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Familial Attitudes and Behaviors as Predictors of Transgenderism

Angela Dawn Cockrell
adcockrell91@gmail.com

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FAMILIAL ATTITUDES AND BEHAVIORS AS PREDICTORS OF TRANSGENDERISM

A thesis submitted to
the Graduate College of
Marshall University
In partial fulfillment of
the requirements for the degree of
Master of Arts
in
General Psychology
by
Angela Dawn Cockrell
Approved by
Dr. Keith W. Beard, PsyD, Committee Chairperson
Dr. Sandra S. Stroebel, PhD
Dr. Ray V. Haning, MD, MA

Marshall University
May 2017
APPROVAL OF THESIS

We, the faculty supervising the work of Angela Dawn Cockrell, affirm that the thesis, *Familial Attitudes and Behaviors as Potential Predictors of Transgenderism*, meets the high academic standards for original scholarship and creative work established by the Master of Arts program and the Department of Psychology. This work also conforms to the editorial standards of our discipline and the Graduate College of Marshall University. With our signatures, we approve the manuscript for publication.

Dr. Keith W. Beard, Department of Psychology   Committee Chairperson   Date

Dr. Sandra S. Stroebel, Department of Psychology   Committee Member   Date

Dr. Ray V. Haning, Department of Psychology   Committee Member   Date
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ABSTRACT

Anonymous, retrospective data from 32 transgender and 3,337 cis-gender control participants were analyzed via logistic regression to examine the potential roles of parental attitudes and behaviors as well as familial status in the etiological chain leading to transgenderism. It was hypothesized that transgenderism may be predicted by negative parental attitudes toward sex and a lack of reciprocal parent-child nudity. Results indicated that transgenderism may be predicted by negative paternal attitudes toward sex, decreased maternal-child nudity, and absent fathers.
CHAPTER 1
INTRODUCTION

For most of history, gender has been viewed as a dichotomous concept, with “male” and “female” being established at birth based on the configuration of the external genitalia. Beginning in the twentieth century, on occasions when the genitalia were ambiguous, a medical decision as to what sex to assign was made based on the configuration of the internal genital tract, the chromosomal findings, and the practicality of modifying the ambiguous external genitals to conform to a male or female configuration (Hughes, Houk, Ahmed, & Lee, 2006). This decision was considered urgent, as medical professionals sought to minimize psychological impacts that could arise from potentially inaccurate sex assignment (Newman, Randolph, & Anderson, 1991). Despite this perceived urgency, however, there have been questions raised about the necessity, ethicality, and consequences of such early interventions (Diamond, 1999), although there do not appear to be any obvious efforts to alter these current practices (Creighton, Michala, Mushtaq, & Yaron, 2014).

Shift in Views of Gender

Beginning in the latter part of the twentieth century and increasingly in the twenty-first century, there has been a gradual shift toward viewing gender not as an either/or phenomenon, but as a spectrum (Collins, Chafetz, Blumberg, Coltrane, & Turner, 1993). While the traditional concepts of male and female would now sit at opposite ends of the gender spectrum, the idea that there are a vast number of possibilities in between the two is steadily increasing in popularity. In the twenty-first century, we are rapidly becoming familiar with such terms as non-binary – which encompasses the idea
of a gender spectrum as opposed to solely male or female genders – gender fluidity – where an individual moves between viewing themselves as male, female, and/or anywhere in between – genderless – in which an individual does not identify with any gender – and cis-gender – used to described an individual whose biological sex and gender identity are in congruence (Richards, Bouman, Seal, Barker, Nieder, & T’Sjoen, 2016). The primary term we will focus on in the present paper, however, is transgender, which describes an individual whose gender identity does not match their biological sex or their birth sex (Laframboise, 2002). The concept of gender identity – that is, a person’s perception of themselves as a male or female individual – has been around for over half a century (Stoller, 1964).

**Terminology**

Given the vast array of terms referencing gender and its various components, particularly those referencing newer concepts, it is easy to confuse one term with another. Sex and gender, for instance, are the most frequently misused terms. The two terms are often used interchangeably, when in reality they have very different definitions: “sex” refers to the anatomical configuration of an individual’s genitals and internal genital tract at birth, whereas “gender” refers to an individual’s perception of where they fall on the aforementioned gender spectrum (Laframboise, 2002). The terms “transvestite” – a person who dresses in apparel typical of the opposite sex – and transsexual – a transgender individual who seeks medical intervention to transition to their desired or “true” gender – are often mistakenly used interchangeably with “transgender” as well (Laframboise, 2002). It is also easy to confuse the concepts of gender and gender identity with sexual orientation, which refers to an individual’s preference for sexual partners
This is a particularly interesting concept when it comes to individuals with non-traditional gender identities; a biological male who identifies as female – that is, someone who is male-to-female transgender – who is attracted to men, for example, would likely consider herself to be heterosexual (Nieder, et al., 2011). Additionally, someone who identifies as non-gender or gender fluid who is attracted to men may have an ever-changing view of their sexual orientation, or may prefer not to qualify it at all.

Interestingly, it has been noted that transgender individuals tend to identify more often with plurisexual identities – bisexual, pansexual, queer – as opposed to any of the monosexual orientations – lesbian, gay, straight (Galupo, Mitchell, & Davis, 2015), with the most common identification label among female-to-male transgender individuals being “queer” (Meier, Pardo, Labuski, & Babcock, 2013). Notably, partners of transgender individuals generally do not appear to question their sexual orientations based on their partner’s biological sex. Cisgender women whose partners identified as female-to-male transgender, for instance, still viewed themselves as heterosexual despite their partner’s assigned sex at birth, viewing them instead by their masculine gender expression and identity (Theron & Collier, 2013).

LITERATURE REVIEW

Developmentally, it has been claimed that most children master the concept of gender constancy (the concept that they are either a boy or a girl and that it is not subject to change) by the age of four. It has been proposed that individuals who do not master the concept of gender constancy by the age of four are at risk for having a lifelong gender identity disorder (Kohlberg, 1966). This dissatisfaction with one’s biological sex
experienced by transgender individuals was originally termed “gender dysphoria” (Fiske, 1973).

**Gender Identity Disorder**

Clinically, transgender individuals have been described as having gender identity disorder. Much of the existing research cited presently utilized the diagnostic criteria for gender identity disorder from the previous version of the *Diagnostic and Statistical Manual*; therefore, it is this definition that will be referenced henceforth. According to the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.; DSM-IV-TR; American Psychiatric Association, 2000, pp. 581-582), adolescents and adults with gender identity disorder (GID) displayed

…a marked incongruence between [their] experienced/expressed gender and assigned gender, of at least six months’ duration as manifested by two or more of the following indicators:

A. A marked incongruence between one’s experienced/expressed gender and primary and/or secondary sex characteristics (or, in young adolescents, the anticipated secondary sex characteristics).

