Pregnancy Options Counseling and Abortion Referrals Among US Primary Care Physicians:

Results From a National Survey

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BACKGROUND AND OBJECTIVES: Primary care physicians (PCPs) can play a critical role in addressing unintended pregnancy through high-quality options counseling and referrals.

METHODS: We surveyed a nationally representative sample of 3,000 PCPs in general, family, and internal medicine on practices and opinions related to options counseling for unintended pregnancy. We assessed predictors of physician practices using multivariable logistic regression weighted for sampling design and differential non-response.

RESULTS: Response rate was 29%. Seventy-one percent believed residency training in options counseling should be required, and 69% believed PCPs have an obligation to provide abortion referrals even in the presence of a personal objection to abortion. However, only 26% reported routine options counseling when caring for women with unintended pregnancy compared to 60% who routinely discuss prenatal care. Among physicians who see women seeking abortion, 62% routinely provide referrals, while 14% routinely attempt to dissuade women. Family physicians were more likely to provide routine options counseling when seeing patients with unintended pregnancy than internal medicine physicians (32% vs 21%, *P*=0.002). In multivariable analyses, factors associated with higher odds of routine abortion referrals were more years in practice (OR=1.03 for each additional year, 95% CI: 1.00-1.05), identifying as a woman vs a man (OR=2.11, 95% CI: 1.31-3.40), practicing in a hospital vs private primary care/multispecialty setting (OR=3.17, 95% CI: 1.10-9.15), and no religious affiliation of practice vs religious affiliation (OR for Catholic affiliation=0.27, 95% CI: 0.11-0.66; OR for other religious affiliation=0.36, 95% CI: 0.15-0.83). Personal Christian religious affiliation among physicians who regularly attend religious services vs no religious affiliation was associated with lower odds of counseling (OR=0.48, 95% CI: 0.26-0.90) and referrals (OR=0.31, 95% CI: 0.15-0.62), and higher odds of abortion dissuasion (OR=4.03, 95% CI: 1.46-11.14).

CONCLUSIONS: Findings reveal the need to support fuller integration of options counseling and abortion referrals in primary care, particularly through institutional and professional society guidelines and training opportunities to impart skills and highlight the professional obligation to provide non-directive information and support to women with unintended pregnancy.

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Almost half (45%) of pregnancies that occur in the United States are unintended.[1] Pregnancy options counseling—providing non-directive, evidence-based information to newly diagnosed pregnant women about their options for continuing or terminating the pregnancy and referrals as necessary—is an integral part of the public health prevention framework for addressing unintended pregnancy in the United States[2] and is considered a clinical best practice.[3] Primary care physicians (PCPs) are one of several cadres of providers who play a critical role in helping women manage pregnancy;[4] one third of pregnant women in the United States have seen their family physician in the prior year[5] and 5% of visits to family physicians among women ages 19-39 are pregnancy-related.[6] PCPs' regular contact with patients makes them more likely to be aware of women's health history and personal circumstances and thus, well positioned to provide options counseling.

For women who choose to terminate a pregnancy, options counseling

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must include information on where to obtain abortion. Abortion referrals are an essential component of abortion access, particularly where service availability is increasingly limited due to legal restrictions and resulting facility closures.[7] Research suggests deficiencies in health and social service providers' abortion referral practices,[7-10] though published evidence is scarce. In a recent survey in Nebraska of family medicine physicians and other clinicians, substantially fewer reported they would provide referrals for abortion than for other reproductive health issues like in vitro fertilization or specialty prenatal care.[9] Another survey of publicly funded family planning facilities in 16 states documented significantly fewer providers offered abortion referrals compared to adoption referrals.[10] Notably, lack of appropriate referrals is a determinant of later gestational age at time of abortion,[11,12] which is associated with more expensive clinical procedures and more major complications.[13]

To our knowledge, representative data on PCPs' training, practices, and opinions related to options counseling and abortion referrals have not been published. Though the large majority of family medicine programs offer options counseling training,[14] the effectiveness of that training, and its impact on practice is unclear. Limited research in obstetrics has found that providers miss opportunities during the first prenatal care visit to discuss feelings about unintended pregnancies and do not always discuss the full range of pregnancy options with women.[15] It is important to understand to what extent this might also be an issue in primary care.

