Abortion Attitudes in South Africa and the United States: Implications for Abortion Stigma and Health Equity

by

Elizabeth A. Mosley

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
(Health Behavior and Health Education)
in The University of Michigan
2018

Doctoral Committee:

Professor Barbara A. Anderson, Co-Chair
Professor Amy J. Schulz, Co-Chair
Assistant Professor Paul J. Fleming
Associate Professor Lisa H. Harris

Elizabeth A. Mosley

eamosley@umich.edu

ORCID iD: 0000-0001-9534-2457

DEDICATION

This dissertation is dedicated to my mother, Carol Jordan, who gave me roots and wings, and in memory of my grandmother, Liz “Ma” Jordan, and my aunt, Susan Bowen, who dared me to pursue education and the liberation it brings.

ACKNOWLEDGEMENTS

I would first like to thank my dissertation committee members: Dr. Barbara Anderson for her unwavering support and mentorship; Dr. Amy Schulz for her generosity and commitment to health equity; Dr. Lisa Harris for engaging my "danger talk" and for her reproductive justice advocacy; and Dr. Paul Fleming for believing in me and pushing my ideas to the next level.

I am infinitely grateful to the sources of social support that sustained me through this journey: my family—especially Mom, Cat, the Jordan-Parks crew, Paula, and Tybee; my cohort—Rebecca Leinberger, Aresha Martinez, and Dr. Jenny Ostergren; fellow HBHEDoc students—especially Dr. Michelle Johns, Dr. Annie Harmon, Dr. Bill Lopez, Dana Loll, Amel Omari, Sarah Gutin, Dr. Emily Youatt, Dr. Beth Becker, Dr. Linnea Evans, Dr. Akilah Wise, Dr. Jorge Soler, and Dr. Jonathon Vivoda; other friends near and far—especially Emily Burrows, Emily Renda, Laura McAndrew, Diana Parrish, McKinney Parrish, Charles Anderson, Laura Jadwin-Cakmak, Cristy Watkins, and Emily Pingel; and my amazing health and wellness team.

I am also indebted to the many mentors whose guidance led me to this moment. These include Drs. Kelli Hall, Yasamin Kusunoki (and her research team), Vanessa Dalton (and the entire PWHER group), Cathleen Connell, Elizabeth King, Julia Seng, Shawna Smith, Frank Anderson, Louis Graham, Sherryl Kleinman, Beth Moracco, Deena Costa, Caitlin Gerdts, Kelly Blanchard, and others. I would like to enthusiastically thank the South African researchers,

women's health advocates, and health providers who shaped and supported my dissertation field work, especially Dr. Nicole De Wet and the entire Wits University Department of Demography and Population Studies.

My secondary data analyses are built on the time and labor of other survey researchers and their participants. I offer thanks to the staff at Human Sciences Research Council in South Africa—especially Lucia Lotter and Goitseone Mafoko, who provided guidance on the South African Social Attitudes Survey. I am similarly grateful to the faculty and staff at University of Chicago's National Opinion Research Center, who maintain the General Social Survey and its meticulous documentation. I extend deep appreciation to the thousands of survey respondents who invested their time and energy into these valuable sources of data.

Finally, I want to acknowledge the generous sources of funding and institutional support that made this work possible: the University of Michigan (UM) Department of Health Behavior and Health Education—especially Jackie Cormany and Jenny Crawford; the UM Rackham Graduate School and Rackham Merit Fellowship—especially Dr. Emma Flores-Scott; the UM Population Studies Center—especially Dr. Arline Geronimus, Heather MacFarland, and Miriam Rahl; the UM Center for the Education of Women—especially Dr. Jackie Bowman; the UM School of Public Health Office of Global Public Health—especially Chinyere Neale; UM Consulting for Statistics, Computing and Analytics Research—especially Dr. Brady West; the National Institute on Aging (T32AG000221); and the National Institute for Child Health and Human Development (R24HD041028 and P2CHD041028).

TABLE OF CONTENTS

DEDICATION…….....ii

ACKNOWLEDGEMENTS…….....iii

LIST OF TABLES…….....vi

LIST OF FIGURES…….....viii

ABSTRACT…….....ix

CHAPTER

I. Introduction…….....1

II. Abortion Attitudes among South Africans: Findings from the 2013 Social Attitudes Survey…….....15

III. Socio-demographic Trends in South African Abortion Attitudes from 2007 to 2013.....39

IV. Abortion Attitudes in the United States and South Africa: A Comparative Study of Reproductive Rights and Justice.…….66

V. Conclusion…….....108

BIBLIOGRAPHY…….....118

LIST OF TABLES

TABLE

II.1. The (Weighted) South African Social Attitudes Survey Sample in 2013 34

II.2. Abortion Attitudes in the Case of Serious Foetal[a] Anomaly, Family Poverty, and in Both Cases Combined among South Africans in 2013 (Weighted % of Respondents) 35

II.3. Bivariate Analyses of Reporting Abortion is 'Always Wrong' in South Africa in 2013 36

II.4. Adjusted Odds Ratios of Reporting Abortion is 'Always Wrong' in South Africa in 2013 37

III.1. Descriptive Statistics of the Analytic Sample (N=16,941) from the Nationally-Representative South African Social Attitudes Surveys 2007-2013, excluding 2010 60

III.2. Binary Logistic Regression Models of Abortion Attitudes in South Africa 2007-2013 62

IV.1. Variable Descriptions from the U.S. General Social Surveys and the South African Social Attitudes Surveys 97

IV.2. Weighted Descriptive Statistics and Subsample Sizes for the Current Study 100

IV.3. Bivariate Relationships between the Predictors and Abortion Morality Attitudes in the U.S. (1991, 1998, 2008) and South Africa (2009, 2011, 2013) in the Case of Fetal Anomaly and in the Case of Poverty 101

IV.4. Abortion Morality Attitudes in the U.S. (1991, 1998, 2008) and South Africa (2009, 2011, 2013) in the Case of Fetal Anomaly and Poverty 102

[a] Chapter II was published in the journal *Culture, Health, and Sexuality*, which uses British spelling and punctuation.

IV.5. Abortion Morality Attitudes in the U.S. (1991, 1998, 2008) and South Africa (2009, 2011, 2013) in the Case of Fetal Anomaly and in the Case of Poverty Stratified by Race (Black and White) 104

IV.6. Abortion Morality Attitudes in the U.S. and South Africa in the Case of Fetal Anomaly and in the Case of Poverty in 2008 105

IV.7. U.S. and South African Abortion Attitudes in the Case of Fetal Anomaly and in the Case of Poverty in 2008 Stratified by Race (Black and White) 107

LIST OF FIGURES

FIGURE

Figure II.1. Adjusted Odds Ratios of Reporting Abortion is 'Always Wrong' (in Both Cases Combined) in South Africa in 2013 38

Figure III.1. Abortion Attitudes Among South Africans in the Case of Fetal Anomaly, in the Case of Poverty, and in Both Cases Combined from 2007-2013 with Two Standard Error Bars 61

Figure III.2. Adjusted Predicted Probabilities of South Africans Reporting Abortion is "Always Wrong" in Both Cases by Race/Ethnicity from 2007 to 2013 63

Figure III.3. Adjusted Predicted Probabilities of South Africans Reporting Abortion is "Always Wrong" in Both Cases by Province from 2007 to 2013 64

Figure III.4. Adjusted Predicted Probabilities of South Africans Reporting Abortion is "Always Wrong" in Both Cases by Race/Ethnicity Over Level of Education (from 2007 to 2013 Combined) 65

Figure IV.1. Abortion Morality Attitudes in the U.S. (1991, 1998, 2008) and South Africa (2009, 2011, 2013) in the Case of Fetal Anomaly and in the Case of Poverty 98

Figure IV. 2. Attitudes Toward Gender Roles and Social Welfare (Mean Scores Standardized to a 1-5 Scale) in the U.S. and South Africa 99

Figure IV.3. Interaction Effects Between Race/Ethnicity and Social Welfare Attitudes on Abortion Morality Attitudes in the Case of Poverty in South Africa 103

Figure IV.4. Interaction Effects Between Educational Attainment and Gender Role Attitudes on Moral Acceptability of Abortion in the Case of Fetal Anomaly in South Africa 106

ABSTRACT

Background: Unsafe abortion and abortion-related health inequities are important global public health issues, even in legal settings like South Africa and the United States (U.S.) because of abortion stigma and unequal access to safe services. In this dissertation, I compared abortion attitudes in South Africa and the U.S. asking: 1) in what ways do the socio-demographic patterns of abortion attitudes mirror the socio-demographic patterns of abortion-related health inequities; 2) how is moral acceptability of abortion co-constructed with social ideologies of gender and socioeconomic stratification; and 3) how do those relationships vary by race/ethnicity and socioeconomic status (SES)?

Methods: I analyzed data from the South African Social Attitudes Surveys and the U.S. General Social Surveys, which recorded if respondents think abortion is "always wrong"/"almost always wrong"/"wrong only sometimes"/"not wrong at all" in the case of fetal anomaly and in the case of poverty. First, I estimated the cross-sectional distribution and socio-demographic predictors of abortion attitudes ("always wrong" vs. other responses) in South Africa using multivariable logistic regression, then I analyzed national and subgroup trends over recent years. Next, I compared moral acceptability of abortion (all four response categories) in South Africa and the U.S. using ordinal regression to measure the effects of social welfare and gender role attitudes. Finally, I explored differences by race/ethnicity and education using stratification and post-estimation interaction tests.

Results: Over half of South Africans think abortion is "always wrong" in the case of fetal

anomaly and over three-quarters in the case of poverty, compared to one-quarter and one-half of Americans, respectively. South Africans were more likely to feel abortion is wrong in both cases if they were non-Xhosa African or Coloured, less educated, over 45, living in Gauteng or Limpopo, or less accepting of premarital sex. Americans were more likely to feel abortion is wrong if they were male, less educated, younger, less accepting of premarital sex, Christian, or more conservative. There was no relationship between social welfare attitudes and abortion attitudes in the U.S., but greater support for social welfare among South Africans predicted *lower* acceptability of abortion in the case of poverty. This effect significantly interacted with race/ethnicity and with levels of education (support for social welfare was only significant for Afrikaner, Zulu, and less educated South Africans). In the U.S., more egalitarian attitudes toward gender roles in the family predicted higher abortion acceptability in both cases. In South Africa, attitudes toward gender roles in the family predicted abortion acceptability in the case of fetal anomaly (but not poverty), and these effects were only significant among the less educated.

Conclusions: These results suggest that differences in abortion attitudes might be contributing to racial/ethnic, socioeconomic, and geographic abortion-related health disparities in South Africa and to disparities by SES in the U.S. Moral acceptability of abortion does not seem to be related to socioeconomic ideology in the U.S., while poverty-related abortion acceptability is *inversely* related to support for social welfare among Zulu, Afrikaner, and less educated South Africans. Egalitarian gender attitudes are associated with higher abortion acceptability for fetal anomaly in South Africa and for both cases in the U.S. The relationship between abortion acceptability and gender attitudes varied by race/ethnicity and SES in South Africa, and by race/ethnicity in the U.S. Successful abortion destigmatization efforts will likely need to be community-specific, gender transformative, and intersectional.

CHAPTER I

Introduction

Significance of Unsafe Abortion and Abortion Attitudes

Access to safe abortion care is a human right (United Nations, 2014, 2016), yet unsafe abortion, abortion-related health disparities, and social opposition to abortion remain critical public health issues around the world (Shah, Åhman, & Ortayli, 2014). Globally, half of abortions are still unsafe (for example, performed by under-trained providers, self-induced, or in environments not meeting medical standards), and they contribute to 13% of all maternal deaths (Shah *et al*., 2014). Although most unsafe abortions occur where abortion is illegal (Shah *et al*., 2014), they do persist in some legal settings such as South Africa (Trueman & Magwentshu, 2013) and the United States (U.S.) (Fried, 2000; Grossman *et al*., 2015; Grossman *et al*., 2010; Grossman, White, Hopkins, & Potter, 2014), where stigma against abortion is high and access to safe services is unequal. Abortion stigma is the cyclical social process of ascribing negative attributes to and discriminating against people associated with abortion, and it is built on community norms and personal attitudes that abortion is morally wrong and deviant (Harris, Debbink, Martin, & Hassinger, 2011; Kumar, Hessini, & Mitchell, 2009; Norris *et al*., 2011). Ultimately, this results in barriers to safe abortion care at all ecological levels from intrapersonal factors to public policy, all of which are more likely to restrict socially and economically vulnerable women (Blount, 2015; Trueman & Magwentshu, 2013). Individual and collective

attitudes toward abortion thus contribute to abortion stigma and indirectly influence abortion-related health outcomes and disparities (Foster, Gould, Taylor, & Weitz, 2012; Foster & Kimport, 2013; Harries, Orner, Gabriel, & Mitchell, 2007; Harries, Stinson, & Orner, 2009; Kumar *et al*., 2009; Norris *et al*., 2011; Varga, 2002).

Abortion has become one of the most contentious subjects of our times (Jelen, 2015, p. 11), and novel investigations are urgently needed to disrupt the adversarial abortion discourse, which is often reduced to the false dichotomy of pro-choice vs. pro-life. In this dissertation, I compare abortion attitudes in South Africa and the U.S. and explore group differences within each country to identify alternative and more nuanced understandings of abortion. I build on existing evidence from South Africa to ask how abortion-related health outcomes are patterned and examine their similarities with and differences from the patterning of abortion attitudes. Then I look at trends in South African abortion attitudes over time and in different groups by race, education level, and province. Finally, I compare abortion attitudes in South Africa and the U.S. to explore: how are abortion attitudes related to attitudes toward gender and social welfare, and do those relationships differ across countries and by race/ethnicity and/or socioeconomic status (SES) within countries?

South Africa and the U.S. are particularly interesting for parallel analysis as they share poignant similarities and notable differences in their histories of settler colonialism (Frederickson, 1982), slavery (Frederickson, 1982), and population control of non-White and impoverished communities (Bradford, 1991; Davis, 2003; Hodes, 2013; Kuumba, 1993; Schoen, 2005; Stern, 2005). Today, both South Africa and the U.S. remain characterized by large social and health inequities by gender, race/ethnicity, and SES (Baker, 2010; Coovadia, Jewkes, Barron, Sanders, & McIntyre, 2009; Mullings & Schulz, 2006; Williams, Mohammed, Leavell,

& Collins, 2010). This includes disparities within unsafe abortion—with women of color and lower SES at disproportionate risk despite legalization (Fried, 2000; Grossman *et al.*, 2015; Grossman *et al.*, 2010, 2014; Trueman & Magwentshu, 2013). Further investigation would help identify common pathways and processes shaping abortion attitudes and the extent to which they are similar and different across two countries with settler colonial histories, contemporary social inequities, and multiple (often conflicting) social ideologies. Similarities in the two settings could identify characteristics and dynamics of moral acceptability of abortion that might be relevant in other legal contexts or in illegal settings that are considering abortion policy liberalization. Differences between the two settings could illuminate how moral acceptability of abortion depends on various factors including distinctive local histories and contexts of abortion and social inequality.

Contexts of Abortion in South Africa and the U.S.

Across South Africa and the U.S., unsafe abortion appears to be resurging as access to legal abortion services declines, which leaves the countries' most vulnerable women with little choice but to take pregnancy termination into their own hands. In 1996, after the fall of Apartheid, South Africa legalized abortion, but an estimated 58% of abortions are still thought to be unsafe there (Singh, Sedgh, Bankole, Hussain, & London, 2012). Abortion-related deaths have increased since 2007 after a dramatic decline immediately following abortion legalization (Jewkes & Rees, 2005; National Committee for the Confidential Enquiries into Maternal Deaths, 2014). Self-induced abortion remains alarmingly common (Constant, Grossman, Lince, & Harries, 2014; Jewkes *et al*., 2005), and many women prefer to access abortion pills through the informal market (often with untrained, unlicensed providers) rather than face discrimination, harassment, or other quality of care issues in the public abortion clinics (Constant *et al.*, 2014;

Harries, Gerdts, Momberg, & Foster, 2015; Harries *et al.*, 2007; Jewkes *et al.*, 2005; Stevens, 2012; Trueman & Magwentshu, 2013). Further, self-induction and abortion-related mortality seem to inequitably affect South African women who are African[b], lower SES, living with HIV, and/or residing in the provinces of Gauteng, Limpopo, or KwaZulu-Natal (Constant *et al*., 2014; Harries *et al*., 2015; National Committee for the Confidential Enquiries into Maternal Deaths, 2014; Orner, de Bruyn, Barbosa, *et al*., 2011; Trueman & Magwentshu, 2013).

The U.S. Supreme Court legalized abortion nationally with the 1973 *Roe* v. *Wade* decision, but many new policies (especially at the state-level) have limited abortion access through public funding restrictions, mandatory delays, gestational restrictions, parental involvement laws, and targeted regulation of abortion providers (Fried, 2000; Guttmacher Institute, 2014; Jones, Upadhyay, & Weitz, 2013; Upadhyay, Weitz, Jones, Barar, & Foster, 2013). Following passage of a series of restrictive state policies in Texas (Gerdts *et al*., 2016), researchers documented a large number of self-induced abortions (Grossman *et al*., 2015) and the state's pregnancy-related death rates doubled from 2010 to 2012 (MacDorman, Declercq, Cabral, & Morton, 2016). Other U.S. studies suggest these trends are not limited to Texas: for example, one *New York Times* investigation found Google searches for "home abortion methods" (700,000 searches in 2015 alone) significantly increased after the 2008 Great Recession and

[b] As summarized by Coovadia and colleagues (2009), in South Africa, the term "Black" refers generally to all people of non-White races. "African" more specifically refers to Black South Africans who are members of traditionally Bantu-speaking, indigenous groups including Zulu (the largest racial/ethnic group and that of current President Zuma), Xhosa (the racial/ethnic group of late President Mandela), and others. "Coloured" refers to multi-racial individuals who are typically the descendants of European colonial settlers and African and Asian slaves. The term "Indian" typically describes descendants of Indian indentured servants brought by British colonists. "White" typically refers to descendants of British settler colonists or Afrikaans-speaking Dutch settler colonists. I use this terminology in the dissertation except where otherwise noted.

again in 2011 when state-level abortion restrictions dramatically intensified, with more searches conducted in states with more restrictions (Stephens-Davidowitz, 2016). Ultimately, these legal barriers inequitably deny safe abortion access for women who are lower income, non-White, less educated, and/or unemployed (Fried, 2000; Upadhyay *et al*., 2013). For example, women of lower SES and women of color (because of racism that contributes to socioeconomic disadvantage) are more likely to rely on public health insurance that can be restricted through public policy, and they are less likely to have the financial means to pay out-of-pocket for safe abortion care or to travel the far distances often needed to reach an abortion clinic.

Both the U.S. and South Africa are marred by histories of colonialism, slavery, eugenics, and other forms of racial and socioeconomic inequality that distinctly backdrop their contemporary abortion environments. When the British began to establish formal North American colonies in the 1600s, they sparked a violent campaign against Native Americans that intensified during U.S. independence and westward expansion and resulted in genocide and removal of Native Americans to poor quality reservations (Frederickson, 1982). South Africa began as a settler colony in the 1800s—first by the Netherlands then by Britain—with a relatively small White European population (compared to the White majority in the U.S.) that forcefully dominated indigenous southern African groups during northward expansion (Frederickson, 1982). American economic development was fueled by the enslavement and transport of over 500,000 Africans across the Atlantic to what would become the U.S. from 1500 to the 1860s (Voyages Database, 2013), and White South African settlers (particularly Dutch "Afrikaners") relied on enslaved laborers from Asia and East Africa albeit to a lesser degree (Frederickson, 1982). After U.S. emancipation of African slaves in 1863, Black inferiority and White supremacy was (and continues to be) maintained through legal and social restrictions

including voter suppression and segregation (Frederickson, 1982). In South Africa, a hierarchical social order was similarly erected through increasing legal and social regulation: by 1948, the far-Right (Afrikaner) National Party had risen to power on a platform of Apartheid (Frederickson, 1982). They legally established a strict racial hierarchy (White at the top, followed by Indian, then Coloured, and African at the bottom) that dictated all aspects of life including where one could live, go to school, seek health care, and work (Coovadia *et al*., 2009; Frederickson, 1982). For one, millions of African men were forced to migrate into urban centers for meager-wage mining jobs that launched national development as their families were relegated to rural, economically-barren "homeland" reserves (Coovadia *et al*., 2009, p. 819).

Eugenics—that is, systematic reproductive coercion to promote socially-valued traits and restrict unvalued traits—was used as a tool of racial and economic domination in both the U.S. and South Africa (Bradford, 1991; Frederickson, 1982; Roberts, 1997). Fostered by flawed ideologies that poverty and racial inferiority/superiority are hereditary, U.S. eugenic campaigns flourished from the early 1900s until the 1970s: an estimated 60,000 mostly low-income and non-White American women and men were forcibly sterilized while affluent and White women were pressured into compulsory motherhood (Roberts, 1997; Stern, 2005). Similarly, in South Africa, population control of the African majority and pro-natalism for the White minority quickly became explicit objectives of the Apartheid state (Bradford, 1991; Frederickson, 1982; Hodes, 2013). The 1975 Abortion and Sterilization Act largely outlawed abortion to promote White women's fertility, while African women were targeted by contraception campaigns, separated from their male partners, and impoverished so deeply it was difficult to take care of their children (Bradford, 1991; Hodes, 2013; Klausen, 2015). What resulted was 200,000-300,000 illegal abortions and an average of 425 abortion-related deaths annually (95 CI 78-735

deaths)—all among impoverished African women (Hodes, 2013; Jewkes & Rees, 2005; Rees *et al.*, 1997).

Contemporary patterns of social inequality in the U.S. and South Africa mirror and stem from these complicated histories, with continuing consequences for abortion service delivery and health outcomes. Since the 1970s, U.S. income and wealth inequality have steadily widened (Proctor, Semega, & Kollar, 2016), pre-existing racial gaps were exacerbated by the Great Recession of 2008 (Kochhar & comments, 2014; Stone, Trisi, Sherman, & Debot, 2015), and although gender inequalities have decreased, American women continue to make only 80% the income of American men for equal work (Proctor *et al*., 2016). Notably, these inequalities are inextricably intersectional: Black American women continue to only earn 65% the income of their White, male counterparts and Latina women only earn 58% (Patten, 2016). In South Africa, unemployment and economic inequality are greater today than during Apartheid, and Africans (particularly women) are still more likely to live in poverty than all other groups (Baker, 2010; Statistics South Africa, 2013, 2015; The World Bank, 2015). Given these circumstances, racially and economically vulnerable pregnant women in both countries remain trapped in a challenging double bind, where they are denied both the resources needed for motherhood and the health services needed for safe abortion.

Abortion Stigma and Attitudes in South Africa and the U.S.

In South Africa (Harries *et al.*, 2009; Kumar *et al.*, 2009; Trueman & Magwentshu, 2013) and the U.S. (Harris, 2012; Norris *et al*., 2011), many of the barriers to safe abortion services and resulting health consequences have been attributed to abortion stigma. The existing evidence base of abortion attitudes and norms in South Africa and the U.S. provides a foundational

understanding, yet important gaps remain. In South Africa, evidence drawn largely from qualitative studies and quantitative surveys of university students suggests moral acceptability of abortion is low and does not vary by gender, although many South Africans (particularly women) support the legal right to abortion (Gresh & Maharaj, 2014; Harries *et al*., 2009; Mwaba & Naidoo, 2006; Patel & Johns, 2009; Patel & Kooverjee, 2009; Wheeler, Zullig, Reeve, Buga, & Morroni, 2012). To date, no South African studies have assessed abortion attitudes in a nationally-representative sample, however, and all studies have been cross-sectional. This has limited analysis of abortion attitudes over time and across racial/ethnic, socioeconomic, or geographic subgroups, though this could help explain disparities and trends in abortion-related health outcomes. Similarly, while non-randomly sampled surveys suggest gender attitudes might play a significant role in the formation of abortion attitudes in South Africa (Patel & Johns, 2009), no studies have assessed this in a national sample nor have they asked if abortion attitudes are influenced by consideration of women's socioeconomic circumstances or constructed differentially by social position (for example, by gender, race, and/or SES). A deeper understanding of moral acceptability of abortion—how it is patterned socio-demographically and how it is related to both gender and socioeconomic ideologies—could offer insight for addressing abortion stigma and ongoing abortion-related health inequities.

In the U.S., while more studies have analyzed abortion attitudes in nationally-representative samples and over time, these have mostly focused on attitudes toward abortion legality (Carter, Carter, & Dodge, 2009; Jelen & Wilcox, 2003). Some researchers would argue, however, that abortion stigma and resulting barriers to safe abortion (such as state-level restrictions) actually reflect *moral* resistance to abortion not just legal stances on the matter (Norris *et al*., 2011). To date, studies of abortion legality attitudes in the U.S. have generally

shown more supportive attitudes for women and with lower religiosity, higher educational attainment, older age, more support for gender equality, and political liberalism (Barkan, 2014; Dillon & Savage, 2006; Jelen & Wilcox, 2003; Killian & Wilcox, 2008; Petersen, 2001). Studies of racial/ethnic differences in abortion legality attitudes have historically shown that Black Americans are less supportive of abortion legality as compared to White Americans, but this gap has closed in recent years (Carter *et al*., 2009). Today, Latina/os report significantly more negative abortion legality attitudes than both White and Black Americans. Carter and colleagues (2009) recently demonstrated that these racial/ethnic differences often depend on gender, however, and no studies have considered possible interactions between race/ethnicity and SES. Moving forward, researchers will need to assess each of these factors as potential predictors of *moral* acceptability, and the implications that socio-demographic differences carry for abortion stigma and health inequities in the U.S. Furthermore, a deeper psychosocial understanding of abortion morality is needed to inform interventions for addressing abortion stigma and abortion-related health disparities. For example, qualitative researchers have demonstrated that abortion stigma relies on both inequitable gender ideologies (for example, abortion is set at odds with expectations of feminine sexual purity and compulsory motherhood) *and* inequitable socioeconomic ideologies (for example, the fetus is decontextualized from "the woman who carries it and the social circumstances of her life" thus erasing poverty and its structural causes) (Kumar *et al*., 2009; Norris *et al*., 2011, p. S52). But researchers still need to understand how moral acceptability of abortion is related to socioeconomic ideologies and how those relationships depend on one's social position by race/ethnicity and SES.

Dissertation Objective and Research Questions

The overall objective of this dissertation is to better understand abortion-related health

inequities and abortion stigma through exploration of abortion morality attitudes in legal settings such as South Africa and the U.S. To this end and guided by the reproductive rights and justice framework described below, I address the following research questions:

Research Question 1: In what ways, if any, do the socio-demographic patterns of abortion attitudes mirror the socio-demographic patterns of abortion-related health inequities in South Africa and the U.S.?

1A: What abortion-related health inequities have been documented in recent decades?

1B: In what ways, if any, does moral acceptability of abortion differ by those socio-demographic axes of inequity identified in 1A?

1C: In what ways, if any, have abortion-related health outcomes and moral acceptability of abortion changed over time?

1D: Do the temporal patterns in moral acceptability of abortion differ by the socio-demographic axes identified in 1A and 1B?

1E: What, if any, interaction effects on moral acceptability are observed between the socio-demographic axes identified in 1A and 1B (for example, between race/ethnicity and SES)?

Research Question 2: How is moral acceptability of abortion in South Africa and the U.S. co-constructed with social ideologies of gender and socioeconomic stratification?

2A: In what ways, if any, is moral acceptability of abortion related to attitudes toward gender roles in the family and in larger society?

2B: In what ways, if any, is moral acceptability of abortion related to attitudes toward social welfare?

Research Question 3: How do the relationships between attitudes toward abortion, gender roles, and social welfare vary by social position?

3A: In what ways, if any, do the relationships between attitudes toward abortion, gender roles, and social welfare vary by race/ethnicity?

3B: In what ways, if any, do the relationships between attitudes toward abortion, gender roles, and social welfare vary by SES?

Theoretical Framework: Reproductive Rights and Justice

A combination of reproductive rights (United Nations, 1994, 2014) and reproductive justice (Luna & Luker, 2013; Ross, 2006) offers a well-suited framework for such an investigation of abortion attitudes, stigma, and health inequities in South Africa and the U.S. Developed as a critique of and response to historical population control programs, reproductive rights were originally defined at the 1994 United Nations' International Conference on Population and Development (United Nations, 1994) as:

> "the recognition of the basic right of all couples and individuals to decide freely and responsibly the number, spacing, and timing of their children and to have the information and means to do so, and the right to attain the highest standard of sexual and reproductive health. It also includes their right to make decisions concerning reproduction free of discrimination, coercion, and violence."

Although the original definition did not explicitly mention abortion due to its controversial nature, the rhetoric of reproductive rights in the U.S. has often inadvertently marginalized women of color and low-income women by focusing solely on abortion and contraception without acknowledging historical experiences of population control and contemporary experiences of economically-coerced fertility decisions (Davis, 2003; Fried, Ross, Solinger, & Bond Leonard, 2013; A. Smith, 2005). Both a theory and a social movement originating in the U.S., reproductive justice emphasizes the right to not have children (for

example, through contraception or abortion), the right to have children, and the right to raise one's children healthily and with dignity regardless of racial, socioeconomic, or other social status (Luna & Luker, 2013; Ross, 2006). In some contexts, women (including South Africans) have successfully advocated for these broader human rights using the "reproductive rights" framework and they continue using this language (United Nations, 1994). But even in South Africa, some officials and advocates have started calling for a "reproductive justice" framework that explicitly emphasizes racial/ethnic and socioeconomic inequality (Dlamini, 2014; Macleod & Hansjee, 2013). I use the collective term "reproductive rights and justice" to describe my theoretical framework for sake of congruence with both discourses.

Dissertation Format and Overview

This dissertation is written as three academic manuscripts that are bounded by this introductory chapter and a concluding chapter in which I discuss implications for public health research, practice, and policy. With this format, I am able to address each research question while also contributing to specific evidence gaps through publishable papers in the fields of public health and demography.

For the first paper, I answered Research Questions 1A-1B in the South African context: what abortion-related disparities exist, and do abortion attitudes differ along those axes? The paper is titled "Abortion Attitudes among South Africans: Findings from the 2013 Social Attitudes Survey" and has been published in *Culture, Health and Sexuality* with co-authors Drs. Elizabeth King, Amy Schulz, Lisa Harris, Nicole De Wet, and Barbara Anderson (Mosley *et al.*, 2017). To begin, we researched existing evidence of abortion-related disparities by race (higher prevalence of unsafe abortion and abortion-related morality for African women), SES (higher prevalence for women of lower income and education), and geography (higher prevalence in

particular provinces). We then conducted new analyses to explore how abortion attitudes differ by those socio-demographic characteristics using nationally-representative data from the 2013 South African Social Attitudes Survey (SASAS), which asked participants how "wrong or not wrong" abortion is in the case of severe fetal anomaly and in the case of poverty. Our results suggest that more negative abortion attitudes and norms might be contributing to higher prevalence of unsafe abortion in certain provinces and in some African and lower SES communities. We conjecture that differences in abortion attitudes by race/ethnicity and SES likely reflect different historical and contemporary experiences of abortion, which must be acknowledged and addressed.

It was still unclear, however, if the increase in abortion-related mortality since 2007 was accompanied by comparable changes in abortion attitudes, or if the socio-demographic covariates interacted with one another as suggested by the theory of intersectionality (Crenshaw, 1989; Schulz & Mullings, 2006). I pursued these ideas in the second paper by measuring trends in South African abortion morality attitudes over time; group differences by race/ethnicity, SES, and province; and possible interactions between those characteristics (Research Questions 1C-1E). The paper is titled "Socio-demographic Trends in Abortion Attitudes in South Africa from 2007 to 2013" and was written with co-authors Drs. Barbara Anderson, Lisa Harris, and Amy Schulz. We analyzed data from the SASAS in 2007-2013 (excluding 2010 when abortion attitudes were not available) using the same variables as in Paper One. We found that although South African abortion attitudes have been stable over time (except for a temporary increase in favorable attitudes in 2011), they are quite dynamic and divergent at the sub-national level. Our results also demonstrated that to understand someone's abortion attitudes, it is necessary to consider their intersecting social identities (for example, both race *and* SES) (Crenshaw, 1989;

Schulz & Mullings, 2006).

I then expanded on this new evidence by comparing South African abortion attitudes to those in the U.S., and by inquiring more deeply about psychosocial factors. For the third and final paper, I asked: are abortion morality attitudes in South Africa and the U.S. related to attitudes about gender roles *and* social welfare initiatives, and do those relationships differ by race/ethnicity or SES (Research Questions 2A-3C)? The paper is titled "Abortion Attitudes in the United States and South Africa: A Comparative Study of Reproductive Rights and Justice" and was written with co-authors Drs. Barbara Anderson, Lisa Harris, Paul Fleming, and Amy Schulz. We analyzed data from the U.S. General Social Surveys (1991, 1998, 2008) and the SASAS (2008, 2009, 2011, 2013), which used the same wording for abortion morality attitudes. We found that support for egalitarian gender roles in the family was positively related to abortion acceptability in both cases for Americans but only in the case of fetal anomaly for South Africans (and only for South Africans with less education). We also found that support for social welfare was inversely related to abortion acceptability in the case of poverty for South Africans, although it was insignificant for Americans and for South Africans with secondary education.

