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Obstetrician–gynecologists’ beliefs about safe-sex and abstinence counseling

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Abstract

Objective—To examine obstetrician–gynecologists’ beliefs about safe-sex and abstinence counseling.

Methods—Between October 2008 and January 2009, a survey was mailed to a national randomized sample of 1800 practicing US obstetrician–gynecologists. Study variables were agreement with 2 statements. (1) “If physicians counsel patients about safe-sex practices, the patients will be less likely to engage in risky sexual behaviors”. (2) “If physicians counsel patients about abstinence, the patients will be much less likely to engage in sexual activity”. Covariates included demographic, clinical, and religious characteristics of the physician.

Results—The response rate was 66% (1154/1760 eligible physicians). Most respondents somewhat (62%) or strongly (25%) agreed that counseling patients about safe-sex practices makes patients less likely to engage in risky sexual behaviors. Fewer agreed strongly (3%) or somewhat (28%) that counseling patients about abstinence makes patients less likely to engage in sexual activity. The belief that safe-sex counseling reduces risky behaviors was less common among males (odds ratio [OR] 0.6) and more common among immigrants (OR 2.0). Religious physicians were more likely to believe that abstinence counseling reduces sexual activity (OR 2.2–5.3).

Conclusions—Most obstetrician–gynecologists believed that counseling about safe sex is effective, and a significant minority endorsed abstinence counseling.

Keywords

Abstinence; Safe sex; Sex education; Sexually transmitted infection

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Conflict of interest

The authors have no conflicts of interest.

1. Introduction

None would challenge the principle that physicians should counsel their patients, especially regarding sexually transmitted infection (STI)—an ongoing source of much morbidity and mortality [1]. Indeed, physicians are uniquely positioned to help patients reduce their risk [2]: their specialized knowledge opens doors for educating patients about risk reduction; a confidential relationship enables patients to discuss sexual topics that they may be unwilling to discuss elsewhere; and patients are accustomed to getting advice from their physicians, often making positive changes as a result [3–6].

However, physicians disagree about the effectiveness of such counsel. Two streams of thought emerged in a recent qualitative survey among obstetrician–gynecologist physicians [7]. Some believed that patients are unlikely to be influenced by directive counseling, with 1 physician saying: “Chances are no matter how long I talk to [the patient] and tell her what I think is important, she’s still going to have sex, and she’s still going to get pregnant, and she’s still going to get sexually transmitted diseases”. Alternatively, others believed that many patients look to their physicians “for guidance [and] direction”. These physicians thought that they might influence patients who had not made up their minds or, if a patient was settled on a decision, at least prompt her to reassess her choice.

The aim of the present study was to measure the distribution of these 2 views of physician counseling in a national sample of US obstetrician–gynecologists. Special attention was paid to the religious commitments of the physicians, because religion is often pertinent to discussions about sexuality [2,8,9], and religious beliefs are known to influence the clinical practices of physicians [10,11]. Physicians’ beliefs about directive counseling in general were also considered, because sexual counseling touches on issues about the role of the physician.

2. Materials and methods

The present study of the beliefs of practicing obstetrician–gynecologists was carried out in the United States from October 15, 2008, to January 30, 2009. A confidential, self-administered questionnaire was mailed to a national, stratified, random sample of 1800 obstetrician–gynecologist physicians aged 65 years or younger. The sample was generated from the American Medical Association Physician Masterfile, a database intended to include all practicing US physicians. The sample size was selected so that a 60% response would yield a margin of error of approximately 3%. The study was approved by the Institutional Review Board of the University of Chicago.

To increase minority representation (especially minority religious perspectives), validated surname lists were used to create 4 strata [12–14]. Within each stratum, names were arranged in random order and then systematically sampled by using a random starting point. Random sampling was used to select 180 physicians with typical south Asian surnames, 225 physicians with typical Arabic surnames, 180 physicians with typical Jewish surnames, and 1215 other physicians. Each stratum was sized to yield at least 100 responses, which would provide a maximum margin of error of +10% or –10% at the 95% level of confidence (95% CI) per group.

Physicians received up to 3 separate mailings of the questionnaire: the first mailing included a \$20 bill, and the third mailing offered an additional \$30 for participation. Physicians were excluded from the final data set if they were retired, had deceased, or had an invalid address. Data were double-keyed, cross-compared, and corrected against the original questionnaire.

The primary criterion measures assessed the physicians' agreement with 2 statements. (1) "If physicians counsel patients about safe-sex practices, the patients will be less likely to engage in risky sexual behaviors". (2) "If physicians counsel patients about abstinence, the patients will be much less likely to engage in sexual activity". The response options were agree strongly, agree somewhat, disagree somewhat, and disagree strongly.

The covariates included the following religious beliefs and practices. Religious affiliation was classified as none/no affiliation, Hindu, Jew, Muslim, Catholic (including Roman Catholic, n=237; and Eastern Orthodox, n=25), Evangelical Protestant, non-Evangelical Protestant, and other (n=9 Buddhists). The importance of religion in the physician's life was categorized by 4 response options ranging from "not very important in my life" to "the most important part of my life". Attendance at religious services was categorized as never, once a month or less, and twice a month or more.

