

# Misinformation About HIV and Negative Attitudes Toward Homosexuality and Same-Sex Couples' Rights: The Case of Colombia

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The rights of homosexuals and same-sex couples are currently the subject of debate on the public stage and in courtrooms around the world. This debate is often colored by prejudice and misconceptions regarding homosexuality, particularly in low- and middle-income countries. This study investigates the opinions of Colombian women about same-sex couples' rights and women's attitudes toward a homosexual child (maternal acceptance). Using a nationally representative data set, we find that that younger, wealthier, and more educated Colombian women are more likely to support their homosexual child and approve of same-sex couples' rights, while women with misconceptions regarding the human immunodeficiency virus and homosexuality are less likely to be supportive of a homosexual child and less likely to approve of same-sex couples' rights.

The rights of homosexuals and same-sex couples are currently the subject of debate on the public stage and in courtrooms around the world (Becker, 2012; van den Akker, van der Ploeg, & Scheepers, 2013). This debate is often colored by prejudice and misconceptions and, more often than not, there is no credible scientific evidence to support or undermine an argument (Cianelli, Ferrer, & McElmurry, 2008; Herek & McLemore, 2013). This situation raises several issues because decisions that affect the rights of homosexual individuals and same-sex couples are taken without a deep understanding of current evidence. In addition to the importance of improving the use and availability of evidence to inform policy, it is also crucial to explore public opinion on homosexuality and on same-sex couples' rights to understand how the general population might respond to a certain policy or intervention (Brewer, 2014;

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Powell, Quadlin, & Pizmony-Levy, 2015). Of particular concern is the situation of homosexuals living in low- and middle-income countries with high levels of inequality, where the homosexual population is generally more vulnerable and exposed to negative attitudes compared with high-income countries (Andersen & Fetner, 2008).

“Homophobia” is an all-encompassing term for negative attitudes toward homosexuals. However, this term has several limitations for scientific inquiry, as it assumes that hostility toward homosexuality is based chiefly on individual irrational fear (Herek, 2004). This is an important limitation because the term does not allow for a comprehensive understanding of the historical, cultural, and social complexity of this hostility, and it hinders understanding of the possible rational justifications used by nonhomosexuals as the basis for their attitudes toward homosexuals (Herek & McLemore, 2013). In 1980, Hudson and Ricketts (1980) introduced the concept of homonegativism as a multidimensional domain that comprises all anti-homosexual responses and attitudes. Since then, the concept of homonegativity has been used in many studies to explore relevant stereotypes and negative attitudes toward homosexuality (Doebler, 2015; Lottes & Grollman, 2010; Meaney & Rye, 2010; Štulhofer & Rimac, 2009). Old-fashioned homonegativity, which may be most common in the Colombian context, is defined as negative views of gay men and lesbian women based on traditional moral and religious beliefs and misconceptions about homosexuality (Lottes & Grollman, 2010; Morrison & Morrison, 2003). A common stereotype is that homosexual behavior is unhealthy; although statistically speaking, homosexual men are more likely to be infected with human immunodeficiency virus (HIV) and suffer from acquired immunodeficiency syndrome (AIDS) (Beyrer et al., 2012; Baral, Sifakis, Cleghorn, & Beyrer, 2007), the debate on homosexuality and on same-sex couples’ rights may be influenced by misinformation about the link between homosexuality and HIV/AIDS.

For activists and policy makers, understanding the sources of negative attitudes toward homosexuality and same-sex couples’ rights is a first-order issue. If negative attitudes stem from religious beliefs or the conception of family, then activists face the difficult task of challenging personal conceptions of the world. On the other hand, if negative attitudes are the consequence of misinformation about HIV/AIDS and homosexuality, then the set of tools available to activists expands, as providing accurate information should change attitudes toward homosexuality and same-sex couples’ rights. This is particularly important in low- and middle-income countries where misinformation about HIV/AIDS is widespread (Alkhasawneh, McFarland, Mandel, & Seshan, 2014; Boggiano, Katona, Longacre, Beach, & Rosen, 2014; Ciampa et al., 2012).

In this article, we explore how attitudes toward homosexuality and same-sex couples' rights are related to each other, to misinformation about HIV/AIDS, and to sociodemographic characteristics. Although the terms "homosexual" and "homosexuality" are hard to define and may refer to several concepts (e.g., individuals who have sex with individuals of the same sex or individuals who are attracted to individuals of the same sex), in this article we use it to refer to what the average woman in Colombia understands when asked, "What would you do if you found out that one of your children is homosexual?" This question measures maternal acceptance of homosexuality in a child and is central to our study. It is important to note that this is not a measure of general acceptance of homosexuality in society.

Similarly, "same-sex couples' rights" could encompass an arbitrary set of entitlements (e.g., government benefits and health coverage for same-sex partners and inheritance rights); however, we use it to refer to what the average woman in Colombia understands when asked "Do you approve or disapprove of rights for same-sex couples?" This question measures approval of same-sex couples' rights and is also central to our study.