Over the course of this dissertation, my own conceptualizations of abortion morality have been challenged, deepened, shifted, and nuanced. I hope the readers are similarly affected. By opening our minds to other experiences and worldviews, it is possible to reach new shared understandings of abortion with the potential of working together toward real solutions that promote women's health and human rights.

CHAPTER II

Abortion Attitudes among South Africans: Findings from the 2013 Social Attitudes Survey

Abstract

Abortion is legal in South Africa, but over half of abortions remain unsafe there. Evidence suggests women who are (Black) African, of lower socioeconomic status (SES), living with HIV, or residents of Gauteng, KwaZulu-Natal, or Limpopo provinces are disproportionately vulnerable to morbidity or mortality from unsafe abortion. Negative attitudes toward abortion have been documented in purposively-sampled studies, yet it remains unclear what attitudes exist nationally or whether they differ across socio-demographic groups, with implications for inequities in service accessibility and health. In the current study, we analysed[c] nationally-representative data from 2013 to estimate the prevalence of negative abortion attitudes in South Africa and to identify racial, socioeconomic and geographic differences. More respondents felt abortion was 'always wrong' in the case of family poverty (75.4%) as compared to foetal anomaly (55.0%), and over half of respondents felt abortion was 'always wrong' in both cases (52.5%). Using binary logistic regression models, we found significantly higher odds of negative abortion attitudes among non-Xhosa African and Coloured respondents (compared to Xhosa

[c] As previously noted, this manuscript was published in the journal *Culture, Health, and Sexuality*, which uses British spelling and punctuation. Additional details added for the purposes of the dissertation, and which are not included in the published manuscript, are denoted by brackets.

respondents), those with primary education or less, and residents of Gauteng and Limpopo (compared to Western Cape). We contextualise and discuss these findings using a human rights-based approach to health.

Introduction

While access to safe abortion services is considered a human right (United Nations, 2016), approximately half of abortions worldwide are unsafe (for example, self-induced, with an under-trained provider, or using medically inappropriate protocols)—often in countries where abortion is illegal (Åhman & Shah, 2011). In contrast, legalisation of abortion is associated with reduction in abortion-related morbidity and mortality. For example, abortion was (largely) illegal in South Africa from 1975 until the Choice on Termination of Pregnancy (CTOP) Act was passed after Apartheid ended in 1996—granting legal access to abortion upon request until 12 weeks of pregnancy (Singh *et al.*, 2012; Trueman & Magwentshu, 2013; Vincent, 2012). This caused a dramatic 91% decline in abortion-related mortality from 1994 to 2000 (Jewkes & Rees, 2005).

Unsafe abortion can persist in legal settings, however, when access to safe services is difficult or inequitable. In South Africa today, over half of abortions are still estimated to be unsafe (Sedgh *et al*., 2012; Singh *et al*., 2012). National maternal death reports, which notably no longer distinguish abortion from spontaneous miscarriage, suggest mortality from 'miscarriage/abortion' [categories combined to make the analyses comparable before and after the change in terminology] has surged 62% between the periods of 2002-2004 and 2011-2013 (National Committee for the Confidential Enquiries into Maternal Deaths, 2014). Evidence further suggests that women who are of lower SES (Harries *et al.*, 2015; Trueman & Magwentshu, 2013), (Black) African (Constant *et al*., 2014), living with HIV (National

Committee for the Confidential Enquiries into Maternal Deaths, 2014; Orner, de Bruyn, Barbosa, *et al*., 2011; Stevens, 2012), and/or residing in Gauteng, Limpopo, or KwaZulu-Natal (National Committee for the Confidential Enquiries into Maternal Deaths, 2014) are at higher risk of unsafe abortion and its health consequences than women who are more affluent, White, living without HIV, and/or residing in other provinces. South African women have identified a number of barriers to safe abortion care including fear of discrimination or confidentiality breech, abuse and neglect by health workers, a dearth of abortion providers, waiting lists, gestational limits, long distances, insufficient knowledge about abortion laws, and financial constraints (Constant *et al.*, 2014; Cooper *et al.*, 2004; Grossman *et al.*, 2011; Harries *et al.*, 2015, 2007; Jewkes *et al.*, 2005; Stevens, 2012; Trueman & Magwentshu, 2013; Vincent, 2012). Many researchers attribute these barriers to weaknesses of the South African health system generally and to abortion stigma specifically— a social process that ascribes negative attributes to women who access abortion care, abortion providers, and others associated with abortion (Harris *et al*., 2011; Kumar *et al*., 2009; Link & Phelan, 2001; Norris *et al*., 2011).

While abortion stigma is a complex phenomenon that unfolds through a number of mechanisms at the macro and micro levels, negative individual-level attitudes toward abortion can be conceptualised as potential predictors of stigmatisation and resulting unsafe abortion (Gresh & Maharaj, 2014; Harries *et al*., 2009; Mwaba & Naidoo, 2006; Varga, 2002). In South Africa, researchers have documented negative attitudes toward abortion, but these are highly variable across the specific dimension of abortion (for example, moral acceptability compared to legal acceptability), circumstances of pregnancy, gender group, gender attitudes, religion, and religiosity (Gresh & Maharaj, 2014; Harries *et al*., 2007, 2009; Macleod, Sigcau, & Luwaca, 2011; Patel & Johns, 2009; Patel & Kooverjee, 2009; Varga, 2002; Vincent, 2012; Wheeler *et*

al., 2012). Most evidence to date has come from qualitative work and non-representative surveys among health workers in the Western Cape (Harries *et al*., 2007, 2009), adolescents and students in KwaZulu-Natal (Gresh & Maharaj, 2014; Mwaba & Naidoo, 2006; Patel & Johns, 2009; Patel & Kooverjee, 2009; Wheeler *et al*., 2012), and community members in the rural Eastern Cape (Macleod *et al*., 2011). Broadly, South Africans seem to hold positive attitudes toward availability of abortion while still harboring strongly negative attitudes toward moral acceptability of abortion or women's autonomy to choose an abortion (Patel & Johns, 2009; Patel & Kooverjee, 2009). Attitudes tend to be more positive or lenient when pregnancy is the result of rape, there is risk of severe foetal anomaly, a woman is HIV-positive, a woman's health is in danger, or it is her first abortion as compared to when a woman is low-income, having a so-called 'repeat abortion', unmarried, or adolescent (Harries *et al*., 2009; Mwaba & Naidoo, 2006; Vincent, 2012; Wheeler *et al*., 2012). Notably, young and unmarried women in South Africa are simultaneously faced with the expectation of sexual availability for heterosexual partnerships, severe stigma against adolescent pregnancy, and particularly restricted access to safe abortion options (Edin *et al*., 2016; Varga, 2002; Waxman, Humphries, Frohlich, Dlamini, & Ntombela, 2016). Many in South Africa attribute their disapproval of abortion to religion, morality, or culture (Gresh & Maharaj, 2014; Macleod *et al*., 2011; Ronco, 2014; Varga, 2002), but researchers warn such static and homogeneous framing of culture ignores pre-colonial, indigenous abortion traditions and reinforces existing gender inequities (Macleod *et al*., 2011). Even after controlling for religion and religiosity, attitudes toward abortion accessibility and women's autonomy to choose abortion (but not moral acceptability of abortion) differ by gender with women holding more egalitarian attitudes than men (Patel & Johns, 2009; Patel & Kooverjee, 2009).

To our knowledge, however, no studies have analysed abortion attitudes in a nationally-representative sample from South Africa or explored differences by race/ethnicity, SES, or geography that might underlie observed differences in unsafe abortion risk. The purpose of the current study was to assess the prevalence of negative attitudes toward abortion nationally and identify any differences by race/ethnicity, socioeconomic status, or geography while controlling for other covariates.

Theoretical Framework

In this study we utilised a human rights-based approach to health (Shah *et al*., 2014; United Nations, 2014) that includes safe abortion as one of a comprehensive list of social, economic, and other human rights aimed at women's equity and empowerment. To the extent that negative abortion attitudes are tied to the limited availability of safe abortion and resulting health consequences, abortion attitudes are a human rights issue. According to the World Health Organization, a human rights-based approach to health applies seven key principles: availability, accessibility, acceptability, quality of facilities and services, participation, non-discrimination, and accountability (United Nations, 2014, p. 76). Researchers in South Africa have previously described how negative abortion attitudes can carry consequences for the availability, accessibility, quality, and acceptability of abortion services and how those consequences are inequitably patterned by race, SES, HIV status, and region (Constant *et al*., 2014; Harries *et al*., 2015; National Committee for the Confidential Enquiries into Maternal Deaths, 2014; Orner, de Bruyn, Barbosa, *et al*., 2011; Trueman & Magwentshu, 2013). A human rights-based approach to health, in turn, places these abortion-related indicators in the broader context of women's rights to comprehensive health care, personal dignity, and non-discrimination by gender or other social categorisation (United Nations, 2014). This approach informed many post-Apartheid South

African policies, which simultaneously legalised abortion and promised access to contraception, maternity care, and child support grants as part of social justice and economic development for all (African National Congress, 1994a, 1994b; Baker, 2010; Chopra, Daviaud, Pattinson, Fonn, & Lawn, 2009; Coovadia *et al*., 2009). This broader vision of abortion and human rights—what the South African Minister of Social Development Bathabile Dlamini and others have called 'reproductive justice' (Dlamini, 2014; Macleod & Hansjee, 2013, p. 1007; Ross, 2006, 2014)—is one based on equity rather than equality as it 'considers gendered, raced, class, (and other) power relations in terms of the obstacles that people have to overcome… and the compensations that are required for outcomes to be equal' (Macleod & Hansjee, 2013, p. 1007). Such a theoretical framework is particularly well-suited for the current investigation of racial/ethnic, socioeconomic, and geographical differences in abortion attitudes in South Africa.

Methods

Data and measurement

We used data from the South African Social Attitudes Survey (SASAS) in 2013 [the most recently available at time of manuscript publication] (Human Sciences Research Council, 2015). This is a nationally-representative survey conducted annually and sampled from 500 census enumeration areas stratified by province, urbanicity, and population group (Human Sciences Research Council, 2015). Each face-to-face interview was conducted in the respondent's household and lasted an average of 60-90 minutes.

Descriptive statistics of the weighted sample are presented in Table 1 (N=2,885). The SASAS only asked two questions about abortion attitudes, which we used as dependent variables: 'Do you personally think it is wrong or not wrong for a woman to have an abortion if there is a strong chance of serious defect in the baby'? and 'Do you personally think it is wrong

or not wrong for a woman to have an abortion if a family has a low income and cannot afford any more children'? Responses were measured using a Likert scale ('not wrong at all', 'wrong only sometimes', 'almost always wrong', and 'always wrong'). As responses were heavily skewed (see Table 2) and we were most interested in those who are unequivocally opposed to abortion, we dichotomised these outcomes with 'always wrong' coded as 1 and all other categories coded as 0. We first analysed abortion attitudes in the two unique cases separately, and then constructed a third combined variable with feeling abortion is 'always wrong' in both cases coded as 1 and all other response patterns coded as 0.

We were primarily interested in socio-demographic variables that might explain observed differences in unsafe abortion risk in South Africa: race/ethnicity, SES, and geography. Researchers have previously defined race/ethnicity as 'common geographic origins, ancestry, family patterns, language, cultural norms, traditions, and the social history of particular groups' (Williams *et al*., 2010, p. 70). On the 2013 SASAS, population groups were 'Black African', 'Coloured', 'Indian/Asian', and 'White'. We combined this with the respondent's language spoken at home, and developed an 11-category variable representing race/ethnicity: African-isiXhosa, African- isiZulu, African-Sesotho, African-Setswana, African-Sepedi, African-Other (we collapsed Siswati, isiNdebele, Xitsonga, Tshivenga/Lemba, and other African languages due to few respondents); Coloured-Afrikaans, Coloured-English, Indian, White-Afrikaans, and White-English.

We operationalised SES as level of educational attainment and self-reported economic class. On the 2013 SASAS, highest level of education was reported as 'no schooling', 'primary', 'some secondary', 'matriculation or equivalent', 'tertiary education', or 'other/don't know'. We combined the categories of 'no schooling' and 'primary' then used this as the reference group in

multivariate analyses. The respondents who selected 'other/don't know' were excluded from analyses. Because household income, employment, and other common measures of economic status were significantly under-reported (as much as 27% missing data), we used self-reported economic class as a proxy. This was measured as 'lower class' (reference group), 'working class', 'middle class', or 'upper class'. Due to small subsamples, we collapsed 'middle class' and 'upper class'.

Geographical region was operationalised as province and urbanicity. Provinces were Western Cape (reference), Eastern Cape, Northern Cape, Free State, KwaZulu-Natal, North West, Gauteng, Mpumalanga, or Limpopo. Urbanicity was measured as 'urban-formal', 'urban-informal', 'rural-traditional', or 'rural-formal' area. We collapsed the rural categories, creating a three-category variable, and used 'urban-formal' as the reference.

We controlled for additional covariates: sex, religion, age, and political [identity]. On the 2013 SASAS, respondents self-reported their sex as either 'male' or 'female,' which we used as an imperfect proxy of gender. SASAS researchers also asked whether respondents belonged to any religion and, if so, which denomination from a list of over 25 options. Due to sampling constraints, we operationalised this as 'not religious' (reference), 'Christian,' or 'other'. We used the SASAS measure of age, which was a continuous variable ranging from 16 to 92 years, and political [identity]: 'extremely Conservative/Right', 'Conservative/Right', 'slightly Conservative/Right', 'Moderate', 'slightly Liberal/Left', 'Liberal/Left', 'extremely Liberal/Left' (reference), or 'don't know'. [The 'don't know' category was retained in all analyses because a large percentage (25%) of respondents chose this answer.]

Analyses

We first assessed the prevalence of negative abortion attitudes as the percent of

respondents reporting abortion is 'always wrong' in the case of serious foetal anomaly, in the case of familial poverty, and in both cases together. We then estimated binary logistic regression models (Long, 1997; Long & Freese, 2005) for the attitudes toward abortion in the two different cases separately and in the two cases combined. All variables were entered simultaneously into the models. We calculated odds ratios (OR) for race/ethnicity, education, economic class, province, and urbanicity while controlling for the covariates described above [sex, religion, age, and political identity]. All analyses were conducted in Stata v. 14 (StataCorp, 2014) using sample weighting. Sensitivity analyses were also conducted in order to assess robustness of our results. These included other measures for race/ethnicity, economic class, religion, political attitudes, and age. We also conducted ordinal regression models for each individual abortion attitude and a multinomial model of both attitudes combined. Results across these sensitivity analyses were similar to those described below. [Finally, to test for multicollinearity between our predictors, we assessed the correlation matrix and conducted post-estimation testing of the regression models using variance inflation factors.]

Results

Prevalence of negative abortion attitudes

Attitudes toward abortion differed by circumstance of pregnancy (see Table 2). When asked about abortion in the case of serious foetal anomaly, about half of South Africans surveyed said it was 'always wrong'. Attitudes toward abortion in the case a family is low-income were significantly more negative with over three-quarters saying it was 'always wrong'. When we combined the attitudes toward abortion in both cases, about half of respondents said abortion was 'always wrong'.

Bivariate analyses

We found that several socio-demographic factors are related to both abortion attitudes at the bivariate level (see Table 3). Looking at the two cases combined, respondents were less likely to say abortion is 'always wrong' [compared to all other responses of 'almost always wrong,' 'wrong only sometimes,' or 'not wrong at all'] if they were African and spoke isiXhosa or isiZulu at home or if they were White and spoke English at home. African respondents who spoke Setswana, Sesotho, or another African language at home were more likely to report abortion is 'always wrong'. Respondents who completed their secondary education or who had any tertiary education were less likely to report abortion is 'always wrong'. Those who self-reported as lower economic class were more likely to feel abortion is 'always wrong'. In bivariate analyses, respondents in the Western Cape, KwaZulu-Natal, and Mpumalanga were less likely to report abortion is 'always wrong', while those living in Gauteng, Northwest, and Limpopo were more likely to report abortion is 'always wrong'. Slightly liberal respondents were less likely and extremely conservative respondents more likely to report abortion as 'always wrong'. Sex, age, religion, and urbanicity were not associated with abortion attitudes at the bivariate level.

Multivariate analyses

We present the binary logistic regression models for abortion attitudes in the case of foetal anomaly, in the case of familial poverty, and for both cases combined in Table 4. Odds ratios for socio-demographic factors significantly associated with abortion attitudes in both cases combined are shown in Figure 1. In comparison to African respondents who spoke isiXhosa at home, we found that respondents were more likely to report abortion is 'always wrong' in both cases if they were African and spoke isiZulu, Sepedi, Setswana, Sesotho or another African

language or if they were Coloured. Compared to those with a primary-level education or less, respondents who received any secondary, completed secondary, or received any tertiary education were significantly less likely to report abortion is 'always wrong' in both cases. Respondents living in Gauteng and Limpopo provinces were more likely to feel abortion is 'always wrong' in both cases, compared to the Western Cape. When considering both cases together, respondent's gender, age, religion, and political [identity] were not associated with attitudes toward moral acceptability of abortion.

Some differences in abortion attitudes were noted across circumstances of pregnancy. Compared to African respondents who spoke isiXhosa at home, White respondents who spoke Afrikaans at home were significantly more likely to report abortion is 'always wrong' in the case of poverty but not in the case of foetal anomaly. Coloured respondents who spoke English at home were equally as likely as Xhosa respondents to report abortion is 'always wrong' in the case of familial poverty but were more likely to in the case of foetal anomaly. Education was not significantly associated with abortion attitudes in the case of poverty although it was in the case of foetal anomaly and when both cases were combined. Residents in the Eastern Cape, Northern Cape, and Free State were significantly more likely to report abortion is 'always wrong' in the case of poverty but not in the case of severe foetal anomaly or in both cases combined. Specifically in the case of poverty, increasing age was also associated with increased odds of reporting abortion is 'always wrong' (OR not shown=1.01, $p<.05$). Finally, extremely conservative respondents were significantly more likely than extremely liberal respondents to report abortion is always wrong in the case of foetal anomaly (OR not shown=1.99; $p<.05$), while slightly (as compared to extremely) liberal respondents were significantly less likely to report abortion is 'always wrong' in the case of poverty (OR not shown=0.45; $p<0.03$).

Discussion

Our analyses of the 2013 SASAS show negative attitudes toward abortion are common in South Africa— over half of respondents felt abortion was always wrong in both cases combined (foetal anomaly and poverty). We also found that attitudes vary by race/ethnicity, education, province, and circumstances of pregnancy. Non-Xhosa African respondents, Coloured respondents who speak Afrikaans, individuals of lower educational attainment, and those living in Gauteng and Limpopo provinces held significantly and consistently more negative attitudes toward abortion in both cases presented. These socio-demographic differences in abortion attitudes—to the extent they may limit access to safe abortion services and increase risk of abortion-related complications and mortality—carry important implications for human rights and health equity, and they offer insight into opportunities for research and intervention in South Africa.

Respondents were more likely to feel that abortion is always wrong in the case of familial poverty as compared to when there is a strong chance of serious foetal anomaly. This finding is consistent with previous evidence in South Africa and other settings that has suggested attitudes toward abortion differ across the circumstances of pregnancy (Gresh & Maharaj, 2014; Macleod *et al*., 2011; Mwaba & Naidoo, 2006; Patel & Johns, 2009; Patel & Kooverjee, 2009; Ronco, 2014; Varga, 2002; Vincent, 2012; Wheeler *et al*., 2012). Our findings echo previous qualitative and subpopulation surveys that demonstrated the risk of birth defects or other disabilities are considered a relatively acceptable reason for abortion (Gresh & Maharaj, 2014; Mwaba & Naidoo, 2006; Patel & Kooverjee, 2009; Varga, 2002). While close-ended questions and responses on the SASAS limit interpretability, these more lenient attitudes toward abortion in the case of serious foetal anomaly are likely tied to stigmatisation of disability throughout South

Africa—as documented in previous regionally-specific South African studies (Gresh & Maharaj, 2014; Varga, 2002). Researchers in other settings have also suggested that some circumstances of abortion, including foetal anomaly and endangerment of the woman's health, are viewed as random events outside a woman's control (Huang, Davies, Sibley, & Osborne, 2016). Abortion in such cases might not be perceived as women's agentic resistance to traditional gender roles, which could facilitate social permissibility and reduce stigmatisation.

Attitudes toward abortion in the case of familial poverty were more pervasively negative across all racial/ethnic groups, levels of education, and provinces. This is consistent with most research on the subject, which has shown poverty is typically seen as a relatively less acceptable reason for abortion as compared to foetal anomaly, rape, or risk to the woman's health (Mwaba & Naidoo, 2006; Patel & Johns, 2009; Patel & Kooverjee, 2009; Vincent, 2012). Some qualitative research has contrastingly suggested, however, that poverty can be seen as a justifiable reason for abortion in some sub-populations. Our results might differ from these studies because we relied on close-ended survey questions and our sample is nationally-representative rather than [among] health workers in the Western Cape (Harries *et al*., 2009) or adolescents in KwaZulu-Natal (Varga, 2002). We did find that attitudes toward abortion in the case of poverty were less negative in the Western Cape and with younger respondents. Additional qualitative research is needed to fully understand the mechanisms underlying these abortion attitudes.

Hypothetically, our results could reflect what others have called intersectional stigma (Earnshaw & Kalichman, 2013). Derived in part from the theory of intersectionality (Crenshaw, 1989), this conceptualisation suggests that each stigmatised status intersects with and is shaped by existing social hierarchies (Earnshaw & Kalichman, 2013). For example, the discrimination

experienced by low-income women seeking abortion may be simultaneously driven by both abortion *and* economic stigma—both of which constitute human rights issues. Alternatively, our results could reflect a particular importance that is placed on motherhood for low-income and otherwise marginalised women, who have limited access to normative forms of status-building, identity-development, and meaning-making (Cooper, Harries, Myer, Orner, & Bracken, 2007; Walker, 1995). Future studies might investigate the relationships between abortion attitudes and those toward poverty and motherhood more generally.

Our results also suggest that additional socio-cultural factors may increase likelihood of negative abortion attitudes in South Africa above and beyond SES, gender, age, religion, political attitudes, and geography. Collectively, the differences in abortion attitudes we observed across racial/ethnic groups likely reflect South African heterogeneity in social norms and cultural ideologies related to gender, reproduction, and motherhood. For example, medical historians have documented that abortion was widespread in pre-colonial Xhosa society with general social acceptance (Bradford, 1991), and the particularly patriarchal anti-abortion norms of Zulu and Afrikaner societies have been extensively documented (Bradford, 1991; Gresh & Maharaj, 2014; Hodes, 2013; Varga, 2002). Perhaps the more negative attitudes toward abortion among Zulu South Africans reflects lower support for gender equality and women's empowerment compared to other African groups, while the more negative abortion attitudes among Afrikaners might reflect an enduring cultural orientation toward pro-natalism that was intensified and codified during Apartheid (for example, in the Abortion and Sterilization Act). Additional studies are needed to better understand the various socio-cultural mechanisms of abortion attitude formation and if these attitude differences might contribute to observed unsafe abortion inequities by race/ethnicity.

Controlling for other factors, respondents living in Gauteng and Limpopo provinces were consistently more likely to express negative abortion attitudes, which underscores the role of province-level factors above and beyond socio-cultural or individual-level characteristics in the patterning of South African abortion attitudes. Notably, both negative abortion attitudes and abortion-related mortality (National Committee for the Confidential Enquiries into Maternal Deaths, 2014) are significantly higher in Gauteng and Limpopo as compared to the national average, although further research is needed to document if and how attitudes might predict unsafe abortion behaviours and outcomes. [Notably, also during Apartheid prior to legalization of abortion in South Africa, Gauteng and Limpopo provinces had among some of the highest rates of abortion-related mortality in the country (Rees *et al.*, 1997), which might continue to influence how residents of those provinces feel about abortion today. Furthermore, Gauteng is the most urbanized and populated province in the country (12 million residents, 25% of national population within <2% of land mass) (Statistics South Africa, 2012b) with many South Africans, as well as other African nationals, relocating there for work opportunities. Nearly half (45%) of all Gauteng residents were born outside the province (Statistics South Africa, 2012a). Limpopo is a predominantly rural province (5.6 million residents, 10% of national population within 10% of land mass) (Statistics South Africa, 2012b) situated near the borders between South Africa, Botswana, Zimbabwe, and Mozambique. While Limpopo is characterized by a significant out-migration pattern (with most migrants leaving for Gauteng), still an estimated 10% of Limpopo residents were born outside the province or outside of South Africa, and researchers have found that most migrants who stay in Limpopo do so because of proximity to their nation and culture of origin (Statistics South Africa, 2012a). Perhaps the high concentration of immigrants (and inter-provincial migrants, in the case of Gauteng), the resulting racial/ethnic diversity of these two

provinces, and the large migration stream from Limpopo to Gauteng is contributing to the significantly more negative abortion attitudes observed there.] In-depth studies at the province-level might be useful for investigating the ways in which these and other characteristics contextualise abortion attitudes and outcomes, particularly since access to abortion services varies so much across provinces (Health Systems Trust, 2015) and between rural and urban areas (Cooper *et al*., 2005). Overall, we did not find urbanicity to be a significant factor, in contrast to previously reported findings that negative abortion attitudes are more pervasive in rural areas (Varga, 2002). [This null finding is likely not attributable to multicollinearity (for example between urbanicity, race/ethnicity, and SES), because no correlations between these variables were higher than 0.32—well below the general threshold of 0.80 —and no variation inflation factors were higher than 3.60, which is well below the general threshold of 10.00 (Midi, Sarkar, & Rana, 2010).]

Respondents with a secondary or post-secondary education were significantly less likely to report negative attitudes toward abortion. This finding echoes previous work around the world, which has demonstrated increasingly positive attitudes toward abortion with greater education (Jelen & Wilcox, 2003; Patel & Johns, 2009; Patel & Kooverjee, 2009). From our cross-sectional analysis, it remains unclear if higher educational attainment predicted more positive abortion attitudes or, conversely, if more positive abortion attitudes predicted greater educational attainment. Future qualitative studies could illuminate pathways above and beyond direct knowledge of abortion laws through which education might be associated with abortion attitudes, and why abortion attitudes in the case of poverty do not vary by level of education. Notably, education was the only significant socioeconomic predictor—self-reported economic class was not associated with abortion attitudes. This suggests that higher risk of unsafe abortion

among low-income women cannot be attributed simply to more negative abortion attitudes.

Ultimately, our findings reiterate the need for a continuing human rights-based approach that addresses the structural and social conditions influencing women's abortion decisions and health outcomes including poverty, weak health and social welfare systems, and stigma. In South Africa today, as under Apartheid, African women continue to experience lower wages and higher unemployment as compared to their male and non-African female counterparts (Statistics South Africa, 2013, 2015). Health system strengthening also remains a critical structural intervention needed to improve access to and integration of safe abortion care, HIV prevention and treatment, and high-quality contraceptive counseling and services. Improved structural support systems for persons with disability are needed particularly for those pregnant women who oppose abortion but lack the financial, institutional, or emotional resources needed to raise a child with disability. Finally, interventions are needed to address ongoing social stigma against abortion that threatens human rights both theoretically (by reducing women, providers, and others associated with abortion to less than whole and dignified humans) and practically (by reducing access to safe health services).

There are several limitations to the current study. First, the SASAS questions and response categories used to measure abortion attitudes were close-ended and do not fully capture the full spectrum of abortion ideologies or their contexts. It is possible that even the wording of response categories in the survey—framing abortion as 'always/almost always/sometimes wrong' rather than 'always/almost always/sometimes right'—influenced participants' answers (for example, by sending implicit cues that abortion is a non-normative and stigmatised behaviour). Moreover, abortion stigma is a much broader, complex social phenomenon that cannot be adequately captured by close-ended abortion attitude measurements. Additionally, all

of our conclusions are based on cross-sectional data and, therefore, represent statistical associations and not causal linkages. Because of limited sample size, we could not stratify models nor conduct interactional analyses—for example, between race/ethnicity and socioeconomic status. Furthermore, our analysis of solely quantitative SASAS data prevents in-depth analyses including interviewer-respondent dynamics, household dynamics affecting the interview, and non-structured reactions to sensitive topics. Nevertheless, our results provide an initial investigation into abortion attitudes from a nationally-representative sample in South Africa.

Moving forward, researchers, policy-makers and advocates, health workers, and public health professionals can build on the evidence presented here to address unsafe abortion and social inequities therein. Future quantitative studies might analyse trends in abortion attitudes over time in relation to race/ethnicity, education, and province while interaction models could also be used to disentangle the ways these socio-demographic factors individually and jointly modify pathways. Researchers could also employ qualitative research methods to elicit open-ended responses about abortion attitudes more broadly, including tensions and contingencies, mechanisms of formation in various groups, implications for abortion stigma and unsafe abortion, and the role of historical contexts. Contemporary abortion attitudes are likely to be influenced by the largely illegal and often lethal condition of abortion under Apartheid, when unsafe abortion caused over 400 maternal deaths among impoverished African women each year (Hodes, 2013; Klausen, 2015). Qualitative approaches could also shed light on complicated dynamics of the interview process itself when investigating sensitive topics like abortion.

Policy-makers and advocates must improve access to free and safe abortion services in South Africa while also committing time and resources to improving the social and economic

conditions of women more broadly. Health care provider training institutions could re-commit to comprehensive, safe abortion services and patient-focused, evidence-based counseling by including abortion care and values clarification as a fundamental part of their curricula. Effective interventions for health care providers have already been developed and evaluated in South Africa including *Health Workers for Choice* (Varkey, Fonn, & Ketlhapile, 2001) and *Health Workers for Change* (Fonn & Xaba, 2001). For example, in 2002 a series of values clarifications workshops based on *Health Workers for Choice* and *Health Workers for Change* were conducted in Limpopo province, and a retrospective evaluation in 2004 observed significantly increased knowledge of abortion legislation, compassion and empathy for abortion clients and providers, and supportive behaviours including advocacy and improvement of reproductive health care services (Trueman & Gabriel, 2005). Public health professionals could simultaneously foster community-led de-stigmatising abortion campaigns such as the community equivalent of *Health Workers for Choice* called *Communities for Choice* (Varkey & Ketlhapile, 2001), while also partnering to address other health concerns in the community that might be rooted in poverty or racial/ethnic marginalisation (for example, HIV). The continuing application of a comprehensive human rights-based approach to abortion in South Africa will be needed to ensure all women are equitably supported to have safe abortions, to have children, and to raise their children with dignity as they so choose.