B. A strong desire to be rid of one’s primary and/or secondary sex characteristics because of a marked incongruence with one’s experienced/expressed gender (or, in young adolescents, a desire to prevent the development of the anticipated secondary sex characteristics).

C. A strong desire for the primary and/or secondary sex characteristics of the other gender.

D. A strong desire to be of the other gender (or some alternative gender different from one’s assigned gender).

E. A strong desire to be treated as the other gender (or some alternative gender different from one’s assigned gender).

F. A strong conviction that one has the typical feelings and reactions of the other gender (or some alternative gender difference from one’s assigned gender).

Unfortunately, the potential causes or early indicators of transgenderism have not been extensively studied, so the empirical information available to us is disappointingly limited. One of the primary themes that has been uncovered, however, is the putative Fraternal Birth Order Effect, which has purported to show that “homosexual
transsexuals” – a phrase the authors used to refer to male-to-female transgender individuals who reported being sexually attracted to biological males – tend to have a later birth order (Poasa, Blanchard, & Zucker, 2004; Zucker & Blanchard, 2003) and a higher ratio of brothers to sisters (Blanchard, Zucker, Bradley, & Hume, 1995; Zucker, Blanchard, Kim, Pae, & Lee, 2007), but it is still unknown if these findings are generalizable, and it is unclear how such an effect would be mediated if it does exist.

Interestingly, handedness has also been associated with transgenderism, primarily in boys diagnosed with gender identity disorder – left-handedness in particular. In a study by Zucker et al. (2001), boys with a gender identity disorder diagnosis were significantly more likely to be left-handed than clinical control boys, and they had a significantly higher rate of left-handedness when compared to three independent general population studies of boys who had not been referred for any preexisting issues (Laluriére, Blanchard, & Zucker, 2000; Zucker, Beaulieu, Bradley, Grimshaw, & Wilcox, 2001). There has been a politically-driven effort to obtain better treatment of gay and transsexual individuals by finding evidence to support the idea that these phenomena are genetically determined (Brookey, 2001, 2002; as enunciated by Greenberg & Bailey, 1993). Both birth order and handedness have been used as a means by which to support the biological basis of such phenomena (e.g., Blanchard, et al., 1995; Lalurniere, et al., 2000; Poasa, et al., 2004; Zucker, et al., 2001; Zucker & Blanchard, 2003; Zucker, et al., 2007).

**Genetic Influences**

**Receptor Genes**

Genetics, twin studies, and brain structure have also been investigated in attempts to better understand transgenderism, with promising results. One study found that male-
to-female transgender participants, when compared with cis-gender male participants, were more likely to have longer repetitions of a particular receptor gene, NR3C4. This receptor gene is activated by the binding of testosterone and aids in the formation of primary and secondary male sex characteristics. The authors claim that a reduction in androgen signaling – and, therefore, a reduction in androgen itself – may contribute to gender dysphoria in male-to-female transgender individuals; that is, lower testosterone levels in the brain during critical developmental periods may hinder the brain’s masculinization and therefore contribute to a tendency to identify as female (Hare, et al., 2009).

Another study found that a variation of the CYP17 gene, which is related to sex steroid metabolism, could be related to female-to-male transgenderism. The results indicated that female-to-male transgender participants not only had a higher frequency of possessing the variant genotype, but also had allele distributions that mirrored the cis-gender male participants (Bentz, Hefler, Kaufmann, Huber, Kolbus, & Tempfer, 2008). This finding ultimately led the authors to suggest that “the CYP17 T-34C SNP is at best a high-frequency, low-penetrance susceptibility marker of female-to-male [transgenderism]” (Bentz, et al., 2008, p. 59).

In both of the aforementioned studies, however, it is important to note that the authors make no distinction between participants who were intersex, those with preexisting genital abnormalities, and those who identified as transgender. In fact, no reference to the anatomical structure of the participants’ genitalia at birth was ever mentioned in either paper. Additionally, the NR3C4 receptor gene discussed by Hare et al. (2009) and the CYP17 mutation discussed by Bentz et al. (2008) are known to
produce intersex conditions (Gagliardi, Scott, Feng, & Torpy, 2014), which makes it highly probable that the authors of both articles intermixed intersex individuals and those with preexisting abnormalities with individuals who had no preexisting abnormalities but identified as transgender.

**Twin Studies**

Genetic factors influencing transgenderism have been further investigated by twin studies. A recent study sought to include monozygotic (identical) and dizygotic (non-identical) twin pairs wherein one or both twins had either already sought or were planning to seek medical assistance for gender transition. Results indicated that in approximately one-third of the monozygotic twin participants, both twins identified as transgender. Of the dizygotic twin participants, however, there was only one pair of twins (2.6%) wherein both individuals identified as transgender. The authors interpreted these results as further supportive evidence of a genetic component for transgenderism (Diamond, 2013).

It is imperative to note, however, that the aforementioned study made no mention of the environment in which the participants were raised in regard to parent-child nudity, which is a factor considered in the present study. Additionally, some of the twin pairs in the aforementioned study were raised apart, with only one of those twin pairs being separated at birth and the others being separated at later ages. Because of this delay in separation, it is possible that potential environmental factors, such reciprocal parent-child nudity, could have been present before the separation (or after, if similar factors were present in both rearing environments) and thus may have influenced the participants’ later identification as transgender.
Brain Structure

Of the presently published studies concerning biological and genetic influences on gender identity and transgenderism, the most extensively researched component appears to be brain structure. In 1995, the first study investigating a potential relationship between brain structure and transgenderism was published. Groundbreaking results indicated that the size of the bed nucleus of the stria terminalis, a region of the brain associated with sex and anxiety responses, may be correlated with identification as transgender (Zhou, Hofman, Gooren, & Swaab, 1995). In male-to-female transgender participants, the bed nucleus of the stria terminalis was sized equivalently to cis-gender females, whereas in female-to-male transgender participants, the same region was sized concordantly with cis-gender males (Zhou, et al., 1995).