This article is organized as follows: Section 2 provides some historical background on lesbian, gay, bisexual, transgender, and intersex (LGBTI) rights in Colombia. Section 3 presents a brief overview of the data used in this article and the empirical analysis of the study. Finally, Section 4 concludes.

### Colombian Context

The debate in Colombia about same-sex couples' rights, including the right to marry, is part of a wider discussion about the individual rights of members of the LGBTI community. In Colombia, sexual intercourse between males was criminalized from 1936 to 1980 and it was only in 2002 that a law prohibiting homosexuals from working as public notaries was ruled unconstitutional (Bustamante-Tejada, 2011). As recently as 1998, homosexual school teachers could be accused of "improper conduct" based on their sexual orientation, and before 1999, homosexual soldiers could be expelled from the Colombian army (Bustamante-Tejada, 2011). On all of these matters, the rulings of the Constitutional Court in favor of LGBTI rights have had a major impact. As of 2013, the Constitutional Court had issued 70 rulings in favor of freedom of expression and personal development with regard to LGBTI rights (Bustamante-Tejada, 2013). The role of the Constitutional Court in establishing LGBTI rights is not unique to Colombia; courts in South Africa and Brazil, for example, have also been central to recognition of the rights of LGBTI individuals (Moreira, 2012; Serrano-Amaya, 2012). However, it is important to note that the rulings of Colombia's Constitutional Court have

come in response to legal advocacy by LGBTI organizations and activists (Serrano-Amaya, 2012).

There have been other legal changes in Colombia granting specific rights to same-sex couples. Between 1999 and 2010, nine bills were discussed in Congress related to same-sex couples' rights, but none of them were passed into law (Serrano-Amaya, 2012). But while Colombia's legislature has done little to advance the legal rights of same-sex couples, the Constitutional Court has granted them certain rights similar to those enjoyed by heterosexual married couples, such as social security benefits and inheritance rights (Serrano-Amaya, 2012). Moreover, in 2007 the Constitutional Court defined same-sex couples as *de facto* couples (Sarmiento-Erazo, 2009). This ruling marked an important change in the Constitutional Court's jurisprudence, as it not only granted rights to members of the LGBTI community as individuals but also recognized their rights as couples (Bonilla, 2008). A few years later, in 2011, the Constitutional Court ordered the Congress to regulate same-sex marriage within the next 2 years (Corte Constitucional, 2011). In its ruling, the Court stated that homosexuals have the right to form a family but that "marriage is the union between a man and a woman," adding that "the name and nature of that bond must be defined by Congress." Because Congress failed to pass legislation on same-sex marriage in the subsequent 2 years, same-sex couples were automatically entitled to legalize their unions at a notary public, per the Court's decision. The first legalization of these unions took place in June 2013. Moreover, in November 2015 the Constitutional Court ruled in favor of same-sex couples' adoption stating that the sexual orientation of the applicants cannot exclude them from adopting. In addition, the Court highlighted that a child's well-being should be prioritized over the sexual orientation of parents and stated there is no evidence that same-sex couples are detrimental to their children's health.

Despite these advances and the gradual empowerment of the LGBTI movement in Colombia, there are still major challenges in terms of the cultural and social stigmatization of the LGBTI population (Lemaitre-Ripoll, 2009). Enjoyment of the rights granted by the Constitutional Court has not become a reality for most of the LGBTI population. Moreover, the ongoing nature of both direct and subtle acts of violence and everyday discrimination have been confirmed through several studies (Brigeiro, Castillo, & Murad, 2007; Colombia Diversa, 2007; Lemaitre-Ripoll, 2009). For example, 77% of those who attended a march in support of LGBTI rights in 2007 in Bogotá reported having suffered some form of discrimination associated with their gender identity or sexual orientation, and 67.7% revealed they had suffered some form of aggression (Brigeiro et al., 2007). Colombia's LGBTI population experiences constant social and cultural control in both the public and private spheres (Lemaitre-Ripoll, 2009). Although such control may appear to be

more present in rural areas (especially areas controlled by illicit armed groups), even in highly urbanized contexts the LGBTI population suffers constant discrimination. For example, in February 2014, a gay couple was forced by private security guards to leave a shopping mall in a wealthy Bogotá neighborhood after holding hands and kissing in public (El Espectador, 2014). Several days after the incident, numerous homosexual and heterosexual couples peacefully protested against this discriminatory action by dancing and kissing at the same shopping mall.

The debate about the rights of homosexuals and same-sex couples' rights continues in this legal, social, and cultural context. Without greater societal support and tolerance, legal actions that bolster LGBTI rights will only have a limited effect in terms of improving the quality of life of this community. Therefore, it is crucial to understand public perceptions about the LGBTI community, specifically about homosexuality and same-sex couples' rights, and to explore potential variables that may be associated with homonegativity to inform future policies, interventions, and research.