Broad debates about conscience are occurring in health care and include consideration of the obligation of physicians to provide information about medical interventions to which they have a moral objection. Studies have found that the majority of physicians surveyed in a variety of specialties believe they are obligated to refer patients for interventions they themselves are unwilling to perform.[16,17] Little is known, however, about the willingness of PCPs to provide information and referrals to women seeking abortion.

The objective of this paper is to describe US PCPs' training, practices, and opinions related to options counseling and abortion referrals in their current practice setting.

Methods

Data Collection and Sample

Data for the PCP-Training, Opinions, and Practices (PCP-TOP) study were collected through a mailed paper survey between October 2014 and May 2015. We developed the instrument with feedback from multiple experts on the integration of reproductive health into primary care and piloted it with a convenience sample of 13 PCPs across the country. We randomly selected 3,000 physicians from the American Medical Association (AMA) Physician Masterfile, a comprehensive list of US physicians. Selection criteria included: specialty in family, general, or internal medicine; currently practicing in the United States; and spending the majority of time in direct patient care. We stratified by male vs female, residency training, and census region to ensure representativeness of these key variables in our sample. Recipients were given a $20 cash incentive with the first mailing. Physicians who did not respond initially were mailed two more copies of the survey and sent two emails linking to an electronic survey.

A sample size of 1,036 respondents would provide 90% power (α=.05, two-sided) to detect a 10% difference in the proportion of male vs female physicians who refer for abortion. Assuming a 35% response rate, we estimated needing a sample of 2,960 physicians, rounded to 3,000.

Harvard T.H. Chan School of Public Health's Institutional Review Board approved this study.

Questionnaire and Measures

The PCP-TOP survey instrument included questions addressing clinical background and current practice setting, primary care training, provision of preventive services, management of pregnant patients, and demographics.

Physician Opinions: We asked physicians whether residency training in "counseling about options for unintended pregnancy" should be "required," "available but not required," or "not available." We also presented a hypothetical case adapted from a survey on controversial clinical practices:[16]

> Imagine a 22-year-old single woman 6 weeks pregnant after failed hormonal contraception presents to her primary care physician. The patient is considering an abortion. The patient's physician objects to the abortion for religious or moral reasons. Does the physician have an obligation to present all possible options to the patient, including information about abortion? If the patient chooses abortion, does the physician have an obligation to refer the patient to someone who does not object to the requested procedure? (Response options were "Yes," "No," or "Undecided").

Options Counseling and Abortion Referral/Dissuasion: Questions about physician practices used 5-category Likert-type scales ranging from "always" to "never." We asked physicians how often they assessed whether a woman with a newly diagnosed pregnancy wanted to continue the pregnancy and determined whether this varied according to the woman's age, presence of a partner, and health status. We asked physicians how often they offered to discuss parenting, abortion, adoption, and/or prenatal care for women unsure whether to continue a pregnancy. We define "routine options counseling" as reporting offering to discuss abortion, adoption, and parenting "always" or "most of the time."

We asked physicians how often they provide different types of information and advice to patients seeking abortion: advising against abortion, referring to someone else in their practice, personally contacting an abortion provider, and/or giving the patient information about an abortion provider. We define "routine abortion referrals" as reporting providing at least one referral option "always" or "most of the time." "Routine abortion dissuasion" is defined as reporting advising the patient against abortion "always" or "most of the time," and a "facilitative" referral as referring to a specific abortion provider.

We asked all physicians to indicate their reason(s) for not providing an abortion referral in the cases in which they do not provide one, using pregenerated response options and a write-in option.

Analysis

We incorporated stratum weights to account for the survey design and differential non-response by key demographic variables and generated population estimates for responses to each outcome.

We assessed differences in our outcomes (provision of options counseling, abortion dissuasion and abortion referrals) according to characteristics of physicians and their practice settings using Pearson design-based F statistics adjusted for survey weighting. We used weighted multivariable logistic regression to identify independent predictors of these outcomes, retaining all variables of interest due to the exploratory nature of the analysis, with the exception of prior training in options counseling which was highly correlated with residency type. Decisions about which independent variable categories to collapse were based on cell size and judgment of characteristics most likely to influence relevant provider behaviors. To assess the impact of religion, we created a variable that combined personal religious affiliation and frequency of attending religious services. All analyses were conducted using Stata (StataCorp 2013).