Additional covariates were demographic characteristics (gender, race, age, region, and immigration history), and clinical characteristics (board certification, membership of the American College of Obstetricians and Gynecologists [ACOG], working primarily in an academic medical center, and percentage of patients younger than 18 years). Whether the physician was married and whether they had children was also considered, because a previous study has indicated that physicians who are parents are more likely to encourage minors to remain abstinent [15].

The physicians' beliefs about directive counseling in general were included as covariates [16]. This variable was generated by asking whether physicians agreed with 4 statements. (1) When dealing with typical medical decisions, a physician should provide all relevant facts without trying to influence the patient's decision one way or another. (2) When dealing with typical medical decisions, a physician should encourage the patient to make the decision that the physician believes is best. (3) When dealing with morally controversial medical decisions, a physician should provide all relevant facts without trying to influence the patient's decision one way or another. (4) When dealing with morally controversial medical decisions, a physician should encourage the patient to make the decision that the physician believes is best.

Case weights were incorporated to account for the oversampling strategy (the design weight), and to correct for differences in response rates among the surname categories and between US and foreign medical school graduates (the post-stratification adjustment weight). Weights were the inverse probability of a person with the relevant characteristic being in the final data set. The final weight for each case or respondent was the product of the design weight and the post-stratification adjustment weight. This method of case weighting, which is widely used in population-based research [17], allows an adjustment for sample stratification and variable response rates in order to generate estimates for the population of US obstetrician–gynecologist physicians. The χ^2 test was used to examine the associations between each background variable and the physicians' beliefs about safe-sex or abstinence counseling.

Multivariable logistic regression using physicians' sex, race, age, region, immigration history, and board certification status as covariates was conducted via the survey-design-adjusted commands of Stata SE statistical software version 10.0 (Stata Corporation, College Station, TX, USA). $P < 0.05$ was considered to be statistically significant.

3. Results

The response rate was 66% (1154/1760) after 40 potential respondents who were retired or had invalid addresses were excluded. The response rate varied by sample, and between US

and foreign medical training (details described elsewhere) [16]. Post-stratification adjustment case weighting was used to account for these differences. The demographic characteristics of the respondents are reported in Table 1.

Most obstetrician–gynecologists somewhat agreed (62%) or strongly agreed (25%) that counseling patients about safe-sex practices makes patients less likely to engage in risky sexual behaviors. Far fewer obstetrician–gynecologists agreed strongly (3%) or somewhat (28%) that counseling patients about abstinence makes patients less likely to engage in sexual activity (Table 2).

Beliefs about safe-sex counseling were not associated with the physicians' religious beliefs or practices (Table 3). Notably, however, male physicians were less likely to believe that safe-sex counseling reduces risky behavior (84% of males agreed versus 91% of females; bivariate $P<0.001$; multivariate odds ratio [OR] 0.6, 95% CI 0.4–0.9). In addition, immigrants were slightly more likely than US-born physicians to believe that counseling reduces risk (92% of immigrants agreed versus 86% of US-born physicians; bivariate $P=0.03$; multivariate OR 2.0, 95% CI 1.0–3.8). None of the other characteristics was associated with beliefs about safe-sex counseling. (Multivariate analyses included sex, race, immigration history, board certification, age, region, religious affiliation, importance of religion, and attendance at religious services.)

In contrast, physicians' beliefs about abstinence counseling were strongly associated with several respondent characteristics. With respect to religion, 17% of doctors with no affiliation believed that abstinence counseling reduces sexual activity (referent), as compared with 52% of Evangelical Protestants (OR 5.3, 95% CI 2.7–10), 34% of Catholics (OR 2.7, 95% CI 1.5–4.8), and 43% of Hindus (OR 2.7, 95% CI 1.1–6.9). As compared with physicians who considered religion not important, those who considered it the most important part of their lives were more likely to believe that abstinence counseling reduces sexual activity (52% of doctors who consider religion the most important part of life agreed versus 18% of those who consider it unimportant; OR 5.0, 95% CI 3.1–8.2). Similarly, those who reported attending services 2 times a month or more were more likely than non-attenders to believe that abstinence counseling reduces sex (39% of attendees agreed versus 23% of non-attendees; OR 2.2, 95% CI 1.3–3.7) (Table 3).

Physicians who reported being more supportive of directive counseling were more likely to believe that abstinence counseling reduces sexual activity. Specifically, among those who believed that “when dealing with typical medical decisions, a physician should encourage the patient to make the decision that the physician believes is best”, 36% responded that abstinence counseling reduces sexual activity, as compared with 26% of those who disagreed with such directive counseling (bivariate $P=0.002$; multivariate OR 1.6, 95% CI 1.2–2.2). The trend was even stronger “when dealing with morally controversial medical decisions”: 41% of advocates for directive counseling believed that abstinence counseling reduces sexual activity, as compared with 28% of those who disagreed with such directive counseling (bivariate $P<0.001$; multivariate OR 1.9, 95% CI 1.3–2.7).