### Previous Research

Despite the potential negative health effects of homonegativity and social stigma on homosexual people (Pachankis et al., 2015; Ross et al., 2013), there is limited research on the relationship between misinformation on HIV and homonegativity. However, there is a growing body of international literature on public opinion and attitudes toward the LGBTI population, and the rights of both LGBTI individuals and couples, that provides a relevant background to inform our study. Although the LGBTI category comprises a wide range of sexual orientations and gender identities, most studies have focused on understanding attitudes and opinions toward gays and lesbians, as well as same-sex couples' rights. The sociodemographic characteristics most frequently analyzed in relation to negative attitudes and beliefs about homosexuals are gender, age, religion, education, and contact with homosexuals (Herek, 2007; Sloopmaeckers & Lievens, 2014). Several studies find that highly educated people are more likely to support homosexuality, while religious people are more likely to disapprove of homosexuality (Gaines & Garand, 2010; Patrick et al., 2013; van den Akker et al., 2013). Some studies have also found that those who believe that sexual orientation is caused by genetic or biological factors are more supportive of social rights and same-sex parenting than those who believe that sexual orientation is socially learned (Frias-Navarro, Monderde-i Bort, Pascual-Soler, & Badenes-Ribera, 2015). However, as Miller and Chamberlain (2013) suggested, attitudes toward homosexuality are complex, as, for example, one religious variable may predict

attitudes toward a specific right or specific LGBTI group but not toward another.

Other cultural and social variables have also been analyzed. A recent study showed the potential of cultural capital as an explanatory variable in understanding negative attitudes toward homosexuality, finding that such negative attitudes are least prevalent in lifestyle clusters where cultural capital is higher (Slootmaeckers & Lievens, 2014). On the other hand, several social and cultural variables have also been studied as predictors of attitudes toward same-sex couples. Social gender roles may be a key variable for understanding public opinion on same-sex couples' rights. For example, according to Moskowitz, Rieger, and Roloff (2010), homophobia is the best predictor of attitudes toward same-sex marriage. More interestingly, they found that among men, a relatively less homophobic attitude toward lesbian relationships than gay male relationships was associated with a relatively higher likelihood of approving lesbian marriage over gay male marriage. Other variables that have been explored to understand both attitudes toward homosexuals and toward same-sex couples' rights are related to perceptions of the institution of marriage and family. Becker and Todd (2013) strongly suggested that perceptions about family and marriage should be included in future research aimed at understanding public opinion toward homosexuals and toward same-sex marriage.

In addition, there have been several large-scale, cross-national surveys that include questions regarding both attitudes and opinions toward homosexuality and toward same-sex couples. The European Values Study aims to provide insights about values, attitudes, beliefs, and ideas from citizens from all the European countries based on representative samples from each nation (Gerhards, 2010). As stated by Gerhards (2010), the majority of Europeans do not support nondiscrimination toward homosexuality, and there is a strong effect of the state's degree of modernization on citizens' attitudes toward homosexuality. Another example is the International Social Survey Programme (ISSP), which surveys 50 countries (Colombia is not one of them) and has included questions about homosexuality in five survey rounds between 1988 and 2008 (Smith, 2011). Based on the ISSP survey, Smith (2011) found that, overall, these countries have become more accepting of homosexuality. However, there are large cross-national differences and, for example, three Latin American countries ranked low in homosexuality acceptance (Smith, 2011). Another relevant large-scale, cross-national survey is the World Values Survey (WVS), which has been conducted in >100 countries since 1981. Based on the WVS for 35 countries, Andersen and Fetner (2008) found evidence that tolerance toward homosexuality declines as national income inequality increases.

Motivated by the current political debate, as well as the difficult situation of Colombia's LGBTI population (Brigeiro et al., 2007; Colombia Diversa, 2007; Lemaitre-Ripoll, 2009), some research has been conducted in Colombia on topics such as the recent evolution of homosexual rights, social interpretations of the political debate, and the social stigma of and violence against the LGBTI population (Brigeiro et al., 2007; Bustamante-Tejada, 2013; Colombia Diversa, 2007; Lemaitre-Ripoll, 2009; Serrano-Amaya, 2012; Zea et al., 2013). Nonetheless, little is known about Colombian public opinion on homosexuality and on same-sex marriage. Although the existing international research could provide some insights useful for the Colombian case, little research has been conducted in countries with comparable socioeconomic characteristics. This information is crucial for assessing the possible social implications of legal decisions as well as for analyzing the different social pressures that homosexual men and lesbian women face in seeking access to legal rights. Although several media outlets have conducted public opinion surveys on these matters, such studies usually lack the scope needed to support general conclusions. The most relevant study, by Lodola and Corral (2010), analyzed how sociodemographic characteristics are correlated with support toward same-sex marriage in Latin America using data from the Latin American Public Opinion Project survey. However, given the importance of the social and cultural characteristics of the local context in determining public opinion on homosexuality and the rights of same-sex couples, research specific to Colombia is needed.