Results

We received 789 surveys from eligible respondents; after excluding 15 refusals and 19 missing either all demographics or outcomes, we had 755 responses available for analysis. The large majority were trained in family or internal medicine (Table 1).

Table 1: Self-Reported Physician and Practice Characteristics (n=755)

Physician characteristics		
Residency training area	*n*	%
Family Medicine	382	50.9
General Internal Medicine	334	44.5
Other/None	35	4.7
Gender identification	*n*	%
Man	438	58.0
Woman	317	42.0
Years in practice		
Mean (standard deviation)	23.8	(11.0)
Religious affiliation	*n*	%
Christian – Protestant	193	25.9
Christian – Roman Catholic/Eastern Orthodox	176	23.7
Christian – Other	90	12.1
Jewish	67	9.0
Multiple/Other	115	15.5
None	103	13.8
Religious participation	*n*	%
Attends religious service twice/month or more	324	43.6
Attends religious service once/month or less	249	33.6
Attends religious service never	169	22.8
Practice characteristics		
Current practice type	*n*	%
Private primary care practice	310	41.4
Private multispecialty practice	128	17.1
Private hospital	75	10.0
Community health center/Federally qualified health center	57	7.6
City/county/state hospital	42	5.6
US Military/Veteran's Affairs Facility	40	5.3
Other	97	13.0
Geographic region of current practice	*n*	%
Midwest	216	28.6
South	210	27.8
West	189	25.0
Northeast	140	18.5
Religious affiliation of current practice	*n*	%
No affiliation	608	81.0
Catholic affiliation	83	11.1
Other religious affiliation	60	8.0
Urbanicity of current practice[1]	*n*	%
Suburban community/small city	348	46.3
Urban community/large city	263	35.0
Rural community/small town	141	18.8

Note: sample sizes vary slightly due to missing data

[1] Urbanicity was self-reported using these three categories

After adjusting for known wrong addresses, higher likelihood of non-responders having an inaccurate address, and for retirees,[18-20] our response rate was 29.4%. Women were more likely to respond than men (32% vs 26%, $P<0.01$) and family medicine-trained physicians were more likely to respond than other physicians (31% vs 26%, $P<0.01$). After applying weights for differential non-response, we compared respondents to the AMA Masterfile and determined our respondents were also representative of all US PCPs in terms of year of medical school graduation, and region of practice (data not shown).

Physician and Practice Characteristics

Most respondents (67%) reported training in options counseling during medical school or residency, though this differed by residency training (80% family medicine vs 47% internal medicine/other, $P<0.001$); 27% reported post-residency training and 73% had ever received either type of training.

Most (86%) reported having personally discussed results of a clinical pregnancy test with a patient in their current practice; this group was more likely to be trained in family medicine than those who reported not discussing pregnancy tests (56% vs 23%, $P<0.001$). Forty-three percent reported seeing patients seeking abortion in their current practice; this group was more likely to be trained in family medicine (66% vs 40%, $P<0.001$) and to be women (46% vs 39%, $P=0.045$) than those who reported not seeing patients seeking abortion.

Physician Opinions

Almost all believed training in options counseling for unintended pregnancy should be required (71%) or available (26%) during PCPs' residency training. Family medicine-trained physicians were significantly more likely to believe it should be required than others (81% vs 64%, $P<0.0001$) as were women (80% vs 64% for men, $P<0.0001$).

To the hypothetical case of the 22-year-old single woman with contraception failure, 81% believed physicians are obligated to present all possible options, including information about abortion, regardless of their own beliefs, 11% did not, and 8% were undecided. Sixty-nine percent believed a physician has an obligation to refer the woman to an abortion provider, 20% did not, and 12% were undecided. Women were significantly more likely to believe in such obligations than men (85% vs 77% for obligation to present options, $P=0.01$; 73% vs 65% for obligation to refer, $P=0.03$). Christians attending religious services at least twice a month were the least likely religious group to believe in such obligations (67% for options, 54% for referrals, $P<0.0001$ for both sets of comparisons among religious groups). There were no significant differences in likelihood of believing in a physician obligation to provide information or referrals by residency type (data not shown).