A follow up study published five years later sought to investigate the number of neurons in the bed nucleus of the stria terminalis, as opposed to its actual volume, and found similar results (Kruijver, Zhou, Pool, Hofman, Gooren, & Swaab, 2000); however, a subsequent follow up study found that the aforementioned differences did not manifest until adulthood (Chung, De Vries, & Swaab, 2002). The aforementioned results were also mirrored in a later study concerning the interstitial nucleus of the anterior hypothalamus; this area in male-to-female transgender participants had a volume consistent with cisgender females, whereas in female-to-male transgender participants, the volume of this area reflected that of cis-gender males (Garcia-Falgueras & Swaab, 2008). Additionally, one study’s results indicated that female-to-male transgender participants’ brains displayed white matter patterns reminiscent of cis-gender males, as opposed to cis-gender females (Rametti, et al., 2011).
Brain Function

Sexual Orientation

Brain function and sexual orientation have also been studied in reference to gender identity, often in conjunction with each other. Given the greater exposure and education concerning gender identity and in an effort to move away from the traditional binary concept of gender, two new terms are frequently used in these studies in lieu of “homosexual” and “heterosexual:” androphillic and gynephillic. Androphilia refers to a sexual attraction to men or masculinity, whereas gynephilia refers to a sexual attraction to females or femininity; “ambiphilia” is also often used in lieu of “bisexual” to refer to a sexual attraction to both men/masculinity and females/femininity (Schmidt, 2010). One study examined gynephillic female-to-male transgender individuals in comparison to androphillic cis-gender females and found that the transgender participants exhibited blood flow differences in two area of the brain associated with sexual arousal; there was decreased blood flow to the left anterior cingulate cortex and increased blood flow to the right insula (Nawata, et al., 2010).

Phantom Limb Syndrome

Interestingly, transgender individuals have also reported experiencing phantom limb syndrome; that is, the sensation (often pain) of a limb that is not actually there, often experienced by amputees. While this is unsurprising when experienced by male-to-female transgender individuals who have undergone genital reassignment surgery or penal removal, it is interesting to note that in one study, approximately two-thirds of the female-to-male participants reported experiencing the sensation of a “phantom” penis, including phantom erections (Ramachandran, 2008).
**Prenatal Adrenal Exposure**

Prenatal adrenal exposure, including congenital adrenal hyperplasia, has also been associated with transgenderism. One study found that a particular marker for prenatal adrenal exposure, finger length (digit) ratios, may be correlated with identification as transgender; male-to-female transgender individuals had a higher digit ratio than cis-gender males, but one that was consistent with that of cis-gender females (Schneider, Pickel, & Stalla, 2006). Another study investigated biological females with congenital adrenal hyperplasia, a condition that involves overexposure to prenatal androgens resulting in masculinization of primary and secondary sex characteristics and is often “treated” with highly criticized prenatal hormones (Dreger, Feder, & Tamar-Mattis, 2012) and postnatal surgery (Clayton, Miller, Oberfield, Sharon, Ritzén, Sippell, & Speiser, 2002).

**Psychological Theories**

**Ray Blanchard**

Aside from proposed genetic and biological theories for transgenderism, Ray Blanchard’s (1989) psychological theory has garnered the most renown, support, and criticism. Blanchard theorizes that male-to-female transgender individuals have one of two potential motivations for transitioning. First, he attests that “homosexual transsexuals” - a controversial phrase he uses to refer to androphillic transgender women – seek to transition in order to attract male mates. His second proposed motivation is that they are “non-homosexual transsexuals” - gynephillic transgender women – who are sexually aroused by thoughts of themselves as women (Blanchard, 1989).

Naturally, Blanchard’s theory has received a wide variety of responses from both
the scientific and transgender communities. Some, such as Michael Bailey, have offered Blanchard and his theory their full support (Bailey, 2003). Others, however, have responded with staunch criticism, primarily concerning either the “evidence” Blanchard provides to support his theory, his use of the phrases “homosexual transsexuals” and “non-homosexual transsexuals,” or both (Leiblum & Rosen, 2000; Moser, 2010; Nuttbrock, et al., 2010; Wahng, 2004). His methodology has been described as being heavily flawed, with critics claiming his experiments were poorly controlled and his results contradicted by subsequent and preexisting data (Moser, 2010; Nuttbrock, et al., 2010). His terminology has also been described as archaic (Wahng, 2004) and demeaning (Leiblum & Rosen, 2000), both by those in the scientific community and otherwise. Blanchard has also been openly criticized most famously by Julia Serano (2010) – a renowned biochemist, transgender activist, and male-to-female transgender individual – for assuming that correlation implies causation, as well as for “hand-picking which evidence counts and which does not based upon how well it conforms to the model” (Serano, 2010, p. 181). Blanchard and his theory have also been heavily criticized and rejected by the World Professional Association for Transgender Health for lacking empirical evidence (Gijs & Carroll, 2011) and for “stigmatizing behavior instead of focusing on treating distress” (Knudson, De Cuypere, & Bockting, 2011).

**John Money**

A number of other theories have been proposed as well, although they appear to have garnered less criticism and renown than Blanchard’s. Of these, John Money (of the well-known “John/Joan” or David Reimer case) is likely the most notable. Focusing less on actual predictors of transgenderism and more on what “gender” actually

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encompasses, Money was one of the first to encourage an expansion on the idea of gender. He attested that gender is a broad concept, including (but not limited to) such factors as one’s sexuality, mannerisms, and interests (Money, Hampson, & Hampson, 1955). In the well-publicized case of David Reimer, a biological male who received “gender reassignment” after a botched circumcision, Money exemplifies his belief that altering a child’s external genitalia and raising them as if they were of the opposite biological sex would help shape the child’s own sexual and gender identities (Money, 1957). Money has received harsh criticism regarding his decisions and beliefs, particularly after the suicide of Reimer later in life. It has been claimed that he had an ulterior motive from the beginning, seeing David Reimer and his twin brother as the perfect opportunity to test his theory (Diamond & Sigmundson, 1997). There have also been claims of pedophilia (Langevin & Reuben, 1985) and sexual exploitation in regards to the Reimer twins (Diamond & Sigmundson, 1997) under the guise of encouraging natural sexual exploration, as well as the ultimate claim that Money’s actions led both David and his brother to commit suicide (Kipnis & Diamond, 1998).

**Cauldwell and Benjamin**

Money, however, is not the only psychologist to believe that transgenderism has its roots in the manner by which children are reared; David Cauldwell and Harry Benjamin are two other psychology professionals who support such a theory, claiming that transgenderism is a psychological and emotional disorders caused by conflicts of personality, environmental factors, and preexisting psychological conditions (Benjamin, 1966; Cauldwell, 2001). These theories, however, have also been considered disproven by the failure of David Reimer’s sex reassignment surgery.
Societal Cues for Sex

The present study was designed to identify potential predictors and early indicators of transgenderism. Societies have a number of ways of signaling the sex of young children. In the United States since around 1940, pink blankets and clothes have signaled girls while blue ones have signaled boys (Paoletti, 2012). Within the twentieth and twenty-first centuries in the United States, long hair has signaled a girl while short hair has signaled a boy, and pants have signaled a boy while skirts have signaled a girl (Paoletti, 2012). This is clearly arbitrary for a number of reasons, including the inclusion of long hair in early European hairstyles for men as well as the kilts worn by the Scots. Since the latter parts of the twentieth and twenty-first centuries, however, women have increasingly taken to wearing trousers, with skirts often being reserved for more formal occasions. Women are increasingly enjoying the stylistic and comfort benefits of short hair, and some men wear long hair. Length of hair and color of clothing are signals that can be easily observed by a young child and they are potentially a source of confusion about gender constancy because each is completely arbitrary (Paoletti, 2012). Children are not informed of the distinctions made amongst professionals concerning gender and sex; therefore, a child ignorant of the fact that the differences in genitals are their societies’ one “true” criterion for sex could easily conclude that genders could be switched by changing one’s clothes, colors, and hair length.