Lodola and Corral (2010) found patterns similar to what the literature reports for other countries: specifically, that education, income, being an atheist, and living in an urban area are positively correlated with support for same-sex marriage. At the same time, being older and declaring some kind of religious affiliation are correlated with a lower likelihood of supporting same-sex marriage. Interestingly, they also found that women are more likely to express support for same-sex marriage. Alcantara and Rivas (2013) compared data from questionnaires administered to legislators in different Latin American countries and found that, on average, legislators' attitudes toward same-sex marriage closely mirror the attitudes of the general public. Another relevant survey for Colombia is the WVS, which in 2012 used a small representative sample to understand attitudes toward homosexuality. According to the survey, about 35% of the respondents mentioned homosexuals when asked who they would not like to have as neighbors, and about 44% considered that homosexuality is never justifiable ([www.worldvaluessurvey.org](http://www.worldvaluessurvey.org)). However, further analysis is needed to understand how attitudes toward homosexuality are formed.

Most of the previous research on attitudes toward homosexuals and toward same-sex marriage has been conducted in developed countries and has overlooked the relationship between misinformation about sexually transmitted

diseases (STDs)—HIV/AIDS in particular—and these attitudes. We build upon previous research by using education, wealth, location (e.g., urban/rural), perceptions toward family, children, and sex as control variables, but instead of focusing on these factors we explore how misinformation about HIV/AIDS is correlated with attitudes toward a homosexual child (maternal acceptance) and same-sex marriage.

We contribute to the literature in two ways. First, we study how misinformation about HIV and attitudes toward maternal acceptance of homosexuality and same-sex couples' right are correlated. Second, we provide evidence from a middle-income country on attitudes toward homosexuality and same-sex couples' rights.

## Data and Methodology

### Data

In this study, we use data from the national Demographic and Health Survey (DHS) of 2010. This survey, conducted by the Colombian government with sponsorship from United States Agency for International Development, is applied nationally in both urban and rural areas and its main purpose is to monitor health, domestic violence, family planning, and knowledge about STDs. The surveyed sample was randomly selected from the universe of households (excluding those in remote rural communities in the Amazon and Orinoco river basins) in the 2005 census. The survey collects information about the household (composition and dwelling) and detailed information about women between 13 and 49 years old, as well as children <5 years old. In total, 53,521 women aged between 13 and 49 years from 51,447 households are surveyed. Although the survey is nationally representative, different households have different probabilities of being sampled but all of our estimations take into account sampling weights. Because we are interested in the relationship between misinformation about HIV/AIDS and attitudes toward homosexuality and same-sex couples' rights, we drop from the sample women who have never heard about HIV/AIDS before (<4% of the total sample). The complete data set, as well as more detailed information on how the sample was selected, is available at the Measure DHS Web site ([www.measuredhs.com](http://www.measuredhs.com)).

### Questions in the Survey

We focus on two sets of questions asked in the survey in this article. First, on questions about the respondents' views on homosexuality and on same-sex couples: "What would you do if you found out that one of your children is homosexual?" and "Do you approve or disapprove of rights for same-sex

couples?” For the first question, six options are given to the surveyed women: would make them leave the house, would withdraw financial assistance, would send them to a psychologist, would send them to a doctor, would support them, and other (and ask to specify in this case). Two other responses were so common that they were codified by the survey firm: would accept it and would provide advice. To ease the analysis, we group these responses into four categories: positive (includes would support them and would accept it), negative (would make them leave the house and would withdraw financial assistance), semi-negative (would send them to a psychologist and would send them to a doctor), and neutral (other and would provide advice). It is important to note that this codification is not perfect, as responses that might seem positive may mask ulterior motives. For example, being supportive could mean “paying for a treatment to turn them straight.” For the second question, the options were either approve or disapprove.

Additionally, it is important to note that different women might understand these questions differently. For example, for some women it is possible that “homosexual” means having sex with persons of the same gender, while for others it might mean being attracted to other persons of the same gender, and yet for others it might mean not acting in a manner that seems “heterosexual.” Similarly, different women might have a different idea of the entitlements represented by same-sex couples’ rights. For some, it might mean access to social security benefits through partners, while for others it might mean being able to get married. Therefore, our results about attitudes toward homosexuality and same-sex couple rights refer to what the average woman in Colombia understands by these terms (as asked in the survey).

We also focus on a set of questions about the respondents’ knowledge of STDs (in particular of AIDS/HIV). First, whether the respondent has ever heard of AIDS or HIV (possible answers: yes or no). As mentioned before, we restrict our sample to women who have heard of AIDS or HIV before (>96%). Second, whether the respondent believes that the virus that causes AIDS can be transmitted by sharing food (possible answers: yes, no, or do not know). Finally, whether the respondent believes that if a person is homosexual, then they have the virus that causes AIDS (possible answers: yes, no, or do not know).

## Methodology

First we tabulated the data according to the response to two different questions: “What would you do if you found out that one of your children is homosexual?” and “Do you approve or disapprove of rights for same-sex couples?” We also cross-tabulated using the responses to these two questions to see how they are related.