Tables and Figures

Table II.1. The (Weighted) South African Social Attitudes Survey Sample in 2013

Variable	Category	Weighted Percent
Race/Ethnicity	African-isiXhosa	17.8
	African-isiZulu	23.5
	African-Sepedi	9.2
	African-Sesotho	8.9
	African-Setswana	8.0
	African-Other African Language	10.8
	Coloured-Afrikaans	6.7
	Coloured-English	2.4
	Indian-Any Language	2.9
	White-Afrikaans	5.8
	White-English	4.1
Educational Attainment	Primary or Less	18.3
	Some Secondary	40.1
	Matric or Equivalent	31.5
	Tertiary Education	10.2
Economic Class	Lower Class	41.9
	Working Class	22.7
	Middle/Upper Class	35.4
Province	Eastern Cape	11.8
	Free State	5.3
	Gauteng	26.2
	KwaZulu-Natal	18.6
	Limpopo	9.9
	Mpumalanga	7.5
	North West	6.7
	Northern Cape	2.2
	Western Cape	11.9
Urbanicity	Urban-Formal	63.5
	Urban-Informal	9.1
	Rural	27.3
Religion	Not Religious	15.0
	Christian	69.5
	Other	15.5
Political Ideology	Extremely Liberal/Left	8.5
	Liberal/Left	13.3
	Slightly Liberal/Left	12.1
	Moderate	23.9
	Slightly Conservative/Right	7.5
	Conservative/Right	6.5
	Extremely Conservative/Right	3.3
	Don't Know	25.0

Table II.2. Abortion Attitudes in the Case of Serious Foetal Anomaly, Family Poverty, and in Both Cases Combined among South Africans in 2013 (Weighted % of Respondents)

Attitude	Foetal Anomaly	Poverty	Both Cases
Not Wrong At All	22.5 %	9.1 %	22.0 %
Wrong Only Sometimes	14.1 %	7.3 %	
Almost Always Wrong	8.5 %	8.2 %	
Always Wrong	55.0 %	75.4 %	52.5 %

Table II.3. Bivariate Analyses of Reporting Abortion is 'Always Wrong' in South Africa in 2013

Category	Foetal Anomaly	Poverty	Both Cases
African-isiXhosa	*12.51****	*34.14****	*11.50****
African-isiZulu	2.65	2.00	*4.41**
African-Sepedi	**12.32****	**5.29***	**11.58****
African-Setswana	**6.12***	**12.33****	**10.23****
African-Sesotho	**7.8****	**11.16****	**5.23***
African-Other	**4.04***	0.85	**3.99***
Coloured-Afrikaans	0.06	0.15	0.06
Coloured-English	0.01	*3.93**	0.04
Indian-Any	1.75	*4.47**	2.63
White-Afrikaans	1.80	0.08	0.89
White-English	*12.44****	*6.25**	*9.45***
Primary Education or Less	*5.55**	3.19	0.26
Some Secondary Education	0.74	1.97	0.77
Completed Secondary	0.42	*4.16**	*10.49***
Some Tertiary Education	*12.15****	1.52	*6.24**
Lower Class	6.24	0.28	**6.27***
Working Class	1.13	0.47	1.32
Middle/Upper Class	3.48	1.56	2.98
Eastern Cape	2.77	*9.69***	3.42
Free State	0.04	**12.30****	0.01
Gauteng	**14.53****	**4.82***	**16.67****
KwaZulu-Natal	*16.60****	0.24	*21.70****
Limpopo	**30.15****	**10.43***	**29.54****
Mpumalanga	1.86	3.32	*3.91**
Northern Cape	1.91	**5.13***	1.99
Northwest	**4.58***	**6.21***	**6.25***
Western Cape	*12.93****	*28.32****	*11.59****
Urban-Formal	2.18	1.67	1.76
Urban-Informal	0.88	0.39	1.66
Rural	0.88	1.00	0.18
Female	2.56	3.40	3.82
Not Religious	0.41	0.54	0.34
Christian	0.05	0.51	0.05
Other Religion	0.61	0.09	0.54
Extremely Liberal/Left	0.17	0.92	0.35
Liberal/Left	0.67	0.09	0.23
Slightly Liberal/Left	*7.03***	*8.01***	*9.25***
Moderate	0.58	0.01	0.15
Slightly Conservative/Right	0.08	0.85	0.02
Conservative/Right	0.57	3.35	1.04
Extremely Conservative	**6.58***	0.45	**5.38***
Don't Know	2.03	0.02	0.84

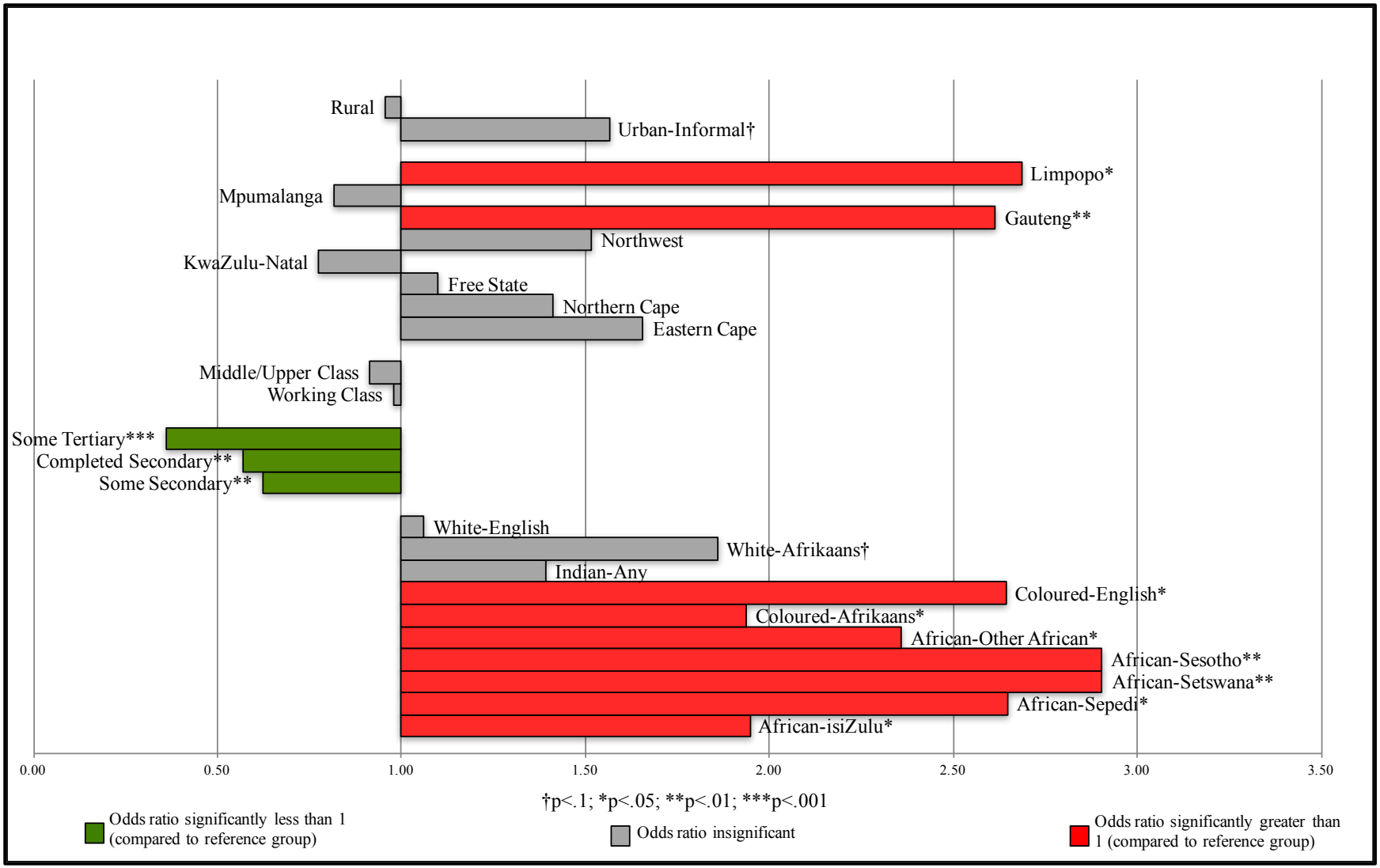
Note: F-statistics are presented (e.g. African-Xhosa compared to all others);
greater proportions bolded in red; ***lower*** proportions italicized in green;
***p<.001; **p<.01; *p<.05

Table II.4. Adjusted Odds Ratios of Reporting Abortion is 'Always Wrong' in South Africa in 2013

Variable	Foetal Anomaly*** (N=2,477)		Poverty*** (N=2,481)		Both Cases*** (N=2,459)	
	OR	SD	OR	SD	OR	SD
Race/Ethnicity (African-isiXhosa ref)						
African-isiZulu	**2.08***	**0.43**	**3.59****	**0.43**	**1.95***	**0.43**
African-Sepedi	**2.74***	**0.30**	**4.24****	**0.30**	**2.65***	**0.30**
African-Setswana	**2.49***	**0.29**	**5.29*****	**0.29**	**2.90****	**0.29**
African-Sesotho	**3.59****	**0.27**	**5.03*****	**0.27**	**2.90****	**0.27**
African-Other	**2.38***	**0.31**	**3.72****	**0.31**	**2.36***	**0.31**
Coloured-Afrikaans	**2.02***	**0.24**	**3.14*****	**0.24**	**1.94***	**0.24**
Coloured-English	**2.87***	**0.16**	2.07	0.15	**2.64***	**0.15**
Indian-Any	1.64	0.17	1.38	0.17	1.39	0.17
White-Afrikaans	1.82	0.23	**2.86****	**0.23**	1.86	0.23
White- English	1.03	0.19	1.21	0.19	1.06	0.19
Education (Primary or less ref)						
Some Secondary	***0.69****	***0.49***	0.99	0.49	***0.62****	***0.49***
Completed Secondary	***0.63****	***0.47***	0.65	0.47	***0.57****	***0.47***
Some Tertiary	***0.39****	***0.30***	0.63	0.30	***0.36*****	***0.30***
Economic Class (Lower class ref)						
Working Class	0.97	0.42	1.27	0.42	0.98	0.42
Middle/Upper Class	0.87	0.48	1.08	0.48	0.91	0.48
Province (Western Cape ref)						
Eastern Cape	1.71	0.34	**2.29***	**0.32**	1.66	0.32
Free State	0.93	0.23	**3.10****	**0.23**	1.10	0.23
Gauteng	**2.55****	**0.4**	**2.31****	**0.44**	**2.61****	**0.44**
KwaZulu-Natal	0.81	0.41	1.87	0.39	0.77	0.39
Limpopo	**2.58***	**0.33**	2.55	0.31	**2.69***	**0.31**
Mpumalanga	0.89	0.27	0.92	0.26	0.82	0.27
Northern Cape	1.58	0.14	**2.50***	**0.13**	1.41	0.13
Northwest	1.56	0.25	2.11	0.25	1.52	0.25
Urbanicity (Urban-formal ref)						
Urban-Informal	1.38	0.29	1.32	0.29	1.57	0.29
Rural	1.05	0.45	0.95	0.45	0.96	0.45

Note: all models controlled for gender, age, religion, and political [identity];
greater odds bolded in red; ***lower*** odds italicized in green;
SD= standard deviation; ***p<.001; **p<.01; *p<.05;

Figure II.1. Adjusted Odds Ratios of Reporting Abortion is 'Always Wrong' (in Both Cases Combined) in South Africa in 2013



CHAPTER III

Socio-demographic Trends in South African Abortion Attitudes from 2007 to 2013

Abstract

Abortion is legal in post-Apartheid South Africa, but negative abortion attitudes persist and reduce service accessibility. Unsafe abortion and related morbidity and mortality have been increasing since 2007 and are more likely among women who are African (Constant *et al*., 2014), of lower socioeconomic status (SES) (Harries *et al.*, 2015; Trueman & Magwentshu, 2013), living with HIV (National Committee for the Confidential Enquiries into Maternal Deaths, 2014; Stevens, 2012), or living in Gauteng, Limpopo, or KwaZulu-Natal provinces (National Committee for the Confidential Enquiries into Maternal Deaths, 2014). To date, few studies have investigated abortion attitudes at the national level or over multiple years, which has limited researchers' ability to assess trends or differences by race/ethnicity and SES. It has also prevented any comparison between the socio-demographic patterns of abortion attitudes and the patterns of unsafe abortion. The overarching research aim of this study was to compare and contrast the socio-demographic patterns of abortion attitudes and the socio-demographic patterns of abortion-related health inequities in South Africa. We used data from the nationally-representative South African Social Attitudes Surveys (SASAS) 2007-2013, when respondents were asked if they think abortion is "always wrong" or not always wrong in the case of fetal anomaly and in the case of poverty. We assessed in what ways, if any, South Africa abortion attitudes changed over time by using survey year as a predictor in binary logistic regression

models. We also assessed in what ways, if any, abortion attitudes differ by race/ethnicity, level of education, geography, religion, or age by including those socio-demographic predictors in the binary logistic regression models. We then stratified the regression models by race, education, and province to assess if the effects of survey year differed across groups; we also tested potential interactions with time using post-estimation Wald tests. We similarly tested for any significant interactions between gender, race, and level of education in predicting abortion attitudes using post-estimation Wald tests. Our results show moral acceptability of abortion was consistently low over the 2007 to 2013 period except for a brief increase in 2011. We also found that negative abortion attitudes are more common among respondents who are non-Xhosa African; less educated; living in Gauteng, the Eastern Cape, Limpopo, or Northwest; religious; or over 45 years. There were significant interactions between race and education, race and time, and province and time. These results suggest that higher risk of unsafe abortion observed among African women, women of lower SES, and women living in Gauteng and Limpopo *might* be related to more negative abortion attitudes and less permissive abortion norms in those communities. Further research is needed to test the potential correlation between abortion attitudes, unsafe abortion, and abortion-related health disparities.

Introduction

While access to safe abortion services is now considered a human right (United Nations, 2016), unsafe abortion (for example, self-induction or with substandard protocols) remains a public health and demographic challenge globally (Shah *et al*., 2014). Although most common where abortion is illegal, unsafe abortion continues to threaten women's health in places like South Africa, where abortion is legal but safe services are inequitably accessible (Singh *et al*., 2012). Studies in South Africa have documented a number of barriers to safe abortion care

including disapproving social norms and stigma (Harries *et al.*, 2015, 2007; Macleod *et al.*, 2011; Patel & Johns, 2009; Trueman & Magwentshu, 2013), long and expensive travel distances (Harries *et al.*, 2007; Trueman & Magwentshu, 2013), a dearth of facilities and trained providers particularly in rural areas (Constant *et al.*, 2014; Harries *et al.*, 2015; Stevens, 2012; Trueman & Magwentshu, 2013), long waiting lists and complicated referral procedures (Harries *et al.*, 2015; Trueman & Magwentshu, 2013), abuse and neglect from health workers (Constant *et al*., 2014; Harries *et al*., 2015, 2007; Stevens, 2012), fear of confidentiality breeches or discrimination (Harries *et al*., 2015, 2007), lack of knowledge about abortion policies and services (Constant *et al.*, 2014; Harries *et al.*, 2015; Trueman & Magwentshu, 2013), and women's own negative or ambivalent attitudes toward abortion (Harries *et al*., 2007; Varga, 2002). Abortion-related mortality declined immediately after legalization in 1996, but has been increasing since 2007 (Stevens, 2012; Trueman & Magwntshu, 2013). Moreover,women who are lower income (Harries *et al.*, 2015; Trueman & Magwentshu, 2013), African (Constant *et al*., 2014), living with HIV (National Committee for the Confidential Enquiries into Maternal Deaths, 2014; Stevens, 2012), or residents of Gauteng, Limpopo, or KwaZulu-Natal (National Committee for the Confidential Enquiries into Maternal Deaths, 2014) appear to be disproportionately vulnerable to unsafe abortion and associated maternal mortality. To the extent that attitudes are linked to reduced accessibility of safe services and increased risk of resultant maternal morbidity and mortality, they become a threat to both human rights and public health.

Previous studies of abortion attitudes in South Africa have largely relied on qualitative methods and non-representative samples including health workers (Harries *et al*., 2009), students or adolescents (Gresh & Maharaj, 2014; Patel & Johns, 2009; Patel & Kooverjee, 2009; Varga, 2002), and community members from particular regions of the country (Macleod *et al*., 2011).

One recent study utilized a nationally-representative survey to explore abortion attitudes, but it relied on a single year of cross-sectional data from 2013 (Mosley *et al*., 2017). Collectively, these investigations suggest negative attitudes toward abortion are common in South Africa, but that they vary across dimensions of abortion (e.g., moral accessibility or legal availability), racial/ethnic groups, levels of education, circumstances of pregnancy, and region. South Africans tend to support the legal right to and availability of abortion, but remain morally opposed (Patel & Johns, 2009; Patel & Kooverjee, 2009). While women are more likely to support women's autonomy to choose abortion, they are equally as opposed to abortion morally as men (Patel & Johns, 2009). It remains unclear if attitudes have shifted over time nationally and among specific subgroups, or how various socio-demographic factors might interact to pattern abortion attitudes.

The purpose of our current study was to investigate socio-demographic differences in moral acceptability of abortion over time among a nationally-representative sample of South African residents. We applied a human rights-based approach to health that positions abortion attitudes as important public health indicators, while contextualizing those attitudes in a comprehensive human rights framework that upholds the rights to reproductive autonomy, non-discrimination (for example, by gender, race/ethnicity, or other social category), and adequate living conditions. We specifically asked:

- In what ways, if any, have abortion attitudes in South Africa changed over time?
- In what ways, if any, do attitudes differ by race/ethnicity, level of education, geography, religion, or age?
- Are temporal effects on abortion attitudes different across racial/ethnic subgroups? Across levels of education? Across geographical regions?
    - Are there significant interactions between gender, race/ethnicity, and/or education?

Methods

Data

For this investigation, we utilized data from the SASAS (Human Sciences Research Council, 2015), a nationally representative, face-to-face survey conducted annually with data currently available from 2003 until 2013. Respondents are newly selected each year (repeated cross-sectional design) through a three-stage random sampling process at the census enumeration area, household, and individual levels stratified by province, urbanicity, and racial group. Abortion attitude questions were not included in the 2010 survey, and variables needed to account for the complex sampling design were absent prior to 2007, so we excluded 2010 and 2003-2006 from the current study. Out of a total sample of 18,252 respondents, we analyzed data from 16,491 individuals with complete data for all measures described below (see Table 1).

Measures

- *Abortion attitudes.* Dependent variables were attitudes toward abortion in two specific cases and in both cases combined. The only two questions SASAS data collectors asked regarding abortion were, "Do you feel abortion is wrong or not wrong if there is a strong chance of serious defect in the baby?" and "Do you feel abortion is wrong or not wrong if a family has a low income and cannot afford any more children?" Responses were recorded using a 4-point Likert scale: "not wrong at all," "wrong only sometimes," "almost always wrong," and "always wrong." As responses were heavily skewed, and we were most interested in unequivocally negative abortion attitudes, we constructed dichotomous variables with "almost always" coded as 1 and other responses coded as 0. Finally, we developed another dependent variable combining both cases, where respondents who felt abortion is "always wrong" in both cases were coded 1 and all response combinations were coded as 0.

• *Race/ethnicity.* We operationalized race/ethnicity for the current study as a combination of self-identified racial population group ("Black African," "Coloured," "Indian/Asian," and "White) and language spoken most commonly at home. This resulted in seven race/ethnicity categories for our analyses: African-isiXhosa (reference), African-isiZulu, African-Other, Coloured, Indian, White-Afrikaans, and White-English. Africans who speak a language other than isiXhosa or isiZulu were combined into a single group in order to increase the sample size and because a previous study found those groups hold similar attitudes toward abortion morality (Mosley *et al.,* 2017).

South Africa's contemporary and historical racial/ethnic heterogeneity is particularly relevant to the current study and deserves explanation. African-Xhosa (16.0%) is the racial/ethnic group of the late Nelson Mandela, South Africa's first democratic president inaugurated in 1994. African-Zulu is now the largest racial/ethnic group in South Africa (22.7% national population) and that of current President Jacob Zuma (Statistics South Africa, 2012b). Other major African ethnic groups include Sepedi (9.1%), Setswana (8.0%), Sesotho (7.6%), and Xitsonga (4.5%) (Statistics South Africa, 2012b). Afrikaans—the language of (White) Dutch colonists who settled in South Africa around 1692 and later the official language of legal Apartheid from 1948 until 1994—is now the primary language spoken by 13.5% of mostly Coloured and White South Africans (Frederickson, 1982; Statistics South Africa, 2012b). The British also occupied South Africa on and off from the turn of the 19th century until rise of the Afrikaner National Party in 1948 (Coovadia *et al*., 2009), and English is now the primary language spoken by 9.6% of mostly White and Indian South Africans (Statistics South Africa, 2012b). Coloured individuals (8.8% national population) are multi-racial and typically descendants of White settler colonists and African or Asian slaves, who were brought to the

Cape Colony beginning in 1654 (Coovadia *et al*., 2009). British colonists also brought Indian indentured servants to work on sugar plantations in KwaZulu-Natal, and today 2.5% of the national population is Indian (Coovadia *et al.*, 2009; Statistics South Africa, 2012b).

- *Socioeconomic status.* We operationalized SES as highest level of educational attainment: primary education or less (reference), some secondary education, completed secondary education/matriculation or equivalent, and any tertiary education. Although SES would, ideally, be measured as both education and income/wealth, many respondents did not answer questions on income/wealth when they were asked. For this reason, SES was limited to education.
- *Geography.* We operationalized geography as province and urbanicity of residence. The nine provinces of South Africa are: Western Cape (reference), Eastern Cape, Northern Cape, Free State, KwaZulu-Natal, North West, Gauteng, Mpumalanga, and Limpopo. Urbanicity was measured as "urban-formal" (reference); "urban-informal;" and "rural." The original SASAS distinction of "rural-traditional" and "rural-formal" was collapsed due to small sample sizes. Sensitivity analyses were also conducted using racial/ethnic categories that distinguished African-Xhosa, African-Zulu, African-Other, and Coloured respondents based on their urban-formal, urban-informal, or rural location (Indian and White respondents predominantly lived in urban-formal areas). These analyses yielded similar results to those described below when urbanicity was simply controlled as a potential covariate.
- *Other socio-demographic factors.* Other socio-demographic factors have been associated with abortion attitudes in various global settings, including one's gender, religion, and age. SASAS data collectors recorded whether respondents were "male" or "female" (sex), which we used as an imperfect proxy for gender. Age was measured on SASAS as a continuous variable in years. For the sake of parsimony, age was dichotomized into "45 years or less" and "more than 45

years" in our multivariate analyses. This signifies women who are in the traditional reproductive years (16-45 years) and after the traditional reproductive years (>45 years). Sensitivity analyses were performed with three age categories (16-24, 25-44, 45+), which yielded similar results as described below. Religious affiliation was recorded for all SASAS respondents, and these categories were collapsed into: "not religious," "Christian," and "other religion."

Analytic approach

As previously noted, we merged SASAS datasets from 2007 through 2013, excluding 2010, into a single dataset (N=18,252). Following a complete case analysis protocol, we deleted any cases that were missing data on any variables of interest. On the remaining study sample (N=16,941), we conducted binary logistic regression models using survey weighting to account for the complex SASAS sampling design so that results can be extrapolated to the national South African population (Heeringa, West, & Berglund, 2010). Odds ratios (OR) and post-estimation Wald tests were used to determine significant temporal effects in the overall sample. Odds ratios were used to determine significant socio-demographic differences between groups, and post-estimation Wald tests were used to determine the overall significance of race/ethnicity, education, province, urbanicity, religion, and age. We then analyzed interactions between predictors of interest using Wald tests, and significant interactions were further explored using predicted probabilities (Long, 2009) in Stata v 14 (StataCorp, 2014). Additional analyses of potential interaction effects were conducted by examining odds ratios in binary logistic regression models limited to the specific subpopulation of interest using the subpop command in Stata v 14 (StataCorp, 2014)—for example, by comparing the significance of survey year in race/ethnicity-specific models.

Results

South African attitudes toward abortion in the case of fetal anomaly and poverty from 2007 to 2013 are shown in Figure 1, along with error bars denoting two standard errors above and below the trend lines. Overall, attitudes remained consistent over the time period observed: approximately half of South Africans consistently reported abortion is "always wrong" in both cases or in the case of fetal anomaly. Even more—approximately three-quarters over the period—felt abortion was "always wrong" if a family is low-income and cannot afford another child. Results from the binary logistic regression models are shown in Table 2. When treated as a continuous variable (as shown in Table 2), survey year was not a significant predictor of abortion attitudes overall (OR=0.98, p=.16). When year was treated as a categorical variable in sensitivity analyses, however, abortion attitudes were found to be significantly more lenient in 2011 (OR=0.72, p<.001) as compared to other years.

Abortion attitudes significantly differed by race/ethnicity. After controlling for other covariates, respondents who were African and spoke isiZulu (OR=1.46, p<.01) or another non-Xhosa language (OR=1.38, p<.01) were more likely to report abortion is "always wrong" in both cases as compared to other groups. In the case of familial poverty, Coloured respondents (OR=1.60, p<.001) and White respondents who spoke Afrikaans (OR=1.71, p<.001) were also more likely to report abortion is "always wrong" as compared to Xhosa, Indian, and White respondents who spoke English. When considering urbanicity as a categorical covariate, we did not observe any significant attitude differences among urban-informal (OR=1.08, p=.44) or rural (OR=1.10, p=.171) respondents compared to those in formal urban areas. Nevertheless, we conducted sensitivity analyses and considered African groups separately by level of urbanicity. No significant differences were detected among Xhosa, Zulu, or other African respondents living

in urban or rural areas as compared to their counterparts living in formal urban areas.

Our results also showed significant effects of education on abortion attitudes from 2007 to 2013. In both scenarios combined, respondents with some secondary education (OR=0.80, p<.01), a completed secondary education (OR=0.70, p<.001), and any tertiary education (OR=0.51, p<.001) had significantly lower odds of reporting abortion is "always wrong" than respondents with only a primary-level education or less.

Province, religion, and age were also significantly associated with abortion attitudes. Respondents living in the Eastern Cape (OR=1.51, p<.01), Northwest (OR=1.37, p<.05), Gauteng (OR=1.72, p<.001), and Limpopo (OR=1.48, p<.01) were significantly and consistently more likely to report abortion is "always wrong" in both cases as compared to residents of other provinces. In the case of familial poverty, respondents in KwaZulu-Natal (OR=1.79, p<.01), the Northern Cape (OR=1.74, p<.001), and Mpumalanga (OR=1.47, p<.05) were also more likely to report abortion is "always wrong" as compared to respondents in other provinces. Respondents who identified as religious but not Christian were consistently more likely to report abortion is "always wrong" in both cases presented (OR=1.33, p<.01). In the case of poverty, specifically, Christians were also more likely than non-religious respondents to feel abortion is "always wrong" (OR=1.22, p<.01). Respondents over the age of 45 were more likely than younger respondents to feel abortion is "always wrong" in both cases (OR=1.14, p<.05). Sensitivity analyses with three age categories (16-24, 25-44, 45+ years) suggested slightly (but not significantly) more negative attitudes among 16-24 as compared to 25-44 year olds.

Wald tests of the interactions between our socio-demographic predictors of interest showed significant interactions between race/ethnicity and time (F=1.88, p<.05), province and time (F=4.17, p<.001), and between race/ethnicity and education (F=1.88, p<.05) (Figures 2, 3,

4). In these interaction models, time was measured as a categorical variable of survey year. Other two-way interactions as well as a three-way interaction between gender, race/ethnicity, and education were insignificant in this dataset.

Temporal trends by racial/ethnic group are displayed in Figure 2 using adjusted predicted probabilities. Negative abortion attitudes among Xhosa respondents significantly declined from 2007 to 2013 (adjusted predicted probabilities=0.63 to 0.38, $p<.05$), while attitudes became significantly more negative among Coloured respondents (adjusted predicted probabilities=0.37 to 0.55, $p<.05$). Attitudes trended toward more negative over time among African respondents speaking another language besides isiXhosa or isiZulu, Indian respondents, and White-respondents who speak Afrikaans—although these were not significant. Negative attitudes among Zulu respondents appeared to decline in the latter half of the period, but the effects were not significant. Attitudes remained relatively positive among White, English-speaking respondents over the period. The interaction between time and race/ethnicity was also assessed in subpopulation analyses using race/ethnicity-specific regression models, which suggested similar but not identical results. In those models, we found lower odds of negative attitudes over time (as a continuous variable) for Xhosa (OR=0.87, $p<.001$) and Zulu respondents (OR=0.91, $p<.001$) and significantly higher odds among Coloured respondents (OR=1.09, $p<.01$) and African respondents who do not speak isiXhosa or isiZulu at home (OR=1.06, $p<.01$).

Temporal trends by province are displayed in Figure 3 also using adjusted predicted probabilities. In these analyses, attitudes became significantly more negative over time in Northern Cape (adjusted predicted probabilities=0.31 to 0.62, $p<.05$) and marginally more negative in the Eastern Cape, Free State, Northwest, Gauteng, and Limpopo. Attitudes became significantly more positive in Mpumalanga (adjusted predicted probabilities=0.62 to 0.41, $p<.05$)

and marginally more positive in KwaZulu-Natal, while they remained relatively constant in Western Cape. Subpopulation analyses using province-specific regression models showed similar results, except for the Eastern Cape, where increasing survey year (as a continuous variable) was associated with lower odds of reporting abortion is "always wrong" in both cases (OR=0.91, p<.01).

The interaction between race/ethnicity and education is shown in Figure 4 using adjusted predicted probabilities. Abortion attitudes became increasingly positive with greater education among Xhosa respondents (adjusted predicted probability=0.61 for those with primary education or less and 0.36 with some tertiary education, p<.05), other non-Zulu Africans (adjusted predicted probability=0.60 for those with primary education or less and 0.47 with some tertiary education, p<.05) as well as among White respondents who spoke Afrikaans (adjusted predicted probability=0.76 for those with primary education or less and 0.31 with some tertiary education, p<.05). In contrast, education did not seem to have significant effects on Zulu, Coloured, Indian, or those White respondents who spoke English. Subpopulation analyses using race/ethnicity-specific binary logistic regression models found similar results. Analyses using regression models limited to respondents with less than a secondary education revealed significantly lower odds of reporting abortion is "always wrong" in both cases for White respondents who spoke Afrikaans (OR=0.54, p<.01) and Indian respondents (OR=0.62, p<.05). When regression models were limited to respondents who completed secondary education or higher, Zulu (OR=2.32, p<.001) and other non-Xhosa African respondents (OR=1.93, p<.001) were significantly more likely to report abortion is "always wrong" in both cases as compared to other racial/ethnic groups.

Discussion

Our results from nationally-representative, repeated cross-sectional survey data suggest that moral acceptability of abortion has remained generally low in South Africa from 2007 until 2013, but that abortion attitudes differ significantly by the circumstances of pregnancy and by race/ethnicity, level of education, province, religion, and age of the respondent. South Africans were more likely to feel abortion is "always wrong" in the case of familial poverty as compared to fetal anomaly. When considering the two cases together, respondents were more likely to feel abortion is "always wrong" if they were non-Xhosa African (as compared to Xhosa); had only a primary education or less (as compared to some secondary education or more); lived in the Eastern Cape, Northwest, Gauteng, or Limpopo (as compared to Western Cape); were non-Christian but religious (as compared to non-religious); or were over 45 years of age. These socio-demographic patterns of abortion attitudes by race/ethnicity, education, and in Gauteng and Limpopo suggest that individual-level abortion attitudes as well as community-level abortion norms might be contributing to some of the observed unsafe abortion disparities in South Africa. We found no significant effects of gender in the full sample or among any subsamples by specific race/ethnicity or level of education. We did find significant interactions, however, between race/ethnicity and time, province and time, as well as race/ethnicity and education. Using a human rights-based approach to health, we contextualize these findings in the existing evidence base and explore implications for research, policy, and practice below.

Our observation that abortion attitudes (in the aggregate) have not changed much over time is consistent with previous studies globally that have shown remarkable temporal stability (Jelen, 2015), but this belies more heterogeneity in abortion attitudes below the surface. For one, South African abortion attitudes were significantly more positive in 2011. SASAS data was

collected November-December 2011 (Human Sciences Research Council, 2015), which immediately followed a well-publicized *South African Medical Journal* report in May 2011 on the importance of abortion services for preventing maternal deaths (Bateman, 2011). Future in-depth investigations might explore if this or other factors contributed to the promising—albeit fleeting—shift in abortion attitudes. Echoing previous research in South Africa, in the United States (U.S.), and elsewhere, we also found so-called "soft" reasons for abortion (like poverty) were less acceptable than so-called "hard" reasons such as fetal anomaly (Patel & Johns, 2009; Patel & Kooverjee, 2009). The null findings for gender also agree with previous investigations of abortion attitudes, which typically show gender differences in attitudes toward women's autonomy to choose abortion but not toward moral acceptability (Patel & Johns, 2009, p. 495; Patel & Kooverjee, 2009, p. 560) as was measured in the SASAS datasets.

We found significant differences in abortion attitudes and their trends over time across racial/ethnic groups in South Africa, with potential implications for human rights and health equity. African respondents who spoke a language other than isiXhosa (for example, isiZulu, Sesotho, Setswana, Sepedi, Siswati, isiNdebele, Xitsonga, Tshivenda/Lemba) had greater odds of reporting abortion is "always wrong" in both cases. These results are in agreement with a previous cross-sectional analysis of the SASAS in 2013, which also suggested attitudes were more negative among Zulu and other non-Xhosa African groups (Mosley *et al*., 2017). Unlike the study from 2013, however, we did not find significantly higher odds of negative attitudes among Coloured respondents. This might be explained by the significant interaction between race/ethnicity and time. In this first study to analyze South African abortion attitudes over time, we observed that attitudes have become significantly more positive among Xhosa respondents while they have became significantly more negative among Coloured respondents. These results

potentially suggest underlying and divergent socio-cultural shifts among Xhosa and Coloured respondents. Qualitative research is needed to explore what might be changing in these particular communities (net of education and geographic effects) that increases acceptability of abortion for Xhosa South Africans and reduces acceptability for Coloured South Africans. Most importantly, further studies are needed to discern if and how these racial/ethnic differences in abortion attitudes might contribute to inequitable access to safe abortion services and, subsequently, to the observation that African women are at higher risk of unsafe abortion.

