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Factors Associated with Support for Adolescent Access to Contraception among Mexican Catholic Parents

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Abstract

Objective: adolescent pregnancy rates remain high. Parental support is critical to adolescent access. We identify factors associated with support for adolescent access to contraception among Mexican Catholic parents.

Methods: We used a nationally-representative survey of 2,186 self-identified Mexican Catholic parents and multivariable logistic regression to assess two outcomes: overall support for adolescent access to modern contraception in general (support in theory) and whether adolescents unaccompanied by an adult should have access to contraceptive methods from a doctor (support in practice).

Results: Mexican Catholic parents overwhelmingly support adolescent access to modern contraceptive methods (85%) but only 28% believe adolescents should be able to access contraception unaccompanied by an adult. Controlling for covariates, self-identified strength of Catholicism was not significantly associated with either outcome. Parents who believe that good Catholics can use contraception had significantly higher odds of support for adolescent access to methods (aOR 2.4; 95% CI: 1.6-3.4) and unaccompanied access (aOR 1.5; 95% CI: 1.0-2.1). Age, education, income and Mexico City residence were not significantly consistently associated with either outcome.

Conclusion: Catholic parents in Mexico widely support adolescent access to modern contraception overall (in theory), but support for access to modern contraception unaccompanied by an adult (in practice) is much lower. More nuanced measures of Catholicism better capture differences in opinions about adolescent access to birth control.

Implications and Contribution: We differentiate between theoretical and practical adolescent access to contraception and use two measures of Catholicism. Parental beliefs about who can be a good Catholic were more important than strength of Catholicism to explain support for adolescent access to contraception; these findings are useful for messaging for Catholic parents.

Introduction

In Mexico, access to family planning is established as a right of Mexican citizens and national policy states that adolescents have access to all modern methods of contraception [1]. National policies focused specifically on adolescents explicitly state that all adolescents should have access to modern contraceptive methods [2]. Despite these progressive policies, studies show that unmet need for contraception is higher among younger women in Mexico than among older women, especially among young women living outside of Mexico City [4], and that this unmet need is even increasing among certain adolescent subpopulations [5]. Consequently, adolescent pregnancy rates remain high in Mexico, among the highest of OECD countries at 130 pregnancies per 1,000 adolescents 15-19 [3]. In fact, the mean age of women in childbirth in Mexico has been decreasing, whereas this number has been increasing in the rest of the world [6].

While many factors, including insurance access, place of residence, education, and poverty have been shown to affect adolescent access to contraception in Mexico [4], parents and parental notification as barriers to contraceptive access among adolescents has also been documented in previous studies [7,8]. Parents may not support access to modern contraception by adolescents in general or access to services without an adult present.

Mexico is a very Catholic country, with 83% of adults self-identifying as Catholic [9], which is often viewed as a deterrent to access to sexual and reproductive health services. However, recent research has shown that Catholic support for certain reproductive health issues is nuanced, with high levels of support for abortion, for example, under some circumstances [10].

In this paper, we explore support for access to modern contraceptive methods for adolescents, among Catholic parents in Mexico. We examine general support for access to modern contraceptives (support in theory) and support for access to contraceptive services without an adult (support in practice). Our objective is to identify factors associated with parental support for adolescent access to contraception among Catholic parents. Despite Mexico being a very Catholic country, to our knowledge no

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literature exists examining factors associated with adolescent access to birth control among Mexican Catholics, not to mention among Mexican Catholic parents. This study attempts to fill this gap and further our understanding of support for adolescent access to birth control in theory and practice in a majority Catholic country that continues to struggle with high adolescent pregnancy rates.

Methods

We conducted a cross-sectional analysis using a nationally representative Spanish language survey collected in-person between July and September 2014 from self-identified Mexican Catholics over the age of 18 (Insad, *Report of the National Survey of Catholic Opinion*). The Mexican Survey of Catholic Opinion [11] includes information on household socio-demographics and a series of topics, including sexual and reproductive health. Individuals were selected by multistage random sampling using Basic Geographic Areas which divide Mexico into 60,000 distinct geographic areas [10]. Within areas, random sampling was used to select households and determine eligibility (Catholic; over 18); the member of the household whose birthdate was nearest to the survey date completed the survey. The response rate among eligible households was 85%. Our study focuses on parents so we excluded 483 respondents who reported not having any children for a final analytic sample of 2,186 respondents.