Following the literature, the next natural question is how individual characteristics such as age, education, and wealth level are correlated with rejection of homosexuality and same-sex couples' rights. To do this, we estimate a linear model. Because the dependent variables are dichotomous, a discussion about whether to use an ordinary least squares (OLS) model or a probit or logit model is in order. We have chosen an OLS model because the coefficients have a clear interpretation and we are not interested in predicting probabilities but only the effect of certain variables on support for homosexuality. It is important to note that although the OLS model suffers from heteroskedasticity, this is corrected by using robust standard errors. Because we would have to assume that the errors follow a normal or logistic distribution to implement a probit or a logit, it is not clear that these models are more appropriate than OLS. Nevertheless, for every OLS model presented below, a probit and a logit model was estimated and the results were similar, in the sense that the sign of the coefficient is the same. In every OLS analysis, we included the two variables that measure the respondent's knowledge about HIV/AIDS mentioned above.

In every linear model, we also included three sets of controls: first, socio-demographic controls that have been found to be correlated with attitudes and opinions toward gays and lesbians, as well as same-sex couples' rights, such as age, education (measured in years), wealth (measured by a continuous wealth index calculated by DHS using a principal component analysis that is included in the data set), race, number of children, having a child aged <5 years (0/1), marital status, and whether the respondent lives in an urban area (0/1) (Patrick et al., 2013; Slootmaeckers & Lievens, 2014; van den Akker et al., 2013). We also included two regional controls, one for each coastal region of the country, as there are reports that "macho" culture, often associated with negative attitudes toward homosexual behavior, is more prevalent in rural and coastal areas (Cantillo-Barrios, 2013; Lemaitre-Ripoll, 2009). We also performed an analysis where we included a dummy variable for each municipality of the country to isolate how variation in the right-hand side variables within each municipality is correlated with variation in the independent variables. It should also be noted that religion has been found to be an important predictor of attitudes toward homosexuals and toward same-sex marriage (Patrick et al., 2013; Slootmaeckers & Lievens, 2014; van den Akker et al., 2013). Although >90% of Colombia's population declares itself as Christian (Hackett & Grim, 2012), we do not have information on respondents' religion or how religious they are.

The second set of controls attempts to measure perceptions about sexual behavior and family. This set of controls is partially motivated by Becker and Todd (2013), who strongly suggested that perceptions about family and marriage should be considered when trying to understand public opinion toward

homosexuals and toward same-sex couples' rights. Finally, we included a set of controls for the individual's level of acceptance of individuals with HIV. In particular, we included whether the respondent believes that someone with HIV should be allowed to be a teacher and whether the respondent would buy groceries from someone with AIDS. We believe these controls are a good proxy for general attitudes toward AIDS/HIV-infected people, independent of the individual's knowledge about HIV/AIDS.

## Empirical Analysis

### Summary Statistics

In the data, about 61% of women would either support or accept (have a positive response) if they were to find out that one of their children is homosexual. About 44% of the women approve of same-sex couples' rights. When it comes to HIV/AIDS knowledge, only 31% of the women know that HIV cannot be transmitted by sharing food, and over 51% of the women believe that all homosexuals are infected with HIV. When asked if people with HIV should be allowed to teach, over 60% of the women replied positively, while over 54% of women would buy groceries from someone infected with HIV. When it comes to sexual behavior, over 83% of the women in the sample have engaged in sexual intercourse, and the average woman has had 3.34 sexual partners (that includes women with no sexual partners). Over 60% of the women believe that children aged between 12 and 14 years should wait until marriage to have sex to avoid getting infected with HIV, and >92% of the women believe that children should be taught how to use a condom to avoid HIV infection. Finally, when it comes to sociodemographic characteristics, about 16% of the women in the sample are heads of households and the average woman is 29 years old and has had 9 years of education. Almost 65% of the women in the sample have been married at some point in time, and they have on average 1.5 children, with >40% of all the women having a child <5 years old. About 10% of the sample is Afro-Colombian, and nearly 80% of the sample lives in urban areas. Finally, over 35% of the sample is from the coastal regions of the country (Table 1).

Table 2 shows how the women surveyed would react to finding out that one of their children is homosexual. There are several things noteworthy in this table. First, most Colombian women aged between 13 and 49 years would respond positively if one of their children told them that he or she is homosexual. Second, the third most likely course of action that women would take is to send their child to a physician or psychologist. If these responses are taken literally, a plausible inference is that >14% of Colombian women believe that homosexuality is a medical condition (treatable by either a physician or a psychologist). Interestingly, although most would be supportive of a child

Table 1  
*Summary Statistics*

Variable	Mean
Dependent variables	
Support or accept child if found that he/she is homosexual	0.61
Approve of same-sex couples' rights	0.44
HIV/AIDS knowledge	
HIV food	0.32
Homosexuals HIV	0.52
AIDS/HIV controls	
Teacher HIV	0.60
Groceries HIV	0.54
Sexual behavior controls	
Intercourse	0.83
Sexual partners	3.34
Sex until marriage	0.60
Sex education in children	0.93
Sociodemographic controls	
Household head	0.16
Age	29.6
Years of education	9.17
Married	0.64
Number of children	1.56
Children <5 years old	0.40
Afro-Colombian	0.10
Urban	0.79
Wealth index	0.032
Region: Atlantic	0.19
Region: Pacific	0.16
Observations	51,472

*Note.* Calculations account for sampling weights.