Parental Involvement in Sexual Education

Additionally, in this study, parental involvement in the sexual education of their children and their education on the biological and physical differences between male and females was considered. There are a wide variety of forms that sexual education can take,
including such variables as what is covered, to what extent, and who (teachers, parents, etc.) are involved. It has been proposed that “children learn about sex [and, by extension, their developing bodies] the same way they learn about everything else – through words, actions, interactions, and relationships” (Chrisman & Couchenour, 2002, p. 3). Despite the wishes and intent of many parents to positively contribute to their child’s sexual education (Koblinsky & Atkinson, 1982), many experience concern and confusion related to when such education should occur, society’s influence on sexual education, how comfortable they feel with educating their own children while abstaining from educating others’ children, gender issues, and a desire to provide their children with better sexual education than their parents provided to them (Geasley, Dannison, & Edlund, 1995).

Unfortunately, both parents and educators often respond in a less than optimal fashion (although this is often unintentional) when presented with opportunities and situations that could be used to further educate children on sexuality and their developing bodies. One study, for instance, reported that educators who witnessed children behaving in ways they considered sexual typically did not respond in a “meaningful, relevant” manner (Ryan, 2000). The author addressed this issue by citing adults’ own discomfort with the topic, the unfortunate prevalence of sexual abuse among children, and general stigma associated with sexuality (Essa & Murray, 1999; Sciaraffa & Randolph, 2011). Furthermore, adults run the risk of imposing their own beliefs on children and thereby hindering normal development and interest (Blaise, 2009), as well as confusing natural childhood curiosity and healthy sexual development with sexual activities on an adult level (Sciaraffa & Randolph, 2011).

**Research Questions**
The following hypotheses were proposed to direct our statistical analysis of the available data. (1) Children whose parents were so inhibited about talking about sex organs/sexuality that they did not discuss their views with their children would be more likely to identify as transgender in adulthood. (2) Children whose parents kept them in the dark about the differences between male and female genitals by never allowing their children to see their parents nude would increase the likelihood that their children would identify as transgender in adulthood. (3) Birth order and sexual orientation will show no significant relation to identification as transgender in adulthood.

These hypotheses were formulated based on previous research illustrating parental discomfort with the sexual education of their children and frequent mishandling and misunderstanding of normal and healthy childhood development and exploration, and the potential developmental hindrances that may be associated with such views and responses. Birth order and sexual orientation, although not predicted to be significant, were analyzed due to their mention in preexisting literature. Unfortunately, brain function and structure were unable to be considered in the present study, as they are factors that are outside of our scope of practice.
CHAPTER 2

METHOD

Participants

A total of 3,369 participants were included in the present study, 32 of whom identified as transgender with the remaining 3,337 identifying as cis-gender (Table 1). The median age was 21 years ($M = 25.2, SD = 10.2$, range: 18-86 years; Table 2). The participants were primarily undergraduate and graduate college students from six college campuses in the mid-Atlantic United States: 3.9% of the participants held only a high school diploma, 71.8% were or had been enrolled as a college student but did not hold a degree, 16.7% held a bachelor’s degree, 5.3% held a master’s degree, and 2.3% held a doctoral-level degree (Table 3). To increase diversity, university faculty and staff and individuals from the same general population who were not currently enrolled in school were also recruited. All individuals 18 years or older who were willing to participate in the study after being informed of the risks and benefits were included.

Measures

Surveys designed to obtain data on sexual histories and current behaviors were administered using the CASI program (S-SAPE1, © S-SAPE, LLC, 2002, P.O. Box 11081, Charleston, WV 25339; see Beard et al., 2015 for a description of the S-SAPE1 sexual behavior screen used to obtain detailed quantitative data about a variety of sexual behaviors). Computer-Assisted Self-Interview (CASI) program (S-SAPE1©S-SAPE, LLC.) items were reproduced by permission of S-SAPE, LLC, 2002, P.O. Box 11081, Charleston, WV 25339. The verbatim items appear in quotation marks within the body of
Prior to participation in the study, participants were fully informed about the multiple measures designed to ensure that the data they entered was totally anonymous. These protections included electronic randomized filing of the encrypted results in a hidden random access file filled with fake data, as well as simultaneous filing of many fake decoy lines. Items related to transgenderism were presented interspersed among similar items not related to transgenderism.

**Transgenderism**

One item was used to delineate the participants’ status related to transgenderism (Appendix C). For transgenderism in the study population as a whole, the variable was coded 0/1, where participants who reported having a genital anomaly or malformation at birth or who selected the first option (“The genital anatomy that I was born with matches the gender that I present to society”) were coded as 0 and participants who selected the third (“I changed to living as a male even though I was born with female genital anatomy”) or fourth option (“I changed to living as a female even though I was born with male genital anatomy”) were coded as 1. For female-to-male transgenderism, the variable was coded 0/1, where participants who selected the third option (“I changed to living as a male even though I was born with female genital anatomy”) were coded as 1 and all other responses were coded as 0. For male-to-female transgenderism, the variable was coded 0/1, where participants who selected the fourth option (“I changed to living as a female even though I was born with male genital anatomy”) were coded as 1 and all other responses were coded as 0.
Birth sex

The sex that participants entered as they began the study was checked against the information provided in the transgenderism items above. Whenever the birth sex indicated by the transgenderism items disagreed with that entered in the sex entry item, the birth sex was corrected to agree with that provided by the transgenderism items.

Family Nudity Scale

The family nudity scale was comprised of eight items assessing nudity, including family-approved parental nudity before/after the participant reached puberty as well as participant nudity in the presence of their parent(s) before/after reaching puberty (see Appendix). Each of these items elicited an agree/disagree response from the participant and was scored 1/0. Factor analysis of these eight items from the present dataset \((N = 3,369)\) with Varimax rotation indicated that the scale contained two subscales: a 4-item “Paternal Nudity Scale” \((\alpha = .830)\), which dealt solely with father-child nudity practices, and a 4-item “Maternal Nudity Scale” \((\alpha = .721)\), which dealt solely with mother-child nudity practices (Griffee, et al., 2014).

Content Validity

All items for the survey were reviewed and approved by four experts in the field at the doctoral level: a social worker trained in psychotherapy, a gynecologist trained in psychology, a psychologist, and a psychiatrist trained in psychotherapy.