We have two binary outcomes, support for adolescent access to modern contraception in theory and in practice. Respondents were first asked a question about whether or not they believe adolescents should have access to all modern contraceptive methods, defined in the question as pills, injectables, IUDs, and implants. Respondents were then asked if, for doctors to give these methods to adolescents, adolescents should be accompanied by an adult or should be able to go on their own. The first outcome represents adolescent access to contraceptives overall or in theory, while the second outcome measures parents' support for the actual operationalization of access to contraception in practice; that is, access to birth control methods without the presence or consent of an adult.

In our analysis we controlled for age, income, education, Mexico City residence, number of children, and respondent's current contraceptive use. We grouped age into

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four categories: 18-30, 31-40, 41-50, and 51+. We used irregular age bands to account for the smaller proportion of parents age 18-30. Income represents range of monthly income in pesos, converted to USD (November 23 2016 exchange rate for analysis purposes): <\$100, \$100-300, \$301-505, and \$506+. Minimum wage in Mexico is 88 pesos a day [12], amounting to a minimum monthly wage of 1,848 pesos (97 USD). We divided our education variable into 3 categories: less than primary school completed or no schooling, secondary school (9th grade) completed, and high school or more advanced schooling. Where we describe CDMX (Ciudad de Mexico) residence, we dichotomized between respondents who live within and outside Mexico City, since previous literature shows increased access to birth control within the CDMX boundary [4]. To measure current use of birth control we included respondents who currently use birth control as well as those who reported having partners currently using birth control. We also included information on respondent's religiosity, support for sex education in public schools and opinions about why adolescents get pregnant, which was an open-ended question that we dichotomized into believing pregnancy is not the responsibility of the adolescent (ie. adolescents get pregnant because of issues outside of their control -- lack of information or communication, family problems, rape) and believing adolescent pregnancy is the responsibility of the adolescent (ie. adolescents get pregnant because they like to rebel, for curiosity/experimentation, or because they are irresponsible in using birth control). Respondents were also asked a number of questions about their agreement with certain Catholic values. The values included their idea of God, which we dichotomized into God as forgiving vs. protecting, punishing & rewarding, or imposing rules; the most important Catholic value, dichotomized into respect vs. love, liberty, forgiveness, obedience, justice, or mercy; opinions about the Catholic Church permitting use of birth control; and whether they were taught in the home that sex is for procreation only. We included two measures of religiosity: self-identified strength of Catholicism (very Catholic, somewhat Catholic, and not at all/a little Catholic) and perceptions of a good Catholic; particularly, a binary indicator of whether someone who uses birth control can continue to be a good Catholic.

We applied survey weights to account for the complex survey design and allow inference to the national Catholic population. We first used descriptive statistics and

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bivariate tests of association between all variables and our two outcomes. We then developed two logistic regression models, one for each outcome. We included covariates based on previous literature and our own work measuring degree of Catholicism and support for abortion [10]. We also conducted several sensitivity analyses. We tested for collinearity between income and education and dropped each to assess impact on model estimates; there were no meaningful changes in odds ratios and both variables were kept in the models. We looked at potentially nonsensical responses, such as the 44 respondents who said they support unaccompanied access to birth control but do not support access to modern methods; however, models did not change when we removed these respondents so we retained them in the analysis. We tested whether support for sex education moderated the relationship between our measures of Catholicism and support for adolescent access to contraception (data not shown). Interactions were not significant and we include only fixed effects in the final model. We ran correlations between all Catholic values measures and our measures of religiosity to ensure that these variables were not capturing the same thing. Opinions about the Catholic Church permitting use of birth control and our good Catholic measure were correlated ($\text{corr}=0.54$). For consistency with existing literature [10], we kept the good Catholic measure in the multivariable models.