Options Counseling and Abortion Referrals/Dissuasion

Whether physicians reported routinely assessing desire to continue a newly diagnosed pregnancy varied slightly by the woman's profile: 61% for teenage women, 59% for women with a medically complicated pregnancy, 54% for healthy adult women with no steady partner, and 50% for healthy adult women with a steady partner.

Physicians who see patients unsure whether to continue a pregnancy more frequently offer to discuss prenatal care than the three pregnancy options (Table 2). Among physicians who see women seeking abortion but who don't provide abortions, routine referrals were reported by 62% whereas 14% reported routinely attempting to dissuade women (Table 2). Twenty-one percent routinely provided a facilitative referral.

In unadjusted analyses, physicians practicing in the Midwest and South were significantly less likely than those in other regions to report routine referrals (Table 3). Family medicine physicians were more likely to report routine options counseling but also abortion dissuasion. We note a trend whereby rural physicians were less likely to provide both routine counseling and referrals and slightly more likely to attempt dissuasion than urban/suburban counterparts, though these differences were not statistically significant.

In the multivariable analyses, family medicine-trained physicians were more likely than internal medicine physicians to provide routine options counseling (OR=1.89, 95% CI=1.21, 2.97) but were not more likely to engage in abortion dissuasion (Table 4). More years since completing medical school, identifying as a woman vs man, hospital vs private practice setting, and non-religiously affiliated vs religiously affiliated practice were all significantly associated with higher odds of routine abortion referrals. Compared with physicians reporting no religious affiliation, those reporting both a personal Christian religious affiliation and attending services at least twice a month were less than half as likely to provide routine options counseling and abortion referrals and four times more likely to engage in abortion dissuasion. Once controlling for other factors in the regression, region of the country, and the religious affiliation of practice were no longer significant predictors of dissuasion. Physicians practicing in a community health center had significantly lower odds of attempting dissuasion than those in private practice.

Reasons for Not Providing Abortion Referrals

The most common reason for not providing referrals was a personal objection to abortion, followed by not knowing abortion providers in their area (Table 5). Of the 7% (n=11) reporting a restriction on referrals in their practice, half were in religiously affiliated institutions; two were in a US Department of Defense/Veteran's

Table 2: Provision of Options Counseling and Abortion Referrals or Dissuasion Among Primary Care Physicians

	n(weighted%)
"Sometimes a woman is unsure whether she wants to continue a pregnancy. In your current primary place of practice, when counseling a woman who is unsure whether she wants to continue a pregnancy, how often do you provide the following services?" (n=572)	
Offers to discuss parenting	
Always/Most of the time	256(43.7)
Some of the time/Rarely	173(31.0)
Never	116(25.3)
Offers to discuss abortion	
Always/Most of the time	242(42.1)
Some of the time/Rarely	162(29.5)
Never	144(28.5)
Offers to discuss adoption	
Always/Most of the time	253(42.5)
Some of the time/Rarely	185(33.5)
Never	111(24.0)
Offers to discuss prenatal care	
Always/Most of the time	351(60.4)
Some of the time/Rarely	107(20.7)
Never	85(19.0)
Routine options counseling: Offers to discuss parenting, abortion, and adoption always/most of the time[1]	150(26.0)
"In your current primary place of practice, how often do you provide the following services to a patient seeking an abortion?" (n=453)	
Gives patient information about a provider who performs abortions	
Always/Most of the time	250(55.4)
Some of the time/Rarely	107(26.7)
Never	80(17.8)
Provides referral to someone else in practice who provides an abortion[2]	
Always/Most of the time	56(14.7)
Some of the time/Rarely	35(8.2)
Never	338(77.1)
Personally contacts a provider who performs abortions on the patient's behalf[2]	
Always/Most of the time	64(14.5)
Some of the time/Rarely	90(21.2)
Never	275(64.3)
Advises a patient seeking an abortion against terminating her pregnancy	
Always/Most of the time (**Routine abortion dissuasion**)	71(13.7)
Some of the time/Rarely	99(21.8)
Never	257(64.5)
Routine abortion referral: Provides at least one referral option always/most of the time	277(61.6)

Note: Participants who never see women unsure whether to continue a pregnancy or seeking abortion did not answer the first and second sets of questions, respectively. The few who report routinely providing abortion themselves are excluded from the abortion referrals question. Sample size within each set varies slightly due to missingness.