Procedure

The current study was part of a larger study titled “Effects of Recalled Family Attitudes and Childhood Sexual Experiences on Adult Sexual Attitudes and Adjustment,” which was approved by all relevant institutional review boards (Marshall University,
Charleston Area Medical Center/West Virginia University, West Virginia University, West Virginia State University, and Concord University). All participants gave their informed consent and were over the age of 18. Surveys were administered in computer laboratories on university campuses, with up to 45 computers in the laboratories and sufficient space between the computers so that participants were unable to see the screens of computers other than their own. During a ten-minute orientation, participants were informed of the steps taken to ensure their anonymity, as well as on the nature of the study. No reference to parental attitude or behaviors, sexual orientation, or gender identity was made; however, participants were informed about the operation of the screen that presented the behavior and attitude items and sub-items, and they were reminded that they could withdraw from the study at any time. All 3,369 cases with data available for the transgender variable as well as the independent variables were selected from the database as participants in the present study and data analysis.
CHAPTER 3

RESULTS

Variables Associated with Transgenderism in the Study Population As a Whole

The first analysis examined only the variables associated with transgenderism in general. As shown in Table 1, there were only a total of 32 transgender individuals among the 3,369 total participants. This means that at most, logistic regression models based on all 3,369 cases can have no more than three predictors without raising the concern of over-fitting. Variables describing maternal and paternal attitudes toward sex, parental handling of disagreements, paternal affection, familial status, and the maternal and paternal nudity scales, were evaluated for predictive power (see Appendix C).

Table 1. Demographic Data for Participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percent of total population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total participants</td>
<td>3,369</td>
<td>100%</td>
</tr>
<tr>
<td>Male</td>
<td>1,207</td>
<td>35.8</td>
</tr>
<tr>
<td>Female</td>
<td>2,162</td>
<td>64.2</td>
</tr>
<tr>
<td>Degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School Diploma</td>
<td>164</td>
<td>4.9</td>
</tr>
<tr>
<td>Some undergraduate college education</td>
<td>2996</td>
<td>88.9</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>695</td>
<td>20.6</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>221</td>
<td>6.6</td>
</tr>
<tr>
<td>Doctoral-Level Degree</td>
<td>94</td>
<td>2.8</td>
</tr>
<tr>
<td>Transgender Participants</td>
<td>32</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Percent of birth sex

| Male to Female Transgender      | 19        | 1.6                        |
| Female to Male Transgender      | 13        | 0.6                        |

The maternal nudity scale, the family nudity scale, and a 0/1 dummy variable coding for fathers with negative attitudes toward sex who sought to impose that view on their child were significant at step 0. The 0/1 dummy variable coding for unmarried parents who did not live together before the participant reached 18 was marginally
significant at step 0 (Table 2). Correlation coefficients among these variables are presented in Table 3.

**Table 2. Step 0 Significant Variables for Transgenderism Among All Participants**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Score</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>“My father thought sex was dirty and filthy, and he did his best to teach this view to me.”</td>
<td>12.361</td>
<td>1</td>
<td>&lt;.001***</td>
</tr>
<tr>
<td>Maternal Nudity Scale</td>
<td>6.114</td>
<td>1</td>
<td>.013*</td>
</tr>
<tr>
<td>“My parents never married before I reached 18 and did not live together.”</td>
<td>3.902</td>
<td>1</td>
<td>.048*</td>
</tr>
<tr>
<td>Family Nudity Scale</td>
<td>3.849</td>
<td>1</td>
<td>.050</td>
</tr>
</tbody>
</table>

*Note.* = p < .05, ** = p < .01, *** = p < .001. N = 3,369

**Table 3. Correlation Coefficients for Most Powerful Predictors of Transgenderism**

<table>
<thead>
<tr>
<th>1 Identification as Transgender</th>
<th>2 &quot;My father thought sex was dirty and filthy, and he did his best to teach his view to me.&quot;</th>
<th>3 Maternal Nudity Scale</th>
<th>4 Family Nudity Scale</th>
<th>5 “My parents never married before I reached 18 and did not live together.”</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Identification as Transgender</td>
<td>1.061***</td>
<td>-0.043*</td>
<td>-0.034*</td>
<td>0.344*</td>
</tr>
<tr>
<td>2 &quot;My father thought sex was dirty and filthy, and he did his best to teach his view to me.”</td>
<td>0.061***</td>
<td>1.0</td>
<td>-0.026</td>
<td>-0.014</td>
</tr>
<tr>
<td>3 Maternal Nudity Scale</td>
<td>-0.043*</td>
<td>-0.028</td>
<td>1.086***</td>
<td>0.027</td>
</tr>
<tr>
<td>4 Family Nudity Scale</td>
<td>-0.034*</td>
<td>-0.026</td>
<td>0.896***</td>
<td>1.001</td>
</tr>
<tr>
<td>5 “My parents never married before I reached 18 and did not live together.”</td>
<td>0.034*</td>
<td>0.014</td>
<td>0.027</td>
<td>0.001</td>
</tr>
</tbody>
</table>

*Note.* = p < .05, ** = p < .01, *** = p < .001. N = 3,369

We considered only variables for inclusion in the model that were statistically significant predictors at step 0. We used a stepwise approach to construct the model, adding at each step the most powerful predictor not already in the model. Three variables describing parental marriage status and attitudes about sex made a statistically significant contribution to the probability of the identification of participants as transgender. Those three variables are described in the order of decreasing predictive power and the order in which they were added to the model by the stepwise approach (Table 4, Model #2): (1) Participants whose fathers thought sex was dirty and filthy and subsequently did their best to teach those views to the participant were approximately 4.5 times as likely to identify as transgender. (2) Participants whose parents never married (excluding
common-law marriages) before the participant reached 18 and who did not live together were nearly 2.9 times as likely to identify as transgender. (3) Participants with higher maternal nudity scale scores on the five-level scale were about 0.66 times more likely to identify as transgender for each 1-unit increase in the maternal nudity scale score over the minimum of zero. The score on the maternal nudity scale is the count of the total number of maternal-child nudity items that were scored as agree (the possible range of values was 0-4). The strong correlation between the family nudity and maternal nudity scales (Table 3) explains the family nudity scale’s absence in the final model, as maternal nudity was the stronger predictor. As a whole, Model #2 explained 5.0 percent (Nagelkerke $R^2$) of the variance in the identification of participants as transgender. None of the other variables remained statistically significant after the variables shown in Model #2 (Table 4) had been added to the model.