All statistical analyses were conducted using STATA version 14.2. The OHSU IRB deemed this secondary analysis not human subjects research.

Results

Table 1 displays raw and weighted sample characteristics. Just over half the sample was female (56%; 95%CI: 53-59%) and a large majority (78%; 95% CI: 72-86%) were over the age of 30. Most respondents (92%; 95% CI: 91-94%) lived outside of Mexico City. Just over half of respondents (52%; 95% CI: 47-57%) had more than 3 children and almost half (41%; 95% CI: 38-44%) reported having a primary education or no education. Just under two-thirds (62%; 95% CI: 59-65%) reported that either they or their partner currently use birth control. Nearly all of the sample (92%; 95% CI: 90-93) believed that public schools should teach sex education.

Table 1. Characteristics of the Sample, from a Survey of Mexican Catholic Parents, 2014

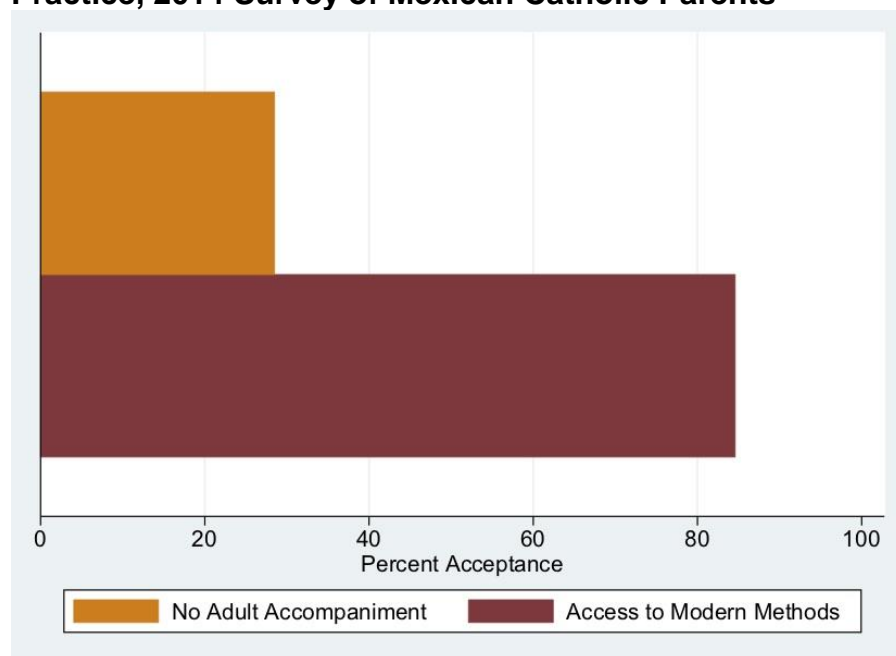
	Crude N	Crude % N=2,186	Weighted % [95% CI] Weighted N = 61,332,862
Sex			
Female	1,404	64	56 [53-59]
Age			
18 to 30	418	19	22 [19-25]
31 to 40	578	26	25 [23-28]
41 to 50	448	20	21 [19-24]
51+	742	34	32 [29-43]
Education (N=2,185)			
None/primary	1,032	47	41 [38-44]
Secondary	676	31	32 [29-34]
High school or more	477	22	28 [25-31]
Income (N=2,172)			
<\$100	983	45	38 [35-41]
\$100-300	775	36	38 [35-41]
\$301-505	288	13	16 [14-18]
\$506+	126	6	8 [6-10]
CDMX			
Outside CDMX	1,958	90	92 [91-94]
Number of Children (N=2,183)			
1 to 2	938	43	48 [45-51]
3+	1,245	57	52 [49-55]
Current use of birth control			
	1,281	59	62 [59-65]
Believes public schools <i>should</i> teach sex education			
	1,973	90	92 [90-93]
Believes teen pregnancy prevention is <i>not</i> the responsibility of the adolescent (N=2,123)			
	1,345	63	65 [62-68]
Believes a person who uses birth control can continue to be a good Catholic			
	1,711	78	82 [80-84]
Self-identified strength of Catholicism			
Very	357	16	14 [12-16]
Somewhat	1,106	51	51 [48-54]
Not at all/a little	723	33	35 [32-38]