Our finding of a significant, positive association between education and moral acceptability of abortion is congruent with similar evidence from previous studies in South Africa and globally (Mosley *et al*., 2017; Patel & Johns, 2009; Patel & Kooverjee, 2009). We expanded upon this evidence base by demonstrating a significant interaction between level of education and race/ethnicity. Theoretically speaking, this could mean that education effects are moderated by race/ethnicity or, conversely, that race/ethnicity effects are moderated by education. From our analyses, it appears that both mechanisms are plausible. For example, the significant association between increasing education and less negative attitudes depends on the respondent's race/ethnicity. If the respondent was Zulu, Coloured, Indian, or White and English-speaking, then their level of education did not significantly affect their abortion attitudes. In contrast, for respondents who were African and spoke isiXhosa or another language besides isiZulu and for those respondents who were White and spoke Afrikaans, increased education was correlated with less negative attitudes. At the same time, the socio-cultural effects on abortion attitudes also seem to be affected by one's level of education. Significantly higher odds of reporting abortion is "always wrong" in both cases were only more likely for Zulu and other non-Xhosa African respondents if they had completed a secondary education or greater. When

analyses were restricted to respondents who did not complete secondary education, however, Indian respondents and Afrikaans-speaking White respondents showed significantly lower odds of reporting abortion is "always wrong" compared to respondents from all other racial/ethnic groups. Ultimately, these repeated cross-sectional analyses cannot distinguish if increasing education causes more positive abortion attitudes or, rather, more positive abortion attitudes increase education. Regardless, the international health and development communities have agreed that both one's human rights to education and comprehensive reproductive health services are mutually reinforcing and fundamental to women's equity and empowerment (United Nations, 2014).

We also noted significantly different abortion attitudes across provinces with more negative attitudes in the Eastern Cape, Northwest, Gauteng, and Limpopo. These patterns did not differ by level of urbanicity. The previous cross-sectional study from 2013 also detected significantly more negative attitudes in Gauteng and Limpopo (Mosley *et al*., 2017). Looking over time from 2007 to 2013, we found increasingly negative attitudes in the Northern Cape and increasingly positive attitudes in Mpumalanga. Our results for Eastern Cape are mixed, however, with predicted probabilities and province-specific regression models suggesting negative attitudes are marginally increasing and significantly decreasing, respectively. Future quantitative studies could attempt to disentangle these findings. Qualitative studies are also needed to identify mechanisms that are increasing acceptance of abortion in Mpumalanga and decreasing acceptability in the Northern Cape. It is possible these provincial-level trends reflect underlying structural changes occurring within various provinces. Since abortion was legalized nationally in South Africa, responsibility for implementation (including provision of services, training of providers, and community engagement) has largely fallen on provincial health departments

(McIntyre & Klugman, 2003). This creates problematic heterogeneity across provinces and might increase sensitivity to changes in province-level health leadership that either increase or decrease support for abortion. Notably, the most recent national maternal mortality report from 2011-2013 documented significantly higher rates of abortion-related mortality in Gauteng, Limpopo, and KwaZulu-Natal as compared to the national average (National Committee for the Confidential Enquiries into Maternal Deaths, 2014). Future studies are needed to investigate if and how the significantly more negative abortion attitudes we observed in Gauteng and Limpopo might be related to poorer service accessibility and increased risk of unsafe abortion, as well as factors driving the significantly heightened risk experienced by women in KwaZulu-Natal. It is possible that the significantly more negative abortion attitudes we observed among Zulu respondents affect the structural conditions of abortion services in KwaZulu-Natal.

Religion and age were also significantly related to abortion attitudes. Global evidence has demonstrated a significant association between religious denomination and moral opposition to abortion (Carter *et al*., 2009; Gresh & Maharaj, 2014; Patel & Johns, 2009). We expand on this literature by demonstrating—in a nationally-representative sample of South Africans—significantly more negative abortion attitudes among non-Christians than non-religious individuals in the case of fetal anomaly and significantly more negative attitudes among all religious (Christian and non-Christian) individuals in the case of poverty. To date, most South African studies of abortion attitudes have relied on purposively-sampled, homogenous age groups such as university students (Gresh & Maharaj, 2014; Patel & Johns, 2009; Patel & Kooverjee, 2009). In this study with South Africans of all ages over 16, we found that respondents over 45 years were *more* likely to report abortion is "always wrong." This contrasts evidence from the U.S., which suggested increasing age was associated with increasingly

positive abortion attitudes (Learman *et al*., 2005). In South Africa, perhaps we are detecting a difference of abortion ideology between the older and younger generations. In their qualitative focus groups with community members in the Eastern Cape, researchers noted that moral opposition to abortion often reflected and reinforced inter-generational power struggles (Macleod *et al*., 2011). Varga and her colleagues (2002) also noted a tension between the lived realities of adolescent girls in KwaZulu-Natal and the expectations they felt from older family and community members. Varga *et al*. (2002) noted that pregnant girls simultaneously experienced social stigma against abortion and overt pressure from parents to abort in secrecy (often unsafely) as a means of avoiding the stigma of adolescent pregnancy. Other scholars have emphasized the enduring effects of abortion under Apartheid, during which abortion was (largely) illegal and health consequences from unsafe abortion were ubiquitous among impoverished African women—an average of 425 died annually (Hodes, 2013). It is possible the generational differences we observed in abortion attitudes reflect this history.

Our results offer the first investigation of South African abortion attitudes nationally and over time, but several challenges limit the conclusions we can draw. We relied on secondary quantitative data, which used close-ended questions and responses and, therefore, could not accurately capture the diverse spectrum of abortion attitudes including contradictions, indifference, or attitudes in cases other than fetal anomaly and poverty. The highly-structured survey also could not capture dynamics between the respondent and interviewer or important contexts of the interview such as whether a person's spouse was present. Additionally, while we could aggregate data across several annual surveys, the data were drawn from repeated cross-sectional samples. All relationships we observed in our analyses, therefore, constitute statistical associations and causality cannot be proven.

Conclusion

A human rights-based approach to health identifies access to safe abortion as both a human right and a prerequisite of the human rights to health and non-discrimination by gender (Shah *et al*., 2014; United Nations, 2014, 2016). To the extent that negative attitudes toward abortion impede women's access to safe services, they stand in opposition to these basic human rights. Our results suggest that community-level differences in abortion attitudes might be contributing to abortion-related health disparities by race/ethnicity, SES, and region given that attitudes are more negative among those groups at higher risk of unsafe abortion and maternal mortality from abortion (non-Xhosa African respondents, South Africans of lower SES, and residents of Gauteng and Limpopo).

International bodies (United Nations, 2014) and leaders within South Africa (Dlamini, 2014) have also emphasized the importance of addressing underlying reasons women have abortions, recognizing women's right to carry a pregnancy to term if she chooses, and providing the structural resources needed to parent with dignity. In South Africa, the major drivers of abortion are unintended pregnancy (for example, due to contraceptive failure/non-use and among adolescents whose pregnancy is highly stigmatized), poverty, and HIV (Orner, de Bruyn, & Cooper, 2011). The effects of colonialism and Apartheid have left the national health system fractured, decentralized, and deeply segregated by race and income (Chopra *et al*., 2009; Coovadia *et al*., 2009). Capacity remains insufficient to meet the public's need for contraception, maternity care, and HIV services—much less safe abortion (Chopra *et al.*, 2009; Trueman & Magwentshu, 2013). Despite wide-reaching anti-poverty initiatives like the Child Support Grant, nearly half of South Africans still live below the poverty line, and socioeconomic inequity between and across races continues to increase (Statistics South Africa, 2014). Poverty and

unemployment remain highest among Africans, with women experiencing the greatest burden (Statistics South Africa, 2012b, 2014).

Considering our results in these historical, social, and economic contexts, we have identified many implications for practice and policy in the health and social development sectors. To the extent that negative abortion attitudes erode access to safe abortion services, our results suggest the need for community-based interventions to improve acceptability, particularly for women who are accessing abortion because of poverty. Evidence-based abortion destigmatization interventions like *Health Workers for Choice* (Varkey *et al.*, 2001), *Health Workers for Change* (Fonn & Xaba, 2001), and the *Providers Share Workshop* (Harris *et al*., 2011), will be necessary to improve access to high quality services—especially in the public sector where African women and low-income women are more likely to access care. At the provincial level, improved policies are needed to standardize abortion counseling and care, given that attitudes toward abortion vary across provinces and might contribute to inconsistency in services and resulting abortion-related mortality disparities. At the national level, policy-makers could implement evidence-based, comprehensive sexual education for all students with an emphasis on gender equity. Such programs have been shown to both prevent unintended pregnancies and improve support for women's autonomy globally (United Nations, 2014), and support for women's autonomy has been previously associated with more positive attitudes toward abortion in South Africa (Patel & Johns, 2009). Officials across all levels of South African government must continue building structural support for those women who are pregnant and do not wish to terminate. This includes disability services for children born with special needs; greater anti-poverty measures including child-care subsidies; safer conception options for couples living with HIV; and initiatives to improve women's economic and social

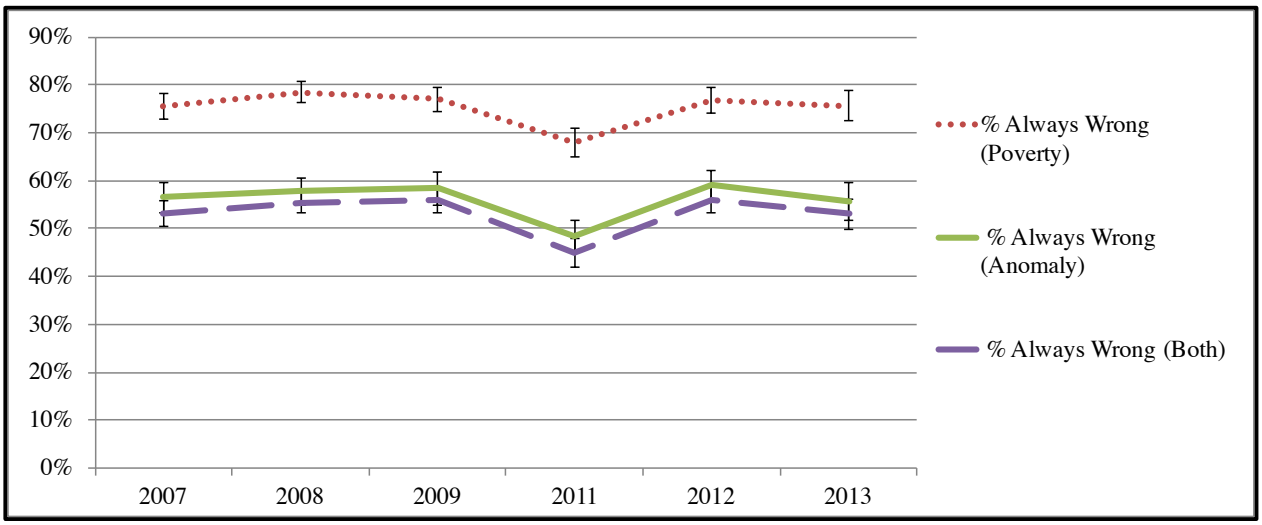
empowerment. Such practice- and policy-based initiatives are essential for the human rights-based approach upon which democratic South Africa was founded.

Tables and Figures

Table III.1. Descriptive Statistics of the Analytic Sample (N=16,941) from the Nationally-Representative South African Social Attitudes Surveys 2007-2013, excluding 2010

Variable	Value/Category	Weighted Percentage	Sample
Race/Ethnicity	African-isiXhosa	17%	2,858
	African-isiZulu	23%	3,942
	African-Other	37%	6,299
	Coloured	9%	1,594
	Indian-Any	3%	491
	White-Afrikaans	6%	1,079
	White- English	4%	678
Education	Primary or Less	20%	3,326
	Some Secondary	39%	6,580
	Completed Secondary	31%	5,216
	Some Tertiary	11%	1,821
Province	Eastern Cape	13%	2,165
	Free State	5%	913
	Gauteng	24%	4,044
	KwaZulu-Natal	20%	3,463
	Limpopo	10%	1,730
	Mpumalanga	7%	1,243
	Northern Cape	2%	391
	Northwest	6%	1,084
	Western Cape	11%	1,909
Urbanicity	Urban-Formal	57%	9,629
	Urban-Informal	10%	1,677
	Rural	33%	5,635
Religion	Not Religious	16%	2,743
	Christian	71%	12,096
	Other	12%	2,102
Age	Under 45 years	70%	11,908
	45 Years or Older	30%	5,033
Sex	Female	53%	8,897
	Male	47%	8,044

Figure III.1. Abortion Attitudes Among South Africans in the Case of Fetal Anomaly, in the Case of Poverty, and in Both Cases Combined from 2007-2013 with Two Standard Error Bars



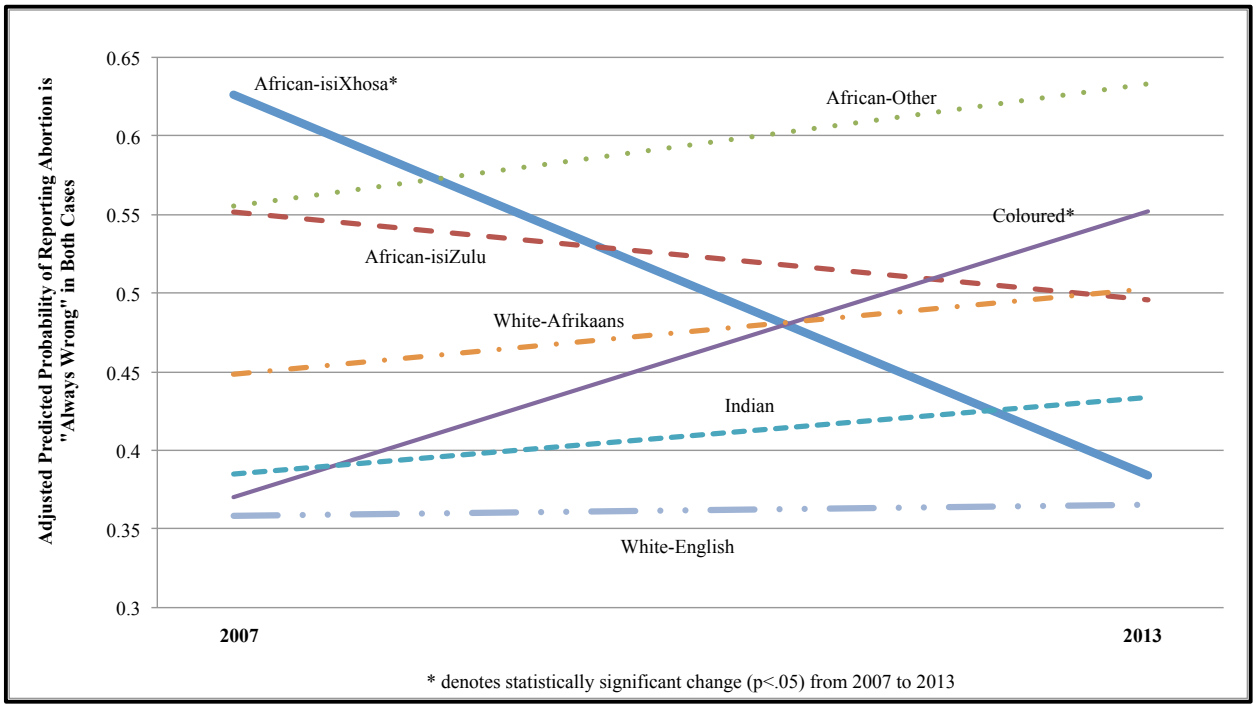
Year	Fetal Anomaly		Poverty		Both Cases Combined	
	Point Estimate	Standard Error	Point Estimate	Standard Error	Point Estimate	Standard Error
2007	0.565	0.015	0.756	0.014	0.532	0.015
2008	0.578	0.014	0.785	0.011	0.554	0.014
2009	0.584	0.017	0.770	0.013	0.559	0.016
2011	0.485	0.015	0.680	0.015	0.450	0.016
2012	0.590	0.016	0.769	0.014	0.561	0.016
2013	0.557	0.020	0.757	0.016	0.531	0.019

Table III.2. Binary Logistic Regression Models of Abortion Attitudes in South Africa 2007-2013

	Fetal Anomaly*** (N=16,941)			Poverty*** (N=16,941)			Both Cases*** (N=16,941)		
	OR	**p**	**SE**	**OR**	**p**	**SE**	**OR**	**p**	**SE**
Year	0.98	0.169	0.01	0.98	0.109	0.01	0.98	0.156	0.01
Female	0.98	0.169	0.05	1.06	0.289	0.05	1.03	0.508	0.05
Race/Ethnicity (African-isiXhosa ref)									
African-isiZulu	**1.65**	***	**0.09**	**1.64**	***	**0.14**	**1.46**	**	**0.12**
African-Other	**1.45**	**	**0.09**	**1.65**	***	**0.12**	**1.38**	**	**0.11**
Coloured	1.13	0.299	0.10	**1.60**	***	**0.13**	1.07	0.558	0.12
Indian-Any	0.94	0.681	0.15	1.12	0.482	0.16	0.85	0.272	0.14
White-Afrikaans	0.80	0.104	0.10	**1.71**	***	**0.15**	0.80	0.105	0.13
White- English	0.82	0.191	0.10	1.12	0.520	0.17	0.79	0.110	0.15
Education (Primary or less ref)									
Some Secondary	***0.80***	**	***0.07***	***0.83***	*	***0.08***	***0.80***	**	***0.07***
Completed Secondary	***0.70***	***	***0.08***	***0.70***	***	***0.09***	***0.70***	***	***0.08***
Some Tertiary	***0.52***	***	***0.09***	***0.64***	***	***0.10***	***0.51***	***	***0.09***
Province (Western Cape ref)									
Eastern Cape	**1.57**	***	**0.13**	**1.55**	**	**0.14**	**1.51**	**	**0.13**
Northern Cape	0.81	0.161	0.15	**1.74**	***	**0.15**	0.84	0.246	0.15
Free State	0.89	0.416	0.14	0.83	0.248	0.16	0.88	0.348	0.14
KwaZulu-Natal	0.91	0.464	0.13	**1.79**	***	**0.14**	0.94	0.619	0.13
Northwest	**1.36**	*	**0.14**	**1.39**	*	**0.16**	**1.37**	*	**0.14**
Gauteng	**1.74**	***	**0.12**	**1.48**	**	**0.13**	**1.72**	***	**0.12**
Mpumalanga	1.29	0.064	0.14	**1.47**	*	**0.15**	1.27	0.080	0.13
Limpopo	**1.57**	**	**0.14**	**1.79**	***	**0.15**	**1.48**	**	**0.14**
Urbanicity (Urban-formal ref)									
Urban-Informal	1.08	0.441	0.10	0.97	0.763	0.11	1.07	0.508	0.10
Rural	1.10	0.171	0.07	1.06	0.499	0.08	1.10	0.160	0.07
Religion (Not religious ref)									
Christian	1.12	0.091	0.07	**1.22**	**	**0.07**	1.08	0.251	0.06
Other	**1.35**	**	**0.09**	**1.53**	***	**0.11**	**1.33**	**	**0.09**
45 Years or Older	**1.13**	*	**0.05**	**1.19**	**	**0.06**	**1.14**	*	**0.05**

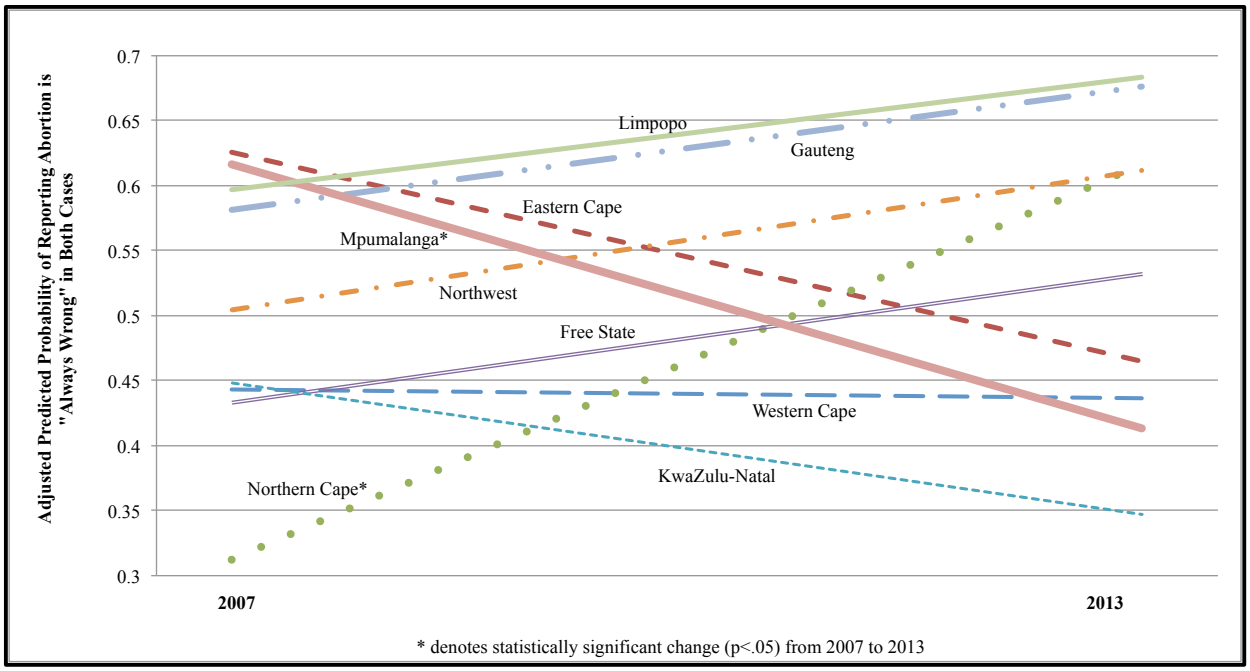
Note: **greater** odds bolded in red; ***lower*** odds italicized in green;
SE= standard error of the regression coefficient (b);
*** p<.001; **p<.01; *p<.05

Figure III.2. Adjusted Predicted Probabilities of South Africans Reporting Abortion is "Always Wrong" in Both Cases by Race/Ethnicity from 2007 to 2013



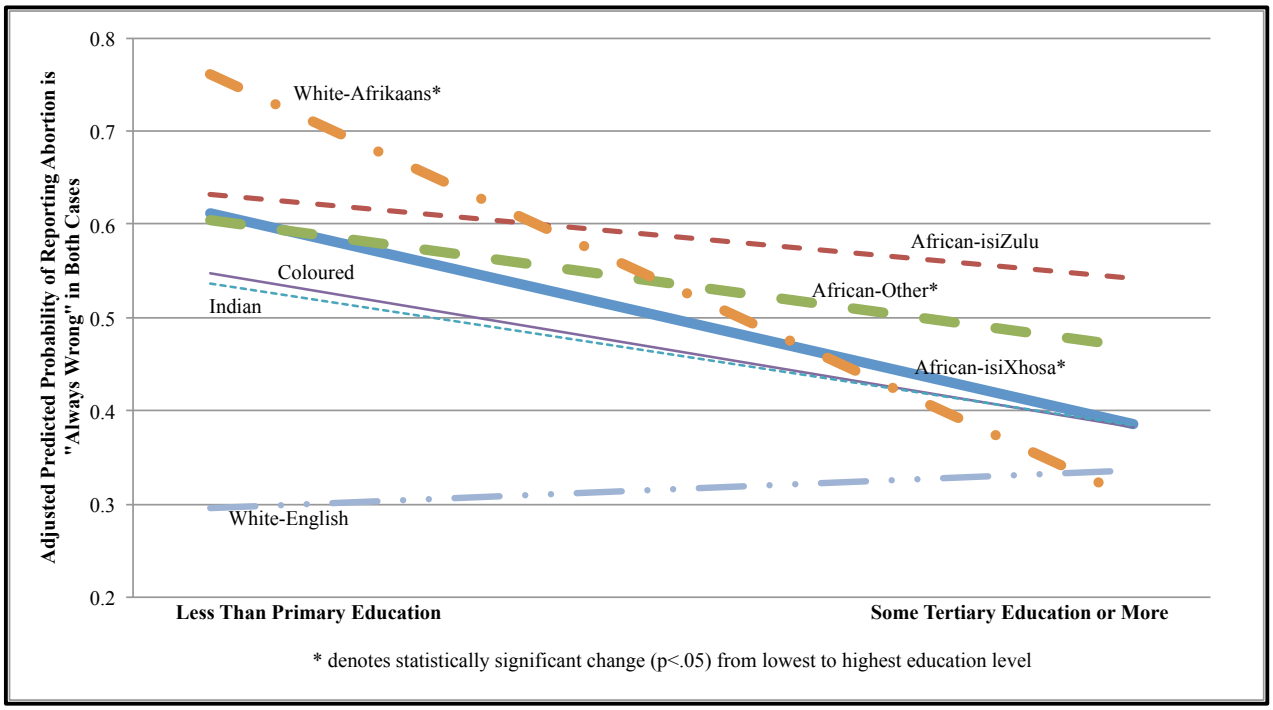
Race/Ethnicity	2007	2013
African-isiXhosa*	0.626	0.384
African-isiZulu	0.552	0.496
African-Other	0.555	0.633
Coloured*	0.370	0.552
Indian	0.385	0.434
White-Afrikaans	0.448	0.503
White-English	0.358	0.365

Figure III.3. Adjusted Predicted Probabilities of South Africans Reporting Abortion is "Always Wrong" in Both Cases by Province from 2007 to 2013



Province	2007	2013
Eastern Cape	0.625	0.465
Free State	0.433	0.532
Gauteng	0.581	0.676
KwaZulu-Natal	0.448	0.347
Limpopo	0.597	0.683
Mpumalanga*	0.616	0.413
Northern Cape*	0.312	0.616
Northwest	0.504	0.611
Western Cape	0.443	0.436

Figure III.4. Adjusted Predicted Probabilities of South Africans Reporting Abortion is "Always Wrong" in Both Cases by Race/Ethnicity Over Level of Education (from 2007 to 2013 Combined)



Race/Ethnicity	2007	2013
African-isiXhosa*	0.612	0.385
African-isiZulu	0.632	0.542
African-Other*	0.604	0.468
Coloured	0.548	0.382
Indian	0.537	0.384
White-Afrikaans*	0.761	0.306
White-English	0.295	0.336

CHAPTER IV

Abortion Attitudes in the United States and South Africa: A Comparative Study of Reproductive Rights and Justice

Abstract

Abortion is legal in the United States (U.S.) and South Africa, but stigma erodes service accessibility and increases unsafe abortion risk, particularly for women of color and of lower socioeconomic status (SES). Public abortion attitudes are important predictors of the socio-political contexts of abortion including stigma and accessibility of services, and abortion attitudes seem to be predicted by attitudes toward gender equality in both countries. It remains unclear, however, if public attitudes toward abortion in legal settings are related to socioeconomic and gender ideology or how those relationships might vary across race/ethnicity and/or SES—particularly given the history of eugenics in these two settings. This study 1) describes abortion morality attitudes in the U.S. and South Africa; 2) examines if and how abortion morality attitudes are related to social welfare attitudes and/or attitudes toward gender roles; and 3) explores how those relationships between attitudes toward abortion, social welfare, and gender roles differ by race/ethnicity and SES. Using data from the South African Social Attitudes Surveys (SASAS) and U.S. General Social Surveys (GSS), our dependent variables were abortion morality attitudes in the case of fetal anomaly and in the case of poverty, and our predictors were support for social welfare, support for egalitarian gender roles in the family, and support for egalitarian gender roles in the public sphere. We assessed significance of these

predictors using ordinal logistic regression, controlling for other covariates (gender, religion, religiosity, political identity, sex attitudes, region, urbanicity, age, and marital status). We assessed group differences in the relationships of interest through stratification by race/ethnicity and level of education (as a proxy of SES), then tested overall interaction effects using post-estimation Wald tests. In the U.S, we found no main effects of social welfare attitudes on abortion acceptability in either case (odds ratio $(OR)_{\text{fetal anomaly}}$=0.98, p=.53; OR_{poverty}=0.96, p=.28), but in South Africa we found that greater support for social welfare *decreased* abortion acceptability in the case of poverty ($OR_{\text{fetal anomaly}}$=0.96, p=0.23; OR_{poverty}=0.90, p<.01). In the U.S., more egalitarian attitudes toward gender roles in the family predicted higher acceptability of abortion in both cases ($OR_{\text{fetal anomaly}}$=1.14, p<.05; OR_{poverty}=1.19, p<0.01), but only in the case of fetal anomaly among South Africans ($OR_{\text{fetal anomaly}}$=1.12, p<.05; OR_{poverty}=1.03, p=0.58). In South Africa, the inverse effects of social welfare attitudes on abortion acceptability were only significant for Zulu and Afrikaner respondents, and the overall interaction between race/ethnicity and social welfare attitudes was significant (F= 2.50, p<.05). When we stratified by education, we also found that among less educated South Africans, support for social welfare was inversely associated with abortion acceptability in *both* cases, although the overall interaction between level of education and gender role attitudes was only significant in the case of fetal anomaly (F=3.36, p<.05). In the U.S., we found that gender role attitudes were only significant for Whites and for Americans with less education, but the overall interactions were insignificant. We hypothesize the different effects of social welfare attitudes on abortion acceptability in the U.S. and South Africa could reflect divergent national orientations toward individualism/collectivism and distinctive historical and contemporary contexts of abortion, particularly Apartheid when

hundreds of low-income Black South African women died annually from unsafe abortion. Differences in how abortion attitudes are conceptualized by various racial/ethnic and socioeconomic subgroups highlight that interventions to address abortion stigma will need to be community-grounded and intersectional.

Introduction

Abortion attitudes are an important public health and human rights issue that affects public policies and social contexts of women's reproductive health around the world. Abortion stigma—predicated on individual and community attitudes that abortion is inherently wrong— is the process of ascribing negative attributes to and discriminating against people (and things) associated with abortion (Harris *et al*., 2011; Kumar *et al*., 2009; Norris *et al*., 2011). This results in barriers to safe abortion care at the intrapersonal, interpersonal, institutional, societal, and policy levels. Abortion attitudes thus contribute to abortion stigma and indirectly influence health outcomes in powerful ways: a woman's own ambivalence can complicate decision-making and delay care-seeking through intrapersonal mechanisms; partners' and families' negative attitudes can lead to interpersonal conflict; the attitudes of health workers can affect institutional-level accessibility and quality of abortion services; perceived community-level norms can drive some women to self-induction and clandestine providers for sake of confidentiality; and public opposition to abortion can lead to restrictive abortion-related policies (Foster *et al*., 2012; Foster & Kimport, 2013; Harries *et al*., 2007, 2009; Kumar *et al*., 2009; Norris *et al*., 2011; Varga, 2002). Because it is often considered "one of the most contentious issues" globally (Jelen, 2015, p. 11), more nuanced understandings of abortion are needed to disrupt the dominant narrative of pro-choice vs. pro-life, which escalates antagonism and

prevents shared understanding and collaboration toward real solutions (A. Smith, 2005, p. 119). But how do we discover new ways of seeing such a well-worn topic?

International comparative studies and within-country assessment of group differences are both approaches that could offer new insights by identifying alternative and nuanced frameworks for conceptualizing abortion. Parallel analyses of data collected in the U.S. and South Africa, for example, could be especially compelling given their notable similarities and differences that might illuminate shared and context-specific mechanisms of abortion opposition. Both countries are characterized by vast racial and economic diversity that is stratified by historical and contemporary social inequalities, and although they have legalized abortion, prevalence of unsafe abortion has been increasing in recent years (Coovadia *et al*., 2009; Dehlendorf *et al*., 2013, 2013; Frederickson, 1982; Grossman *et al*., 2010; National Committee for the Confidential Enquiries into Maternal Deaths, 2014; Trueman & Magwentshu, 2013). While the vast majority of global abortion-related complications occur in illegal settings (Kapp, Whyte, Tang, Jackson, & Brahmi, 2013; Shah *et al*., 2014), they can persist in legal settings like the U.S. and South Africa as the result of abortion stigma and unequal access to safe services that put the most economically vulnerable women at risk (Foster & Kimport, 2013; Grossman *et al.*, 2014; Shah *et al.*, 2014; Trueman & Magwentshu, 2013). Differences in abortion attitudes between these two countries could illuminate the roles of specific social, historical, and economic factors in fundamentally shaping abortion-related ideologies and health outcomes. For example, each country has its own distinct history of abortion (Hodes, 2013; Schoen, 2015), and social inequality by gender, race/ethnicity, and SES has manifested differently across the two settings: one high-income in North America, the other middle-income in Africa (The World Bank, 2017).

The U.S. and South African contexts of abortion

In the U.S. and South Africa, persistent abortion stigma and social inequalities erode the health-promoting effects of abortion legalization by curbing access to safe services for vulnerable women. In recent years, as state-level restrictions against abortion have proliferated, U.S. researchers have documented an alarmingly high prevalence of self-induced abortions (Grossman *et al*., 2015; Grossman *et al*., 2010, 2014), rising pregnancy-related deaths (MacDorman *et al*., 2016), and increased Google searches for "home abortion methods" (Stephens-Davidowitz, 2016). In South Africa—after persistent, internal resistance and mounting external pressure—Apartheid fell in 1991, and the Choice on Termination of Pregnancy Act soon legalized abortion in 1996 well ahead of public support (a common approach for much of the country's revisioning process including Constitutional development) (Hodes, 2013). In the years immediately following legalization, South African abortion-related mortality fell by 91% (Jewkes & Rees, 2005), but today access to safe services is limited and unequal (Jewkes *et al*., 2005). Researchers now estimate that about 58% of abortions are still unsafe in South Africa (for example, self-induced or with an unlicensed provider in the informal market) (Singh *et al*., 2012), and abortion-related mortality has increased since 2007 (National Committee for the Confidential Enquiries into Maternal Deaths, 2014; Stevens, 2012).

