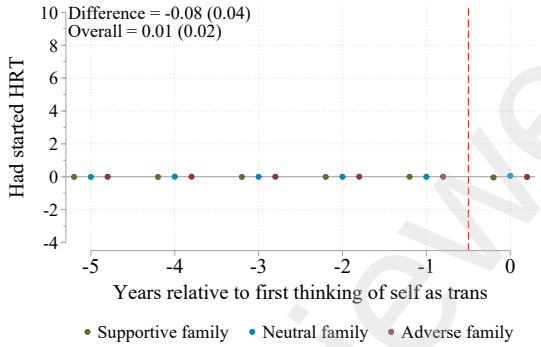
Our event study estimates reveal a sharp increase in the probability of being exposed to conversion therapy in the year following all four gender identity milestones. This association is more pronounced in unsupportive family environments compared to supportive ones, and the estimate is largest when first telling others that one is transgender (see Figure 1).[4]

[3]Results of the covariate balance test are in the Online Appendix. We also show the results are robust to subsetting the sample by sex assigned at birth, which mitigates any concerns stemming from this finding.

[4]Parents may decide to initiate conversion therapy even without youth confirming that they are transgender or gender nonbinary. As such, while telling others that one is transgender is the best proxy for parental awareness, parents may decide to initiate even without being told. Hence other gender identity milestones may also be related to initiation of conversion therapy.



(a) First felt gender was different



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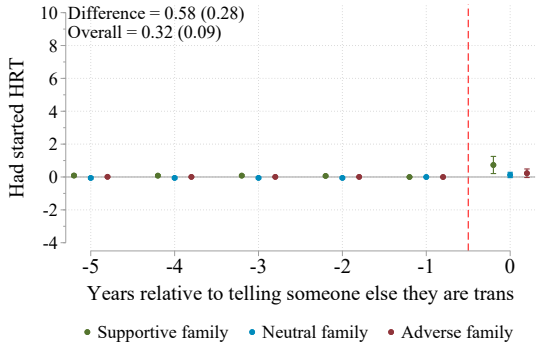

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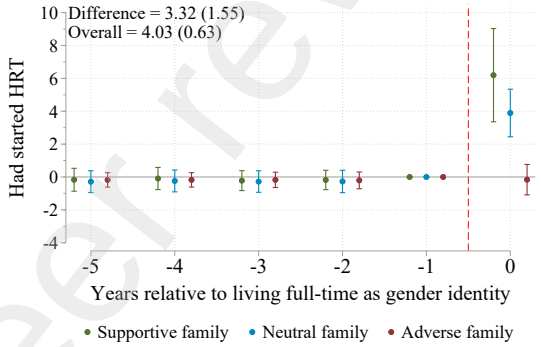

(d) Started to live full-time as gender identity

Figure 2. Event Study Estimates of the Effect of Gender Identity Milestones on Starting Hormone Replacement Therapy (HRT) for Transgender Youth by Level of Family Support.

Notes: See notes for Figure 1.

Disclosing one's transgender identity to others led to a significant 7.30 percentage point increase in exposure to conversion therapy among children from adverse family environments. In contrast, children from supportive family environments experienced a much smaller increase of 1.38 percentage points.

In stark contrast, HRT only meaningfully increases after living full time as one's gender identity, and only for those from supportive or neutral family environments (see Figure 2). In fact, while other estimates are statistically significant, they tend to be too small to be clinically meaningful. For example, after living full-time as their gender identity, transgender youth with supportive families exhibited a notable 6.2 percentage point increase in starting HRT. Conversely, those with adverse family environments do not experience a meaningful change, with the 95% confidence interval excluding any increase above 1 percentage point. We interpret this stark disparity as a consequence of differential access to, rather than desire for, HRT.[5]

III. Conclusion

This study indicates that transgender youth undergoing gender identity milestones in un-

[5]Gaining access to HRT requires a gender dysphoria diagnosis. As such, first feeling that one's gender is different and first self-identifying as transgender should have no bearing on the initiation of HRT, given that there are institutional barriers to receiving a gender dysphoria diagnosis. Hence, event study estimates of these gender identity milestones on HRT may be seen as falsification tests. Our findings pass these tests, as they consistently indicate negligible changes in HRT usage for both transitions across all three groups. In fact, the confidence intervals consistently exclude any changes beyond 0.1 percentage points.

supportive family environments risk being subjected to conversion therapy and have limited access to HRT, whereas children in supportive family environments are shielded from conversion therapy and have greater access to HRT. These results provide evidence of healthcare mechanisms playing an important role in explaining how supportive families mitigate the risks of gender identity milestones for poor mental health outcomes, while unsupportive families heighten these risks.

This evidence helps to inform policy discussions on transgender wellbeing. Our results underscore the importance of protective policies for transgender youth that promote access to gender-affirming care and ban conversion therapy. Results also underpin the importance of family support for the mental health of transgender youth at key life stages and for them to access the care that they need (Coleman et al., 2012). Community support matters as well, especially when families are unsupportive, and efforts to provide schools and community organizations with knowledge of best practices to support transgender youth can mitigate some of the mental health risks of social transitioning (Katz-Wise et al., 2022). Increasing the capacity of educators, religious counselors, and other community leaders to provide gender-affirmative approaches in their institutional settings is urgently needed as anti-transgender policies (especially focused on transgender youth) are being passed across the US and around the globe.

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