Despite everyone in the sample self-identifying as Catholic as per the inclusion criteria, only 14% (95% CI: 12-16%) reported being very Catholic, with a majority (51%; 95% CI: 48-54) reporting being somewhat Catholic. A large proportion (82%; 95% CI: 80-84%) agreed that a person who uses birth control can continue to be a good Catholic.

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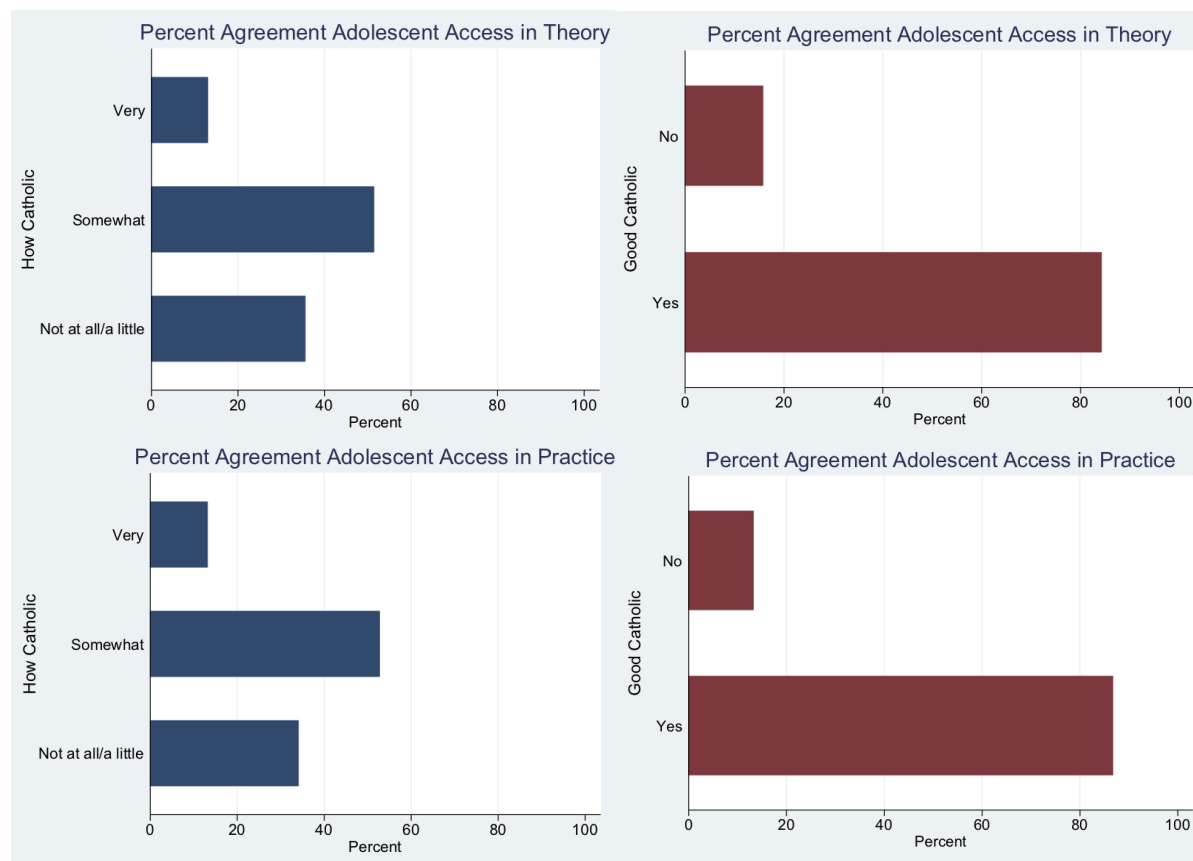
A large majority (85%; 95% CI: 82-87%) of our sample agreed that adolescents should have access to the full spectrum of modern methods (Figure 1). This percentage drops substantially to nearly one-in-four respondents (28%; 95% CI: 26-31%) believing that adolescents should be able to access contraceptive methods from a doctor without adult accompaniment.