**Table 4. Logistic Regression Equations for Predicting Logit of Odds-Ratio for Transgenderism in Population Specified**

<table>
<thead>
<tr>
<th></th>
<th>$\beta$</th>
<th>S.E.</th>
<th>Wald</th>
<th>$p$</th>
<th>Exp($\beta$)</th>
</tr>
</thead>
</table>
| Model #1: Forced maternal nudity scale on all transgender participants  
$N_1 = 32$, Nagelkerke $R^2 = .022$ |         |      |      |       |              |
| Maternal Nudity Scale | -.416   | .177 | 5.551| .018* | .659         |
| Constant             | -4.309  | .201 | 458.228|      |              |
| Model #2: Logistic regression  
equation for all transgender participants  
$N_1 = 32$, Nagelkerke $R^2 = .050$ |         |      |      |       |              |
| “My father thought sex was dirty and filthy and he did his best to teach his view to me.” | 1.494   | .498 | 8.980| .003**| 4.453        |
| Maternal Nudity Scale | -.411   | .176 | 5.437| .020* | .663         |
| “My parents never married before I reached 18 and did not live together.” | 1.072   | .545 | 3.869| .049* | 2.921        |
| Constant             | -4.526  | .225 | 403.629|      |              |

*Note.  $= p < .05$,  **$p < .01$,  ***$p < .001$.  $N = 3,369$
Birth Order As a Predictor of Transgenderism

Forced regressions analyzing birth order as a predictor of transgenderism were conducted on the transgender variable in order to determine any potentially predictive effects of birth order (Data not shown). For all four birth order variables (number of younger sisters, number of younger brothers, number of older sisters, and number of older brothers) and all three data sets (transgenderism in general, male-to-female transgenderism, and female-to-male transgenderism), none of the birth order variables were statistically significant at step 0, indicating a lack of predictive power (Data not shown).

Sexual Orientation in Transgender Participants

Comparison between the 19 male-to-female transgender participants and the 1,188 controls for sexual orientation scale scores in the cis-gender males showed that the 19 male-to-female transgender participants had significantly higher scores on the Male Sexual Orientation Scale (MSOS) and significantly lower scores on the Female Sexual Orientation Scale (FSOS) than the controls (Table 5). Frequency distributions and histograms showed a bimodal distribution of the MSOS with peaks at 0 and 8. Frequency distributions and histograms showed a bimodal distribution of the FSOS with peaks at 0 and 8. These findings are consistent with Blanchard’s (1989) theories because the bimodal distributions in the MSOS and FSOS scores indicate that there are at least two different types of male-to-female transgender individuals: those with high scores on the MSOS and those with low scores. Similarly, there are at least two different types of male-to-female transgender individuals: those with high scores on the FSOS and those with low scores. Scatterplots and correlation analysis showed that in the male-to-female
transgender participants there was no significant correlation between the MSOS and the
FSOS \((r = 0.064, p = ns, n = 19)\). Specifically, some cases had high scores on the MSOS
with low scores on the FSOS, some had low scores on the MSOS and high scores on the
FSOS, but there were no scores with intermediate values on both scales and enough had
low scores on both scales to render the correlation coefficient insignificant when all 19
cases were included in the analysis.

**Table 5. Comparison Between 19 Male-to-Female Transgender Participants and
1,188 Controls for Sexual Orientation Scale Scores**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male-to-Female Transgender Participants</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(M \pm SD)</td>
<td>(Mdn)</td>
</tr>
<tr>
<td>MSOS</td>
<td>2.6±3.6</td>
<td>0</td>
</tr>
<tr>
<td>FSOS</td>
<td>2.7±3.8</td>
<td>1</td>
</tr>
<tr>
<td>Age (years)</td>
<td>32.4±20.2</td>
<td>22</td>
</tr>
</tbody>
</table>

Note. Probability calculated from the non-parametric Mann-Whitney U test because of
significant heterogeneity present in the untransformed data.

Comparison between 13 female-to-male transgender participants and 2,149
controls for sexual orientation scale scores in the cis-gender females showed that the 13
female-to-male transgender participants had significantly lower scores on the MSOS and
significantly higher scores on the FSOS than the controls (Table 6). Frequency
distributions and histograms showed a tri-modal distribution of the MSOS with peaks at
0, 4, and 7. Frequency distributions and histograms showed a tri-modal distribution of the
FSOS with peaks at 0, 7, and 10. Scatterplots and correlation analysis showed that in the
female-to-male transgender participants, there was a significant negative correlation
between the MSOS and the FSOS \((r = -0.821, p = .001, n = 13)\). Specifically, some cases
had high scores on the MSOS with low scores on the FSOS, some had low scores on the
MSOS and high scores on the FSOS, there was one case with intermediate values on both
scales and none had low scores on both scales. This distribution rendered the correlation coefficient highly significant when all 13 cases were included in the analysis.

**Table 6. Comparison Between 13 Female-to-Male Transgender Participants and 2,149 Controls for Sexual Orientation Scale Scores**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Female-to-Male Transgender Participants</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M\pm SD$</td>
<td>$Mdn$</td>
</tr>
<tr>
<td>MSOS</td>
<td>3.2±2.9</td>
<td>3</td>
</tr>
<tr>
<td>FSOS</td>
<td>5.2±4.1</td>
<td>6</td>
</tr>
<tr>
<td>Age (years)</td>
<td>20.2±1.6</td>
<td>20</td>
</tr>
</tbody>
</table>

*Note. Probability calculated from the non-parametric Mann-Whitney U test because of significant heterogeneity present in the untransformed data.*
CHAPTER 4

DISCUSSION

Implications

To my knowledge this is the first systematic study focused on familial attitudes and behaviors as predictors of transgenderism. The results demonstrated that, as predicted by the hypothesis, reciprocal parent-child nudity was a significant predictor of transgenderism in the study population as a whole (Table 2). By also looking at parental attitudes about sex and the interactions between the children’s parents, we were able to identify additional risk factors for transgenderism that would likely have had their impact through other mechanisms that depended on the increasingly more sophisticated cognitive skills of maturing children.

Transgenderism in the population of participants as a whole was predicted most powerfully by paternal figures with highly negative attitudes toward sex and who did their best to instill those same views in their children. Having fathers who have blatantly negative views concerning sex and who make significant attempts to teach those views to their child(ren) may inadvertently lead to gender discontent in those offspring, which could manifest as gender identity disorder in children and later as transgender identification as an adult. Participants whose parents never married were also more likely to identify as transgender, and participants who saw their mothers naked and who were permitted to be naked in the presence of their mothers more often when they were children were less likely to identify as transgender.

These results were consistent with the initial hypothesis that a lack of parental nudity as a model for the genital anatomy of “boys” and “girls” would predict a greater
likelihood of identification as transgender as an adult. Seeing their mother nude as children may have acted, at least in part, as a means by which participants modeled their ideas of what “makes a boy a boy” and what “makes a girl a girl.” Male participants (the largest number of transgender participants) who saw their mother nude more often when they were children may be less likely to identify as transgender in adulthood because they had concrete information about the “true” criteria for distinguishing a “boy” from a “girl.” Participants who were raised in single-parent households may likely have lacked a stable male parental model for an example of male genital anatomy. This lack of a model of male genital anatomy would have been critically important for female children, whose genital anatomy would have been similar to that of their mother.