Within and across the U.S. and South Africa, risk factors of unsafe abortion and its health sequelae are still unequally distributed across the population. American women are more likely to report barriers to safe abortion care if they are low-income, Black, Latina, and/or living in particular states (Dehlendorf *et al*., 2013; Fried, 2000; Jones & Jerman, 2014), and South African women are similarly at increased risk of unsafe abortion and mortality if they are low-income,

Black[d], living with HIV, and/or residents of particular provinces (Constant *et al.*, 2014; Harries *et al.*, 2015; National Committee for the Confidential Enquiries into Maternal Deaths, 2014; Orner, de Bruyn, Barbosa, *et al.*, 2011; Trueman & Magwentshu, 2013). These abortion disparities likely reflect, at least in part, historical and contemporary inequalities in both countries. The U.S. and South Africa grapple with complicated legacies of settler colonialism, slavery, eugenics, racial segregation, and other forms of social inequality that still linger today as demonstrated in severe economic inequality by race/ethnicity, gender, and socioeconomic background (Baker, 2010; Bradford, 1991; Coovadia *et al*., 2009; Frederickson, 1982; Hodes, 2013; Proctor *et al*., 2016; Roberts, 1997). American income inequality has officially reached levels higher than during the Great Depression (Saez, 2015), and South African income inequality is greater now than during Apartheid, both across and within racial groups (Baker, 2010; The World Bank, 2015). One consequence of these inequalities is a treacherous double bind wherein the most vulnerable women struggle to provide for their children *and* they experience disproportionate barriers to safe abortion care.

Further investigation is still needed to explain if differing abortion attitudes are contributing to any of the observed inequities in abortion-related health outcomes. For one, differences in abortion-related outcomes by race/ethnicity, SES (e.g., education, income), and region might partially reflect differences in abortion attitudes along those same social axes. More importantly, we must continue exploring the foundational relationships between abortion attitudes and broader ideologies of social inequality: research has demonstrated a clear linkage

[d] Although "Black" typically refers to all non-White groups in South Africa, we will use the term "Black" in this manuscript to reference South Africans who descend from traditionally Bantu-speaking, indigenous groups of southern Africa including Zulu, Xhosa, and others. We use this terminology for consistency with racial/ethnic classifications the U.S. context.

between patriarchal gender ideology and abortion stigma, but where does socioeconomic ideology about poverty, social welfare, and child support fit into the puzzle—if at all? To begin, let us consider the existing evidence on abortion attitudes in the U.S. and South Africa.

Abortion attitudes in the U.S. and South Africa

Abortion ideology in the U.S. is shaped by often-conflicting ethical frameworks of personal autonomy, personal responsibility, and the sanctity of life—all of which underlie the so-called pro-choice vs. pro-life divide (Davis, 2003; Jelen & Wilcox, 2003; A. Smith, 2005). Simplistically, the pro-choice movement emphasizes personal autonomy and a woman's right to control her body, while the pro-life movement emphasizes the sanctity of fetal personhood and portrays abortion as skirting personal accountability. This false dichotomy erases the complexities and nuances of women's lived experiences, however, including the ambiguity and situational nature of abortion attitudes, the restriction of real "choice" in structural deprivation, and the interplay between personal and *collective* responsibility as abortion decision-making occurs in social contexts. Generally, there is greater support of abortion in the circumstances of rape/incest, protecting a woman's health, or fetal anomaly as compared to reasons such as poverty or timing of fertility (Jelen & Wilcox, 2003; Mosley *et al*., 2017; Mwaba & Naidoo, 2006; Patel & Johns, 2009; Patel & Myeni, 2008; Wheeler *et al*., 2012). Evidence also suggests that the conceptualization of poverty—specifically the locus of responsibility for poverty—varies across cultures based on their orientation to the group or individual, and that these cultural differences might influence abortion attitudes (Sahar & Karasawa, 2005). Unlike the U.S., where personal responsibility and individualism dominate national ethos (Sahar & Karasawa, 2005), South Africa is generally oriented toward collectivism that results in communal practices such as

pooling household resources and child-rearing by extended family (Whitworth & Wilkinson, 2013) (although, notably, this work has inadequately explored non-Black minority groups).

Cultural collectivism— coupled with southern Africa's subfecundity, relative socioeconomic deprivation, HIV epidemic, and colonization—results in abortion attitudes that are undeniably related to pro-natalism and sanctity of life, but in a different way than is seen in the U.S and other Western contexts. While some South Africans describe abortion as murder, many hold situational attitudes toward abortion that acknowledge the reality and the sadness of abortion in constrained situations (Macleod *et al*., 2011). In the U.S., religious affiliation and greater religiosity are major predictors of negative abortion attitudes (Barkan, 2014; Bartkowski, Ramos-Wada, Ellison, & Acevedo, 2012; Carter *et al*., 2009; Strickler & Danigelis, 2002), although their explanatory power has decreased over time, and the pro-choice vs. pro-life debate has traditionally split along liberal and conservative politics (Carter *et al*., 2009; Jelen & Wilcox, 2003). South Africans are more religious than Americans, but the effects of religion on abortion attitudes there are unclear and, if anything, appear to be weaker in South Africa compared to other contexts. Patel and Myeni (2008) concluded that conservative morality more than religion and religiosity might account for differences in abortion acceptability there, and cultural explanations are more common than political frameworks.

Cultural justifications for abortion opposition typically mask underlying gender inequality and widespread policing of women's sexuality (Macleod *et al*., 2011) that are common throughout most societies including the U.S. and South Africa. It is, therefore, important to understand the relationships between abortion attitudes and expected gender roles. Gender role attitudes have remained a consistent (albeit weak) predictor of abortion attitudes in

the U.S. and around the world (Carter *et al*., 2009; Jelen, 2015; Patel & Kooverjee, 2009; Strickler & Danigelis, 2002). They encompass both public-oriented gender roles such as attitudes toward women in politics and private-oriented gender roles such as attitudes toward working motherhood and the division of household labor (Carter *et al*., 2009; Jelen, 2015; Patel & Kooverjee, 2009; Strickler & Danigelis, 2002). In his analysis of the World Values Surveys, Jelen (2015) found that egalitarian gender role attitudes in the public sphere were positively associated with higher moral acceptability of abortion, but egalitarian gender role attitudes in the private sphere were not. Notably, in South Africa, researchers have suggested that attitudes toward abortion morality are not associated with gender role attitudes nor gender, although this is based on limited evidence from research with undergraduate students (Patel & Johns, 2009; Patel & Kooverjee, 2009). In the U.S., studies of attitudes toward abortion legality have demonstrated more support among women than men, although researchers historically (and mistakenly) believed there were no gender differences due to suppression effects of higher religiosity among women (Barkan, 2014).

Attitudes and social norms of sexuality, including who can have sex with whom, under what circumstances, and at what ages, also carry important implications for whether and when abortion is considered acceptable. Both the U.S. (Barrett, DaVanzo, Ellison, & Grammich, 2014) and South Africa (Mieses, 2009) are predominantly characterized by a Christian ethic that—in addition to emphasizing the sanctity of human life—limits sex solely to the purposes of marital procreation, a tenet that is inherently threatened by abortion, contraception, and same-sex relations. On national U.S. surveys, support of non-traditional sexual relations (for example, premarital sex) is positively associated with more permissive abortion attitudes, and the strength

of this relationship has increased over time (Elias, Fullerton, & Simpson, 2015; Strickler & Danigelis, 2002). In South Africa, while no quantitative surveys have measured the relationship between abortion and sex attitudes, qualitative descriptions show negative abortion attitudes are integrally linked to individual judgment and community norms against adolescent sexuality (Gresh & Maharaj, 2014) and sexual promiscuity more broadly (Harries *et al*., 2009).

Because unsafe abortion risk in the U.S and South Africa varies by race/ethnicity, SES, and geography, we must consider how these factors are related to abortion attitudes, although they can be difficult to disentangle since race/ethnicity and SES are very strong correlates of where people live within the U.S. and South Africa (Statistics South Africa, 2012b; Williams *et al.*, 2010). In past decades, Black Americans were more likely to report opposition to abortion legality than White Americans, but recent evidence suggests the groups are converging as White attitudes become more negative and Black attitudes become more positive (Carter *et al.*, 2009). In South Africa, where most evidence is derived from qualitative and purposively-sampled surveys, less is known about racial/ethnic differences, although one study found that non-Xhosa Black and Coloured South Africans reported lower abortion acceptability compared to other groups (Mosley *et al*., 2017). In both the U.S. (Carter *et al*., 2009; Strickler & Danigelis, 2002) and in South Africa (Mahomed, 2016; Mosley *et al*., 2017), education predicts more permissive abortion attitudes, and while higher family income is associated with more support for abortion legality in the U.S. (Gay & Lynxwiler, 1999), the effects of income on South African abortion attitudes remain unclear (Mosley *et al*., 2017). In the U.S., abortion attitudes are generally more negative in the South and in rural areas (Dillon & Savage, 2006). In South Africa, limited evidence suggests abortion attitudes vary across provinces (Mosley *et al*., 2017), but the only

national quantitative study to-date found no differences between formal urban, informal urban, or rural abortion attitudes (Mosley *et al*., 2017). This was unexpected given that high abortion stigma has been documented qualitatively among rural-dwelling South Africans (Macleod *et al*., 2011; Varga, 2002).

Gaps in the evidence and research objectives

Future lines of inquiry can build on this existing evidence to advance our understanding of abortion attitudes in these two legal settings. For one, the vast majority of evidence has focused on attitudes toward abortion legality rather than morality. Given that abortion stigma is predicated on the perceived immorality of abortion and that abortion is already legal on demand in both the U.S. and South Africa, it is important to explicitly study attitudes toward abortion *morality*. Additionally, while egalitarian gender role attitudes in the U.S. have been associated with more supportive abortion attitudes, it is unclear how gender ideology in South Africa is related to abortion attitudes at the national level. Moreover, the relationship between socioeconomic ideology and abortion acceptability has not been adequately explored. Further research into racial/ethnic and socioeconomic differences in abortion attitudes is also needed to understand their role in abortion-related health inequities, including investigation of whether gender and socioeconomic ideology effects vary by race/ethnicity and SES. This is particularly important for the U.S. and South Africa, where non-White and low-income groups were historically targeted for reproductive control and where race/ethnicity and SES remain two of the strongest predictors of reproductive health outcomes.

The current study aims to address these important gaps by: 1) describing abortion

morality attitudes in the U.S. and South Africa, 2) examining if and how abortion morality attitudes are related to social welfare attitudes and attitudes toward gender roles in the family and in public society, and 3) exploring if and how those relationships differ by race/ethnicity and SES.

Methods

We analyzed data from the 1991, 1998, and 2008 U.S. GSS as well as the 2008, 2009, 2011, and 2013 SASAS. Americans and South African respondents were asked, "Do you personally think it is wrong or not wrong for a woman to have an abortion if there is a strong chance of serious defect in the baby?" and "Do you personally think it is wrong or not wrong for a woman to have an abortion if the family has a very low income and cannot afford any more children?" Their answer choices were "always wrong," "almost always wrong," "wrong only sometimes," or "not wrong at all" (Table 1). We assessed the univariate distributions, bivariate relationships, and multivariable ordinal logistic regression models of these two outcomes (separately) and our predictors of interest. Not all variables were available each year in both countries, so we conducted two sets of analyses: first, we merged data across three survey years in each country to maximize sample size for analysis of social welfare attitudes (1991, 1998, 2008 in the U.S. and 2009, 2011, 2013 in South Africa). While these years might not immediately seem comparable, they actually reflect similar amounts of time past the end of Apartheid in South Africa and Civil Rights in the U.S. and past abortion legalization in both countries. In this way, they represent comparable points along a historical trajectory. Next we examined 2008 survey data from both countries, the only year when data on attitudes toward gender roles in the family were available.

Using the combined-year datasets (U.S. N=4,954.; South Africa N=7,631), we assessed the effects of social welfare attitudes, attitudes toward gender roles in the public sphere, and socio-demographics on abortion attitudes. Three social welfare attitude variables were available: attitudes toward equalization of income, improved standard of living for the poor/unemployed, and government spending on the poor. We conducted principal components analysis to combine these variables into a single, continuous measure in each country. The effects of attitudes toward government spending differed from other social welfare attitudes in South Africa (this was reflected in bivariate analyses and principal component analysis), so we excluded that variable from our composite measure in both settings to keep the models comparable. In the U.S., both remaining social welfare variables sufficiently loaded (Eigenvectors both 0.71) onto the first principal component (Eigenvalue=1.45, 72% variance explained), and in South Africa both variables similarly loaded (Eigenvectors both 0.71) on the first principal component (Eigenvalue=1.32, 66% variance explained). We used this new measure (termed "support for social welfare") for bivariate and multivariable analyses in both settings. We conducted a sensitivity analysis to confirm the models did not change if we included the third social welfare attitude, and they did not. During these survey years, researchers also asked about attitudes toward gender roles in the public sphere—specifically, toward women in politics in the U.S. and toward gender-based affirmative action in South Africa. To assess differences in the relationships between abortion attitudes, social welfare attitudes, and public gender role attitudes, we stratified the models by race (Black and White only to increase sample sizes) and by education (some tertiary vs. no tertiary in the U.S.; completed secondary vs. less than completed secondary in the South Africa). We then tested the full interaction effects of race and education

on social welfare attitudes and public gender role attitudes using post-estimation Wald tests.

To explore the role of gender ideologies more deeply, we then compared 2008 data from the U.S (N=1,690) and South Africa (N=2,796), when researchers measured attitudes toward gender roles in the private sphere: disagreement with men only as earners and women only as homemakers; disagreement that preschool-aged children suffer when their mothers work; and agreement that working mothers can form equally strong bonds with their children as stay-at-home mothers. We again used principal component analysis to combine these three variables; all sufficiently loaded onto the first principle component (Eigenvectors=0.53, 0.61, and 0.59 in the US.; 0.53, 0.67, and 0.51 in South Africa), which explained 62% of the variance in the U.S. (Eigenvalue=1.87) and 48% in South Africa (Eigenvalue=1.44). We used the first principal component (termed "support for egalitarian family gender roles") in bivariate analyses and multivariate models. To assess differences in the relationship between abortion attitudes and private gender role attitudes, we also stratified the models by race (Black and White only to increase sample sizes) and by education (some tertiary vs. no tertiary in the U.S.; completed secondary vs. less than completed secondary in the South Africa) then tested the full interaction effects using post-estimation Wald tests. To control for the effects of social welfare attitudes as much as possible, the 2008 multivariable models also included attitudes toward government equalization of income (the only social welfare attitude available in both countries that year).

All multivariable models also controlled for relevant covariates of abortion attitudes and our predictors: gender ("male" or "female" sex as a proxy), marital status ("married," "widowed/widower," "divorced"/"separated," and "never married"); acceptability of premarital sex (4-point Likert scale), age (continuous), liberalism ("conservative," "moderate," and

"liberal"), and religious denomination ("not religious," "Protestant," "Catholic," and "other religion"). We also included religiosity, although it was measured differently in the two settings: the GSS asked, "How often do you take part in the activities and organizations of a church or place of worship other than attending services?" with 11 possible responses. The SASAS asked, "Apart from special occasions such as weddings, funerals and baptisms, how often do you attend services or meetings connected with your religion?" with 8 possible responses. We collapsed the categories so both religiosity variables were measured as "about once a year or less," "several times a year, "once a month or 2-3 times each month," "nearly every week or more." In the U.S., we operationalized race/ethnicity as "White", "Black" or "other", because the Hispanic ethnicity and primary language variables were not available on all surveys. In South Africa, we operationalized race/ethnicity as population racial group ("Black African", "Coloured", "Indian", or "White") and language spoken at home. This resulted in 7 major racial/ethnic categories: Black-isiZulu, Black-isiXhosa, Black-other language, Coloured, Indian, White-Afrikaans, and White-English. We operationalized SES as education (quartiles) and household income (annual income dichotomized at $25,000 in the U.S.; monthly income tertiles in South Africa). Finally, we operationalized geography as region (South and non-South in the U.S.[e]; 9 provinces in South Africa) and urbanicity (continuous variable of population size in the U.S., categorical variable of "urban-formal," "urban-informal," and "rural" in South Africa).

Using the packages available in Stata v.14 (StataCorp, 2014), we applied sample weights,

[e] Prior to merging data across multiple survey years, we assessed geographical differences in abortion attitudes in the U.S. across 9 different regions. The East South Central and West South Central regions demonstrated significantly lower abortion acceptability. These two regions were combined with the South Atlantic region to comprise the "South" region, which is consistent with previous GSS studies of abortion attitudes. This combined South region showed significantly lower abortion acceptability in univariate and bivariate analyses.

accounted for the complex sampling designs of each survey, and carefully addressed missing data to obtain nationally-representative results. For U.S. analyses, we employed multiple imputation for those data missing completely-at-random due to the GSS split-ballot design (National Opinion Research Center, 2017a). Additionally, some U.S. and South African respondents refused to disclose or did not know their household income or political identity, so we created a "do not know/refused" category for those two variables. For all remaining situations, we used complete case analysis and dropped observations with other forms of missing data (all less than 5%).

Results

The effects of social welfare attitudes and gender role attitudes on abortion acceptability are described below, and differences across race/ethnicity or SES (including interaction effects) are discussed throughout. Additional results not included in-text can be found in Tables 1-7 and Figures 1-4; except where noted, the statistics presented in-text are from the combined-year models in each country. Descriptive statistics including weighted (sub)sample sizes are presented in Table 2. All analyses, datasets, and Stata syntax for this study are available upon request. In the U.S., 68% of respondents said abortion is "wrong only sometimes"/"not wrong at all" in the case of fetal anomaly compared to 36% of South Africans, while 43% of Americans felt abortion in the case of poverty was "wrong only sometimes"/"not wrong at all" compared to only 18% of South Africans (Figure 1). In the U.S, moral acceptability of abortion declined over time in both cases; in 2008 compared to 1991, Americans had 21% lower odds of reporting abortion as morally acceptable in the case of fetal anomaly and 50% lower odds in the case of poverty (Table 4). In South Africa from 2009 to 2011, the odds of reporting abortion as morally

acceptable in the case of fetal anomaly temporarily increased by 30% and by 37% in the case of poverty (Table 4), but these trends were not sustained in 2013.

Social welfare attitudes and abortion morality attitudes

Abortion acceptability was *not* related to social welfare attitudes for Americans in either case (Table 4) or for any racial/ethnic or socioeconomic group, and Americans reported lower support for social welfare than South Africans (Figure 2). Interactions between race/ethnicity and social welfare attitudes and between education and social welfare attitudes were insignificant in the U.S. for both cases of abortion. In South Africa, however, higher support for social welfare *decreased* moral acceptability of abortion in the case of poverty (OR=0.90, $p<.01$), and this effect interacted with race/ethnicity ($F=2.50$, $p<.05$). In race-specific models (Table 5), for every unit increase in support for social welfare there was a significant 24% decrease in abortion acceptability for White South Africans and a marginally significant 9% decrease for Black South Africans. Race/ethnicity-specific models (see Figure 3) showed social welfare attitudes were actually only significant for Zulu (OR=0.78, $p<.05$) and Afrikaner (OR=0.73, $p<.01$) respondents. For abortion in the case of poverty, the overall interaction between education and support for social welfare was insignificant ($F=1.63$, $p=0.18$), but in education-specific models we found that support for social welfare only carried effects for South Africans with less than a secondary education (OR=0.87, $p<.01$). In the case of abortion due to fetal anomaly, education and social welfare attitudes did significantly interact in South Africa ($F=3.36$, $p<.05$) and education-specific models again showed that the inverse effects of social welfare attitudes were only significant for respondents with less than a secondary education (OR=0.91, $p<.05$).

Gender role attitudes and abortion morality attitudes

In the combined-year U.S. models, support for women as political leaders was associated with 46% higher odds of finding abortion morally acceptable in the case of fetal anomaly and 35% higher odds in the case of poverty (Table 4). In race-specific models, however, these effects were only significant for White Americans (Table 5), although the overall interaction was insignificant. Stratifying by education, support for women as political leaders was only significant for Americans with no tertiary education (OR=1.42, $p<.05$), but again the overall interaction was insignificant. In the combined-year South African models, respondents who agreed with gender-based affirmative action had 37% higher odds of reporting abortion as morally acceptable in the case of poverty (Table 4), but there were no significant differences in the case of fetal anomaly (OR=1.10, $p=0.38$). For both White and Black South Africans, *indifference* to gender-based affirmative action was associated with relatively greater abortion acceptability in the case of poverty within their racial group (Table 3), but there was no significant interaction overall between race/ethnicity and affirmative action attitudes. Stratifying by education showed that support for gender-based affirmative action was significant only for less educated respondents and only in the case of poverty, but again the overall interaction effect was insignificant.

Looking at U.S. data from 2008 specifically, we then found that one unit increase in support for egalitarian gender roles in the family significantly increased the odds of reporting abortion as morally acceptable by 14% in the case of fetal anomaly and 19% in the case of poverty (Table 4). Notably, support for women in politics—significant in the multi-year models—became non-significant after controlling for attitudes toward family gender roles.

Attitudes toward gender roles in the family were significant for White but not Black Americans (Table 7) and for more educated Americans, although no overall interactions reached significance. In the 2008 South African models, more support for egalitarian gender roles in the family was associated with 12% higher odds of finding abortion acceptable in the case of fetal anomaly, but they were non-significant in the case of poverty (OR=1.03, p=0.58). Like in the U.S., after controlling for attitudes toward private gender roles in South Africa, public gender role attitudes (support for gender-based affirmative action) became non-significant. The private gender role attitude effects interacted with education in the case of fetal anomaly (F=4.13, $p<0.01$) and were only significant for South Africans with less than a primary education (Figure 4). Private gender role attitudes predicted higher abortion acceptability in the case of poverty for White South Africans (OR=1.45, $p<.05$) but in the case of fetal anomaly for Black South Africans (OR=1.18, $p<.05$). The overall interaction between race/ethnicity and private gender role attitudes was insignificant.

Additional racial/ethnic differences in abortion morality attitudes

Stratifying the regression models by race/ethnicity revealed other results that, while not identified as a focus through our *a priori* research questions, contribute to gaps in the literature. At the bivariate level, Black Americans reported lower abortion acceptability than White Americans for fetal anomaly (b=-0.36, $p<0.01$) and for poverty (b=-0.24, $p<0.05$), but we found no significant racial/ethnic differences in abortion acceptability at the multivariable level after controlling for education, religiosity, and attitudes toward premarital sex (Table 4). In contrast, racial/ethnic differences in South Africa were significant at both the bivariate and multivariable levels: Black and Coloured South Africans reported lower acceptability of abortion as compared

to White and Indian respondents after controlling for covariates (Table 4). We also noted that in race-specific models (Table 5), the odds of finding abortion morally acceptable declined among White Americans from 1991 to 2008 by 26% in the case of fetal anomaly and by 52% in the case of poverty, but they were stable over time for Black Americans. Across the shorter period of 2009 to 2013 in South Africa, moral acceptability of abortion did not change among White respondents, but it increased fleetingly in 2011 among Black respondents for abortion in the case of poverty. Generally, most socio-demographic factors that explained abortion acceptability among White Americans were not significant for Black Americans, and most of those factors were not significant for either White or Black South Africans (Table 5). Only higher acceptability of premarital sex and educational attainment predicted higher acceptability of abortion somewhat consistently across both groups and both places, but there were even exceptions to this. For example, education was not associated with higher acceptability of abortion for White nor Black South Africans in the case of poverty. Notably, in South Africa, race/ethnicity also significantly interacted with educational attainment to affect abortion morality attitudes in the case of fetal anomaly ($F=1.77$, $p<.05$): education only had significant positive effects for Zulu, White Afrikaner-speaking, and White English-speaking respondents while race/ethnic differences varied by level of education. In the U.S., being non-religious, being moderate or liberal, and having greater household income were significant for White Americans but not Black Americans. Finally, we also noted that Black South Africans had 53% lower odds of finding abortion acceptable in the case of poverty if they are a widow ($n_{weighted}=489$) or a widower ($n_{weighted}=145$) as opposed to currently married.

Discussion

This comparative study of public abortion attitudes in the U.S. and South Africa highlights novel, thought-provoking interpretations of abortion morality that could potentially bridge polarized discourse and advance the health and human rights of vulnerable women and their families. We have offered new evidence that South Africans are more likely to think poverty-driven abortion is wrong if they believe poverty eradication is a social responsibility, while Americans are more likely to think poverty-driven abortion is wrong if they are conservative, religious, and/or supportive of traditional family gender roles. In South Africa nationally, support for egalitarian gender roles in the family was associated with more positive attitudes toward abortion in the case of fetal anomaly while support for gender-based affirmative action was significantly associated with more positive abortion attitudes in the case of poverty. We also noted important differences in the predictors of abortion morality attitudes across racial/ethnic and socioeconomic groups in these two countries, and this heterogeneity challenges our general understanding of what facts drive public abortion attitudes. These findings can inform community-specific abortion destigmatization efforts and inject imagination into the gridlocked abortion discourse, which is increasingly needed as South African abortion-related mortality rises (Trueman & Magwentshu, 2013) and as U.S. legal barriers (Gerdts *et al*., 2016) and public opposition to abortion intensify. By elucidating the relationships between attitudes toward social welfare, gender roles, and abortion, we have started to untangle the set of factors that predict abortion attitudes and which can be targeted by interventions. Then by exploring differences in those relationships across race/ethnicity and SES, and by taking an intersectional approach to abortion attitudes that considers gender, racial/ethnic, and socioeconomic factors, we

have escaped the falsely dichotomous trap of pro-choice vs. pro-life.

In addition to the original contributions described above, our study also supplements prior evidence about what seems to predict higher moral acceptability of abortion, which deepens understanding of how abortion stigma operates universally and in specific national settings. As expected, we found that moral acceptability of abortion is significantly lower among South Africans than Americans, particularly in the case of poverty. This likely reflects, in part, a demographic context of subfecundity (Tabutin & Schoumaker, 2004) and extremely pro-natal norms in the southern African region (Gresh & Maharaj, 2014; Harries *et al*., 2009; Macleod *et al*., 2011; Varga, 2002) coupled with South Africa's own history of Black women's mortality from unsafe, poverty-driven abortion during Apartheid (Bradford, 1991; Hodes, 2013; Klausen, 2015). Our results support earlier studies from South Africa that suggested abortion morality attitudes are more positive for individuals who are more educated; have less traditional sex attitudes; or are White, Indian, or Xhosa (Mahomed, 2016; Mosley *et al*., 2017; Patel & Johns, 2009). This investigation also augments previous U.S. research by finding abortion *morality* attitudes—like abortion *legality* attitudes—no longer vary by race/ethnicity (Carter *et al*., 2009) but are more positive for Americans who are women, more educated, non-religious, liberal, older, and/or more accepting of non-traditional sexuality (Barkan, 2014; Carter *et al*., 2009; Jelen & Wilcox, 2003). We discuss these findings, their potential implications, and our recommendations for research, practice, and policy below.

Attitudes toward abortion morality, social welfare, and gender roles

The different effects of social welfare attitudes on abortion acceptability in the two

countries—that is, an inverse relationship in South Africa and no relationship in the U.S.—might be related to divergent cultural orientations toward communalism (in South Africa) and individualism (in the U.S.). Our findings resonate with results and conclusions from the comparative study of abortion attitudes in Japan and the U.S. by Sahar and Karasawa (2005), who found abortion morality attitudes depended on cultural contexts of interdependence vs. independence, respectively. In our current study, Americans did not conceptualize the morality of poverty-driven abortion in relation to anti-poverty policies, but the linkage was made explicit in South Africa: those South Africans who support equalization of income and an improved standard of living for the poor were significantly more likely to feel abortion is wrong if it is because a family is low-income and cannot afford another child. In other words, South African disapproval of abortion in this case most likely reflects judgment of the societal processes that contribute to poverty rather than judgment of the woman, whose impoverished condition is forcing her to terminate the pregnancy.

Perhaps the inverse relationship between support for social welfare and moral acceptability of poverty-driven abortion in South Africa is a reflection of the ideology of *Ubuntu*—shared humanity that connects all humans so the suffering of one is the responsibility of all (Ngwena, 2003; Whitworth & Wilkinson, 2013). In fact, South African scholars have previously debated the constitutionality and morality of abortion in terms of *Ubuntu* by asking whether abortion provision and/or conscientious objection threaten human dignity (McGregor & Moore, 1995; Ngwena, 2003). In this study, we found the inverse relationship between support for social welfare and abortion acceptability was significant for Zulu respondents (the largest group of Black South Africans) and South Africans of lower socioeconomic position, which may

be due to their historical experiences of unsafe abortion during Apartheid and the lived experiences of poverty-driven abortion in their communities today. But the larger effect of social welfare attitudes on abortion disapproval for White Afrikaners was an unexpected finding that could signify the power of empathy. For one, few Whites in South Africa live in poverty (unlike the abortion-seeking woman they are being asked to imagine) which means a racial and economic leap of imagination for White respondents. Second, it was the Afrikaner National Party that stewarded Apartheid, its explicitly anti-Black eugenic campaigns, and the inattention to an epidemic of abortion-related morbidity in Black communities. Yet for White Afrikaners who do believe in social safety nets for all, here is evidence that they contextualize poverty-driven abortion in women's social reality and deem that reality immoral. In contrast, the absence of attitudinal linkages between poverty-driven abortion and social welfare in the U.S. likely reflects the American socioeconomic ideology of personal responsibility, which has even been codified into laws like the 1996 Personal Responsibility Act that rolled back federal welfare programs and tied social benefits to mandatory employment (Clawson & Trice, 2000). In the U.S., low-income women are consistently blamed for both their unintended pregnancies and their impoverished condition: they are expected to be responsible by preventing pregnancy, to "face the consequences of their actions" by having a baby, and to be economically self-sufficient by joining a labor market that is unable to cover the expenses of childrearing (Sheldon, 2003, p. 177). For example, negative stereotypes of the "welfare queen"—a lazy woman who exploits her children and the system for social welfare benefits in lieu of formal employment—are ubiquitous in American discourse (Clawson & Trice, 2000, p. 54).

Social norms related to motherhood, including the defamation of "welfare queens"

(Cammett, 2014, p. 237; Clawson & Trice, 2000) and the stigmatization of abortion, are related to collective beliefs about and attitudes toward women's roles in society. However, results from our current study complicate the conservative social discourse (Cammett, 2014) of these relationships. In the U.S., when considering both private and public gender attitudes at the same time, we found that endorsement of egalitarian gender roles in the family but not attitudes toward women in politics predicted greater acceptability for abortion. This result is consistent with previous findings on predictors of abortion legality attitudes in the U.S. (Carter *et al*., 2009) but conflicts with evidence on abortion morality attitudes internationally (Jelen, 2015). In South Africa in 2008, we found abortion acceptability in the case of fetal anomaly increased with more egalitarian attitudes toward gender roles in the family, and in more recent years it seems abortion acceptability in the case of poverty is now positively associated with support for gender-based affirmative action. To us, this suggests South African abortion attitudes in the case of fetal anomaly might reflect ideologies of motherhood and gender, while poverty-related abortion attitudes might reflect perceptions of women's lived conditions including their access to social welfare and employment. We also found that South African gender role attitudes interacted with education: they have no influence on attitudes toward abortion for fetal anomaly at higher levels of educational attainment beyond primary school. This might explain why Patel and Johns (2009) found no relationship between gender role attitudes and abortion acceptability in their South African study as they only surveyed university students with high levels of educational attainment.

Racial/ethnic differences in abortion morality attitudes

Because societies tend to value and empower the reproduction of dominant groups while

devaluing and disempowering the reproduction of marginal groups (what the anthropologist Colen termed "stratified reproduction"), expectations and lived experiences of motherhood vary significantly by race/ethnicity, and we found these differences do seem to influence how abortion morality is conceptualized by different racial/ethnic groups in the U.S. and South Africa (Ginsburg & Rapp, 1995, p. 3). Like Carter *et al.'s* (2009) investigation of U.S. abortion legality attitudes, we found no significant racial/ethnic differences in multivariable models of abortion *morality:* lower acceptability of abortion among Black Americans (compared to White Americans) at the bivariate level was explained after controlling for relatively lower acceptability of premarital sex (National Opinion Research Center, 2017b), higher religiosity (Wilcox, 1992), and lower educational attainment—a result of structural-level, racialized barriers to education in the U.S. (Williams *et al*., 2010). In South Africa, however, attitudes toward abortion morality do vary by race/ethnicity in both bivariate and multivariable models with more positive attitudes among White, Indian, and Xhosa respondents as compared to Coloured and other Black South Africans. Prior research by Mosley *et al.* (2017) documented similar racial differences in South African abortion morality attitudes, and they posited this reflects socio-cultural differences and divergent experiences of abortion by race/ethnicity during Apartheid. Our results suggest that the racial/ethnic differences in the level of abortion acceptability among South Africans cannot be explained by socio-cultural differences in gender and socioeconomic ideologies alone and will require further investigation, especially given South Africa's significant racial/ethnic disparities in unsafe abortion.