Table 2  
*Response to Finding out that a Son or Daughter is Homosexual*

What would you do if you found out that one of your children is homosexual?	% of respondents	Observations
Positive	61.4	30,207
Neutral	23.2	12,508
Semi-negative	14.1	7,753
Negative	1.37	1,004
Total	100	51,472

Question: What would you do if you found out that one of your children is homosexual? The calculations account for sampling weights.

*Source:* Authors' calculations based on data from 2010 DHS.

Table 3  
*Approval Rate of Same-Sex Couples' Rights*

Approve/disapprove of same-sex couples' rights	% of respondents	Observations
Approve	43.8	20,883
Disapprove	56.2	30,589
Total	100	51,472

Question: Do you approve or disapprove of rights for same-sex couples? Calculations account for sampling weights.

Source: Authors' calculations based on 2010 DHS data.

Table 4  
*Relationship Between Response to Homosexuality of a Child and Same-Sex Couples' Rights*

Same-sex couples' rights Homosexual child	Approve	Disapprove	Total
Positive	56.01 (16,136)	43.99 (14,071)	100 (30,207)
Neutral	24.46 (2,784)	75.54 (9,724)	100 (12,508)
Semi-negative	25.56 (1,843)	74.44 (5,910)	100 (7,753)
Negative	13.59 (120)	86.41 (884)	100 (1,004)
Total	43.83 (20,883)	56.17 (30,589)	100 (51,472)

Note. Rates of approval for same-sex couples' rights across responses to "What would you do if you found out that one of your children is homosexual?" The number of responses in each group is in parentheses.

Source: Authors' calculations based on 2010 DHS data.

who was homosexual, most women disapprove of same-sex couples' rights (Table 3).

### Homosexuality and Same-Sex Couples' Rights

Table 4 shows the relationship between the answers to approval for same-sex couples' rights and reactions toward finding out that a son or a daughter is homosexual. There are some results worth highlighting. First, the only group in which the majority approves of same-sex couples' rights is those women who would react positively if they were to find out that one of their children is homosexual, but even then the approval rate is just >55%. Interestingly, among those with a negative reaction to a homosexual child there is some approval of same-sex couples' rights (>13%). In other words, about 40% of women who say they would support their child if he or she is homosexual would not approve of that child and his or her partner having rights equal to heterosexuals. Similarly, 13% of the women who would react negatively upon

finding out that a child is homosexual agree with same-sex couples having the same rights as heterosexual ones.

These numbers suggest a partial disconnection between support for the rights of homosexual individuals and support for same-sex couples' rights. The higher level of acceptance of individual rights for homosexuals than for the rights of homosexual couples is perplexing. Although Miller and Chamberlain (2013) suggested that one variable might predict attitudes toward a certain LGBTI right but not others and similar patterns have been documented in other parts of the world (e.g., in 2011 in the United States, most people believed that homosexuality should be accepted by society, but most were opposed to gay and lesbians marrying legally; Kohut, Doherty, Dimock, & Keeter, 2011), we could not find any research that specifically explains this behavior. However, there has been research on how a child's behavior can affect his/her parents' stance on certain issues. For example, Glatz, Stattin, and Kerr (2012) found that parents who have seen their children under the influence of alcohol became less opposed to underage drinking over time. Additionally, it is intuitive that people treat family members differently than other members of society; for example, one could imagine that a father who believes stealing is wrong might protect his son from the police if his son were accused of stealing. Similarly, one could imagine a father who rejects homosexuality (and same-sex couples' rights) but who is willing to support his son if he finds out he is gay. A well-known example of this in the United States is Republican U.S. Senator Rob Portman of Ohio, who became a supporter of same-sex couples' rights only after his son revealed that he was homosexual (*The New York Times*, 2013).

Another reason for the partial disconnection between maternal acceptance of homosexuality and support for same-sex couples' rights could be the role of marriage in Colombian society. For example, in 2002 the two leading newspapers in Colombia published an open letter signed by several public figures, including a former president, entitled "Homosexual marriage? A bill against family, marriage and human nature is discussed in the Senate." According to Serrano-Amaya (2012), Julio Cesar Turbay, the former president who signed the letter, explained his position by arguing that "society should not go back to previous times of intolerance against homosexuals but there is no reason to 'fall for misleading ideas about modernism' that pursue unnecessary changes." In short, the letter argued that homosexuality is acceptable but same-sex couples' rights are not.

It is also worth pointing out the relationship that the letter implies between homosexuality and the decline of society. As Serrano-Amaya (2012) stated, "[In the] letter, homosexuality in general and same-sex marriage in particular were associated with the transmission of illnesses, non-reproduction, and the decay of societies, since, it was stated, homosexuality was the cause of

the collapse of the Greek and Roman empires.” Although there is no scientific evidence that either the Roman or Greek empires collapsed owing to homosexuality, this misconception promotes a negative attitude toward homosexuality and defends such a stance as protecting the sustainability of society. As we show later, in the data, rejection of homosexuality and same-sex couples’ rights is correlated with misinformation on HIV and AIDS, even after controlling for other covariates.

