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An Analogue Study Investigating Differential Parenting of Gender Conforming and Nonconforming Boys

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Abstract

Gender nonconforming children are at heightened risk for negative parenting interactions. This study investigated possible explanations for differences in parenting behaviors with gender conforming and nonconforming boys. A sample of 201 adults (43% women/57% men; 81% White, 10% Black/African American, 6% Multiracial, 3% Asian, and 1% American Indian or Alaska Native; and 7% Hispanic/Latinx) ranging in age from 20 to 74 years ($M = 35.44$, SD = 9.76) were presented two vignettes describing a gender conforming and nonconforming boy. Following each vignette, participants provided endorsements of parenting behaviors and reported their concern for that child's future. In addition, participants completed measures assessing their attitudes toward homosexuality and need for closure. Contrary to expectations, there were no significant differences in endorsements of physical discipline or positive parenting for the two boys. Participants did, however, report higher concern for the gender nonconforming boy's future. Individual differences in homonegativity were associated with greater endorsements of physical discipline toward the gender nonconforming boy, after accounting for endorsements of physical discipline toward the gender conforming boy. Further, higher concern for the gender nonconforming boy's future was associated with greater endorsements of physical discipline and lower endorsements of positive parenting, after accounting for endorsements of each behavior for the gender conforming boy as well as concern for their future. Intervention efforts to support the parent–child relationship for gender nonconforming boys may benefit from identifying and responding to both negative attitudes toward homosexuality and addressing motivations to change behavior resulting from concern for their child's future.

Keywords Gender nonconformity · Parenting · Homonegativity · Gender identity · Gender role · Sexual orientation

Introduction

Gender nonconforming children, or children whose behavior and/or appearance does not conform to traditional gender roles (e.g., feminine boys or masculine girls) (American Psychological Association Task Force on Gender Identity and Gender Variance, 2009) face a number of unique challenges related to their gender expression. Previous work has shown that adults consider specific characteristics as typically masculine or feminine (Martin, 1995). Further, children as young as 3 years old categorize toys as either a "boy toy" or "girl toy" (Freeman, 2007). By age 5, those categorizations are even more strict and accompanied by an expectation that their parent would not approve of playing with a cross-gendered toy (Freeman, 2007). Those that deviate from these expectations are at increased risk for negative experiences such as childhood bullying (Gordon et al., 2018; Gower et al., 2018) and childhood sexual abuse and adult sexual assault (Balsam et al., 2005; Hidalgo et al., 2015). Additionally, across childhood and adulthood, individuals who are gender nonconforming are found to have higher rates of substance use disorders (Klein & Golub, 2016), suicidality (D'Augelli et al., 2005; Klein & Golub, 2016; Plöderl & Fartacek, 2009), and psychopathology (D'Augelli et al., 2006), including internalizing and externalizing symptomatology (Martin-Storey & August, 2016; Munroe et al., 2020; Toomey et al., 2013) when compared to gender conforming individuals.

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Additional research has indicated that this association between gender nonconformity and increased negative outcome risk may be stronger for boys/men than it is for girls/women. A meta-analysis found that gender nonconformity was associated with increased experiences of prejudice as well as expectations of rejection and that these associations were stronger for gay and bisexual men when compared to lesbian and bisexual women (Thoma et al., 2021). Additionally, a study found a significant association between gender nonconformity and psychological distress in men but not in women (Skidmore et al., 2006). This may be due, at least in part, to how others in their environment respond to them. Coyle et al. (2016) found that girls who exhibit more masculine personality traits (i.e., "tomboys") were viewed as acceptable (i.e., neither likeable nor unlikeable), and expected to become typical, well-adjusted adult women. In contrast to masculine girls, boys who present with more feminine traits were more likely to be described using derogatory language and participants indicated they would encourage them to act differently. This work is consistent with previous work that found girls with a masculine personality or who played with boys' toys to be rated as more acceptable than boys with a feminine personality or who played with girls' toys (Martin, 1990). Taken together, these findings highlight that gender nonconforming boys may be at heightened risk for negative experiences and outcomes.

Similar results were found among adults when considering their own children, with past work showing parents have greater disapproval of gender nonconforming characteristics when displayed by boys compared to girls (Blakemore & Hill, 2008) and parents rating boys with feminine personality traits and boys who play with girl toys as having lower acceptance in society (Sandnabba & Ahlberg, 1999). Additionally, Sandnabba and Ahlberg found that parents, on average, reported more negative feelings toward having a son who was "girlish" than having a daughter who was "boyish." Furthermore, parents who hold traditional beliefs toward gender roles have greater discomfort with their gender nonconforming son (Spivey et al., 2018) and previous work has shown that negative parental responses are more likely in response to their son's interest in feminine items, activities, or attributes (Kane, 2006). Beyond discomfort, previous literature indicates that youths who are more gender nonconforming experience more physical and psychological abuse from family members (Roberts et al., 2012) as well as parental over-control and coldness (Alanko et al., 2008). A study by D'Augelli et al. (2006) found that 56% of gender nonconforming men reported negative reactions from their mothers during childhood, compared to only 36% of gender nonconforming women, and 80% of these men reported negative reactions from their fathers, compared to 24% of the women. In addition, over half of the participants reported that their parents discouraged them from gender nonconforming behavior (including through counseling and punishment). Taken together, these studies indicate that gender nonconforming children, and boys in particular, are at risk of experiencing negative parenting aimed at changing their behaviors, potentially through the use of physical punishment.