We also found that the effects of particular socio-demographic and cultural factors on American and South African abortion attitudes are contingent upon an individual's racial/ethnic

identity, and that racial/ethnic and socioeconomic effects are intersectional in South Africa (i.e., the direct effects of racial/ethnic and socioeconomic identities on abortion attitudes significantly interact). This carries implications for abortion destigmatization efforts aimed at reducing barriers to safe abortion care in particular communities. As noted in the results section, sex attitudes and educational attainment were the only factors to behave in fairly consistent and predictable ways across both countries and all racial groups, while the dominant explanation of negative abortion attitudes—religiosity, conservative politics, and patriarchal gender ideology—was only supported in the statistical models for White Americans. In the U.S., earlier studies of abortion legality attitudes had similarly shown that religiosity effects differ by race/ethnicity due to the relatively liberal tradition of Black Protestantism (Gay & Lynxwiler, 1999; Lynxwiler & Gay, 1996), while some researchers have suggested conservatism and gender attitudes are non-significant for Black Americans because their abortion attitudes are more informed by lived experiences than by political and gender ideology (Lynxwiler & Gay, 1996). In South Africa, Protestantism was associated with more negative abortion attitudes in the case of poverty for White respondents, but they were non-significant for Black respondents and in the full sample. We also found that the effects of family gender role attitudes differed between White and Black South Africans: support for equitable gender roles in the family was associated with greater acceptability of abortion in the case of poverty for White South Africans but in the case of fetal anomaly for Black South Africans. Perhaps this suggests, like Lynxwiler and Gay (1996) said of Black Americans, that Black South Africans are conceptualizing the morality of abortion due to poverty in terms of women's lived conditions. For White South Africans, they are more likely to approve of abortion in the case of poverty if they support egalitarian family gender roles *and* do

not particularly support social welfare programs. This is a complex conceptual landscape that suggests abortion morality cannot be discussed without considering *both* gender *and* socioeconomic ideology. Finally, although marital status was not a significant predictor for Americans or White South Africans, Black South African widows/widowers were more likely than married South Africans to find abortion morally unacceptable in the case of poverty. Given that over 77% of the Black widows/widowers group are women, these results likely harken to the experience of widowed Black women during Apartheid, when most were sent to the rural reserves and forced to live in poverty without access to economic opportunities to support their families (Ntantala, 1958). To this day, widowed Black women continue to experience higher rates of poverty, and they have been particularly vulnerable to the HIV epidemic (Shoko, 2011).

Strengths and limitations

The current study makes important and novel contributions to the understanding of abortion attitudes and stigma in the U.S. and South Africa, but its limitations must also be noted. For one, we used repeated cross-sectional surveys that limit our ability to make claims of causality, although we were able to control for a number of abortion attitude covariates to improve the validity of our results. Additionally, our study is limited by other expected constraints of secondary and comparative data analysis including close-ended measures of abortion morality and incongruence of measures over time and across the U.S. and South African surveys. On the other hand, standardization of abortion attitudes and other measures enabled us to extrapolate our results to the national level, to explore group differences, and to analyze a vast sample all in a relatively short amount of time. Moreover, it was quite remarkable how many variables were available and comparable in both settings, which facilitated this interesting

international comparison. We were also unable to control for the ordering of survey questions, although researchers have found significant effects on answers to abortion questions depending on the context clues of preceding survey elements (Schuman, Presser, & Ludwig, 1981; T. W. Smith, 1983). In the U.S., questions about abortion moral acceptability were historically part of the self-administered survey at the very end of the interview (National Opinion Research Center, 1998). On the South African surveys, however, abortion attitudes came immediately after questions about the moral acceptability of death penalties which could, in theory, frame the abortion questions in terms of pro- vs. anti-life (Human Sciences Research Council, 2015). Finally, the most recent U.S. data came from 2008 when GSS researchers last asked about moral acceptability of abortion, and this was the only year SASAS researchers measured private gender role attitudes. It is possible these relationships and distributions have changed in the last nine years, but we are unable to assess. These limitations highlight the need for further primary qualitative and quantitative research and multi-level analyses that connect abortion attitudes to accessibility of services and health outcomes. Nevertheless, analysis of the survey data available made specific and significant contributions by allowing investigation of changes in abortion attitudes as political resistance to abortion intensified in the U.S and as abortion-related mortality increased in South Africa. The limitations of our study highlight the need for further qualitative studies, more current and valid measures, and multi-level analyses that connect abortion attitudes to accessibility of services and, ultimately, health outcomes.

Conclusion

The new frameworks of abortion morality identified in this study disrupt our dominant model of abortion attitudes by 1) exposing divergent understandings of abortion morality within

the same country and across countries, 2) embedding abortion morality in social structures and policies, and 3) proposing anti-poverty initiatives as potentially common ground, where abortion advocates and antagonists could theoretically collaborate toward shared goals. In both South Africa (Gilbert & Sewpaul, 2015) and the U.S. (Foster *et al*., 2012; Nickerson, Manski, & Dennis, 2014), researchers have emphasized the importance of contextualizing abortion attitudes and abortion decision-making in the structural conditions of women's lives. In South Africa, many women report seeking an abortion because of poverty, HIV, or other social factors beyond their control; they often explain that abortion is against their morals but is the only choice available given their circumstances (Gilbert & Sewpaul, 2015; Orner, de Bruyn, & Cooper, 2011). In the U.S., low-income women have similarly expressed support for public funding of abortion as an essential health service while simultaneously internalizing abortion stigma and projecting it onto other women like them (Nickerson *et al*., 2014). Achieving true reproductive freedom and human dignity will require a nuanced reproductive rights and *justice* approach that challenges the false dichotomy of pro-choice vs. pro-life rhetoric, while paying careful heed to differences across settings and population groups. Abortion destigmatization and improved access to safe abortion services are certainly needed, but they must be sensitive to historical and contemporary reproductive coercion and implemented alongside welfare initiatives that would alternatively support families to raise their children healthily and with dignity (Ross, 2006). Our results suggest this reproductive justice approach is already aligned with attitudes of the South African public, but will require a fundamental re-framing of the issue in the U.S., where individualism reigns supreme and where both abortion access and social welfare are branded as liberal partisan issues. Our understanding of attitudes toward abortion morality still remains

limited—especially for non-White groups and those outside the U.S.—and continuing research with creative methodologies is needed to accurately measure and interpret public opinions of abortion if we hope to understand and respond to these important drivers of social policy, healthcare access, and women's health around the world.

Tables and Figures

Table IV.1. Variable Descriptions from the U.S. General Social Surveys and the South African Social Attitudes Surveys

United States				South Africa			
Variable	**Original GSS Description**	**Years Available**	**Comments**	**Variable**	**Original SASAS Description**	**Years Available**	**Comments**
Abortion Morality in Case of Fetal Anomaly	Always wrong, almost always wrong, wrong only sometimes, not wrong at all: Do you personally think it is wrong or not wrong for a woman to have an abortion if there is a strong chance of serious defect in the baby?	1991, 1998, 2008		**Abortion Morality in Case of Fetal Anomaly (reverse coded)**	Not wrong at all, wrong only sometimes, almost always wrong, always wrong: Do you personally think it is wrong or not wrong for a woman to have an abortion if there is a strong chance of serious defect in the baby?	2008, 2009, 2011, 2013	
Abortion Morality in Case of Poverty	Always wrong, almost always wrong, wrong only sometimes, not wrong at all: Do you personally think it is wrong or not wrong for a woman to have an abortion if the family has a very low income and cannot afford any more children?	1991, 1998, 2008		**Abortion Morality in Case of Poverty (reverse coded)**	Not wrong at all, wrong only sometimes, almost always wrong, always wrong: Do you personally think it is wrong or not wrong for a woman to have an abortion if the family has a very low income and cannot afford any more children?	2008, 2009, 2011, 2013	
Support for Women in Politics	Agree (0) or disagree (1): Most men are better suited emotionally for politics than are most women.	1991, 1998, 2008		**Support for Gender Affirmative Action (reverse coded)**	Strongly agree, agree, neutral, disagree, or strongly disagree: Preferential hiring and promotion of women in employment.	2008, 2009, 2011, 2013	Analyzed as a 3-category variable
Support for Gender Equality in Household Roles	Strongly agree, agree, disagree, or strongly disagree: It is much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family.	1991, 1998, 2008	Combined to form attitudes toward gender roles in the family	**Support for Gender Equality in Household Roles**	Strongly agree, agree, neutral, disagree, or strongly disagree: It is much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family.	2008	Combined to form attitudes toward gender roles in the family
Support for Working Motherhood with Preschoolers	Strongly agree, agree, disagree, or strongly disagree: A preschool child is likely to suffer if his or her mother works.	1991, 1998, 2008		**Support for Working Motherhood with Preschoolers**	Strongly agree, agree, neutral, disagree, or strongly disagree: A preschool child is likely to suffer if his or her mother works.	2008	
Support for Working Motherhood (reverse coded)	Strongly agree, agree, disagree, or strongly disagree: A working mother can establish just as warm and secure a relationship with her children as a mother who does not work.	1991, 1998, 2008		**Support for Working Motherhood (reverse coded)**	Strongly agree, agree, neutral, disagree, or strongly disagree: A working mother can establish just as warm and secure a relationship with her children as a mother who does not work.	2008	
Support for Income Equalization (reverse coded)	Some people think that the government in Washington ought to reduce the income differences between the rich and the poor (1)... Others think that the government should not concern itself with reducing this income difference between the rich and the poor (7).	1991, 1998, 2008	Combined to form attitudes toward social welfare	**Support for Income Equalization (reverse coded)**	Strongly agree, agree, neutral, disagree, or strongly disagree: It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes.	2008, 2009, 2011, 2013	Combined to form attitudes toward social welfare
Support for Standard of Living (reverse coded)	Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans (1)…Other people think it is not the government's responsibility, and that each person should take care of himself (5).	1991, 1998, 2008		**Support for Standard of Living (reverse coded)**	Strongly agree, agree, neutral, disagree, or strongly disagree: The government should provide a decent standard of living for the unemployed.	2009, 2011, 2013	

Figure IV.1. Abortion Morality Attitudes in the U.S. (1991, 1998, 2008) and South Africa (2009, 2011, 2013) in the Case of Fetal Anomaly and in the Case of Poverty

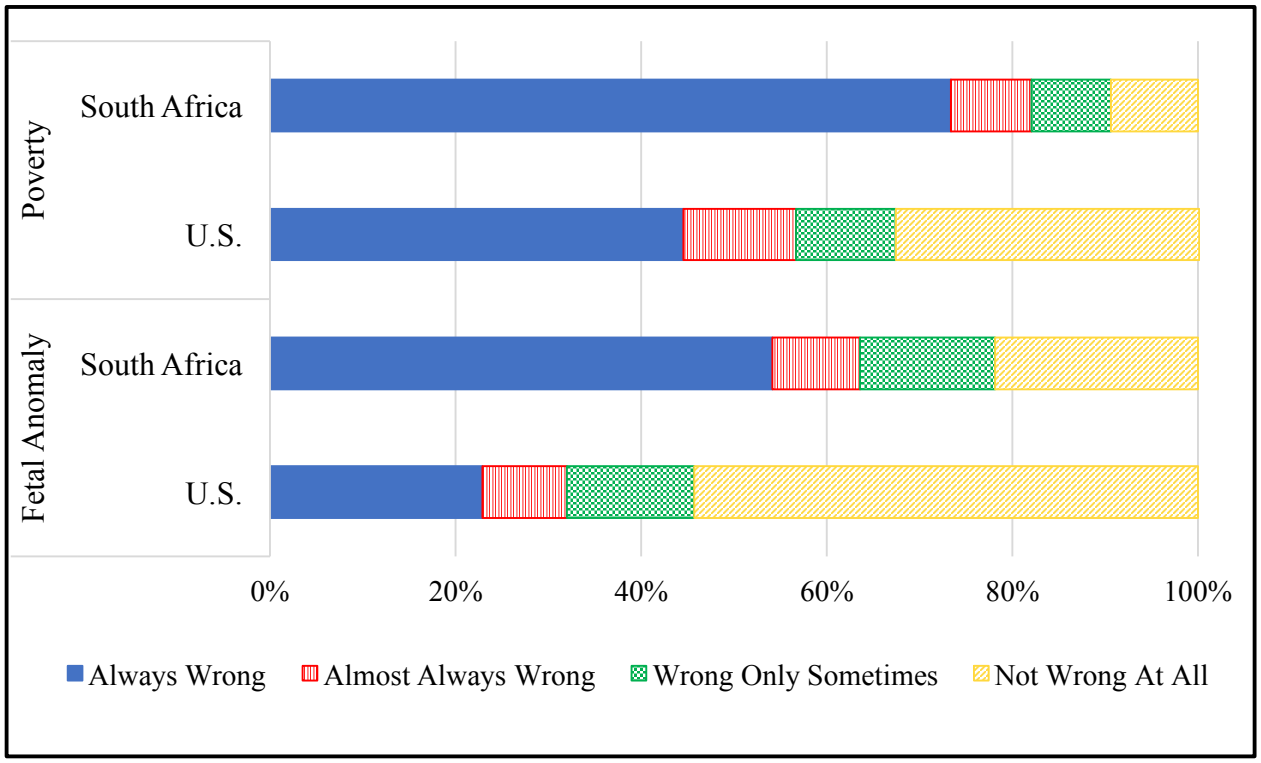
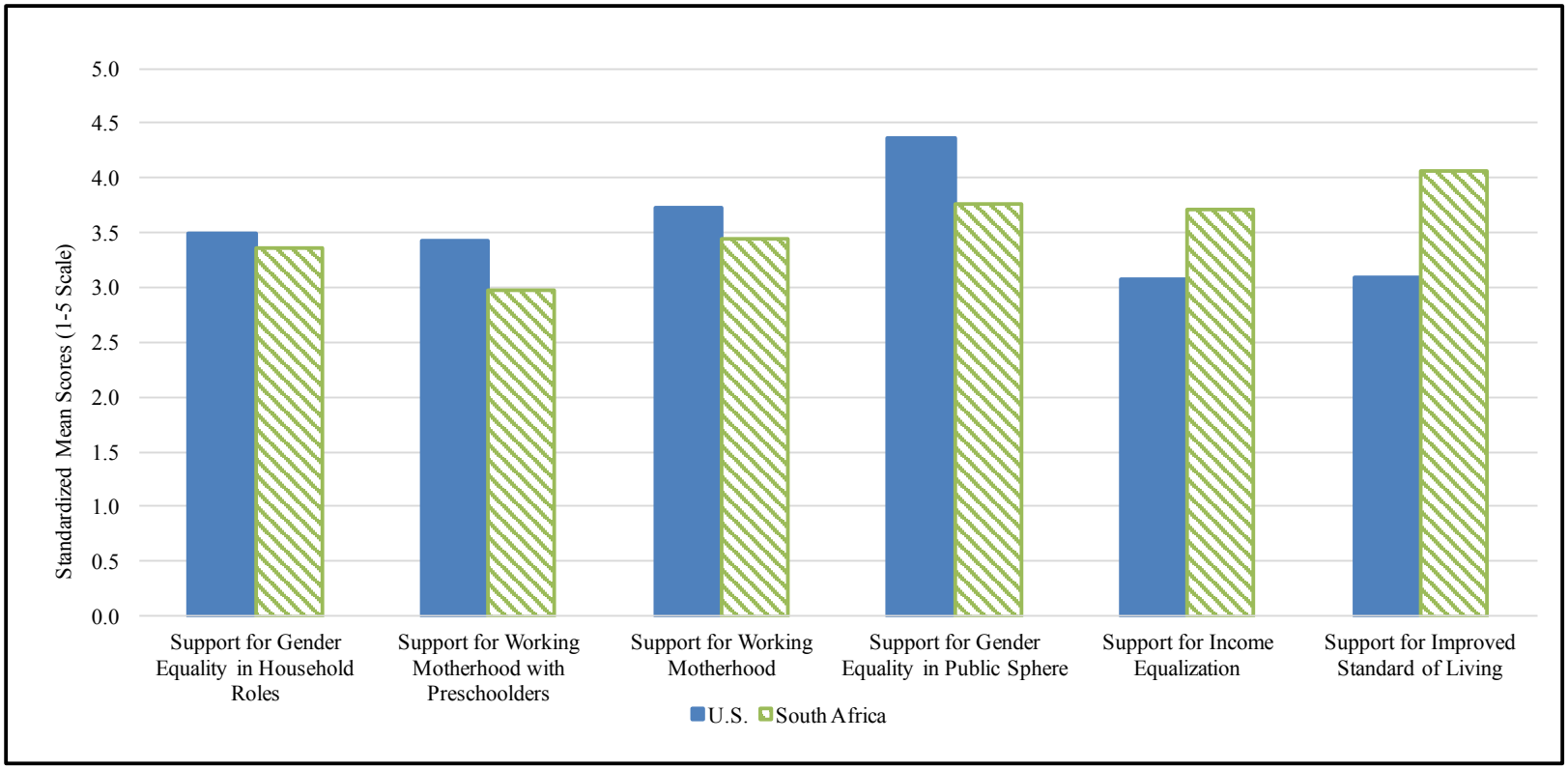


Figure IV.2. Attitudes Toward Gender Roles and Social Welfare (Mean Scores Standardized to a 1-5 Scale) in the U.S. and South Africa



Note: data on support for gender equality in household roles, for working mothers with preschoolers, and for working motherhood came from 2008 on the GSS and SASAS; data on support for gender equality in the public sphere, income equalization, and improved standard of living came from the 1991, 1998, and 2008 GSS and from the 2009, 2011, and 2013 SASAS

Table IV.2. Weighted Descriptive Statistics and Subsample Sizes for the Current Study

United States					South Africa				
GSS Variable	Combined-Year Models		2008 Models		SASAS Variable	Combined-Year Models		2008 Models	
	% or mean	n or SE	% or mean	n or SE		% or mean	n or SE	% or mean	n or SE
Sex					**Sex**				
Female	56.7	2809	54.0	913	Female	52.3	4836	53.1	1763
Male	43.3	2145	46.0	777	Male	47.7	4410	46.9	1558
Race/Ethnicity					**Race/Ethnicity**				
White	80.7	3998	78.4	1325	Black-Xhosa	17.3	1547	17.0	554
Black	12.8	634	12.7	215	Black-Zulu	23.5	2101	23.6	769
Other	6.5	322	8.9	150	Black-Other	36.1	3228	35.5	1157
--	--	--	--	--	Coloured	9.7	867	9.6	313
--	--	--	--	--	Indian	3.0	268	3.0	98
--	--	--	--	--	White-Afrikaner	6.4	572	6.3	205
--	--	--	--	--	White-English	4.1	367	4.9	160
Education					**Education**				
Some Secondary or Less	16.9	837	15.9	269	Primary or Less	19.3	1751	18.9	624
Completed Secondary	3.9	193	37.3	630	Some Secondary	37.6	3411	39.0	1289
2 Years Post-secondary	17.9	887	18.7	316	Completed Secondary	32.3	2930	31.9	1054
4 Years Post-secondary or More	26.6	1318	28.1	475	Any Tertiary	10.9	989	10.3	340
Annual Household Income					**Monthly Household Income**				
Less Than $25,000	31.4	1556	20.3	343	1500 Rand or Less	25.4	2309	26.5	874
$25,000 or More	58.8	2913	67.6	1142	1501-7500 Rand	34.4	3127	35.0	1155
No Response	9.8	485	12.1	204	7501 Rand or More	15.3	1391	16.5	544
--	--	--	--	--	Refused/Do Not Know	25.0	2272	22.0	726
Region					**Province**				
Eastern North Central	17.4	862	17.0	287	Eastern Cape	12.6	1165	13.1	435
Eastern South Central	5.6	277	4.4	74	Free State	5.6	518	6.0	199
Middle Atlantic	13.3	659	12.3	208	Gauteng	24.9	2303	23.6	784
Mountain	6.6	327	7.2	122	KwaZulu-Natal	19.8	1831	20.2	671
New England	4.6	228	3.8	64	Limpopo	9.9	915	9.8	325
Pacific	14.9	738	16.7	282	Mpumalanga	7.3	675	7.1	236
South Atlantic	20.6	1021	22.2	375	Northern Cape	2.3	213	2.8	93
Western North Central	7.1	352	5.9	100	Northwest	6.1	564	6.0	199
Western South Central	10.0	495	10.3	174	Western Cape	11.4	1054	11.4	379
Population Size (1,000 people)	347.6	19.23	364.3	30.00	**Urbanicity**				
--	--	--	--	--	Urban Formal	58.5	5409	57.9	1923
--	--	--	--	--	Urban Informal	8.8	814	10.9	362
--	--	--	--	--	Rural	32.7	3024	31.2	1036
Marital Status					**Marital Status**				
Married	51.3	2541	55.7	941	Married	33.4	3037	35.0	1152
Widowed/Widower	8.0	396	4.6	78	Widowed/Widower	7.0	637	7.2	237
Divorced or Separated	16.2	803	13.8	233	Divorced or Separated	4.0	364	3.2	105
Never Married	24.4	1209	26.0	439	Never Married	55.6	5056	54.7	1800
Acceptability of Premarital Sex	2.9	0.02	3.1	0.04	**Acceptability of Premarital Sex**	2.2	0.02	2.0	0.04
Age	44.8	0.31	45.2	0.53	**Age**	37.5	0.25	36.6	0.44
Religious Denomination					**Religious Denomination**				
Not Religious	13.3	659	17.0	287	Not Religious	16.6	1493	17.1	561
Protestant	57.1	2829	54.0	913	Protestant	66.2	5955	64.6	2120
Catholic	25.2	1248	24.9	421	Catholic	5.0	450	5.7	187
Other Religion	4.4	218	4.0	68	Other Religion	12.2	1097	12.7	417
Religiosity	1.4	0.03	1.3	0.04	**Religiosity**	**1.7**	**0.02**	**2.6**	**0.04**
Political Identity					**Political Identity**				
Conservative	33.6	1665	34.6	585	Conservative	17.4	1575	15.7	515
Moderate	36.1	1788	36.9	624	Moderate	26.4	2389	28.9	949
Liberal	27.6	1367	25.8	436	Liberal	35.2	3186	34.0	1116
Do Not Know	2.8	139	2.6	44	Do Not Know	21.1	1910	21.5	706

Note: n= subsample size; SE= standard error

Table IV.3. Bivariate Relationships between the Predictors and Abortion Morality Attitudes in the U.S. (1991, 1998, 2008) and South Africa (2009, 2011, 2013) in the Case of Fetal Anomaly and in the Case of Poverty

United States			South Africa		
GSS Variable	**Fetal Anomaly**	**Poverty**	**SASAS Variable**	**Fetal Anomaly**	**Poverty**
Support for Social Welfare	-0.003	0.01	**Support for Social Welfare**	**-0.11*** **	**-0.11*** **
Support for Egalitarian Family Gender Roles (2008 only)	***0.32*** **	***0.35*** **	**Support for Egalitarian Family Gender Roles (2008 only)**	***0.13*** **	0.08
Support for Women in Politics	***0.76*** **	***0.74*** **	**Support for Gender Affirmative Action (Reference: Disagree/Strongly Disagree)**		
--	--	--	Neither Disagree nor Agree	-0.15	***0.41*** **
--	--	--	Agree or Strongly Agree	-0.14	0.18
Female	0.07	-0.07	**Female**	-0.07	**-0.15***
Race/Ethnicity (Reference: White)			**Race/Ethnicity (Reference: White-English)**		
Black	**-0.36*** **	**-0.24***	Xhosa	**-0.60*** **	0.09
Other	-0.26	**-0.29***	Zulu	**-0.89*** **	**-0.68*** **
--	--	--	Other African	**-1.06*** **	**-0.73*** **
--	--	--	Coloured	**-0.84*** **	**-0.58*** **
--	--	--	Indian	**-0.56*** **	**0.-49***
--	--	--	White-Afrikaans	-0.2	**0.-51***
Education (Reference: Some Secondary or Less)			**Education (Reference: Primary or Less)**		
Completed Secondary	***0.39*** **	***0.38*** **	Some Secondary	***0.29*** **	***0.21*** *
2 Years Post-secondary	***0.77*** **	***0.75*** **	Completed Secondary	***0.36*** **	***0.43*** **
4 Years Post-secondary or More	***0.82*** **	***0.97*** **	Any Post-secondary	***0.73*** **	***0.40*** **
Annual Household Income (Reference: Less Than $25,000)			Monthly Household Income (Reference: 1500 Rand or Less)		
$25,000 or More	***0.32*** **	***0.21*** **	1501-7500 Rand	***0.20*** **	0.02
No response	0.14	-0.04	7501 Rand or More	***0.49*** **	0.02
--	--	--	Refused/Do Not Know	0.08	-0.03

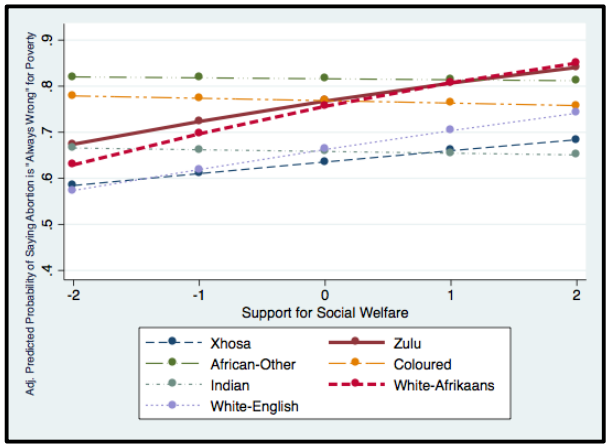
Note: beta coefficients from bivariate ordinal regressions are presented;
inverse relationships bolded in red; ***positive*** relationships italicized in green;
***p<.001, **p<.01, *p<.05

Table IV.4. Abortion Morality Attitudes in the US (1991, 1998, 2008) and South Africa (2009, 2011, 2013) in the Case of Fetal Anomaly and Poverty

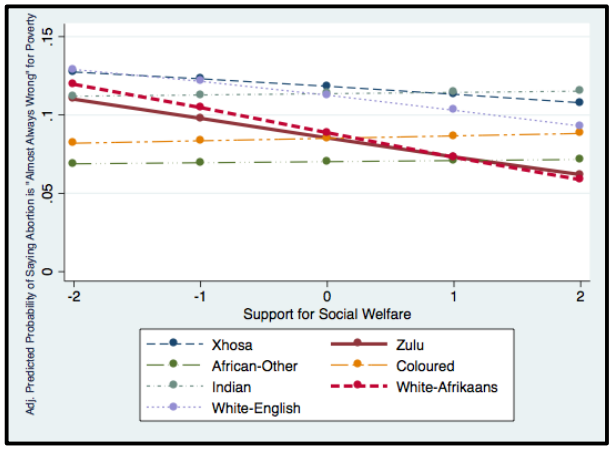
United States					South Africa				
GSS Variable	Fetal Anomaly*** (N=4,954)		Poverty*** (N=4,954)		SASAS Variable	Fetal Anomaly*** (N=7,631)		Poverty*** (N=7,657)	
	OR	p-value	OR	p-value		OR	p-value	OR	p-value
Support for Social Welfare	0.975	0.529	0.957	0.277	**Support for Social Welfare**	0.961	0.228	**0.903**	**
Support for Women in Politics	*1.464*	**	*1.354*	*	**Support for Gender Affirmative Action (Reference: Disagree/Strongly Disagree)**				
--	--	--	--	--	Neither Disagree nor Agree	0.960	0.726	*1.546*	**
--	--	--	--	--	Agree or Strongly Agree	1.096	0.375	*1.374*	**
Year (Reference: 1991)					**Year (Reference: 2009)**				
1998	0.996	0.967	**0.748**	**	2011	*1.304*	**	*1.365*	**
2008	**0.793**	**0.017**	**0.500**	***	2013	1.081	0.439	0.944	0.601
Female	*1.368*	***	*1.169*	*	**Female**	1.061	0.397	1.014	0.861
Race/Ethnicity (Reference: White)					**Race/Ethnicity (Reference: White-English)**				
Black	0.818	0.133	1.020	0.873	Xhosa	**0.625**	**	1.059	0.816
Other	0.934	0.689	0.839	0.310	Zulu	**0.406**	***	**0.562**	**
--	--	--	--	--	African-Other	**0.370**	***	**0.426**	***
--	--	--	--	--	Coloured	**0.486**	***	**0.552**	**
--	--	--	--	--	Indian	0.733	0.136	0.945	0.806
--	--	--	--	--	White-Afrikaans	0.936	0.745	0.674	0.084
Education (Reference: Some Secondary or Less)					**Education (Reference: Primary or Less)**				
Completed Secondary	*1.378*	**	*1.443*	**	Some Secondary	*1.279*	*	1.067	0.616
2 Years Post-secondary	*1.973*	***	*1.942*	***	Completed Secondary	*1.318*	*	*1.365*	*
4 Years Post-secondary or More	*2.012*	***	*2.410*	***	Any Post-secondary	*1.642*	***	1.272	0.152
Annual Household Income (Reference: Less Than $25,000)					**Monthly Household Income (Reference: 1500 Rand or Less)**				
$25,000 or More	*1.244*	*	1.115	0.232	1501-7500 Rand	1.183	0.053	1.033	0.764
No Response	1.174	0.358	1.028	0.863	7501 Rand or More	1.081	0.54	0.804	0.134
--	--	--	--	--	Refused/Do Not Know	0.924	0.462	0.878	0.317
Southern Region	1.091	0.318	0.920	0.298	**Province (Reference: Western Cape)**				
--	--	--	--	--	Eastern Cape	0.857	0.275	**0.667**	*
--	--	--	--	--	Free State	1.195	0.331	1.065	0.77
--	--	--	--	--	Gauteng	0.851	0.293	0.849	0.365
--	--	--	--	--	KwaZulu-Natal	0.966	0.844	**0.559**	**
--	--	--	--	--	Limpopo	0.702	0.069	**0.531**	**
--	--	--	--	--	Mpumalanga	1.031	0.876	0.718	0.144
--	--	--	--	--	Northern Cape	1.449	0.062	**0.563**	**
--	--	--	--	--	Northwest	0.768	0.207	0.842	0.49
Population Size	1.000	0.123	1.000	0.052	**Urbanicity (Reference: Urban Formal)**				
--	--	--	--	--	Urban Informal	0.813	0.148	0.938	0.679
--	--	--	--	--	Rural	0.988	0.903	0.941	0.607
Marital Status (Reference: Married)					**Marital Status (Reference: Married)**				
Widowed/Widower	1.169	0.341	1.161	0.351	Widowed/Widower	0.96	0.793	**0.625**	**
Divorced or Separated	0.976	0.830	1.031	0.769	Divorced or Separated	1.104	0.46	1.028	0.866
Never Married	1.029	0.801	*1.241*	*	Never Married	1.109	0.246	1.069	0.496
Acceptability of Premarital Sex	*1.700*	***	*1.739*	***	**Acceptability of Premarital Sex**	*1.411*	***	*1.422*	***
Age	*1.011*	***	*1.012*	***	**Age**	1.003	0.366	1.001	0.834
Religious Denomination (Reference: Not Religious)					**Religious Denomination (Reference: Not Religious)**				
Protestant	0.877	0.366	**0.601**	***	Protestant	0.951	0.648	0.904	0.457
Catholic	**0.590**	**	**0.417**	***	Catholic	0.99	0.949	0.932	0.728
Other Religion	1.089	0.716	1.147	0.499	Other Religion	0.904	0.513	0.804	0.249
Religiosity	**0.779**	***	**0.812**	***	**Religiosity**	0.986	0.692	0.945	0.206
Political Identity (Reference: Conservative)					**Political Identity (Reference: Conservative)**				
Moderate	*1.560*	***	*1.428*	**	Moderate	1.028	0.769	1.003	0.98
Liberal	*1.629*	***	*1.910*	***	Liberal	1.083	0.408	1.208	0.116
Do Not Know	1.108	0.661	1.064	0.808	Do Not Know	0.96	0.751	1.052	0.732

Note: **lower** odds bolded in red; ***greater*** odds italicized in green;
*** p<.001; **p<.01; *p<.05

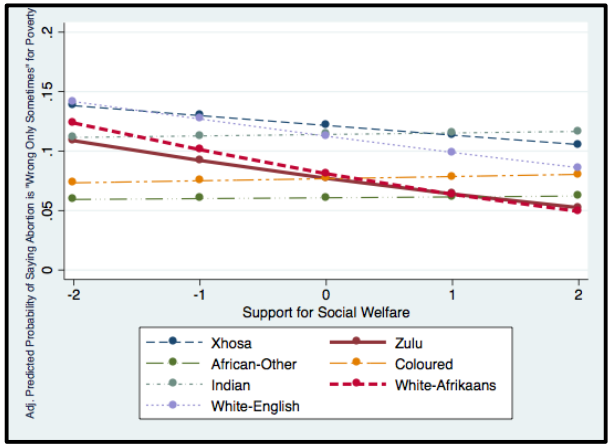
Figure IV.3. Interaction Effects Between Race/Ethnicity and Social Welfare Attitudes on Abortion Morality Attitudes in the Case of Poverty in South Africa