### Attitudes and Individual Characteristics

In Table 5 there are two regressions that explore how sociodemographic characteristics are correlated with support toward a homosexual child and same-sex couples’ rights. In the first model, the dependent variable is a dummy that has a value of 1 if a respondent has a positive response if she finds out she has a homosexual child, while in the second model, the dependent variable is a dummy that has a value of 1 if the respondent approves of same-sex couples’ rights. Supplementary Table A1 shows that the results are robust to controlling for municipality fixed effects, to identify variation within each municipality and control for the unobservable characteristics of each location.

Supplementary Table A2 shows that the results for support toward a homosexual child are robust to excluding some of the more neutral responses.

There are several interesting results of this exercise that are worth mentioning. First, younger women are more likely to support a homosexual child and same-sex couples’ rights (however, the effect per year is four times larger for the latter). We believe that in both cases this is a cohort effect and not an age effect. Women living in rural areas as well as those living in the Caribe region are less likely to support a homosexual child and same-sex couples’ rights. This may reflect the prevalence of “macho” culture in those areas (Cantillo-Barríos, 2013; Lemaitre-Ripoll, 2009). As other studies have found (Patrick et al., 2013; van den Akker et al., 2013), more education increases the likelihood of being supportive of a homosexual child and same-sex couples’ rights, even after controlling for age and wealth.

In line with the conclusions of Becker and Todd (2013), some of our results suggest the importance of understanding how perceptions of family and marriage shape attitudes toward homosexuality and same-sex couples’ rights. Women with children <5 years are less likely to support a homosexual child and same-sex couples’ rights, as are those who have been married. Finally, women who have had sexual intercourse are more likely to support same-sex couples’ rights or a homosexual child, and support increases with the number of sexual partners. However, these are only possible proxies for perceptions about marriage and family and more research is needed to understand the role of these variables for the Colombian case.

Table 5  
*Sociodemographic Characteristics and Homosexuality*

Variable	Support child (1)	Same-sex couples' rights (2)
HIV/AIDS knowledge		
HIV food	-0.039*** (0.0054)	-0.013** (0.0053)
Homosexuals HIV	-0.062*** (0.0089)	-0.10*** (0.0054)
AIDS/HIV controls		
Teacher HIV	0.072*** (0.0071)	0.076*** (0.0061)
Groceries HIV	0.043*** (0.0068)	0.047*** (0.0077)
Sexual behavior controls		
Intercourse	0.046*** (0.012)	0.0094 (0.012)
Sexual partners	0.00047*** (0.00018)	0.00065 (0.00041)
Sex until marriage	-0.073*** (0.0071)	-0.082*** (0.0066)
Sex education in children	0.15*** (0.0092)	0.15*** (0.013)
Sociodemographic controls		
Household head	0.011 (0.0079)	0.015* (0.0083)
Age	-0.0014*** (0.00036)	-0.0057*** (0.00031)
Years of education	0.0032*** (0.00083)	0.0037*** (0.00081)
Married	-0.026*** (0.0086)	-0.047*** (0.0071)
Number of children	-0.0061*** (0.0020)	-0.0097*** (0.0026)
Children <5 years old	-0.027*** (0.0049)	-0.025*** (0.0053)
Afro-Colombian	0.0063 (0.014)	0.034*** (0.012)
Urban	0.014 (0.013)	0.0034 (0.013)
Wealth index	0.23*** (0.071)	0.25*** (0.053)
Region: Atlantic	-0.043*** (0.014)	-0.12*** (0.013)
Region: Pacific	0.0024 (0.017)	0.063*** (0.016)
Number of observations	51,472	51,472
Mean of Dep. Var.	0.61	0.44

*Note.* Clustered standard errors (by municipality) in parentheses. HIV food = 1 if the respondent believes HIV can be transmitted by sharing food; homosexuals HIV = 1 if the respondent believes all homosexuals are HIV-positive. Teacher HIV = 1 if the respondent believes that people with HIV should be allowed to be teachers; groceries HIV = 1 if the respondent would buy groceries from someone with HIV. Intercourse = 1 if the respondent has had sexual intercourse; sexual partners = number of sexual partners the respondent has had; Sex until marriage = 1 if the respondent believes children should wait until marriage to have sex to avoid HIV; Sex ed. Children = 1 if the respondent believes children should be taught how to use condoms to avoid HIV. Household head = 1 if the respondent is the head of household; age = respondent's age; years of education = formal education; urban = 1 if respondent lives in an urban area. Children under five = 1 if respondent has any children <5 years old; wealth index is calculated by DHS and included in the data set; married = 1 if the respondent has ever been married; Region: Atlantic = 1 if the municipality is located in the Atlantic region; and Region: Pacific = 1 if the municipality is located in the Pacific region.

*Source:* Authors' calculations based on 2010 DHS data.

\* $p < .10$ , \*\* $p < .05$ , \*\*\* $p < 0.01$ .