Figure 1. Agreement with Adolescent Access to Contraception in Theory and in Practice, 2014 Survey of Mexican Catholic Parents



In bivariate analysis, self-identified strength of Catholicism was significantly associated with support for access to contraception, with 53% of people who identify as somewhat Catholic and 34% of those identifying as not at all/a little Catholic supporting adolescent access to modern methods ($p < .05$, Figure 2). Self-identified strength of Catholicism was not significantly associated with support for unaccompanied access to birth control in bivariate analysis. People who believe that someone who takes birth control can continue being a good Catholic were significantly more likely to agree with both adolescent access to birth control ($p < .001$) and no adult accompaniment to access birth control in bivariate analysis ($p < .001$).

Figure 2: Agreement with Adolescent Access to Contraception in Theory and in Practice and Catholic Measures, 2014 Survey of Mexican Catholic Parents



In multivariable models, Catholicism as measured by self-identified strength of Catholicism was marginally significantly associated with support for access to birth control in theory and not significantly associated with support for access in practice (Table 2). Of our two Catholicism measures, only the perception of good Catholic measure was significantly associated with both outcomes, with respondents who believe that someone who uses birth control can continue to be a good Catholic being significantly more likely to support unaccompanied access to birth control (aOR 1.5; 95% CI: 1.0-2.1) and access to modern methods (aOR 2.4; 95% CI: 1.6-3.5). Support for public schools teaching sex education was not significantly associated with support for unaccompanied access to birth control when controlling for other factors, but was significant in support for birth control in theory. Those who believe public schools should

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teach sex education had significantly higher odds (aOR 2.9; 95% CI: 1.8-4.5) of agreeing that adolescents should have access to modern birth control methods.

Age, education, income, Mexico City residence, use of contraception, self-identified strength of Catholicism, and number of children were not consistently statistically significant with our two outcomes. Parents who believe that adolescents get pregnant because of factors outside of their control are significantly less likely to agree with adolescent access to birth control in both theory (aOR 0.7; 95% CI: 0.5-1.0) and practice (aOR 0.7; 95% CI: 0.6-1.0) when compared to parents who think adolescent pregnancy is the responsibility of the adolescent. Also of note is that, while nonsignificant, education and income seem to work in the opposite direction than typically seen for our model modeling access in theory, with less educated and poorer parents being more likely to support access. This is more pronounced when the sample is restricted to parents over 40 (data not shown).

Table 2. Association of Catholicism and Agreement with Adolescent Access to Birth Control in Theory and Practice, 2014 Survey of Mexican Catholic Parents