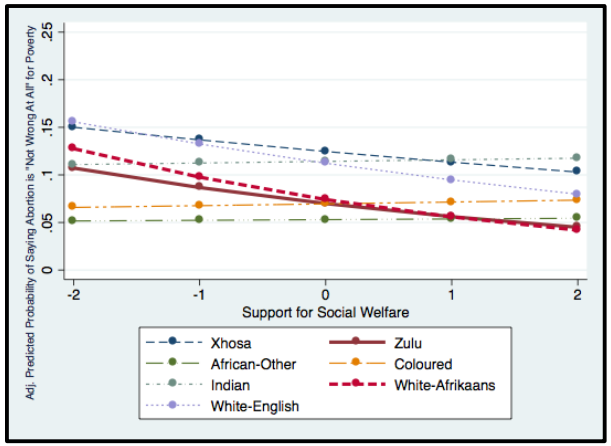
"Abortion Always Wrong"



"Abortion Almost Always Wrong"



"Abortion Wrong Only Sometimes"



"Abortion Not Wrong At All"

Note: social welfare attitudes were only significant for Zulu and Afrikaner respondents (lines bolded)

Table IV.5. Abortion Morality Attitudes in the U.S. (1991, 1998, 2008) and South Africa (2009, 2011, 2013) in the Case of Fetal Anomaly and in the Case of Poverty Stratified by Race (Black and White)

GSS Variable	Black Americans				White Americans				SASAS Variable	Black South Africans				White South Africans			
	Fetal Anomaly*** (subpop=652)		Poverty*** (subpop=652)		Fetal Anomaly *** (subpop=3,983)		Poverty*** (subpop=3,983)			Fetal Anomaly*** (subpop= 4,715)		Poverty*** (subpop=4,721)		Fetal Anomaly*** (subpop= 951)		Poverty*** (subpop=950)	
	OR	p-value	OR	p-value	OR	p-value	OR	p-value		OR	p-value	OR	p-value	OR	p-value	OR	p-value
Support for Social Welfare	1.005	0.963	0.978	0.842	0.972	0.537	0.947	0.223	**Support for Social Welfare**	0.935	0.103	0.915	0.063	1.025	0.714	**0.763**	**
Support for Women in Politics	1.293	0.390	1.300	0.403	*1.548*	**	*1.417*	*	**Support for Gender Affirmative Action (Reference: Disagree/Strongly Disagree)**								
--	--	--	--	--	--	--	--	--	Neither Disagree nor Agree	1.019	0.911	*1.483*	*	0.966	0.881	*1.863*	**
--	--	--	--	--	--	--	--	--	Agree or Strongly Agree	1.117	0.455	1.288	0.163	1.208	0.348	1.174	0.514
Year (Reference: 1991)									**Year (Reference: 2009)**								
1998	1.258	0.379	0.967	0.902	0.958	0.688	**0.710**	**	2011	*1.325*	*	*1.494*	**	1.27	0.251	0.729	0.279
2008	1.220	0.490	0.820	0.492	**0.743**	**	**0.458**	***	2013	1.124	0.345	0.916	0.516	0.946	0.814	0.731	0.2100
Female	*1.565*	*	1.241	0.332	*1.299*	**	*1.190*	*	**Female**	1.073	0.409	1.055	0.577	0.925	0.660	0.793	0.265
Education (Reference: Some Secondary or Less)									**Education (Reference: Primary or Less)**								
Completed Secondary	1.134	0.633	1.507	0.111	*1.437*	**	*1.453*	**	Some Secondary	1.208	0.104	1.079	0.595	*22.97*	**	4.002	0.090
2 Years Post-secondary	*2.095*	*	*2.015*	*	*1.908*	***	*1.931*	***	Completed Secondary	1.217	0.125	1.335	0.074	*23.917*	**	4.519	0.066
4 Years Post-secondary or More	*2.486*	*	*3.545*	***	*1.959*	***	*2.342*	***	Any Post-secondary	*1.558*	*	1.354	0.158	*28.812*	**	3.988	0.097
Annual Household Income (Reference: Less Than $25,000)									**Monthly Household Income (Reference: 1500 Rand or Less)**								
$25,000 or More	1.187	0.509	1.296	0.229	*1.255*	*	1.068	0.517	1501-7500 Rand	1.184	0.070	0.977	0.846	0.78	0.849	3.009	0.287
No Response	1.098	0.808	0.813	0.601	1.189	0.380	1.035	0.846	7501 Rand or More	1.181	0.336	0.808	0.255	0.923	0.948	3.513	0.225
--	--	--	--	--	--	--	--	--	Refused/Do Not Know	0.809	0.089	0.787	0.111	0.985	0.990	3.903	0.186
Southern Region	0.787	0.295	0.866	0.516	1.171	0.104	0.932	0.413	**Province (Reference: Western Cape)**								
--	--	--	--	--	--	--	--	--	Eastern Cape	0.793	0.212	**0.462**	**	0.831	0.542	1.176	0.686
--	--	--	--	--	--	--	--	--	Free State	0.749	0.115	**0.366**	***	0.901	0.755	2.134	0.086
--	--	--	--	--	--	--	--	--	Gauteng	**0.516**	**	**0.303**	***	1.117	0.705	*2.125*	**
--	--	--	--	--	--	--	--	--	KwaZulu-Natal	**0.562**	**	**0.213**	***	1.54	0.186	1.787	0.157
--	--	--	--	--	--	--	--	--	Limpopo	**0.385**	***	**0.147**	***	3.626	0.151	*9.995*	**
--	--	--	--	--	--	--	--	--	Mpumalanga	**0.628**	*	**0.233**	***	0.564	0.165	1.984	0.116
--	--	--	--	--	--	--	--	--	Northern Cape	0.6	0.078	**0.137**	***	*2.659*	**	1.683	0.188
--	--	--	--	--	--	--	--	--	Northwest	**0.439**	***	**0.277**	***	0.858	0.732	*4.197*	**
Population Size	1.000	0.596	1.000	0.733	1.000	0.087	*>1.00*	*	**Urbanicity (Reference: Urban Formal)**								
--	--	--	--	--	--	--	--	--	Urban Informal	0.825	0.207	0.887	0.447	1.386	0.497	--	--
--	--	--	--	--	--	--	--	--	Rural	0.948	0.612	0.937	0.623	0.908	0.837	1.522	0.437
Marital Status (Reference: Married)									**Marital Status (Reference: Married)**								
Widowed/Widower	1.146	0.738	0.988	0.974	1.263	0.207	1.153	0.430	Widowed/Widower	1.111	0.570	**0.568**	*	0.741	0.503	0.978	0.956
Divorced or Separated	0.997	0.991	0.926	0.784	1.006	0.963	1.049	0.668	Divorced or Separated	1.187	0.302	1.054	0.817	0.804	0.551	0.456	0.081
Never Married	1.528	0.157	*1.865*	*	0.973	0.834	1.099	0.406	Never Married	1.187	0.101	1.068	0.572	1.002	0.994	1.365	0.344
Acceptability of Premarital Sex	*1.592*	***	*1.669*	***	*1.737*	***	*1.793*	***	**Acceptability of Premarital Sex**	*1.359*	***	*1.346*	***	*1.641*	***	*1.77*	***
Age	1.011	0.169	*1.017*	*	*1.011*	**	*1.012*	***	**Age**	1.00	0.897	0.999	0.901	1.013	0.064	1.015	0.065
Religious Denomination (Reference: Not Religious)									**Religious Denomination (Reference: Not Religious)**								
Protestant	1.256	0.424	0.699	0.270	0.813	0.218	**0.555**	***	Protestant	0.865	0.248	0.915	0.573	1.262	0.471	**0.424**	*
Catholic	1.045	0.922	0.439	0.116	**0.529**	**	**0.389**	***	Catholic	0.885	0.510	0.903	0.683	1.107	0.830	0.545	0.279
Other Religion	0.939	0.895	1.331	0.565	1.083	0.785	1.074	0.766	Other Religion	0.827	0.343	0.798	0.368	0.999	0.998	0.69	0.486
Religiosity	0.943	0.513	0.899	0.238	**0.757**	***	**0.810**	***	**Religiosity**	1.014	0.751	0.976	0.660	0.912	0.340	0.856	0.130
Political Identity (Reference: Conservative)									**Political Identity (Reference: Conservative)**								
Moderate	1.512	0.082	1.198	0.578	*1.578*	***	*1.457*	**	Moderate	0.957	0.704	0.851	0.282	1.307	0.266	1.587	0.134
Liberal	1.470	0.148	1.375	0.330	*1.587*	***	*2.026*	***	Liberal	1.027	0.817	1.133	0.378	1.290	0.307	1.731	0.079
Do Not Know	0.982	0.974	1.227	0.738	1.048	0.864	0.987	0.966	Do Not Know	1.013	0.935	1.053	0.775	0.615	0.138	0.757	0.499

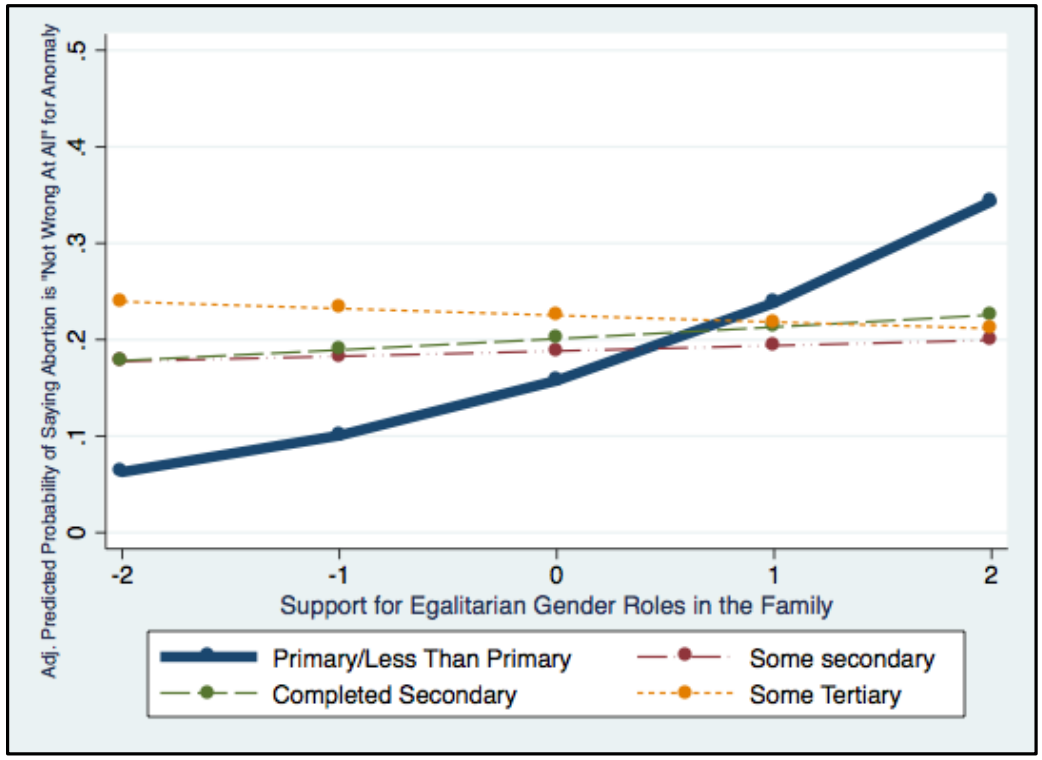
Note: **lower** odds bolded in red; ***greater*** odds italicized in green;
*** p<.001; **p<.01; *p<.05

Table IV.6. Abortion Morality Attitudes in the U.S. and South Africa in the Case of Fetal Anomaly and in the Case of Poverty in 2008

United States					South Africa				
GSS Variable	Fetal Anomaly*** (N=1,690)		Poverty*** (N=1,690)		SASAS Variable	Fetal Anomaly*** (N=2,796)		Poverty*** (N=2,799)	
	OR	p-value	OR	p-value		OR	p-value	OR	p-value
Support for Egalitarian Family Gender Roles	***1.143***	*	***1.185***	**	**Support for Egalitarian Family Gender Roles**	***1.124***	*	1.033	0.576
Support for Women in Politics	1.407	0.107	1.167	0.475	**Support for Gender Affirmative Action (Reference: Disagree/Strongly Disagree)**				
--	--	--	--	--	Neither Disagree nor Agree	1.133	0.532	1.001	0.996
--	--	--	--	--	Agree or Strongly Agree	0.906	0.550	1.165	0.504
Support for Government Equalizing Wealth	1.022	0.625	0.993	0.841	**Support for Government Equalizing Income (Reference: Neither Disagree nor Agree)**				
--	--	--	--	--	Disagree or Strongly Disagree	0.830	0.269	**0.489**	**
--	--	--	--	--	Agree or Strongly Agree	0.831	0.195	**0.581**	**
Female	1.028	0.843	1.038	0.773	**Female**	***1.291***	*	1.291	0.070

Note: models also control for race/ethnicity, education, household income, region, urbanicity, marital status, premarital sex attitudes, age, religious denomination, religiosity, political identity, and attitudes toward government equalizing income/wealth;
lower odds bolded in red; ***greater*** odds italicized in green;
*** p<.001; **p<.01; *p<.05

Figure IV.4. Interaction Effects Between Educational Attainment and Gender Role Attitudes on Moral Acceptability of Abortion in the Case of Fetal Anomaly in South Africa



Note: gender role attitudes were only significant for South Africans with primary education or less

Table IV.7. U.S. and South African Abortion Attitudes in the Case of Fetal Anomaly and in the Case of Poverty in 2008 Stratified by Race (Black and White)

GSS Variable	Black Americans				White Americans				SASAS Variable	Black South Africans				White South Africans			
	Fetal Anomaly (subpop=231)		Poverty subpop=231		Fetal Anomaly*** (subpop=1,311)		Poverty*** (subpop=1,311)			Fetal Anomaly*** (subpop=1,695)		Poverty*** (subpop=1,698)		Fetal Anomaly*** (subpop=359)		Poverty*** (subpop=358)	
	OR	p-value	OR	p-value	OR	p-value	OR	p-value		OR	p-value	OR	p-value	OR	p-value	OR	p-value
Support for Egalitarian Family Gender Roles	0.948	0.788	1.146	0.478	1.162	0.051	***1.194***	*	**Support for Egalitarian Family Gender Roles**	***1.178***	***0.013***	0.998	0.971	1.018	0.911	***1.445***	*
Support for Women in Politics	1.277	0.670	1.081	0.890	1.437	0.109	1.292	0.300	**Support for Gender Affirmative Action (Reference: Disagree/Strongly Disagree)**								
--	--	--	--	--	--	--	--	--	Neither Disagree nor Agree	1.244	0.459	0.947	0.880	1.039	0.917	0.823	0.705
--	--	--	--	--	--	--	--	--	Agree or Strongly Agree	0.955	0.847	1.023	0.944	0.891	0.750	1.451	0.412
Support for Government Equalizing Wealth	0.935	0.579	1.040	0.750	1.047	0.371	0.983	0.684	**Support for Government Equalizing Income (Reference: Neither Disagree nor Agree)**								
--	--	--	--	--	--	--	--	--	Disagree or Strongly Disagree	***0.546***	*	***0.494***	*	1.153	0.634	***0.339***	*
--	--	--	--	--	--	--	--	--	Agree or Strongly Agree	0.765	0.151	***0.586***	*	***0.425***	*	***0.299***	**
Female	1.160	0.713	1.142	0.760	0.984	0.920	1.068	0.643	**Female**	***1.289***	*	***1.517***	*	1.109	0.705	1.675	0.081

Note: the models for Black Americans are insignificant;
models also control for race/ethnicity, education, household income, region, urbanicity, marital status, premarital sex attitudes, age, religious denomination, religiosity, political identity, and attitudes toward government equalizing income/wealth;
lower odds bolded in red; ***greater*** odds italicized in green;
*** p<.001; **p<.01; *p<.05

CHAPTER V

Conclusion

In both South Africa and the United States (U.S.), as abortion stigma erodes access to legal services and perpetuates unsafe abortion among vulnerable women, the need for innovative research and problem-solving has never been so dire (Constant *et al.*, 2014; Gerdts *et al.*, 2016; Grossman *et al.*, 2010; MacDorman *et al.*, 2016; Stephens-Davidowitz, 2016; Trueman & Magwentshu, 2013). I responded to this intensifying public health issue by asking and answering these research questions: 1) in what ways, if any, do the socio-demographic patterns of abortion attitudes mirror the socio-demographic patterns of abortion-related health inequities in South Africa and the U.S.?; 2) how is moral acceptability of abortion co-constructed with ideologies of gender and socioeconomic stratification—if at all?, and 3) how do those relationships differ by race/ethnicity and socioeconomic status (SES)? I also adopted a reproductive rights and justice framework, which allowed me to simultaneously consider the human rights to safe abortion services, gender equality, adequate standards of living, racial/ethnic non-discrimination, and reproductive autonomy free from coercion (Assembly, 1948; United Nations, 1994). That framework, the cross-national comparison between the U.S. and South Africa, and my analyses of group differences by race/ethnicity and SES illuminated novel perspectives on the well-worn and highly-polarized discourse of abortion rights.

Individually and collectively, these three studies of abortion moral acceptability in South Africa and the U.S. make significant contributions to the existing literature and carry important

implications for addressing abortion stigma and abortion-related health inequities in legal settings. In the first paper, my co-authors and I analyzed abortion morality attitudes from the South African Social Attitudes Survey (SASAS) in 2013 and learned that three-quarters of South Africans feel abortion is "always wrong" if it is because the family is low-income and over half feel it is "always wrong" for fetal anomaly. We also found that negative abortion attitudes were more likely among African, Coloured, and less educated South Africans. Given that unsafe abortion and abortion-related mortality are higher among South African women who are African and/or lower SES (Constant *et al.*, 2014; Stevens, 2012; Trueman & Magwentshu, 2013), we concluded that differences in abortion attitudes might be contributing to those disparities (for example, by increasing social barriers to legal abortion services in particular communities).

In the second study, my co-authors and I assessed abortion attitudes trends over time and across race/ethnicity, SES, and province using the SASAS from 2007 to 2013. We found that while abortion attitudes have been generally steady over the last decade in South Africa at the national level, this masked dynamic changes in attitudes at the sub-national level. Specifically, we noted that abortion attitudes became increasingly negative over time for South African respondents that were Coloured or living in Mpumalanga or the Northern Cape, and they became increasingly positive over time for Xhosa respondents. Further, abortion attitudes among Africans were more positive in 2011, possibly due to increased national attention on safe abortion following a widely-publicized 2010 report about preventing maternal mortality. We also learned that the effects of race/ethnicity interacted with education, which supports our hypothesis that social identities are intersectional and have intersectional effects on abortion attitudes.

In the third and final study, my co-authors and I compared abortion morality attitudes in South Africa to those in the U.S.; measured the relationships between attitudes toward abortion,

social welfare, and gender roles in the family and in the public sphere; then explored differences across race/ethnicity and SES. Again, about three-quarters of the South African respondents in our sample felt abortion is "always wrong" in the case of poverty compared to nearly half of Americans, and over half of South Africans felt abortion is "always wrong" in the case of fetal anomaly compared to approximately one-quarter of Americans. We found that egalitarian attitudes toward gender roles in the family were positively associated with moral acceptability of abortion in both cases for Americans, but only in the case of fetal anomaly for South Africans and only for South Africans with less than a secondary education. We also learned that for South Africans of lower SES, support for social welfare was associated with more negative attitudes toward abortion morality in both cases, but for Americans the concepts of social welfare and abortion morality were unrelated. Finally, our results showed that although the distribution of abortion mortality attitudes does not vary by race/ethnicity in the U.S., the factors related to abortion attitudes differ between White and Black Americans.

Below, I discuss the implications of these results for abortion stigma and health equity—particularly as they relate to destigmatization efforts, health services, and public policy in South Africa and the U.S. I then summarize the strengths and limitations of this dissertation holistically, and offer recommendations for future research.

Implications for Abortion Destigmatization

Abortion destigmatization efforts must be community-grounded, historically informed, gender transformative, and rooted in human rights. Our findings suggest that addressing patriarchal gender attitudes and norms, particularly those which dictate men and women's roles within the family and household, may help to reduce abortion stigma—particularly if they are replaced with support for women's equality. This is consistent with abortion stigma research in

East Africa and Latin America conducted by Martin and colleagues (2017), who found that abortion providers holding a social justice or women's rights rationale for their work are less likely to dehumanize their patients as compared to providers who use a public health rationale focused on preventing maternal mortality. Furthermore, abortion access is sometimes framed as an economic justice issue, but some reproductive justice advocates argue this risks decontextualizing the abortion choices of low-income women from their constrained living situations (Shenker-Osorio & Goldtzvik, 2017). My dissertation results similarly suggest that some individuals— particularly in settings like South Africa where poverty-driven unsafe abortion was historically very common—might feel abortion is wrong in the case of poverty because they support social welfare initiatives that would enable women to care for their children. This also emphasizes the importance of historicizing abortion attitudes, for example in the contexts of abortion during Apartheid and in the contexts of racial/ethnic eugenic campaigns in the U.S. By expanding the framework of abortion attitudes to one of human rights in historical context, one can focus on the often-marginalized experiences of women of color and lower SES and begin to appreciate differences in abortion attitudes across particular groups and socio-political circumstances. For example, while religion and politics are major drivers of abortion morality attitudes in the U.S., and among White Americans in particular, they play little to no role in South Africa or among Black Americans. Such findings reaffirm the importance of community-based approaches to abortion destigmatization that are championed by trusted leaders and grounded in the values, experiences, and challenges of the community. One example of this approach is *Communities for Choice,* a South African intervention that significantly increases knowledge about abortion and positive abortion attitudes through role-playing, workshops, debate, art, and self-reflection (Varkey, Fonn, & Ketlhapile, 2000).

Implications for Health Services

My dissertation results also emphasize the need for comprehensive and culturally appropriate sexual and reproductive health services and for evidence-based destigmatization interventions among abortion providers. Across South Africa and the U.S., women—particularly women of color and low-income women—have long advocated for comprehensive health services that include safe abortion in addition to high quality maternity care, acceptable contraception, child health services, and more. By considering my dissertation results through a reproductive rights and justice lens, it becomes clear that there remains a conflict between the need for safe abortion and the need to respect an individual's personal perspectives on abortion. This requires explicit destigmatization training that help individuals separate their personal views from the choices of others—whether that is respecting someone's wish to have an abortion or their wish to not have an abortion. When one steps out of the pro-choice vs. pro-life dichotomy, they can embrace a world that includes *both* safe abortion *and* the alternatives to abortion. Particularly in settings like the U.S. and South Africa, where abortion care is fraught with eugenic histories, it is critical to contextualize abortion care within this comprehensive model, and abortion services rooted in a reproductive justice framework require even deeper interrogation of one's internalized assumptions, attitudes, and stigma. Effective interventions like *Health Workers for Choice* (Varkey *et al*., 2001) and the *Providers Share Workshop* (Harris *et al*., 2011) have supported abortion providers to separate their personal beliefs from those of their clients, to understand their own experiences of stigma, and to maximize the quality of abortion services they provide. Perhaps the next frontier is training reproductive health practitioners in reproductive justice, just as Loder and her colleagues (2017) have proposed. Moreover, this speaks to the larger issue of culturally appropriate clinical care, including abortion services. For

example, one qualitative study of displaced Burmese women found that providing misoprostol through lay community health workers was an acceptable and culturally resonant form of safe abortion services (Tousaw, Moo, Arnott, & Foster, 2017). Similarly, in Bangladesh where menstrual regulation has been a long-accepted form of birth control, researchers found that medical abortion regimens of mifepristone and misoprostol were highly acceptable (Alam *et al*., 2013). Is it possible to develop culturally-sensitive abortion services in highly diverse settings like the U.S. and South Africa?

Implications for Public Policy

It is clear that abortion stigma, which relies on negative attitudes and community norms, continues to erode the positive health effects of abortion legalization in the U.S. and South Africa. Coupled with social inequality that further limits access to safe and legal services, abortion stigma and its effects from the intrapersonal to policy levels continue to place the world's most vulnerable women in harm's way even when they are guaranteed access by international human rights and national laws. Those same doctrines also guarantee the right to an adequate standard of living, and our results suggest that support for social welfare—even in the U.S.—is quite high. And yet, based on findings reported in this dissertation, Americans are not conceptualizing abortion and social welfare together; we did not find connections between attitudes about poverty-driven abortion and anti-poverty initiatives. South Africans, on the other hand, made this connection explicit: they were more likely to find abortion immoral if they felt the government needs to equalize incomes and provide a decent standard of living. Regardless of how respondents think and feel about these subjects, human rights doctrines endorsed by both the U.S. and South Africa dictate that safe abortion policies must be enacted alongside social welfare and gender equality policies so women and their partners can raise their children in

dignity (Ross, 2006; United Nations, 1994, 2014). To start, policy-makers could expand child welfare programs like the child support grant in South Africa and the U.S. Temporary Assistance for Needy Families and Supplemental Nutrition Assistance Program. Our results also point to the importance of gender equity, including more support for women and mothers in the workforce, which seems to improve public attitudes toward abortion. The U.S. remains one of only three countries worldwide (along with Suriname and Papua New Guinea) that do not guarantee maternity leave (World Policy Center, 2014); South Africa provides four months, although this is typically unpaid (South African Department of Labour, 2017).

Strengths and Limitations

This dissertation makes significant contributions to the fields of public health and social demography by deepening the understanding of public abortion attitudes and their associations with abortion stigma and abortion-related health outcomes and disparities. Specifically, I measured the relationship between abortion attitudes and social welfare attitudes, which had been an important gap in the literature. The comparative study also built upon existing global evidence about gender and abortion attitudes by teasing apart the effects of attitudes toward gender roles in the family vs. gender roles in the public sphere. It also compared two legal settings of abortion, the U.S. and South Africa, each with significant social inequalities by gender, race/ethnicity, and SES. This dissertation was also the first to analyze quantitative data on abortion attitudes at the national level in South Africa, which enabled me to assess previously unexplored group differences by race/ethnicity, SES, and geographic region. Large sample sizes from the SASAS also allowed me to consider the intersections between social identities such as race/ethnicity and SES, while previous studies of abortion attitudes had been restricted to looking at each identity separately.

My investigation was limited by the common constraints of observational, secondary analysis of survey data. From the repeated, cross-sectional design I was unable to make statements about causality, but our multivariable models did control for a number of covariates and potentially confounding factors. At times, the available survey items were not ideal: for example, there were only two items for social welfare attitudes and only three items for attitudes toward gender roles in the family. Moreover, both the wording of the dependent variable (how "wrong" is abortion) and the answer choices ("always wrong" to "not wrong at all") limited my ability to measure the complexity and nuance of public abortion attitudes. Nevertheless, this standardization of measures enabled national-level extrapolation of our results and the international comparison. While not all of the questions matched perfectly in the U.S. and South Africa, nearly all of the measures were comparable. Finally, although I did not explicitly measure the relationship between abortion attitudes, stigma at other socio-ecological levels, or abortion-related health outcomes, I have laid the groundwork for future studies by identifying similar patterns in abortion-related attitudes and outcomes and by exploring how individual-level abortion attitudes are related to broader social ideologies of gender and economic equality.

Recommendations for Future Research

These limitations point toward opportunities for future research. To begin, qualitative studies are needed to understand what these quantitative results actually mean: is it that South Africans support social welfare then think abortion is wrong if it is driven by poverty? Or is it that South Africans think an adequate social welfare program means that poverty is not a valid justification for terminating a pregnancy? Could the interpretations vary depending on someone's social position and background? For example, the inverse relationship between support for social welfare and abortion acceptability was significant for both Zulu and Afrikaner

respondents, two very different groups. Similarly, qualitative work is needed in the U.S. to understand why Americans' attitudes about abortion morality are not associated with attitudes about social welfare. In particular, more in-depth investigations of abortion attitudes and stigma among non-White Americans are critical for understanding and addressing abortion-related health disparities by race/ethnicity. In this dissertation as with many studies before, the statistical models did not perform well among Black Americans, because relatively little is known about the factors that drive abortion attitudes in Black communities. Again, destigmatization interventions that aim to improve access to safe abortion care must be community-driven, historically-informed, gender transformative, and guided by a human rights framework that focuses on the experiences of Black women and other marginalized groups. Achieving access to safe abortion as a basic human right necessitates that abortion be destigmatized, but destigmatization efforts might not reflect current community norms and values. Hence, public health professionals must partner with champions within the community and develop programs that are thoroughly informed by community experiences and perspectives. Furthermore, mixed methods research will be important for combining in-depth qualitative work alongside quantitative surveys in order to develop better measurement of abortion attitudes. To date, our understanding is limited by the methodologies and measures used by large-scale polls and surveys that reduce the complexity of abortion perspectives to dichotomous (pro-life/pro-choice, should be legal/should not be legal) or otherwise limited responses (always wrong to never wrong). Current approaches are also limited to cross-sectional snapshots of how an individual feels about abortion at a particular point in time. Longitudinal studies of abortion attitudes will be critical for understanding how attitudes change over the life course, and what factors seem to influence those changes. Is it what our cross-sectional results suggest, that abortion attitudes

become more positive as attitudes toward gender roles become more egalitarian and as an individual becomes more educated? Finally, while this dissertation deepened knowledge of abortion attitudes and their potential contributions to abortion stigma and health inequity in South Africa and the U.S., future investigations must test those relationships directly. Multi-level studies could be developed that link abortion attitudes to abortion behaviors, access to services, policies, and abortion-related health outcomes. Ultimately, our interest in abortion attitudes lies in their immense power to obstruct the human right to safe abortion and to increase risk of unsafe abortion and maternal mortality, particularly among the world's most vulnerable women.

BIBLIOGRAPHY

African National Congress. (1994a). *A National Health Plan for South Africa*. Johannesburg, South Africa: African National Congress. Retrieved from http://whqlibdoc.who.int/ publications/1994/0958386714.pdf

African National Congress. (1994b). *African National Congress Constitution of 1994*. Johannesburg, South Africa: African National Congress. Retrieved from http://www.anc. org.za/show.php?id=210

Åhman, E., & Shah, I. H. (2011). New estimates and trends regarding unsafe abortion mortality. *International Journal of Gynecology & Obstetrics*, *115*(2), 121–126. https://doi.org/10. 1016/j.ijgo.2011.05.02

Alam, A., Bracken, H., Johnston, H. B., Cleland, J., Raghavan, S., Islam, N., … Reichenbach, L. (2013). Acceptability and feasibility of mifepristone-misoprostol for menstrual regulation in Bangladesh. *International Perspectives on Sexual and Reproductive Health*, *39*(02), 079–087. https://doi.org/10.1363/3907913

Assembly, U. N. G. (1948). *Universal Declaration of Human Rights*. United Nations. Retrieved from http://www.tandfonline.com.proxy.lib.umich.edu/doi/ abs/10.1080/00221473.1968. 10619091?journalCode=ujrd18#.VB4suEtspIc

Baker, P. A. (2010). From Apartheid to neoliberalism: Health equity in post-Apartheid South Africa. *International Journal of Health Services*, *40*(1), 79–95. https://doi.org/10.2190/ HS.40.1.

Barkan, S. E. (2014). Gender and abortion attitudes: Religiosity as a suppressor variable. *Public Opinion Quarterly*, *78*(4), 940–950. https://doi.org/10.1093/poq/nfu04

Barrett, J. B., DaVanzo, J., Ellison, C. G., & Grammich, C. (2014). Religion and attitudes toward family planning issues among US adults. *Review of Religious Research*, *56*(2), 161–188. https://doi.org/ 10.1007/s13644-013-0136-z

Bateman, C. (2011). Abortion practices undermining reformist laws: experts. *SAMJ: South African Medical Journal*, *101*(5), 302–304. Retrieved from http://www.samj.org.za/ index.php/samj/article/view/4936/3214

Blount, L. G. (2015, May 14). Poor women suffer most from restrictive sbortion policies. *Reproductive Health Reality Check*. Retrieved from https://rewire.news/article/2015/05/ 14/poor-women-suffer-restrictive-abortion-policies/

Bradford, H. (1991). Herbs, knives and plastic: 150 years of abortion in South Africa. In *Science, medicine, and cultural imperialism* (pp. 120–147). New York, NY: St. Martin's Press, Inc.