[1] We excluded 17 people who reported routinely advising patients against abortion because we assume they are not providing non-directive information.

[2] Defined as a facilitative referral.

Table 3. Routine Options Counseling, Abortion Referrals, and Abortion Dissuasion: Provision by Provider and Practice Characteristics

	Routine options counseling *n(weighted%)*	Routine abortion referrals *n(weighted%)*	Routine abortion dissuasion *n(weighted%)*
Years since completing medical school	*P*=0.279	*P*=0.392	*P*=0.433
0-10	21(33.3)	32(62.8)	8(13.3)
11-20	41(24.9)	72(58.5)	18(12.4)
21-30	52(28.6)	95(67.4)	20(11.3)
31+	36(21.4)	78(57.4)	25(18.0)
Type of residency training	*P*=0.002	*P*=0.692	*P*=0.021
General Internal Medicine	**42(21.4)**	83(59.7)	**12(9.0)**
Family Medicine	**103(32.2)**	183(63.6)	**54(18.4)**
Other	**2(6.7)**	8(56.9)	**5(22.3)**
Gender identification	*P*=0.113	*P*=0.036	*P*=0.088
Man	78(23.1)	**141(56.6)**	46(16.3)
Woman	72(29.2)	**136(67.3)**	25(10.7)
Religious affiliation and religiosity	*P*=0.034	*P*<0.0001	*P*<0.0001
No religion (Reference)	**28(38.3)**	**52(73.4)**	**4(7.3)**
Christian – attends services twice a month or more	**50(20.8)**	**81(42.7)**	**57(30.0)**
Christian- attends services once a month or less	**36(28.0)**	**74(74.7)**	**5(3.6)**
Other religion– attends services twice a month or more	**10(40.2)**	**14(76.1)**	**0(0)**
Other religion– attends services once a month or less	**25(24.2)**	**53(71.0)**	**5(4.7)**
Practice setting	*P*=0.335	*P*=0.157	*P*=0.297
Private primary care or multispecialty practice	97(25.7)	182(58.7)	53(14.8)
Community health center/FQHC	16(30.9)	31(73.5)	43(5.1)
Hospital	16(28.0)	27(75.9)	8(19.4)
US Department of Defense or Veterans Affairs facility	3(8.5)	8(48.6)	2(11.4)
Other	16(26.9)	27(62.4)	5(9.6)
Religious affiliation of practice	*P*=0.184	*P*<0.0001	*P*=0.007
None	128(27.5)	**248(67.0)**	**51(11.0)**
Catholic affiliation	14(22.4)	**16(32.0)**	**10(23.5)**
Other religious affiliation	7(15.2)	**12(41.4)**	**9(29.4)**
Region of practice	*P*=0.143	*P*=0.016	*P*=0.056
Northeast	32(27.8)	**66(70.4)**	9(8.5)
Midwest	41(25.6)	**67(51.8)**	26(18.1)
South	31(20.0)	**58(54.9)**	24(18.7)
West	46(32.3)	**86(69.1)**	12(9.3)
Urbanicity of practice	*P*=0.274	*P*=0.190	*P*=0.448
Urban or suburban community/city	125(27.0)	225(63.3)	52(13.2)
Rural community/small town	25(21.7)	51(54.8)	19(16.2)

Note: The n for each outcome is noted in Table 2. Sample sizes vary slightly due to missing data. P-values displayed are from Pearson design-based F test; percentages in bold indicate significant differences at the alpha=0.05 level.

Affairs institution (data not shown). Several wrote-in an additional reason: a perception that women will be able to easily find an abortion provider in their community.

Discussion

Most PCPs support including options counseling and abortion referrals in their scope of practice. More than two thirds endorsed requiring options counseling training in residency and a belief in professional obligation to provide information to a hypothetical patient about all options and a referral for abortion services if needed, even in the presence of a personal religious or moral objection. However, only a quarter reported actually providing routine counseling to women unsure whether to continue a pregnancy and one fifth never offer to discuss options, whereas 60% routinely offer to discuss prenatal care. Sixty-two percent routinely provide an abortion referral, though only 21% provide facilitative referrals and 14% routinely attempt to dissuade women from abortion.