	Access to Modern Methods (Access in Theory) N=2103		Accompaniment (Access in Practice) N=2,105	
	OR	95% CI	OR	95% CI
Public schools should teach sex education (ref=no)	2.88***	[1.840 - 4.493]	1.2	[0.744 - 1.938]
A woman who uses birth control can continue to be a good Catholic (ref=no)	2.36***	[1.614 - 3.455]	1.47*	[1.033 - 2.081]
Self-identified strength of Catholicism (ref=very Catholic)				
Somewhat Catholic	1.49	[0.987 - 2.237]	1.11	[0.749 - 1.641]
Not at all Catholic	1.65*	[1.070 - 2.537]	1.07	[0.706 - 1.627]
Male (ref=female)	1.35	[0.954 - 1.909]	0.87	[0.657 - 1.149]
Age (ref=18 to 30)				
31 to 40	0.72	[0.432 - 1.200]	0.62*	[0.416 - 0.917]
41 to 50	0.99	[0.568 - 1.710]	0.8	[0.520 - 1.223]
51+	0.79	[0.464 - 1.340]	0.87	[0.555 - 1.356]
Education (ref=none or primary)				
Secondary	0.66	[0.430 - 1.006]	1.2	[0.859 - 1.667]
High School or more	0.75	[0.450 - 1.244]	1.31	[0.884 - 1.936]
Income (ref=less than \$100)				
\$100-300	0.81	[0.557 - 1.178]	1.11	[0.814 - 1.505]
\$301-505	0.52*	[0.288 - 0.927]	0.93	[0.615 - 1.414]
\$506+	0.63	[0.328 - 1.213]	1.12	[0.617 - 2.019]
Lives in CDMX (ref= outside)	0.67	[0.412 - 1.098]	0.77	[0.486 - 1.210]
Number of children (ref=3+)				
1 to 2	1.36	[0.922 - 2.012]	1.27	[0.930 - 1.726]
Current use of contraceptives	1.39	[0.965 - 2.012]	1.18	[0.874 - 1.598]
Pregnancy avoidance is not the responsibility of adolescent	0.70*	[0.502 - 0.978]	0.73*	[0.554 - 0.954]
Constant	1.2	[0.559 - 2.589]	0.25***	[0.121 - 0.530]

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We also looked at support for adolescent access to birth control and agreement with certain Catholic values (Table 3). Variables capturing belief that God is someone who forgives, respect as the most important Catholic value, and messages about sex for procreation were nonsignificant in bivariate analysis and did not add any nuance to our models.

Table 3. Association of Catholic Value Measures and Agreement with Adolescent Access to Birth Control in Theory and Practice, 2014 Survey of Mexican Catholic Parents

	Adolescents should have access to modern birth control methods (Weighted % [95% CI])		p-value	For doctors to prescribe birth control, adolescents should be able to go... (Weighted % [95% CI])		p-value
	Agree	Disagree		Alone	Accompanied	
	God is someone who forgives (ref=God is someone who protects, punishes, rewards, or imposes)	47% [44-50]		9% [7-10]	0.99	
Respect is most important Catholic value	28% [25-31]	4% [4-6]	0.25	9% [8-11]	23% [21-26]	0.89
The Catholic Church should permit Catholics to use birth control	74% [72-76]	10% [8-11]	<.001*	25% [23-28]	58% [55-61]	<.001*
Family communication about sex for procreation (ref=family talked about sex for procreation only)			.06*			0.16
Family did not talk about sex for procreation only because we didn't talk about that	53% [50-56]	10% [9-12]		18% [16-21]	44% [41-48]	
Family did not talk about sex for procreation only because they said the oppotion	6% [4-8]	.04% [.02-.08]		2% [1-3]	4% [3-5]	

Only one Catholic value, agreement that the Catholic Church should permit Catholics to use birth control, was significantly associated with both of our outcomes, with those who agree with that Catholics should be permitted to use birth control significantly more likely to agree with adolescent access to modern methods in theory ($p<.001$) and unaccompanied access in practice ($p<.001$). When added into the models, this variable was highly significant, and our good Catholic measure became nonsignificant. We excluded this variable from multivariable models due to correlation with our good Catholic measure and consistency with literature [10].

Discussion

Despite support for adolescent access in theory and specific policies outlining such access, adolescent pregnancy remains a persistent problem in Mexico. Our results show that Mexican Catholic parents overwhelmingly support adolescent access to birth control in theory, demonstrating the departure between personal opinion and church

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policy, but that the operationalization of this support (accessing birth control unaccompanied) is much lower. Our results also show that only two variables in our multivariable models are associated with support in both practice and theory; whether or not the respondent agrees that someone who takes birth control can continue being a good Catholic, and pregnancy avoidance being the responsibility of the adolescent. Variables we see associated with adolescents having met need for contraception (wanting to avoid pregnancy and taking birth control), such as education and Mexico City residence, are not associated with parental support.