Despite this evidence that gender nonconforming boys are at risk of experiencing negative parenting, little is known about the potential mechanisms underlying parents' treatment of gender conforming versus gender nonconforming boys. Understanding the roots of these differences in how parents treat their children are likely to be helpful for professionals working with families with gender nonconforming children to increase parental acceptance and reduce risk for child maltreatment. This is particularly important given that parents' attempts to discourage gender nonconformity can have serious negative consequences, such as increased suicidality (D'Augelli et al., 2005). Further, while child maltreatment has been linked to numerous negative outcomes (Cicchetti & Toth, 2005), positive parenting (e.g., warmth and positive reinforcement) has been associated with positive child outcomes and is often targeted as an area to modify in the lives of children (Haine et al., 2006; Sanders et al., 2014; Smokowski et al., 2015). Here, we explore three non-mutually exclusive explanations for parenting differences in the treatment of gender conforming and nonconforming boys: (1) homonegativity, (2) need for closure, and (3) concern for their future. We describe each of these constructs and their relevance to parenting behaviors below.

Evidence from both retrospective and prospective studies indicates that childhood gender nonconformity is associated with sexual orientation in adolescence (Jones et al., 2017) as well as adulthood (Bailey & Zucker, 1995; Li et al., 2017; Rieger & Savin-Williams, 2012; Rieger et al., 2008). That is, adult gay men and lesbian women report greater gender nonconformity in their childhood than do their heterosexual peers. Further, studies have shown that undergraduate students expect gender nonconforming children to remain gender nonconforming in adulthood, and to have a sexual orientation other than heterosexuality in adulthood (Thomas & Blakemore, 2013). Additionally, undergraduates expected that gay men would be more feminine and lesbian women would be more masculine when reading vignettes about adults (Blashill & Powlishta, 2009), indicating that the stereotype of gender nonconformity being linked to sexual orientation persists through adulthood. This association between childhood gender nonconformity and adult homosexuality may increase risk for negative parenting for a gender nonconforming child through negative attitudes toward homosexuality (homonegativity). Specifically, if a parent has negative attitudes toward homosexuality and they suspect that their child might be gay, then they might engage in more punitive parenting behavior.

Need for closure refers to "the desire or motivation to have a definite answer or knowledge instead of uncertainty or doubt" (Kelly & Spoor, 2007), and people who are high in need for closure tend to prefer predictability and experience discomfort with ambiguity (Webster & Kruglanski, 1994). Identities that are more flexible in their presentation may challenge individuals seeking simple, unchanging explanations (Burke et al., 2017). People who report higher levels of need for closure also report higher levels of prejudice against transgender (Costa & Davies, 2012; Makwana et al., 2018) and sexual minority individuals (Tebbe & Moradi, 2012). Given societal expectations for men to be masculine and women to be feminine, gender nonconformity challenges many people's understandings of what it means to be a man or a woman (American Psychological Association Task Force on Gender Identity and Gender Variance, 2009), and it may present a challenge for the automatic judgments that people tend to make about other people's genders (Blair & Banaji, 1996; Fiske & Neuberg, 1990). Therefore, people who are high in need for closure might be particularly troubled by a person who presents as gender nonconforming because it can make it difficult to discern that person's gender and make other automatic judgments about them based on their gender (e.g., judgements about personality traits and interests).

Although efforts to change a child's sexual orientation or gender identity have been opposed by major medical organizations (Anton, 2010), it is possible that some people view parenting behaviors aimed at deterring gender nonconformity as protective. Many parents believe their own parenting is able to shape their child's sexual orientation and gender identity (Kane, 2006; Martin, 2009). Gender nonconforming and sexual minority adults are more likely to experience social stress, discrimination, prejudice, and violence than their gender conforming and sexual majority peers, putting them at further risk for poor physical and mental health outcomes (Gordon & Meyer, 2008; Miller & Grollman, 2015). Thus, if parents believe that gender nonconforming and sexual minority individuals are more likely to face discrimination and other challenges, they may justify less positive and more negative parenting behaviors as a way to deter gender nonconformity in the interest of protecting them from these challenges.

Current Study and Hypotheses

In the current study, we aimed to test these three potential explanations for differences in parenting behavior toward gender conforming versus nonconforming boys. Specifically, we presented two hypothetical scenarios (from Thomas & Blakemore, 2013) in which boys differed in expressed masculinity and femininity, without specifying whether the boy was cisgender or transgender, and then asked participants to report how parents should treat each child. In addition, we assessed attitudes toward homosexuality, need for closure, and concern for the child's future. Our preregistered hypotheses were the following:

H1 Participants will endorse greater use of physical discipline and lower use of positive parenting behaviors for the gender nonconforming boy relative to the gender conforming boy.