Transgenderism in the population as a whole (Table 2) was significantly predicted by fathers who held highly negative views about sex and who tried to persuade their children to similar ways of thinking. It was the most powerful predictor in Table 2 and Table 4 and Model #2. However, it is appropriate to point out that both predictors were previously shown to predict an increased likelihood of having a same-sex orientation (Beard et al., 2015).

Because birth order has been previously reported as a predictor of transgenderism (Blanchard, et al., 1995; Poasa, et al., 2004; Zucker & Blanchard, 2003; Zucker, et al., 2007), we analyzed variables describing birth order as potential predictors in a separate analysis. Because no significant predictive relationship was found, it was clear that birth order did not serve a role as a predictor of transgenderism in our study population, contrary to the results reported in earlier literature (Blanchard, Zucker, Bradley, & Hume, 1995; Poasa, Blanchard, & Zucker, 2004; Zucker & Blanchard, 2003; Zucker, Blanchard,
Kim, Pae, & Lee, 2007). Unfortunately, we had no variable on handedness and were thus unable to determine its role as a predictor of transgenderism in our data set.

Analyses conducted to determine any potential relationship between sexual orientation and transgenderism yielded results inconsistent with the proposed hypotheses. While it was hypothesized that sexual orientation scale scores would be insignificant in the present study, results indicated that the male-to-female transgender participants had significantly higher scores on the MSOS and significantly lower scores on the FSOS than the controls. These findings appear to be at least somewhat consistent with Blanchard’s (1989) theory because the bimodal distributions in the MSOS and FSOS scores indicate that there are at least two different types of male-to-female transgender individuals with regard to MSOS (those with high scores and those with low scores) and FSOS (those with high scores and those with low scores). Results for the female-to-male transgender participants were similar, with the addition of a single outlying participant who reported intermediate values on both scales.

While the present study did have a number of limitations to be discussed momentarily, it is important to note the potential importance of the results presented here. Much like sexual orientation, gender has frequently been the subject of a nature versus nurture debate, with many people claiming that transgenderism is the result of a genetic mechanism (e.g., Kranz et al., 2014; Nawata et al., 2010; Rametti, et al., 2010). However, our results suggest involvement of environmental factors, a finding that supports the nurture side of the debate. Therefore, just as gender may not be a black and white construct, the factors that contribute to gender identity (i.e., genetics versus environment) may not be so black and white either. There are several approaches that could provide
additional data about interfamilial environmental factors that may be involved in increasing the chance that transgenderism and its precursors would develop in a child. A short-term study could be conducted by use of a suitable questionnaire filled out by transgender individuals and case controls matched for age, birth sex, and demographic factors not thought to influence transgenderism. After the putative environmental factors have been well identified, a large prospective study would be required to have a large enough number of transgender cases develop to provide the statistical power to test the involvement of the putative risk factors and their predictive power.

Limitations

This was a self-selected, epidemiological, cohort study based on a convenience sample, not an experimental study. Since the participants were not randomly selected to be divided into groups with each group experiencing different conditions under the direct supervision of an investigator (a design which would have been unethical, Friedrich, 2005, p. 44), the present study was correlative. Because of this, a potential “third factor” or the reversal of the proposed etiological relationship may explain the statistical findings reported. However, the present study was designed to investigate the roles of parental attitudes and behaviors in childhood as predictors of transgender identification as an adult. Because the actions being examined involved parent-child interactions, such as reciprocal parent-child nudity, and transgender identification in adulthood, concluding that transgender identification as an adult may have caused the parental attitudes and behaviors expressed in childhood would be illogical since it reverses the flow of time, a known impossibility. Similarly, the correlation between early events and later events we found could have been caused by selective memory or other reporting vulnerabilities, as
is possible with retrospective studies such as this. Research has shown, however, that retrospective reports tend to have fairly good reliability and minimal false positives (Hardt & Rutter, 2004). Thus, we firmly believe that the previously described events would be highly unlikely to occur in alternative explanations.

Furthermore, because the participants were not randomly selected from the general population, it cannot be assumed that the results may be used to estimate the incidence of the occurrence of transgenderism in the general population. Additionally, because many of the participants were currently enrolled in colleges and universities, it is necessary to question the applicability of the results to individuals of different socioeconomic statuses and educational levels. Despite these limitations, convenience samples have been, and continue to be, useful for answering pressing questions, whether they are sexological as in the present study or otherwise (Breecher & Breecher, 1986).

**Conclusion**

The findings of this study provide important information about the impact of parental attitudes and behaviors on identification as transgender in adulthood. The high correlation between the family nudity scale and the maternal nudity scale makes it possible that there was a component of learning based on reciprocal father-child nudity that was involved in decreasing the likelihood of transgenderism that was below the level of detection provided by the admittedly small number of transgender cases in our data set.
REFERENCES


Gagliardi, L., Scott, H.S., Feng, J., & Torpy, D.J. (2014). A case of Aromatase deficiency


Paoletti, J.B. (2012). *Pink and blue: Telling the boys from the girls in America.* Bloomington: Indiana University Press.


Responding to the subject of sexuality development in young children. *Young Children, 66*, 32-38.


APPENDIX A

Office of Research Integrity
Institutional Review Board
One John Marshall Drive
Huntington, WV 25755

June 22, 2016
Stephen O'Keefe, Ph.D.
Psychology Department

RE: IRBNet ID# 127810-10
At: Marshall University Institutional Review Board #2 (Social/Behavioral)

Dear Dr. O'Keefe:

Protocol Title: [127810-10] Effects of Recalled Family Attitudes and Childhood Sexual Experiences on Adult Sexual Attitudes and Adjustment

Expiration Date: July 20, 2017
Site Location: MUGC - 1083
Submission Type: Continuing Review/Progress APPROVED Report
Review Type: Expedited Review

The above study and informed consent were approved for an additional 12 months by the Marshall University Institutional Review Board #2 (Social/Behavioral) Chair. The approval will expire July 20, 2017. Since this approval is within 30 days of the expiration date, the fixed anniversary date of 07/20 was maintained. Continuing review materials should be submitted no later than 30 days prior to the expiration date.

If you have any questions, please contact the Marshall University Institutional Review Board #2 (Social/Behavioral) Coordinator Bruce Day, ThD, CIP at 304-696-4303 or day50@marshall.edu. Please include your study title and reference number in all correspondence with this office.