Our results suggest that the large majority of Catholic parents in Mexico believe that adolescents should have access to contraception. This echoes evidence from the United States that adolescent access to birth control and especially sex education is widely supported, regardless of factors such as religion [13,14] and political affiliation [15]. Our findings also contribute to growing evidence that the personal opinions of Catholic people do not always parallel the dictates of the Catholic hierarchy [10]. Catholic opinion, distinct from positions of the Church hierarchy, should thus not be seen as an unsurmountable barrier to implementing policies to expand adolescent access to sex education and modern contraceptive methods. In fact, the large majority of Mexican Catholic parents in our sample also believe the Catholic Church should permit Catholics to use birth control, showing support not only in terms of their own personal values but in terms of what the Church as an institution should do.

However, our results also show that Catholic parents have reservations about adolescents accessing contraception without an adult, what we called support in practice. Only 28% of our sample believe that adolescents should be able to receive birth control from a doctor without adult accompaniment. This may be due to a parent's desire to accompany their children as a show of support or because of perceptions of what it means to be a good parent in Mexico. Research into the Mexico NGO IMIFAP, which has designed and implemented sex education programs in Mexico, documented parents' concern over sex education arising primarily because of feeling left out or left behind, and not because of outright opposition [16]. This lack of support in our sample may similarly be driven by low levels of autonomy among Mexican adolescents, especially with regard to their sexual health; it may not occur to parents that an

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unaccompanied visit to the doctor would be something adolescents may want or even be able to do. Literature has documented this gap in Mexican-origin families between when parents think their daughters should be autonomous and when those daughters consider themselves autonomous [17]. More research is needed to further distinguish between a parent's desire to accompany a child as an expression of a support, and a parent's desire to prevent their child from accessing birth control without their consent. Adolescent pregnancy prevention interventions may benefit from approaches that involve both the adolescent and their parent.

The differences between our two outcomes further show how opinions between access to birth control in theory and in practice diverge among our sample of Mexican Catholics. Of note, it is those who believe that people who use birth control can be good Catholics that are more likely to agree with adolescents accessing contraception without adult accompaniment.

Only two variables, opinions about why adolescents get pregnant and agreement that a person who takes birth control can continue to be a good Catholic, were significantly associated with both outcomes in multivariable analysis. Education, age, and Mexico City residence, which have been found to be associated with adolescents' access to and use of modern contraception [4,5], were not consistently associated with our outcomes, demonstrating that adolescents' access to modern methods is very different from parental opinions about access in theory and in practice.

These findings also illustrate that often-used measures of Catholicism such as self-identified strength of Catholicism do not help explain opinion about adolescent access to contraception. Rather, it is the measure that asks about birth control and Catholicism together that is associated with both outcomes, suggesting that this measure better describes how respondents understand what it means to be Catholic and the behaviors expected of Catholics. This finding is supported in literature on abortion that also suggests that we lose nuance with broad measures of Catholicism [10]. Such findings can be used by advocates working to expand on-the-ground access to adolescent contraception in Mexico by designing targeted messages that work to expand understandings of what it means to be a "good" Catholic.

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This study has a number of limitations. The survey was administered only to self-identified Mexican Catholics and may not be generalizable to Catholics in other countries, nor to other religious groups within Mexico. The survey was not administered to a comparison group of non-Catholics, thereby rendering us unable to draw conclusions about differences between Mexican Catholics and non-Catholics. However, recruiting an appropriate comparison group in a culturally Catholic country like Mexico would likely have proved difficult.

We find that Mexican Catholic parents in our sample overwhelmingly support adolescent access to modern birth control, breaking with Catholic Church teachings. However, the majority of Mexican Catholic parents in our sample do not believe adolescents should be able to access birth control from a doctor without adult accompaniment. That Catholicism as measured by agreement that a person who takes birth control can continue to be a good Catholic was significantly associated with both outcomes demonstrates that more nuanced measures of Catholicism can help us frame our messaging around adolescent access to birth control. Similarly, low support for unaccompanied access to birth control illuminates the need for further research on barriers posed by parental accompaniment, doctors as gatekeepers to access, and opinions on adolescent autonomy among Mexican Catholic parents.

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