H2 More negative attitudes toward homosexuality would be associated with relatively greater endorsements of physical discipline and less positive parenting behaviors for the gender nonconforming boy.

H3 Greater need for closure would be associated with relatively greater endorsements of physical discipline and less positive parenting behaviors for the gender nonconforming boy.

H4 Higher concern for the child's future would be associated with relatively greater endorsements of physical discipline and less positive parenting behaviors for the gender nonconforming boy.

Additionally, we explored each potential explanatory variable independently as well as jointly given that they represent non-mutually exclusive explanations.

Method

Participants

Participants for this investigation were recruited via Amazon Mechanical Turk (MTurk), an online research platform. Inclusion criteria for the study were age of at least 18 years, self-identification as both cisgender and heterosexual, US citizenship, and English as their native language. Participants were compensated upon successful completion of the survey at a rate of $8/hour. A total of 267 surveys were completed, with responses removed for incomplete response ($n=1$), identical location data ($n=11$), duplicate IP address ($n=2$), and incorrectly responding to an attention check question ($n=52$). The final analytic sample included 201 participants (57% female) who ranged in age from 20 to 74 years ($M=35.44$, SD = 9.76). The majority identified as White (81%); 10% were Black or African American; 6% were Multiracial; 3% were Asian; and 1% were American Indian or Alaska Native. Of the sample, 7% identified as Hispanic or Latinx. Additional participant characteristics can be found in Table 1. This sample size was consistent with the power analysis conducted using G*Power (Faul et al., 2014) for our preregistration on the Open Science Framework (https://osf.io/28p9r). The power analysis showed a minimum of approximately 200 participants needed to sufficiently power a study with multiple linear regression with

Table 1 Sociodemographic characteristics of participants

Baseline characteristic	*n*	%
Sex		
Male	114	57
Female	87	43
Ethnicity		
Hispanic/Latinx	14	7
Non-Hispanic/Latinx	187	93
Race		
American Indian or Alaska Native	2	1
Asian	5	3
Black or African American	20	10
White	163	81
Multiracial	11	5
Children[a]	112	56
Relationship status		
Married	96	48
In a serious relationship, but not married	47	23
Not in a serious relationship	58	29
Annual combined household income		
$0–$5000	3	2
$5001–$15,000	12	6
$15,001–$30,000	25	12
$30,001–$60,000	76	38
$60,001–$90,000	50	25
$90,001–$150,000	24	12
$150,001–$250,000	10	6
Greater than $250,000	1	1
Highest level of education completed		
Some high school	1	1
High school (or equivalent, e.g., GED)	30	15
Some college, but no college degree	39	19
Associate degree	25	12
Bachelor's degree	91	45
Some graduate school, but no graduate degree	2	1
Graduate degree	13	7

$N = 201$. Participants were on average 35.44 years old (SD = 9.76)

[a]Reflects the number and percentage of participants who responded "yes" to this question

a small-to-medium effect size of Cohen's f-squared = 0.06, a power of 0.80, and a total of 4 independent variables. Ethical review and approval was obtained from the Vanderbilt University Institutional Review Board (No: 191157). Informed consent was obtained from all participants.

Procedure

Upon meeting inclusion criteria and consenting, each participant was presented with two vignettes, one of a gender conforming boy and one of a gender nonconforming boy. We varied the order of vignette presentation (i.e., gender conforming boy first vs. gender nonconforming boy first) and we also varied the name of the boy (i.e., Liam vs. Noah). The two names were selected based on the most popular boy names of 2018 (Social Security Administration, 2018) and the names were varied to ensure that the name assigned to the gender conforming vs. nonconforming boy did not affect the results. Participants were randomly assigned to one of the four conditions based on the order of vignette presentation and the name of the boy.

Following each of the two vignettes, participants were asked to endorse how the child should be parented using the Alabama Parenting Questionnaire, as well as to report their concern for their future measure as they related to each boy. The vignettes were obtained from Thomas and Blakemore's (2013) study on adults' attitudes about gender nonconformity in childhood. For the gender conforming boy, we utilized their example of a moderately masculine male child, a 6-year-old who is described as loud, whose friends are mostly boys, who enjoys sports, playing with dinosaurs and building blocks, and wants to work with computers as an adult. For the gender nonconforming boy, we used their example of a moderately feminine male child, a 6-year-old who is shy, whose friends are mostly girls, who enjoys gymnastics and jump roping, loves his toy house and kitchen, and wants to be an elementary school teacher (the full vignettes are available in Thomas & Blakemore, 2013).

After completing the measures that were specific to each boy, participants completed measures pertaining to themselves, including their attitudes toward homosexuality and need for closure. Finally, they completed the demographics section, including attention checks, and a question designed to determine whether participants likely resided in the USA (Kennedy et al., 2020). Two independent raters reviewed all answers and then resolved any discrepancies regarding inclusion/exclusion.