Interventions at multiple levels are needed to address deficiencies in options counseling and abortion referrals among PCPs. Effective instruction and hands-on counseling experience in medical school and residency and during in-service training are needed. Our finding that more than 30% of PCPs do not believe in an obligation to provide abortion referrals in the context of personal objection to abortion, and that personal objection to abortion was the most commonly reported reason for not providing referrals, suggests the need for interventions to encourage PCPs to view provision of unbiased, non-directive information and referrals as their professional obligation. More broadly, even for physicians without personal objections to options counseling, reinforcement of the important role PCPs play in helping women manage unintended pregnancy is important. Such awareness-raising could help address the possibility that some of the observed deficiency in options counseling provision is due to perception that PCPs do not have such a role to play. Models for clinician training and support for options counseling and referrals exist[21,22] and should be rigorously tested and expanded.

There is also a need for institutions and professional societies to develop guidelines promoting comprehensive provision of information and referrals for women unsure whether to continue a pregnancy. Such professional society guidelines do not exist to our knowledge, despite existence of detailed options counseling and abortion referrals competencies on which they could be based[7,23] and the recognition of options counseling as a clinical best practice.[3] The second most common

Table 4. Routine Options Counseling, Abortion Referrals, and Abortion Dissuasion: Odds Ratios (ORs) From Weighted Multivariable Logistic Regression

	Routine Options Counseling OR (95% CI)	Routine Abortion Referrals OR (95% CI)	Routine Abortion Dissuasion[1] OR (95% CI)
Years since medical school	1.00(0.98-1.02)	**1.03(1.00-1.05)***	0.99(0.95-1.02)
Residency training			
General Internal Medicine (reference)			
Family Medicine	**1.89(1.21-2.97)****	1.68(0.99-2.86)	1.96(0.95-4.06)
Other	0.32(0.06-1.58)	1.33(0.38-4.66)	4.13(0.78-21.83)
Gender identification			
Man (reference)			
Woman	1.40(0.90-2.18)	**2.11(1.31-3.40)****	0.55(0.28-1.10)
Religious affiliation/religiosity[2]			
No religion (reference)			
Christian – attends services twice a month or more	**0.48(0.26-0.90)***	**0.31(0.15-0.62)****	**4.03(1.46-11.14)****
Christian- attends services once a month or less	0.71(0.36-1.41)	1.32(0.57-3.06)	0.35(0.09-1.38)
Other religion– attends services twice a month or more	1.42(0.49-4.13)	1.14(0.23-5.65)	--[3]
Other religion– attends services once a month or less	0.62(0.29-1.33)	0.99(0.42-2.34)	0.59(0.15-2.35)

(continued on next page)

Table 4: Continued

	Routine Options Counseling OR (95% CI)	Routine Abortion Referrals OR (95% CI)	Routine Abortion Dissuasion[1] OR (95% CI)
Practice setting			
Private primary care or multispecialty practice (reference)			
Community health center/FQHC	0.93(0.46-1.88)	1.58(0.64-3.86)	**0.27(0.07-0.98)***
Hospital	1.08(0.51-2.29)	**3.17(1.10-9.15)***	1.79(0.47-6.83)
US Department of Defense or Veterans Affairs facility	0.32(0.09-1.14)	0.73(0.21-2.52)	0.37(0.09-1.57)
Other	0.96(0.49-1.88)	1.00(0.49-2.05)	0.62(0.21-1.86)
Religious affiliation of practice			
None (reference)			
Catholic	0.78(0.39-1.58)	**0.27(0.11-0.66)****	1.75(0.68-4.53)
Other religion	0.52(0.20-1.36)	**0.36(0.15-0.83)***	2.36(0.62-8.98)
Region of practice			
Northeast (reference)			
Midwest	0.99(0.52-1.87)	0.78(0.36-1.66)	0.94(0.34-2.56)
South	0.70(0.37-1.33)	0.67(0.34-1.33)	1.36(0.47-3.94)
West	1.15(0.62-2.15)	1.31(0.63-2.69)	0.63(0.19-2.04)
Urbanicity of practice			
Urban or suburban community/city (reference)			
Rural community/small town	0.66(0.39-1.14)	0.70(0.36-1.38)	0.86(0.41-1.79)

*$P<0.05$

**$P<0.01$

Note: The number of participants for who each of these outcomes was applicable is noted within Table 2. Sample sizes vary slightly due to missing data for independent variables.