- 1 -
APPENDIX B

Angela Cockrell  
Department of Psychology  
Marshall University, One John Marshall Dr.  
Huntington West Virginia, 25755

Dear Ms. Cockrell  

The proposed content consisting of items from our computer-assisted self-interview (CASI) program S-SAPE1©S-SAPE, LLC contained in the text, tables, and Appendix of your paper entitled ‘Familial Attitudes and Behaviors as Predictors of Transgenderism’ that will ultimately be published in Archives of Sexual Behavior has been reviewed. You are granted permission to publish our copyrighted material consisting of the items from our computer-assisted self-interview (CASI) program S-SAPE1©S-SAPE, LLC contained in the text, tables, and Appendix. Please see that an appropriate notice of our copyright is included in the publication.

Sincerely,

S-SAPE, LLC
APPENDIX C

Items from S-SAPE1 (© S-SAPE, LLC, 2002, P.O. Box 11081, Charleston, WV 25339) used in the study, reproduced with permission.

Statement Items

S1. “Please indicate your highest degree. Use vertical slider that appears for more choices. (1) None beyond high school (2) None but I am or have been enrolled as a college student (3) Bachelor’s degree (4) Master’s degree (5) Doctoral (PhD, MD, DO, dental, law, pharmacy, etc.)”

S3. “Select the choice which best describes your family of rearing whether by biological parents or adoptive parents. (1) My parents remained married (including common-law) and together until I reached 18. (2) My parents divorced or separated, and there was no remarriage or new partner in my home before I reached 18. (3) My parents divorced or separated, and there was a remarriage or a new partner in my home before I reached 18. (4) My parents never married (excludes common-law marriages) before I reached 18 and did not live together. (5) One of my parents died, but there was no remarriage or a new partner in my home before I reached 18. (6) One of my parents died, and there was a remarriage or a new partner in my home before I reached 18. (7) I was raised almost exclusively in an orphanage. (8) I was raised in a series of foster homes. (9) I was raised by my grandparent or grandparents. (10) I was adopted later, and I don’t remember my biological parents. (11) I was adopted later, and I do remember my biological parents.”

S4. “Select the choice which best fits your mother’s (or mother figure’s) attitude about sex: (1) I had so little contact with my mother that I have no idea what attitude she had. (2) Mother thought sex was dirty and filthy, but she never was able to discuss it with me.
(3) Mother thought sex was dirty and filthy, and she did her best to teach her view to me.
(4) Mother thought sex was healthy, but she never was able to discuss it with me. (5) Mother thought sex was healthy, and she provided me with healthy information.”

S5. “Select the choice which best fits your father’s (or father figure’s) attitude about sex:
(1) I had so little contact with my father that I have no idea what attitude he had. (2) Father thought sex was dirty and filthy, but he never was able to discuss it with me. (3) Father thought sex was dirty and filthy, and he did his best to teach his view to me. (4) Father thought sex was healthy, but he never was able to discuss it with me. (5) Father thought sex was healthy, and he provided me with healthy information.”

S6. “Select the phrase that best describes your parent’s demonstration of affection for one another in your presence: (1) My parents never kissed or hugged in my presence. (2) My parents sometimes kissed or hugged in my presence. (3) My parents often hugged or kissed in my presence. (4) My parents often hugged or kissed and did some genital petting in my presence. (5) My parents often hugged or kissed in my presence and I witnessed intercourse by sight or sound.”

Preference Questions and Options for Both Males and Females

P5. “The best way to describe my parents’ relationship while I was growing up is: (1) My parents’ relationship was not good: there was verbal fighting, anger, criticism, distance, and little or no love or affection. (2) My parents’ relationship was very mixed: there were periods of love and affection interspersed with verbal fighting, anger, criticism, or distance. (3) My parents’ relationship was reversed: I did not see fighting, criticism, or displays of affection, but I believe that there was quiet love and respect underneath. (4) My parents’ relationship included a lot of physical fighting and/or brutality. (5) My
parents’ relationship was very good with lots of love, support, and physical affection and few times when there was fighting, anger, criticism, or distance.”

P6. “The best way to describe the way that my parents handled disagreements about how to deal with me as a child was: (1) There was often an obvious disagreement between my parents with my mother taking my part against my father. (2) There was often an obvious disagreement between my parents with my father taking my part against my mother. (3) I was mostly raised in a single-parent family by my mother. (4) I was mostly raised in a single-parent family by my father. (5) If my parents had disagreements about how to deal with me as a child, they seemed to work them out where I could not hear, and I saw a united approach to me.”

P97. “The best way to describe the match between the genital anatomy that I was born with and my current gender is: (1) The genital anatomy that I was born with matches the gender that I present to society. (2) I had a genital malformation or anomaly when I was born, but it did not require me to change gender from that assigned in infancy. (3) I changed to living as a male even though I was born with female genital anatomy. (4) I changed to living as a female even though I was born with male genital anatomy.”

Combined Male and Female Statements

P8. “Before I hit puberty in my family of rearing, it was common for me to see my father nude while he was dressing or in the bathroom etc.”

P47. “Before I hit puberty in my family of rearing, it was common for me to see my mother nude while she was dressing or in the bathroom etc.”

P70. “Before I hit puberty in my family of rearing, it was common for my father to see me nude while I was dressing or in the bathroom etc.”
P88. “Before I hit puberty in my family of rearing, it was common for my mother to see me nude while I was dressing or in the bathroom etc.”

P104. “After I hit puberty in my family of rearing, it was common for me to see my father nude while he was dressing or in the bathroom etc.”

P115. “After I hit puberty in my family of rearing, it was common for me to see my mother nude while she was dressing or in the bathroom etc.”

P125. “After I hit puberty in my family of rearing, it was common for my father to see me nude while I was dressing or in the bathroom etc.”

P147. “After I hit puberty in my family of rearing, it was common for my mother to see me nude while I was dressing or in the bathroom etc.”
VITA

ANGELA COCKRELL

Education
2013 BS Psychology          Gardner-Webb University
Boiling Springs, NC 28017
Cumulative GPA: 3.71

Work Experience
2016-present               Independent Fashion Consultant
LuLaRoe

2014-2016                  Lead Test Administrator
Pearson Professional Center

2013-2014                  Teller
Branch Banking & Trust

2012-2013                  Resident Advisor
Gardner-Webb University Department of Housing &
Residence Education

2012-2013                  Intern
Abuse Prevention Council

2011-2012                  Cashier
Sodexo, Inc.

2008-2009                  Cashier/Barista
Panera Bread, Inc.

General Skills
  Language Proficiency: Basic knowledge of American Sign Language
  Computer Skills: Proficient in Microsoft Word, PowerPoint and Excell, as well
as Mac software (OSX, Mountain Lion, Pages, Keynote) and SPSS/SAS

Presentations
  Presented at Life of the Scholar Interdisciplinary Conference, Gardner-Webb University.
  Cockrell, A. (2013 April). Frisky Business: The Effects of Pornography on the
Brain, Perceptions, Relationships, and Culture. Presented at the Honors Thesis Series of
Presentations, Gardner-Webb University.