Upon completion of the survey battery, participants were provided with a unique ID number to input on their personal Mturk worker page. By inputting this ID, participants retained their anonymity while receiving monetary compensation for their time.

Measures

Demographics

Demographic information including their age, race, ethnicity, annual household income, highest level of education completed, marital/relationship status, and whether or not they had any children was collected.

Alabama Parenting Questionnaire

To measure the extent to which participants believed each child's parents should use physical punishment or positive parenting strategies, we administered the corporal punishment and positive discipline subscales, respectively, of the Alabama Parenting Questionnaire (APQ; Shelton et al., 1996). The corporal punishment subscale was chosen due to extant research, indicating that corporal punishment is a risk factor for physical child abuse (Fréchette et al., 2015). The corporal punishment subscale consisted of 3 items and included questions such as "His parents should slap him when he has done something wrong." The positive discipline subscale consisted of 6 items and included questions such as "His parents should let him know when he is doing a good job with something." Responses were collected using a Likert scale (1 = *Never* to 5 = *Always*). Within our sample, the corporal punishment subscale had excellent internal consistency for the gender conforming boy ($\alpha = 0.84$) and for the gender nonconforming boy ($\alpha = 0.86$). Additionally, the positive discipline subscale had excellent internal consistency for both the gender conforming boy ($\alpha = 0.84$) and the gender nonconforming boy ($\alpha = 0.86$).

Modern Homonegativity Scale

Attitudes toward homosexuality were measured using the Gay Men subscale of the Modern Homonegativity Scale (MHS; Morrison & Morrison, 2002), which asked participants to rate the extent to which they agreed or disagreed with statements such as "Gay men aren't real men" using a Likert scale (1 = *Totally Disagree* to 5 = *Totally Agree*). Within our sample, there was excellent internal consistency (12 items; $\alpha = 0.96$).

Need for Closure

Participants' need for closure was assessed using the Need for Closure Scale (NFC; Webster & Kruglanski, 1994), which gauges how characteristic or uncharacteristic statements such as "I don't like situations that are uncertain" are of them, using a Likert scale (1 = *Not at all characteristic of me* to 5 = *Entirely characteristic of me*). Given debates over whether the scale is truly unidimensional (Neuberg et al., 1997), six items were chosen from two of the correlated subscales, three from the preference for predictability subscale, and three from the discomfort with ambiguity subscale. The same six items utilized in Burke et al. (2017). Within our sample, there was excellent internal consistency (6 items; $\alpha = 0.94$).

Concern for Future

The degree to which participants were concerned for each child's future was evaluated first by having participants rate how worried they are that each boy would grow up to have problems later on using a Likert scale (1 = *Not at all* to 5 = *Very worried*). Additionally, we created the Concern for Child's Future scale, which consisted of five questions asking them how difficult they thought it might be for the child to do certain things as an adult (i.e., "Rent a house/apartment," "Find a stable job," "Make friends," "Find romantic partners," and "Be healthy, both physically and mentally"). Responses were collected using a Likert scale (1 = *Not at all worried difficult* to 10 = *Extremely difficult*) and were summed across items. Cronbach's alpha for the 6-item scale indicated excellent internal consistency for both the gender conforming boy ($\alpha = 0.89$) and the gender nonconforming boy ($\alpha = 0.90$).

Data Analysis

To begin, we identified potential outliers for each variable included in our analyses. Outliers were identified (values ± 3 SD from the mean) and Winsorized. ANOVAs were performed to analyze whether, despite random assignment, there were statistically significant differences in demographics or parenting endorsements across the four conditions. We then calculated Pearson correlations across all variables to understand the relationships between them. Then, to investigate our first hypothesis that participants would endorse more physical discipline for the gender nonconforming child compared to the gender conforming child, a paired-sample *t*-test was calculated. For our second through fourth hypothesis that higher physical discipline of the gender nonconforming child would be associated with more negative attitudes toward homosexuality, a greater need for closure, and a higher concern for the child's future, stepwise multiple regression analyses were conducted. Stepwise multiple regression was chosen to investigate whether attitudes toward homosexuality, need for closure, and concern for child's future were associated with (1) physical discipline and (2) positive parenting of the gender nonconforming boy over and above those same variables in association with parenting endorsed for the gender conforming boy. This approach allows us to examine whether there was variance explained in parenting toward the gender nonconforming boy, over and above how the participant endorsed parenting a gender conforming boy. In the first regression, we examined the impact of attitudes toward homosexuality on physical discipline endorsements for the gender nonconforming child while covarying for physical discipline endorsements for the gender conforming child. We then ran a similar regression examining the impact of need for closure on physical discipline endorsements for the gender