[1] We conducted a sensitivity analysis to determine whether removal of the 17 routine abortion dissuaders from the routine options counseling group affected the model and found that, while ORs were in the same direction in the two models, the OR for religious Christians was no longer significant at the 0.05 level (data not shown).

[2] We conducted sensitivity analyses to determine whether separating Catholics, Protestants, and other Christians into independent categories produced different results as in our main analysis all Christians were combined. For all three outcomes, ORs estimated for each individual Christian group were very similar to the overall ORs estimated for Christians combined in the main model (data not shown). For routine options counseling, only Other Christians' OR reach statistical significance at the 0.05 level; for routine abortion referrals, all were significant; for routine abortion dissuasion, only Protestants' and Other Christians' ORs were significant.

[3] Due to small cell size, unable to estimate this coefficient

Table 5. Reasons for Not Providing Abortion Referrals (n=156)

Reasons	n (%)
My practice setting has a policy specifically against discussing abortions	11(7.1)
I believe an abortion will harm my patient's health	26(16.7)
I have a personal moral or ethical objection to abortion	96(61.5)
I do not know of any abortion providers in my area	43(27.6)

Note: This question was not answered by physicians who chose from two N/A options: not encountering women seeking abortion in current medical practice (n=270) or always providing the referral (n=279)

reported reason for not providing abortion referrals in our study was not knowing where to refer, suggesting the need for institutions to develop resources for PCPs to identify nearby abortion providers.

Our findings offer clues for where to intervene. Family medicine-trained physicians were more likely to provide routine options counseling, highlighting the need for greater focus on this skill among internal medicine physicians and training programs. Identifying as female, greater years in practice, and practicing in a hospital setting were all associated with significantly higher odds of providing routine referrals in multivariable analyses, and religiously-affiliated practice setting was significantly associated with lower odds of routine referrals. Practicing in a community health center was associated with lower odds of attempting abortion dissuasion. These findings suggest the need for interventions targeting male providers, more recent graduates, PCPs in non-hospital settings who may be less able to provide referrals due to lack of onsite specialty abortion care, PCPs in private practice who are more likely than those in community health centers to attempt dissuasion, and PCPs in religiously affiliated settings who may be able to provide referrals despite facility restrictions on abortion provision.

The most consistent predictor of provider behavior was Christian religious affiliation among Christians attending services at least twice a month, demonstrating significantly lower odds of routine options counseling and abortion referrals, and higher odds of routine abortion dissuasion than those with no religious affiliation. These findings coincide with those from the Nebraska study that found that clinicians with moderate and high intrinsic religiosity had decreased odds of abortion referral[9] and suggest the need for research to better understand how religious beliefs intersect with perceptions of professional obligations to provide comprehensive information to women of reproductive age. Such research could identify effective and acceptable intervention strategies to promote provision of these services among religious physicians. Though some physicians with deeply held anti-abortion beliefs may never be willing to refer for abortion, prior research suggests many physicians who disagree with abortion are willing to do so.[24]

This study has limitations. Our estimates may be biased if there were systematic differences in unmeasured characteristics of PCPs who responded to our survey versus those who did not. If PCPs with more exposure to or interest in reproductive health were more likely than their counterparts to participate, options counseling and abortion referrals would likely be overestimated; on the other hand, if those strongly opposed to abortion were more motivated to respond than those with moderate views, options counseling and referrals would likely be underestimated. The cross-sectional nature of this study does not allow us to infer causality from the identified associations between provider/practice characteristics and practice behaviors. The relatively small numbers of PCPs of non-Christian religions in our sample necessitated collapsing other religions into a single category, which limits our ability to examine the impact of other religions on outcomes of interest.

In conclusion, PCPs have an important role in mitigating the secondary effects of unintended pregnancy and ensuring all women unsure of whether to continue a pregnancy receive the information and support they need to be able to make informed decisions and access needed health care services. This first-of-its-kind national survey highlights that PCPs routinely provide services to newly pregnant women and women seeking abortion, and overall are supportive of training around options counseling and believe in the ethical obligation of referral, though they often do not provide such services themselves. Findings suggest further avenues for research, and policy- and practice-level approaches to supporting the PCPs least likely to provide options counseling and abortion referrals in more fully incorporating these services into their practices.

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