In our view, the most remarkable results in the table are those associated with AIDS and HIV. Even after controlling for education, age, wealth, and other factors, women who believe that HIV can be transmitted by sharing food are almost 4 percentage points less likely to be supportive of a homosexual

child (statistically significant at a 1% level) and 1.4 percentage points less likely to approve of same-sex couples' rights (statistically significant at the 5% level). Similarly, women who believe that all gay men have HIV are 6 percentage points less likely to support their children (statistically significant at a 1% level) and 10 percentage points less likely to approve of same-sex couples' rights (statistically significant at a 1% level). This is even after controlling for how people feel toward buying groceries from people with HIV or allowing people with HIV to be school teachers; people who believe those with HIV should be able to work as school teachers and who would buy groceries from someone with HIV are more likely to support their child if he or she is homosexual and to support same-sex couples' rights.

Although less educated people and people with misconceptions about HIV are less likely to support a homosexual child or approve of same-sex couples' rights, we believe that it is important to mention that there is also suggestive evidence that moral views play a central role. For example, women who believe children should be exposed to sexual education are >15 percentage points more likely to show support toward children and approve of same-sex couples' rights, while women who believe children should wait until marriage to have sex are 7 percentage points less likely to show support for a homosexual child or approve of same-sex couples' rights. Both of these variables can be thought of as proxies for moral views.

Our empirical estimates only indicate correlation and not causation because we lack exogenous variation and are thus unable to provide causal estimates. Nevertheless, we believe these results are suggestive of the following hypothesis: Misinformation about HIV can cause rejection of homosexuality and same-sex couples' rights, but moral views (measured by attitudes toward sex before marriage, the number of lifetime sex partners, and sexual education) are also important determinants of rejection. However, omitted variables could be driving our results or causality could go in the other direction (i.e., people form beliefs about HIV that justify their rejection of homosexuality and same-sex couples' rights). Further research must follow to find causal estimates.

### Conclusions

This article explores the opinions of Colombian women regarding maternal acceptance of homosexuality and same-sex couples' rights. Our results contribute to closing two gaps in the scientific literature. First, we document that misinformation about HIV/AIDS is correlated with negative attitudes toward a homosexual child (maternal acceptance) and same-sex couples' rights. Second, we contribute to the general literature on public opinion and attitudes toward homosexuals and toward same-sex couples and their rights, by providing evidence from a middle-income country.

Our study suggests a partial disconnection between being supportive of the sexual orientation of the respondent's child and supporting same-sex couples' rights. The data show that most women would support their child if they were to find out that he or she is homosexual; however, most women disapprove of same-sex couples' rights. In other words, >40% of women who would support their child if he or she is a homosexual do not believe that their child and a potential partner should enjoy the same rights as heterosexual couples. Similarly, over 10% of women who would react negatively to finding out their child is homosexual do not object to other homosexuals (and their same-sex partner) enjoying the same rights as heterosexual couples. We believe this disconnection between support for the rights of homosexual individuals and support for same-sex couples' rights could be owing to the role of marriage in Colombian society.

In line with previous studies, we find that that younger, wealthier, and more educated Colombian women are more likely to support their homosexual child and approve of same-sex couples' rights (Herek, 2007; Patrick et al., 2013; Slootmaeckers & Lievens, 2014; van den Akker et al., 2013). We also find that some proxies for perceptions about marriage, family, and moral views are predictors of support toward a homosexual child and same-sex couples' rights. In particular, women with children aged <5 years, those who have been married, those who believe children should wait until marriage to have sex, and those who have not had sexual intercourse are less likely to support a homosexual child and same-sex couples' rights, while women who believe children should be exposed to sexual education are more likely to show support. However, as these are only possible proxies more research is needed to understand the role of these variables for the Colombian case.

Some of the most remarkable results we found are those associated with AIDS and HIV. Even after controlling for education, age, wealth, and other factors, women who believe that HIV can be transmitted by sharing food and those who believe all homosexuals have HIV are less likely to be supportive of a homosexual child and to approve of same-sex couples' rights. In short, there is a strong correlation between misinformation about HIV and negative attitudes toward homosexuality and same-sex couples' rights.

Given the nature of exploratory studies and the availability of data, our study presents several limitations. First, our results are suggestive because we are unable to provide causal estimates to prove our hypothesis. However, we provide insights that could lead to new research questions and further studies. In addition, because there are few similar studies and data from low- and middle-income countries are scarce, our research could raise awareness of the importance of understanding public opinion on the topic as well as including relevant questions in nationwide surveys. Second, our data did not include men and therefore our estimates could be different than for the general

population. However, as women are more likely to be supportive of homosexuals and same-sex marriage (Lodola & Corral, 2010), including men in the study would most likely increase overall rejection rates of homosexuality and same-sex couples' rights, but would not change the overall associations we find. Finally, we were unable to explore public opinion time trends as there are only data available for 2010. We hope that this issue can be addressed in the future when new versions of the survey are conducted.

Despite these limitations, this exploratory study is a step forward in understanding Colombian public opinion regarding homosexuality and same-sex rights in a context where limited research has been conducted. This information could be helpful for further research conducted in other low- and middle-income settings. Moreover, the current debate in Colombia is characterized by a lack of evidence-based arguments and our results could contribute to improving the quality of the debate as well as informing policy on the topic.

### Supplementary Data

Supplementary Data are available at IJPOR online.

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