nonconforming child while covarying for physical discipline endorsements for the gender conforming child. Next, we conducted a linear regression to test whether concern for the gender nonconforming boy's future was associated with physical discipline endorsements for the gender nonconforming boy while accounting for both physical discipline endorsements for the gender conforming boy and concern for the gender conforming boy's future to isolate concern for the gender nonconforming boy over and above these other variables. After testing each predictor in a separate model, we tested them all in the same model. Last, to further understand how gender nonconformity may impact how children are parented, we ran the same regression models substituting endorsements of physical discipline for positive parenting to investigate whether any of the explanatory variables were associated with positive parenting of the gender nonconforming child. For our primary analyses, we implemented the Benjamini–Hochberg adjustment (Benjamini & Hochberg, 1995) with a 10% false discovery rate to reduce the risk for type I errors. All analyses were completed using IBM SPSS Statistics for Windows, Version 26.0. To ensure that variability was not explained by participant demographics, we ran additional stepwise multiple regressions including demographic variables that were statistically significantly correlated with our dependent variables in the first step.

Results

ANOVA tests and chi-squared tests were conducted to examine potential differences in descriptive characteristics, endorsement of physical punishment, positive parenting, or concern for the child across the four randomized conditions and indicated no statistically meaningful variation as a function of group, Fs < 1.48, χ^2s < 17.41, ps > 0.137. Thus, we collapsed across assigned names (i.e., Liam vs. Noah) and order of vignette presentation to focus on differences between parenting endorsements of the gender conforming versus the gender nonconforming child within the full sample. High positive correlations were found in endorsements of physical discipline for the gender conforming and nonconforming boy. Similarly, high positive correlations were found for endorsements of positive parenting practices for both boys. In addition, across both children, higher endorsements of physical discipline were associated with lower endorsements of positive parenting practices (Table 4). Notably, endorsed physical discipline was positively correlated with negative attitudes toward homosexuality for both the gender conforming and nonconforming child, indicating that endorsement of more physical discipline patterns is associated with homonegativity generally. Contrary to our hypothesis, participants did not endorse greater use of physical discipline for the gender nonconforming child relative to the gender conforming child (Table 2). Additionally, participants did not endorse statistically significantly lower positive parenting behaviors for the gender nonconforming boy relative to the gender conforming boy (Table 2). Participants did, however, report more concern for the gender nonconforming boy's future than for the gender conforming boy's future (Table 2).

The Role of Attitudes Toward Homosexuality

Consistent with our hypothesis, negative attitudes toward homosexuality were associated with greater endorsement of physical discipline toward the gender nonconforming child, even after accounting for endorsed physical discipline toward the gender conforming child (see Table 3). Contrary to our hypothesis, attitudes toward homosexuality were not statistically significantly associated with endorsements of positive parenting for the gender nonconforming boy after accounting for endorsed positive parenting for the gender conforming boy (see Table 4).

The Role of Need for Closure

There was no association between need for closure and physical discipline endorsement for the gender nonconforming boy (see Table 3). However, need for closure was statistically significantly associated with greater positive parenting behaviors endorsed for the gender nonconforming boy (covarying for positive parenting endorsed for the gender conforming boy; see Table 4). The direction of the correlation shows a positive relationship such that a higher need for

Table 2 Means, SDs, and *t*-test statistics of physical discipline, positive parenting, and concern for future

Variable	Gender conforming ($n = 201$)		Gender nonconforming ($n = 201$)		$t(200)$	p	95% CI	
	M	SD	M	SD			LL	UL
Physical Discipline	1.51	2.39	1.38	2.26	−1.74	0.084	−0.28	0.02
Positive Parenting	18.76	3.79	18.82	3.98	0.416	0.678	−0.20	0.31
Concern for Future	12.04	8.81	14.01	9.93	3.98	< 0.001	0.99	2.95

Physical discipline and positive parenting measures were collected using a Likert scale (1 = *Never* to 5 = *Always*). Concern for Future was also collected using a Likert scale (1 = *Not at all* to 5 = *Very worried*)

Table 3 Multiple regression analyses for explanatory variables predicting physical discipline directed at the gender nonconforming boy

Variable	*B*	95% CI for *B*		*SE B*	*β*	R^2	ΔR^2	*p*
		LL	UL					
Attitudes toward homosexuality								
Step 1						0.807	0.807***	
Constant	0.096	−0.068	0.259	0.083				0.252
Physical discipline (Conforming)	0.851	0.793	0.909	0.030	0.898			< 0.001
Step 2						0.814	0.007**	
Constant	−0.100	−0.311	0.112	0.107				0.353
Physical discipline (Conforming)	0.822	0.762	0.883	0.031	0.868			< 0.001
Attitudes toward homosexuality	0.015	0.004	0.025	0.005	0.091			**0.005**
Need for closure								
Step 1						0.807	0.807***	
Constant	0.096	−0.068	0.259	0.083				0.252
Physical discipline (Conforming)	0.851	0.793	0.909	0.030	0.898			< 0.001
Step 2						0.808	0.002	
Constant	0.295	−0.050	0.639	0.175				0.093
Physical discipline (Conforming)	0.849	0.791	0.907	0.029	0.896			< 0.001
Need for closure	−0.009	−0.023	0.005	0.007	−0.040			0.197
Concern for future								
Step 1						0.811	0.811***	
Constant	−0.077	−0.310	0.156	0.118				0.515
Physical discipline (Conforming)	0.821	0.757	0.886	0.033	0.867			< 0.001
Concern for future (Conforming)	0.081	0.001	0.036	0.009	0.070			0.043
Step 2						0.831	0.020***	
Constant	−0.272	−0.506	−0.037	0.119				0.024
Physical discipline (Conforming)	0.805	0.743	0.866	0.031	0.850			< 0.001
Concern for future (Conforming)	−0.018	−0.041	0.004	0.011	−0.072			0.105
Concern for future (Nonconforming)	0.047	0.028	0.066	0.010	0.207			**< 0.001**