Cammett, A. (2014). Deadbeat Dads & Welfare Queens: How metaphor shapes poverty law. *BCJL & Soc. Just.*, *34*, 233. Retrieved from http://lawdigitalcommons.bc.edu/jlsj/vol34/iss2/3/

Carter, J. S., Carter, S. K., & Dodge, J. (2009). Trends in abortion attitudes by race and gender: A reassessment over a four decade period. *Journal of Sociological Research*, *1*(1). Retrieved from http://www.macrothink.org/journal/index.php/jsr/article/view/156

Chopra, M., Daviaud, E., Pattinson, R., Fonn, S., & Lawn, J. E. (2009). Saving the lives of South Africa's mothers, babies, and children: can the health system deliver? *The Lancet*, *374*(9692), 835–846. https://doi.org/ 10.1016/S0140-6736(09)61123-5

Clawson, R. A., & Trice, R. (2000). Poverty as we know it: Media portrayals of the poor. *The Public Opinion Quarterly*, *64*(1), 53–64. https://doi.org/10.1086/316759

Constant, D., Grossman, D., Lince, N., & Harries, J. (2014). Self-induction of abortion among women accessing second-trimester abortion services in the public sector, Western Cape Province, South Africa: An exploratory study. *South African Medical Journal*, *104*(4), 302–305. https://doi.org/10.7196/samj.7408

Cooper, D., Dickson, K., Blanchard, K., Cullingworth, L., Mavimbela, N., von Mollendorf, C., … Winikoff, B. (2005). Medical abortion: The possibilities for introduction in the public Ssctor in South Africa. *Reproductive Health Matters*, *13*(26), 35–43. https://doi.org/10.1016/S0968-8080(05)26203-1

Cooper, D., Harries, J., Myer, L., Orner, P., & Bracken, H. (2007). "Life is still going on": Reproductive intentions among HIV-positive women and men in South Africa. *Social Science & Medicine*, *65*(2), 274–283. https://doi.org/10.1016/j.socscimed.2007.03.019

Cooper, D., Morroni, C., Orner, P., Moodley, J., Harries, J., Cullingworth, L., & Hoffman, M. (2004). Ten years of democracy in South Africa: Documenting transformation in reproductive health policy and status. *Reproductive Health Matters*, *12*(24), 70–85. https://doi.org/10.1080/14725843.2015.1009618

Coovadia, H., Jewkes, R., Barron, P., Sanders, D., & McIntyre, D. (2009). The health and sealth system of South Africa: Historical roots of current public health challenges. *The Lancet*, *374*, 817–834. https://doi.org/10.1016/S0140-6736(09)60951-X

Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*, 139–169. Retrieved from https://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8

Davis, A. (2003). Racism, birth control, and reproductive rights. In *Feminist postcolonial theory-A reader* (pp. 353–367).

Dehlendorf, C., Harris, L. H., & Weitz, T. A. (2013). Disparities in abortion rates: A public health approach. *American Journal of Public Health*, *103*(10), 1772–1779. https://doi.org/10.2105/AJPH.2013.301339

Dillon, M., & Savage, S. (2006). Values and religion in rural America: Attitudes toward abortion and same-sex relations. Retrieved from https://scholars.unh.edu/carsey/12

Dlamini, B. (2014). Minister Dlamini to the United Nations General Assembly on sexual and reproductive health in Africa. New York, NY: South African National Government. Retrieved from http://www.gov.za/address-minister-social-development-ms-bathabile-dlamini-mp-occasion-united-nations-general-assembly

Earnshaw, V. A., & Kalichman, S. C. (2013). Stigma experienced by people living with HIV/AIDS. In Liamputtong (Ed.), *Stigma, discrimination and living with HIV/AIDS* (pp. 23–38). Dordrecht: Springer Netherlands. https://doi.org/10.1007/978-94-007-6324-1_2

Edin, K., Nilsson, B., Ivarsson, A., Kinsman, J., Norris, S. A., & Kahn, K. (2016). Perspectives on intimate relationships among young people in rural South Africa: the logic of risk. *Culture, Health & Sexuality*, *18*(9), 1010–1024. https://doi.org/10.1080/13691058.2016.1155749

Fonn, S., & Xaba, M. (2001). Health Workers for Change: developing the initiative. *Health Policy and Planning*, *16*(suppl 1), 13–18. Retrieved from: http://heapol.oxfordjournals.org/content/16/suppl_1/13.short

Foster, D. G., Gould, H., Taylor, J., & Weitz, T. A. (2012). Attitudes and decision making among women seeking abortions at one U.S. clinic. *Perspectives on Sexual and Reproductive Health*, *44*(2), 117–124. https://doi.org/10.1363/4411712

Foster, D. G., & Kimport, K. (2013). Who seeks abortions at or after 20 weeks? *Perspectives on Sexual and Reproductive Health*, *45*(4), 210–218. https://doi.org/10.1363/4521013

Frederickson, G. M. (1982). *White supremacy: A comparative study of American and South African history*. Oxford University Press.

Fried, M. G. (2000). Abortion in the United States: Barriers to access. *Health and Human Rights*, 174–194. https://doi.org/10.2307/4065200

Fried, M. G., Ross, L., Solinger, R., & Bond Leonard, T. M. (2013, May 8). Understanding reproductive justice: A response to O'Brien. *RH Reality Check*. Retrieved from http://rhrealitycheck.org/article/2013/05/08/understanding-reproductive-justice-a-response-to-obrien/

Gay, D., & Lynxwiler, J. (1999). The impact of religiosity on race variations in abortion attitudes. *Sociological Spectrum*, *19*(3), 359–377. https://doi.org/10.1080/027321799280190

Gerdts, C., Fuentes, L., Grossman, D., White, K., Keefe-Oates, B., Baum, S. E., … Potter, J. E. (2016). Impact of clinic closures on women obtaining abortion services after implementation of a restrictive law in Texas. *American Journal of Public Health*, *106*(5), 857–864. https://doi.org/10.2105/AJPH.2016.303134

Gilbert, I., & Sewpaul, V. (2015). Challenging dominant discourses on abortion from a radical feminist standpoint. *Affilia*, *30*(1), 83–95. https://doi.org/10.1177/0886109914549232

Ginsburg, F., & Rapp, R. (1995). Introduction: conceiving the new world order. In *Conceiving the New World order: The global politics of reproduction* (pp. 1–17). Berkeley, CA: University of California Press.

Gresh, A., & Maharaj, P. (2014). Termination of pregnancy: Perspectives of female students in Durban, South Africa. *African Population Studies*, *28*(1), 681–690. https://doi.org/10.11564/28-0-524

Grossman, D, White, K., Fuentes, L., Hopkins, K., Stevenson, A., Yeatman, S., & Potter, J. (2015). Knowledge, opinion, and experience related to abortion self-induction in Texas. Texas Policy Evaluation Project. Retrieved from https://liberalarts.utexas.edu/txpep/_files/pdf/TxPEP-Research-Brief-KnowledgeOpinionExperience.pdf

Grossman, Daniel, Constant, D., Lince, N., Alblas, M., Blanchard, K., & Harries, J. (2011). Surgical and medical second trimester abortion in South Africa: A cross-sectional study. *BMC Health Services Research*, *11*(1), 224. https://doi.org/10.1186/1472-6963-11-224

Grossman, Daniel, Holt, K., Peña, M., Lara, D., Veatch, M., Córdova, D., … Blanchard, K. (2010). Self-induction of abortion among women in the United States. *Reproductive Health Matters*, *18*(36), 136–146. Retrieved from http://www.jstor.org/stable/25767369

Grossman, Daniel, White, K., Hopkins, K., & Potter, J. E. (2014). The public health threat of anti-abortion legislation. *Contraception*, *89*(2), 73–74. https://doi.org/10.1016/j.contraception.2013.10.012

Guttmacher Institute. (2014). An overview of abortion laws (State policies in brief). New York: Guttmacher Institute.

Harries, J., Gerdts, C., Momberg, M., & Foster, D. (2015). An exploratory study of what happens to women who are denied abortions in Cape Town, South Africa. *Reproductive Health*, *12*(1). https://doi.org/10.1186/s12978-015-0014-y

Harries, J., Orner, P., Gabriel, M., & Mitchell, E. (2007). Delays in seeking an abortion until the second trimester: a qualitative study in South Africa. *Reproductive Health*, *4*(1), 7. https://doi.org/10.1186/1742-4755-4-7

Harries, J., Stinson, K., & Orner, P. (2009). Health care providers' attitudes towards termination of pregnancy: A qualitative study in South Africa. *BMC Public Health*, *9*(1), 296. https://doi.org/10.1186/1471-2458-9-296

Harris, L. H. (2012). Stigma and abortion complications in the United States. *Obstetrics & Gynecology*, *120*(6), 1472–1474. https://doi.org/10.1097/AOG.0b013e3182723d82

Harris, L. H., Debbink, M., Martin, L., & Hassinger, J. (2011). Dynamics of stigma in abortion work: Findings from a pilot study of the Providers Share Workshop. *Social Science & Medicine*, *73*(7), 1062–1070. https://doi.org/10.1016/j.socscimed.2011.07.004

Health Systems Trust. (2015). Health indicators- termination of pregnancy rates. Retrieved from http://www.hst.org.za/content/health-indicators

Heeringa, S. G., West, B. T., & Berglund, P. A. (2010). *Applied survey data analysis* (1st ed.). 2010: CRC Press. Retrieved from http://www.isr.umich.edu/src/smp/asda/

Hodes, R. (2013). The medical history of abortion in South Africa, c. 1970–2000. *Journal of Southern African Studies*, *39*(3), 527–542. https://doi.org/10.1080/03057070.2013.824770

Huang, Y., Davies, P. G., Sibley, C. G., & Osborne, D. (2016). Benevolent sexism, attitudes toward motherhood, and reproductive rights: A multi-study longitudinal examination of abortion attitudes. *Personality and Social Psychology Bulletin*, *42*(7), 970–984. https://doi.org/10.1177/0146167216649607

Human Sciences Research Council. (2015). South African Social Attitudes Survey (SASAS). Retrieved from http://www.hsrc.ac.za/en/departments/sasas

Jelen, T. G. (2015). Gender role beliefs and attitudes toward abortion: A cross-national exploration. *Journal of Research in Gender Studies*, *5*, 11. Retrieved from https:// www.addletonacademicpublishers.com/contents-jrgs/279-volume-5-1-2015/2381-gender-role-beliefs-and-attitudes-toward-abortion-a-cross-national-exploration

Jelen, T. G., & Wilcox, C. (2003). Causes and consequences of public attitudes toward abortion: A review and research agenda. *Political Research Quarterly*, *56*(4), 489–500. https://doi.org/10.1177/106591290305600410

Jewkes, R., Gumede, T., Westaway, M. S., Dickson, K., Brown, H., & Rees, H. (2005). Why are women still aborting outside designated facilities in metropolitan South Africa? *BJOG: An International Journal of Obstetrics & Gynaecology*, *112*(9), 1236–1242. https://doi.org/10.1111/j.1471-0528.2005.00697.x

Jewkes, R., & Rees, H. (2005). Dramatic decline in abortion mortality due to the Choice on Termination of Pregnancy Act: scientific letter. *South African Medical Journal*, *95*(4), p–250. Retrieved from http://reference.sabinet.co.za/sa_epublication_article/m_samj_v95_n4_a14

Jones, R. K., & Jerman, J. (2014). Abortion incidence and service availability in the United States, 2011. *Perspectives on Sexual and Reproductive Health*. https://doi.org/10.1363/46e0414

Jones, R. K., Upadhyay, U. D., & Weitz, T. A. (2013). At what cost? payment for abortion care by U.S. women. *Women's Health Issues*, *23*(3), e173–e178. https://doi.org/10.1016/j.whi.2013.03.001

Kapp, N., Whyte, P., Tang, J., Jackson, E., & Brahmi, D. (2013). A review of evidence for safe abortion care. *Contraception*, *88*(3), 350–363. https://doi.org/10.1016/j.contraception.2012.10.027

Killian, M., & Wilcox, C. (2008). Do abortion attitudes lead to party switching? *Political Research Quarterly*, *61*(4), 561–573. https://doi.org/10.1177/1065912907312981

Klausen, S. (2015). *Abortion under Apartheid: Nationalism, sexuality, and women's reproductive rights in South Africa*. New York, NY: Oxford University Press.

Kochhar, R., & comments, R. F. (2014, December 12). Wealth inequality has widened along racial, ethnic lines since end of Great Recession. Retrieved from http://www.pewresearch.org/fact-tank/2014/12/12/racial-wealth-gaps-great-recession/

Kumar, A., Hessini, L., & Mitchell, E. M. H. (2009). Conceptualising abortion stigma. *Culture, Health & Sexuality*, *11*(6), 625–639. https://doi.org/10.1080/13691050902842741

Kuumba, M. B. (1993). Perpetuating neo-colonialism through population control: South Africa and the United States. *Africa Today*, 79–85. Retrieved from http://www.jstor.org/stable/4186924?origin=JSTOR-pdf

Learman, L. A., Drey, E. A., Gates, E. A., Kang, M.-S., Washington, A. E., & Kuppermann, M. (2005). Abortion attitudes of pregnant women in prenatal care. *American Journal of Obstetrics and Gynecology*, *192*(6), 1939–1945. https://doi.org/10.1016/j.ajog.2005.02.042

Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology*, *27*, 363–385. Retrieved from http://www.jstor.org/stable/2678626

Loder, C., Fuentes, L., Stalburg, C. M., & Harris, L. H. (2017). A reproductive justice curriculum for physicians: recommendations from RJ experts. *Contraception*, *96*(4), 305. https://doi.org/http://dx.doi.org/10.1016/j.contraception.2017.07.157

Long, J. S. (1997). *Regression models for categorical and limited dependent variables* (Vol. 7). Sage.

Long, J. S. (2009). Group comparisons in logit and probit using predicted probabilities. *Department of Sociology, University of Indiana. Unpublished Manuscript*. Retrieved from http://www.indiana.edu/~jslsoc/files_research/groupdif/groupwithprobabilities/groups-with-prob-2009-06-25.pdf

Long, J. S., & Freese, J. (2005). *Regression models for categorical outcomes using Stata* (Second). College Station, TX: Stata Press.

Luna, Z., & Luker, K. (2013). Reproductive justice. *Annual Review of Law and Social Science*, *9*(1), 327–352. https://doi.org/10.1146/annurev-lawsocsci-102612-134037

Lynxwiler, J., & Gay, D. (1996). The abortion attitudes of black women: 1972-1991. *Journal of Black Studies*, *27*(2), 260–277. https://doi.org/10.1177/002193479602700207

MacDorman, M. F., Declercq, E., Cabral, H., & Morton, C. (2016). Recent increases in the U.S. maternal mortality rate: Disentangling trends From measurement issues. *Obstetrics & Gynecology*, *128*(3), 447–455. https://doi.org/10.1097/AOG.0000000000001556

Macleod, C. I., & Hansjee, J. (2013). Men and talk about legal abortion in South Africa: equality, support and rights discourses undermining reproductive "choice." *Culture, Health & Sexuality*, *15*(8), 997–1010. https://doi.org/10.1080/13691058.2013.802815

Macleod, C. I., Sigcau, N., & Luwaca, P. (2011). Culture as a discursive resource opposing legal abortion. *Critical Public Health*, *21*(2), 237–245. https://doi.org/10.1080/09581596.2010.492211

Mahomed, F. (2016). Examining attitudes towards reproductive rights in the Gauteng City-Region of South Africa. *Social Indicators Research*, *127*(3), 1297–1319. https://doi.org/10.1007/ s11205-015-1008-4

Martin, L., Seewald, M., Harris, L., & Hassinger, J. (2017). Reproductive justice and maternal mortality abortion framing messages influence on provider attitudes toward patients. In *Abortion Perspectives*. Atlanta, Georgia: American Public Health Association.

McGregor, M., & Moore, R. (1995). The constitutionality of abortion on request in South Africa. *Murdock University Journal of Law*, *2*(3), 1–24. Retrieved from http://www5.austlii.edu.au/au/journals/MurUEJL/1995/28.html

McIntyre, D., & Klugman, B. (2003). The human face of decentralisation and integration of health services: experience from South Africa. *Reproductive Health Matters*, *11*(21), 108–119. https://doi.org/10.1016/S0968-8080(03)02166-9

Midi, H., Sarkar, S. K., & Rana, S. (2010). Collinearity diagnostics of binary logistic regression model. *Journal of Interdisciplinary Mathematics*, *13*(3), 253–267. https://doi.org/10.1080/09720502.2010.10700699

Mieses, A. (2009). Gender inequality and corrective rape of women who have sex with women. *GMHC Treatment Issues*, 1–3. Retrieved from http://www.gmhc.org/files/editor/file/ti-1209.pdf

Mosley, E. A., King, E. J., Schulz, A. J., Harris, L. H., De Wet, N., & Anderson, B. A. (2017). Abortion attitudes among South Africans: findings from the 2013 social attitudes survey. *Culture, Health & Sexuality*, *19*(8), 918–933. https://doi.org/10.1080/13691058.2016.1272715

Mullings, L., & Schulz, A. (2006). Intersectionality and health: An introduction. In *Gender, race, class, and health: Intersectional approaches.* San Francisco, CA: Jossey-Bass.

Mwaba, K., & Naidoo, P. (2006). Knowledge, beliefs and attitudes regarding abortion in South Africa among a sample of university students. *Journal of Psychology in Africa*, *16*(1), 53–58. Retrieved from http://www.tandfonline.com/doi/abs/10.1080/14330237.2006.10820104

National Committee for the Confidential Enquiries into Maternal Deaths. (2014). *Saving Mothers 2011-2013: Sixth report on the confidential enquiries into maternal deaths in South Africa*. South Africa: Department of Health. Retrieved from http://sanac.org.za/wp-content/uploads/2015/12/Report_on_Confidential_Enquiries_into_Maternal_Deaths_in_South_Africa.pdf

National Opinion Research Center. (1998). International social survey programme self-administered questionnaire for the General Social Survey. University of Chicago. Retrieved from http://gss.norc.org/documents/quex/1998%20GSS-ISSP.pdf

National Opinion Research Center. (2017a). *General Social Surveys, 1972-2016: Cumulative codebook*. Chicago: University of Chicago. Retrieved from http://gss.norc.org/documents/codebook/GSS_Codebook.pdf

National Opinion Research Center. (2017b). GSS Data Explorer Trends: Premarital Sex and Race. Retrieved from https://gssdataexplorer.norc.org/trends/Gender%20&%20Marriage?measure=premars1

Ngwena, C. (2003). Conscientious objection and legal abortion in South Africa: delineating the parameters. *Journal for Juridical Science*, *28*(1), 1–18. Retrieved from https://journals.co.za/content/juridic/28/1/EJC55500

Nickerson, A., Manski, R., & Dennis, A. (2014). A qualitative investigation of low-income abortion clients' attitudes toward public funding for abortion. *Women & Health*, *54*(7), 672–686. https://doi.org/10.1080/03630242.2014.919984

Norris, A., Bessett, D., Steinberg, J. R., Kavanaugh, M. L., De Zordo, S., & Becker, D. (2011). Abortion stigma: A reconceptualization of constituents, causes, and consequences. *Women's Health Issues*, *21*(3), S49–S54. https://doi.org/10.1016/j.whi.2011.02.010

Ntantala, P. (1958). Widows of the Reserves. In *Women Writing Africa: The Southern Region* (1st ed., pp. 248–252). New York, NY: The Feminist Press at the City University of New York.

Orner, P. J., de Bruyn, M., Barbosa, R. M., Boonstra, H., Gatsi-Mallet, J., & Cooper, D. D. (2011). Access to safe abortion: building choices for women living with HIV and AIDS. *Journal of the International AIDS Society*, *14*(1), 54. https://doi.org/10.1186/1758-2652-14-54

Orner, P. J., de Bruyn, M., & Cooper, D. (2011). "It hurts, but I don"t have a choice, I'm not working and I'm sick': decisions and experiences regarding abortion of women living with HIV in Cape Town, South Africa. *Culture, Health & Sexuality*, *13*(7), 781–795. https://doi.org/10.1080/13691058.2011.577907

Patel, C. J., & Johns, L. (2009). Gender role attitudes and attitudes to abortion: Are there gender differences? *The Social Science Journal*, *46*(3), 493–505. https://doi.org/10.1016/j.soscij.2009.02.006

Patel, C. J., & Kooverjee, T. (2009). Abortion and contraception: Attitudes of South African university students. *Health Care for Women International*, *30*(6), 550–568. https://doi.org/10.1080/07399330902886105

Patel, C. J., & Myeni, M. C. (2008). Attitudes toward abortion in a sample of South African female university students. *Journal of Applied Social Psychology*, *38*(3), 736–750. https://doi.org/10.1111/j.1559-1816.2007.00324.x

Patten, E. (2016). *Racial, gender wage gaps persist in US despite some progress.* (FactTank News in the Numbers). Washington, D.C.: Pew Research Center. Retrieved from http://www.pewresearch.org/fact-tank/2016/07/01/racial-gender-wage-gaps-persist-in-u-s-despite-some-progress/

Petersen, L. R. (2001). Religion, plausibility structures, and education's effect on attitudes toward elective abortion. *Journal for the Scientific Study of Religion*, *40*(2), 187–204. https://10.1111/0021-8294.00050

Proctor, B., Semega, J., & Kollar, M. (2016). *Income and poverty in the United States: 2015* (No. P60-256). United States: US Census Bureau. Retrieved from https://www.census.gov/library/publications/2016/demo/p60-256.html

Rees, H., Katzenellenbogen, J., Shabodien, R., Jewkes, R., Fawcus, S., Mclntyre, J., … Truter, H. (1997). The epidemiology of incomplete abortion in South Africa. *South African Medical Journal*, *87*(4), 432–437. Retrieved from https://www.ajol.info/index.php/samj/article/download/157185/146796

Roberts, D. (1997). *Killing the black body: Race, reproduction, and the meaning of liberty*. New York: Random House LLC.

Ronco, C. (2014). *Discursive constructs of abortion amongst a group of male and female students at the University of the Witwatersrand.* Retrieved from http://mobile.wiredspace.wits.ac.za/handle/10539/13974

Ross, L. (2006). *Understanding reproductive justice*. Atlanta, Georgia: SisterSong. Retrieved from http://www.trustblackwomen.org/our-work/what-is-reproductive-justice/9-what-is-reproductive-justice

Ross, L. (2014, September 23). Amandla! South African Minister underscores reproductive justice as a global framework. Retrieved from http://rhrealitycheck.org/article/2014/09/23/amandla-south-african-minister-underscores-reproductive-justice-global-framework/

Saez, E. (2015). Striking it richer: The evolution of top incomes in the United States (Updated with 2014 preliminary estimates). *Economics Department, UC Berkeley*. Retrieved from https://eml.berkeley.edu/~saez/saez-UStopincomes-2014.pdf

Sahar, G., & Karasawa, K. (2005). Is the personal always political? A cross-cultural analysis of abortion attitudes. *Basic and Applied Social Psychology*, *27*(4), 285. https://doi.org/10.1207/s15324834basp2704_1

Schoen, J. (2005). *Choice & coercion: Birth control, sterilization, and abortion in public health and welfare*. University of North Carolina Press.

Schoen, J. (2015). *Abortion after Roe*. Chapel Hill, NC: UNC Press Books.

Schulz, A. J., & Mullings, L. (2006). *Gender, race, class, and health: Intersectional approaches*. San Francisco, CA: Jossey-Bass.

Schuman, H., Presser, S., & Ludwig, J. (1981). Context effects on survey responses to questions about abortion. *Public Opinion Quarterly*, *45*(2), 216–223. https://doi.org/10.1086/268652

Sedgh, G., Singh, S., Shah, I. H., Åhman, E., Henshaw, S. K., & Bankole, A. (2012). Induced abortion: incidence and trends worldwide from 1995 to 2008. *The Lancet*, *379*(9816), 625–632. https://doi.org/10.1016/S0140-6736(11)61786-8

Shah, I., Åhman, E., & Ortayli, N. (2014). *Access to safe abortion: Progress and challenges since the 1994 International Conference on Population and Development (ICPD)* (ICPD Beyond 2014 Expert Meeting on Women's Health - rights, empowerment and social determinants). Retrieved from http://icpdbeyond2014.org/uploads/browser/files/access_to_safe_abortion.pdf

Sheldon, S. (2003). Unwilling fathers and abortion: terminating men's child support obligations? *The Modern Law Review*, *66*(2), 175–194. https://doi.org/10.1111/1468-2230.6602001

Shenker-Osorio, A., & Goldtzvik, S. R. (2017, May 31). Want to lose on abortion? Talk about it as an economic issue. *Rewire*. Retrieved from https://rewire.news/article/2017/05/31/want-lose-abortion-talk-economic-issue/

Shoko, M. (2011). Is there a mortality differential by marital status among women in South Africa? A study on a rural sub-district of Mpumalanga Province in the North-East South Africa. *African Population Studies*, *25*(1). Retrieved from http://aps.journals.ac.za/pub/article/view/263

Singh, S., Sedgh, G., Bankole, A., Hussain, R., & London, S. (2012). *Making abortion services accessible in the wake of legal reforms: A framework and six case studies*. Guttmacher Institute. Retrieved from http://clacaidigital.info:8080/xmlui/handle/123456789/288

Smith, A. (2005). Beyond pro-choice versus pro-life: Women of color and reproductive justice. *NWSA Journal*, *17*(1), 119–140. Retrieved from http://muse.jhu.edu/journals/ff/summary/v017/17.1smith.html

Smith, T. W. (1983). *Children and abortions: an experiment in question order* (Technical Report No. 42). University of Chicago: National Opinion Research Center. Retrieved from http://gss.norc.org/Documents/reports/methodological-reports/MR027.pdf

South African Department of Labour. (2017). *Basic guide to maternity leave*. Retrieved from http://www.labour.gov.za/DOL/legislation/acts/basic-guides/basic-guide-to-maternity-leave

StataCorp. (2014). Stata Statistical Software (Version 14). College Station, TX: StataCorp LP.

Statistics South Africa. (2012a). *Census 2011: Provinces at a glance* (No. 03-01-43). Pretoria, South Africa: Statistics South Africa. Retrieved from http://www.statssa.gov.za/census/census_2011/census_products/Provinces%20at%20a%20glance%2016%20Nov%202012%20corrected.pdf

Statistics South Africa. (2012b). *South African 2011 census* (Census). South Africa: Statistics South Africa. Retrieved from http://www.statssa.gov.za/?page_id=3955

Statistics South Africa. (2013). *Gender statistics in South Africa 2011*. Pretoria, South Africa: Statistics South Africa. Retrieved from http://www.statssa.gov.za/publications/Report-03-10-05/Report-03-10-052011.pdf

Statistics South Africa (Ed.). (2014). *Poverty trends in South Africa: an examination of absolute poverty between 2006 and 2011*. Pretoria: Statistics South Africa. Retrieved from http://www.gov.za/sites/www.gov.za/files/Poverty_Trends_03April2014.pdf

Statistics South Africa. (2015). *Quarterly labour force survey: Quarter 4, 2014* (Statistical Release No. P0211). South Africa. Retrieved from http://www.statssa.gov.za/publications/P0211/P02114thQuarter2014.pdf

Stephens-Davidowitz, S. (2016, March 5). The return of the D.I.Y. abortion. *The New York Times*. Retrieved from https://www.nytimes.com/2016/03/06/opinion/sunday/the-return-of-the-diy-abortion.html

Stern, A. M. (2005). Sterilized in the name of public health: race, immigration, and reproductive control in modern California. *American Journal of Public Health*, *95*(7), 1128–1138. https://doi.org/10.2105/AJPH.2004.041608

Stevens, M. (2012). Maternal mortality: HIV and unsafe abortion –a silent epidemic. *Agenda*, *26*(2), 44–50. Retrieved from http://www.tandfonline.com/doi/abs/10.1080/10130950.2012.700219?journalCode=ragn20

Stone, C., Trisi, D., Sherman, A., & Debot, B. (2015). A guide to statistics on historical trends in income inequality. *Center on Budget and Policy Priorities*, *26*. Retrieved from http://www.cbpp.org/research/poverty-and-inequality/a-guide-to-statistics-on-historical-trends-in-income-inequality?fa=view&id=3629

Strickler, J., & Danigelis, N. L. (2002). Changing frameworks in attitudes toward abortion. In *Sociological Forum* (Vol. 17, pp. 187–201). Springer. Retrieved from http://link.springer.com/article/10.1023/A:1016033012225

Tabutin, D., & Schoumaker, B. (2004). The demography of sub-Saharan Africa from the 1950s to the 2000s: A survey of changes and a statistical assessment. *Population (English Edition, 2002-)*, *59*(3/4), 457. https://doi.org/10.2307/3654914

The World Bank. (2015). GINI index (World Bank estimate). Retrieved from http://data.worldbank.org/indicator/SI.POV.GINI

The World Bank. (2017). World Bank country and lending groups. Retrieved from https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

Tousaw, E., Moo, S. N. H. G., Arnott, G., & Foster, A. M. (2017). "It is just like having a period with back pain": exploring women's experiences with community-based distribution of misoprostol for early abortion on the Thailand–Burma border. *Contraception*. https://doi.org/10.1016/j.contraception.2017.06.015

Trueman, K. A., & Gabriel, M. (2005). Building alliances from ambivalence: Evaluation of abortion values clarification workshops with stakeholders in South Africa. *African Journal of Reproductive Health*, *9*(3), 89. https://doi.org/10.2307/3583415

Trueman, K. A., & Magwentshu, M. (2013). Abortion in a progressive legal environment: The need for vigilance in protecting and promoting access to safe abortion services in South Africa. *American Journal of Public Health*, *103*(3), 397–399. https://doi.org/10.2105/AJPH.2012.301194

United Nations. (1994). *Programme of action*. Cairo: International Conference on Population and Development. Retrieved from https://www.unfpa.org/sites/default/files/event-pdf/PoA_en.pdf

United Nations. (2014). *Framework of actions for the follow-up to the Programme of Action of the International Conference on Population and Development Beyond 2014*. United Nations Population Fund. Retrieved from http://icpdbeyond2014.org/uploads/browser/files/93632_unfpa_eng.pdf

United Nations. (2016, January 18). UN announces that Peru will compensate women in historic human rights abortion case. Retrieved from http://www.un.org/apps/news/story.asp?NewsID=53033#.V5VEf67llpQ

Upadhyay, U. D., Weitz, T. A., Jones, R. K., Barar, R. E., & Foster, D. G. (2013). Denial of abortion because of provider gestational age limits in the United States. *American Journal of Public Health*, (0), e1–e8. https://doi.org/10.2105/ajph.2013.301378

Varga, C. A. (2002). Pregnancy termination among South African adolescents. *Studies in Family Planning*, *33*(4), 283–298. https://doi.org/10.1111/j.1728-4465.2002.00283.x

Varkey, S. J., Fonn, S., & Ketlhapile, M. (2000). The role of advocacy in implementing the South African abortion law. *Reproductive Health Matters*, *8*(16), 103–111. https://doi.org/10.1016/S0968-8080(00)90192-7

Varkey, S. J., Fonn, S., & Ketlhapile, M. (2001). *Health Workers for Choice: A manual to improve the quality of abortion services*. Johannesburg, South Africa: University of Witwatersrand School of Public Health Women's Health Project. https://www.wits.ac.za/media/migration/files/cs-38933-fix/migrated-pdf/pdfs-3/hfc%20intro.pdf

Varkey, S. J., & Ketlhapile, M. (2001). *Communities for Choice: A manual to improve access to abortion services*. Johannesburg, South Africa: University of Witwatersrand School of Public Health Women's Health Project.

Vincent, L. (2012). Shaking a hornets' nest: pitfalls of abortion counselling in a secular constitutional order – a view from South Africa. *Culture, Health & Sexuality*, *14*(2), 125–138. https://doi.org/10.1080/13691058.2011.627469

Voyages Database. (2013). Voyages: The Trans-Atlantic Slave Trade Database. Retrieved from http://www.slavevoyages.org

Walker, C. (1995). Conceptualising motherhood in twentieth century South Africa. *Journal of Southern African Studies*, *21*(3), 417–437. https://doi.org/10.1080/03057079508708455

Waxman, A. M., Humphries, H., Frohlich, J., Dlamini, S., & Ntombela, F. (2016). Young women's life experiences and perceptions of sexual and reproductive health in rural KwaZulu-Natal South Africa. *Culture, Health & Sexuality*, 1–15. https://doi.org/10.1080/13691058.2016.1182215

Wheeler, S. B., Zullig, L. L., Reeve, B. B., Buga, G. A., & Morroni, C. (2012). Attitudes and intentions regarding abortion provision among medical school students in South Africa. *International Perspectives on Sexual and Reproductive Health*, *38*(3), 154–163. Retrieved from http://www.jstor.org/stable/23317668

Whitworth, A., & Wilkinson, K. (2013). Tackling child poverty in South Africa: Implications of *ubuntu* for the system of social grants. *Development Southern Africa*, *30*(1), 121–134. https://doi.org/10.1080/0376835X.2013.756219

Wilcox, C. (1992). Race, religion, region and abortion attitudes. *Sociological Analysis*, *53*(1), 97. https://doi.org/10.2307/3711632

Williams, D. R., Mohammed, S. A., Leavell, J., & Collins, C. (2010). Race, socioeconomic status, and health: Complexities, ongoing challenges, and research opportunities: Race, SES, and health. *Annals of the New York Academy of Sciences*, *1186*(1), 69–101. https://doi.org/10.1111/j.1749-6632.2009.05339.x

World Policy Center. (2014). *Is paid leave available for mothers of infants?* Retrieved from https://www.worldpolicycenter.org/policies/is-paid-leave-available-for-mothers-of-infants