Physical discipline was collected using a Likert scale (1 = *Never* to 5 = *Always*); Attitudes Toward Homosexuality was collected using a Likert scale (1 = *Totally Disagree* to 5 = *Totally Agree*); Need for Closure was collected using a Likert scale (1 = *Not at all characteristic of me* to 5 = *Entirely characteristic of me*); Concern for Future was collected using a Likert scale (1 = *Not at all* to 5 = *Very worried*). Parenting endorsements in boldface reached traditional statistical significance and remained statistically significant following a Benjamini–Hochberg *p*-value correction to protect against type I error

CI = confidence interval, *LL* = lower limit, *UL* = upper limit

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

closure is associated with greater positive parenting behaviors endorsed.

The Role of Concern for Child's Future

Greater concern for the gender nonconforming child's future was associated with greater endorsed physical discipline for that child, after accounting for physical discipline endorsements for the gender conforming child and concern for the gender conforming child's future (see Table 3). Consistent with the findings for punitive parenting, concern for the gender nonconforming boy's future was statistically significantly associated with endorsed lower positive parenting behavior for the gender nonconforming boy, after accounting for positive parenting endorsed for the gender conforming boy and concern for the gender conforming boy's future (see Table 4). This relationship was negative, indicating that greater reported concern for the child's future was associated with endorsement of less positive parenting behavior. Notably, after applying a Benjamini–Hochberg correction this association was no longer statistically significant.

Multivariate Analysis

When all three explanatory variables were included in the same model, both attitudes toward homosexuality ($\beta = 0.08$, $p = 0.012$) and concern for the gender nonconforming boy's future ($\beta = 0.19$, $p < 0.001$) remained statistically significant

Table 4 Multiple regression analyses for explanatory variables predicting positive parenting directed at the gender nonconforming boy

Variable	*B*	95% CI for *B*		*SE B*	*β*	R^2	ΔR^2	*p*
		LL	UL					
Attitudes toward homosexuality								
Step 1						0.785	0.785***	
Constant	1.339	0.034	2.644	0.662				0.044
Positive Parenting (Conforming)	0.932	0.863	1.000	0.035	0.886			< 0.001
Step 2						0.786	0.002	
Constant	1.679	0.259	3.098	0.720				0.021
Positive Parenting (Conforming)	0.923	0.854	0.993	0.035	0.878			< 0.001
Attitudes toward homosexuality	−0.012	−0.031	0.008	0.010	−0.040			0.234
Need for closure								
Step 1						0.785	0.785***	
Constant	1.339	0.034	2.644	0.662				0.044
Positive Parenting (Conforming)	0.932	0.863	1.000	0.035	0.886			< 0.001
Step 2						0.793	0.008**	
Constant	0.742	−0.610	2.095	0.686				0.280
Positive Parenting (Conforming)	0.922	0.855	0.990	0.034	0.877			< 0.001
Need for Closure	0.036	0.010	0.062	0.013	0.090			**0.006**
Concern for future								
Step 1						0.785	0.785***	
Constant	1.683	0.153	3.212	0.776				0.031
Positive Parenting (Conforming)	0.922	0.850	0.994	0.036	0.877			< 0.001
Concern for Future (Conforming)	−0.013	−0.044	0.018	0.016	−0.030			0.395
Step 2						0.791	0.005*	
Constant	1.920	0.392	3.449	0.775				0.014
Positive Parenting (Conforming)	0.919	0.848	0.990	0.036	0.874			< 0.001
Concern for Future (Conforming)	0.021	−0.022	0.064	0.022	0.047			0.331
Concern for Future (Nonconforming)	−0.043	−0.080	−0.005	0.019	−0.107			0.025

Positive parenting was collected using a Likert scale (1 = *Never* to 5 = *Always*); Attitudes Toward Homosexuality was collected using a Likert scale (1 = *Totally Disagree* to 5 = *Totally Agree*); Need for Closure was collected using a Likert scale (1 = *Not at all characteristic of me* to 5 = *Entirely characteristic of me*); Concern for Future was collected using a Likert scale (1 = *Not at all* to 5 = *Very worried*). Parenting endorsements in boldface reached traditional statistical significance and remained statistically significant following a Benjamini–Hochberg *p*-value correction to protect against type I error

CI = confidence interval, *LL* = lower limit, *UL* = upper limit.

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

in their association with physical discipline for the gender nonconforming boy (covarying for endorsement of physical discipline for the gender conforming boy and concern for the gender conforming boy's future). For positive parenting, when all three explanatory variables were included in a regression, along with covarying for positive parenting endorsement of and concern for the gender conforming boy, only need for closure remained statistically significant ($\beta = 0.089$, $p = 0.008$).

Demographic Analyses

To ensure variability was not better explained by demographic characteristics, we examined whether these characteristics were associated with the dependent variables. Among the demographic covariates we considered, only age and relationship status were statistically significantly related to physical discipline. None of the demographic covariates were statistically significantly related to positive parenting. Age was negatively correlated with physical discipline endorsement for both the gender conforming ($r(199) = -0.204$, $p = 0.004$) and gender nonconforming boy ($r(199) = -0.178$, $p = 0.011$), such that the older participants were the less physical discipline they endorsed for both children. Further, relationship status was associated with physical discipline endorsements for the gender conforming boy only, such that those in relationships (compared to those who reported

that they were single) endorsed lower physical discipline ($r(199) = -0.159$, $p = 0.024$). When age and relationship status were included as covariates in the regression models with physical discipline, both attitudes toward homosexuality ($\beta = 0.09$, $p = 0.005$) and concern for the boy's future ($\beta = 0.20$, $p < 0.001$) remained statistically significant in explaining variance in physical discipline endorsements.

Discussion

Gender nonconforming boys face a multitude of risks throughout their lifetime, and these risks are only exacerbated by negative parental relationships (Alanko et al., 2008). While a more negative parent–child relationship has been linked to a higher risk for poorer psychological outcomes for gender nonconforming children, positive parent–child relationships can also buffer later negative outcomes such as psychopathology for such children (Alanko et al., 2008). The purpose of the current study was to investigate three possible explanatory variables that may explain differences in parenting received by gender nonconforming vs. conforming boys. In a sample of 201 adults asked to endorse specific parenting behaviors following vignettes in which boys with differing gender conformity were presented, our most notable findings were that negative attitudes toward homosexuality and greater concern for the future of the gender nonconforming boy were associated with greater endorsements of physical discipline for the gender nonconforming boy over and above endorsements of physical discipline for the gender conforming boy. Contrary to our hypothesis, we did not find differences in endorsements for physical discipline and positive parenting when participants were asked about the gender conforming and nonconforming boy. These findings may suggest that responses to a specific child's gender expression may explain less variance than other relevant factors (e.g., beliefs about parenting practices); however, the analogue design may be less capable of detecting potential child effects on caregiving behaviors given the artificial nature of the task and the structure in which all participants reported on parenting behaviors for each child back-to-back.

Consistent with prior work linking those with negative attitudes toward homosexuality to higher aggression toward gay men (Bernat et al., 2001), we found that variation in attitudes toward homosexuality was associated with prescribed parenting practices. These findings may be explained by the perceived link between gender nonconformity in childhood and later sexual orientation in adulthood (Bailey & Zucker, 1995; Li et al., 2017). Additionally, previous work as shown that those who hold more negative attitudes toward homosexuality also tend to demonstrate greater stereotyping by sex when compared to those who do not hold negative attitudes (Dunbar et al., 1973). While generally those higher in negative attitudes endorsed greater use of physical discipline for both children, this individual difference measure was associated with even greater physical discipline endorsed for the gender nonconforming boy. While our study participants were responding to vignettes, these results may explain in part why more physical abuse from family members is found in gender nonconforming children relative to gender conforming children (Roberts et al., 2012). Lastly, it is important to note that attitudes toward homosexuality was associated with greater physical discipline for both the gender conforming and gender nonconforming boy. This may be because people who hold more negative views toward homosexuality tend to have heightened feelings of masculinity threat (Parrott et al., 2002) and lowered ratings of empathic concern (Johnson et al., 1997), which may result in a general pattern of more punitive parenting approaches, in addition to specifically more negative parenting toward gender nonconforming boys.

We found no evidence supporting our hypothesis that a greater need for closure would be associated with higher physical discipline for the gender nonconforming boy. In fact, our study indicates that need for closure was associated with greater endorsements of positive parenting practices for this child. While this is not consistent with our expectation or the study by Burke et al. (2017), more recent evidence has questioned whether need for closure is associated with negative attitudes toward sexual minorities (Toews, 2020). Further, previous research has found that people high in need for closure held strong in-group bias (De Zavala et al., 2010) and identified more strongly with in-group members (Shah et al., 1998). If the children are viewed as members of the participants' in-group, the high need for closure may have led to acceptance rather than rejection.

The third potential explanatory variable that we examined was concern for the child's future (i.e., in renting a house/apartment, finding a stable job, making friends, finding romantic partners, being physically and mentally healthy) and whether it was linked to differential endorsements of parenting practices for the gender conforming vs. nonconforming boy. Prior experimental work suggests the possibility that friendships, at least in childhood, are influenced by gendered behavior (Zucker et al., 1995). Specifically, stories describing more masculine boys received more favorable friendship ratings by school-age boys relative to stories describing more feminine boys. Consistent with our hypothesis, we found that greater reported concern for the gender nonconforming boy's future was associated with greater endorsements of physical discipline as well as lower endorsements of positive parenting behavior for the gender nonconforming boy. Notably, these associations were evidenced even after accounting for concern for the gender conforming boy's future and endorsed

parenting practices for that child. This finding is particularly notable as it provides a new perspective for understanding potential parent–child dynamics that may confer risk for negative mental health outcomes among gender nonconforming boys.

Parents may believe that their interactions with their children can result in changes in their child's sexual orientation or gender identity (Kane, 2006; Martin, 2009). In turn, if parents are concerned about the potential risks of more negative life outcomes related to gender nonconformity, then different parenting practices may be applied for gender conforming vs. nonconforming boys. Of course, such concern would not justify more negative and less positive parenting practices. However, it provides insight into the potential motivations for harsher caregiver interactions (e.g., potential efforts to protect their child from discrimination, prejudice, and violence). In concert with this idea, previous research has shown that parental attempts to change their child's gender nonconformity may include punishment (D'Augelli et al., 2006). Clinicians working with families with a gender nonconforming child may benefit from probing concern for their child's future as a way to better understand the motivations. This can be done in line with current best practice guidelines that encourage the clinician to aid in fostering more positive family dynamics, when appropriate, and emphasize the importance of helping family members explore their feelings regarding the gender nonconforming child (American Psychological Association, 2015) as well as work to shift the concern to more productive matters (e.g., that the child experiences nurturance and support from their parents). Additionally, the association between both attitudes toward homosexuality and concern for the boy's future with both higher physical discipline and lower positive parenting, for all children, may be helpful for clinicians to identify those at greater risk for negative parenting relationships or abuse.

There are some limitations of this study that should be noted. First, with regard to our sample. Participants were asked to endorse parenting behaviors for children that were not their own. Participants may have chosen to endorse a parenting style that they would not implement with their own child. Additionally, our sample was restricted to cisgender and heterosexual adults, removing variation in adult participants. Future work would be strengthened by including a larger variation in adult gender and sexual orientation to be able to investigate how these demographic characteristics may influence potential beliefs or behaviors with regard to parenting gender nonconforming children. Lastly, although we had a wide range of participant age and socioeconomic status, a majority identified as White and had high levels of education. Exploring potential demographic moderators, including sex differences, of these findings represents an important future direction given cultural differences in discrimination and prejudice (Fiske, 2000) as well as gender role expectations (Blackstone, 2003).

With regard to our methodology, the Concern for Future scale included only broad statements meant to address possible discrimination. Future work investigating this construct may benefit from separating physical and mental health issues as well as addressing more specifically future well-being. Also, we restricted our study to boys, given prior findings, indicating that this group may be particularly vulnerable (Coyle et al., 2016; Skidmore et al., 2006). We additionally restricted our study to focus on physical discipline and positive parenting to address risk for maltreatment. Future research should investigate whether these patterns of explanatory variables would be found with gender nonconforming girls as well as in other aspects of parenting. Last, consistent with prior research (Thomas & Blakemore, 2013), the vignettes used in this study focused on a gender conforming boy or a gender nonconforming boy without specifying whether the boy was cisgender or transgender. This approach is also consistent with prior research that has documented negative parental attitudes toward gender nonconformity in cisgender boys (Kane, 2006; Roberts et al., 2012) as well as transgender boys (Grossman et al., 2011). However, we also recognize that transgender children have unique experiences compared to cisgender gender nonconforming children (Broussard & Warner, 2019). As such, it will be important for future research to examine whether parenting behaviors differ as a function of both whether a child is gender conforming or gender nonconforming and whether a child is cisgender or transgender.

Despite these limitations, these findings indicate that attitudes toward homosexuality, need for closure, and concern for the future of the child all impact how people may choose to parent a gender nonconforming child, even after accounting for how they endorse parenting a gender conforming child. This experimental work may be helpful for guiding intervention efforts designed to support the parent–child relationship for boys who are gender nonconforming. Specifically, in addition to attitudes toward homosexuality, parents' reported concern for their child's future may be a promising target for intervention.

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Availability of Data and Materials Data available through the Open Science Framework (https://osf.io/8ak3n/).

Code Availability Code syntax available through the Open Science Framework (https://osf.io/8ak3n/).

Declarations

Conflict of interest The authors declare that they have no potential conflicts of interest with regard to this article.

Ethical Approval and Informed Consent Ethical review and approval was obtained from the Vanderbilt University Institutional Review Board (No: 191157). Informed consent was obtained from all participants.

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