In multivariate analyses, believing that abstinence counseling reduces sexual activity was less common among doctors practicing in the northeast (24% agreed versus 36% of southern doctors; bivariate $P=0.03$; multivariate OR 0.5, 95% CI 0.4–0.8). It was also less common among Hispanic/Latino physicians (23% agreed versus 31% of white doctors; bivariate $P=0.07$; multivariate OR 0.4, 95% CI 0.2–0.9), and among older physicians (27% of physicians aged 46–65 years agreed versus 34% of physicians aged 25–40 years; bivariate $P=0.2$, multivariate OR 0.6, 95% CI 0.3–0.9).

In post-hoc analysis, the subgroup most likely to believe that abstinence counseling reduces sexual activity was composed of Evangelical Protestants who reported attending services twice a month or more, who said that religion is the most important part of their lives, and who were themselves parents (n=42); 29 (69%) of physicians in this subgroup agreed that abstinence counseling makes patients much less likely to engage in sexual activity.

4. Discussion

In the present national survey of US obstetrician–gynecologists, most (87%) reported believing that when physicians counsel patients about safe-sex practices, the patients are less likely to engage in risky sexual behaviors. A third (31%) reported believing that patients who are counseled about abstinence will be less likely to engage in sexual activity. Religious beliefs and practice were not associated with beliefs about safe-sex counseling, but religious physicians were more likely to believe that abstinence counseling is effective.

The endorsement of safe-sex counseling was higher in the present survey than in a survey of 268 obstetrician–gynecologists in the Washington DC area in 1993. In that study, 47.8% agreed that they could change patients' high-risk sexual practices; 66.4% agreed that counseling patients about HIV is an effective method of preventing AIDS; and 70.4% agreed that if more physicians counseled patients about sexually transmitted diseases and AIDS, then infection rates would decrease [18]. Favorable opinions about the benefits of safe-sex counseling seem to have increased over the years, possibly owing to a steady influx of physicians who have trained during the AIDS era.

Physicians' optimism about safe-sex counseling has empirical support. In a survey of Massachusetts state employees in 1996, 30%–66% of participants (depending on income level) reported having attempted behavior modifications on the basis of a physician's advice about safe sex [19]. Even among participants who reported receiving "too much advice", 80% reported practicing safer sex [19]. Furthermore, many adolescents were found to respond to sex education with safer sexual behaviors [4] and, among HIV patients receiving safe-sex counseling (in the form of motivational interviewing), half said that they were "very likely to change" owing to the intervention [5].

Men were less likely to believe that safe-sex counseling reduces risky behaviors, a finding consistent with other studies reporting gender differences in safe-sex counseling. For example, a 1991 survey of primary care physicians, including obstetrician–gynecologists, in the Washington DC area observed that female doctors were more likely to discuss HIV and STI risk factors with their patients [20]. A survey of Boston area teenagers in 1995 found that patients with female doctors were slightly more likely to want a physician to initiate discussion of sexual issues [3]. In a survey of Massachusetts state employees in 1996, participants who had women physicians reported discussing safe sex more frequently than those who had male physicians [19]. Among physicians in HIV clinics, those with a predominance of male patients were less likely to provide prevention counseling [21]. These findings point to a complex relationship between gender and clinical practices that is not easily explained, but is important to recognize.

In the present study, most physicians were skeptical that abstinence counseling would reduce patients' sexual activity. This may be fueled by recent criticisms of abstinence-only education [22], which typically involves school-, church-, or community-based programs that emphasize delaying sex until marriage and may limit discussions of birth control to statements about ineffectiveness [23]. A recent systematic review concluded that abstinence-only programs "do not effectively encourage abstinent behavior but instead are ineffective for preventing or decreasing sexual activity among most participants" [24]. On the one hand,

the National Survey of Family Growth found that 23.8% of adolescents had received abstinence-only education, but this did not decrease their likelihood of self-reported vaginal intercourse or pregnancy, or a previous STI diagnosis [23]. On the other hand, the study also revealed that comprehensive sex education (emphasizing abstinence plus safe sex) did not significantly reduce reports of vaginal intercourse (OR 0.7, 94% CI 0.49–1.02, $P=0.06$) or STI diagnosis, but it did reduce pregnancies [23].

Similarly, a Cochrane review reported that programs emphasizing abstinence plus safe sex can reduce behavioral risk factors for STIs, but there is no evidence that the programs reduce STI incidence and only limited evidence for a reduction in pregnancies [25]. Thus, the evidence supporting abstinence-only interventions is weak, and the evidence supporting abstinence plus safe-sex counseling is only slightly better. The limitations of this evidence base suggest that physicians' beliefs are not based entirely on empirical data, but are also shaped significantly by editorials, commentaries, and personal convictions.

Physician religiosity plays a complex role in beliefs about the effects of safe-sex and abstinence counseling. The present study, which did not find an association between physician religiosity and beliefs about safe-sex counseling, differs from a survey of US medical students in 2008, which found that students with a very strong religious identity were more likely to consider safe-sex counseling highly relevant to their intended practices, and were more likely to counsel a typical general medicine patient about safe sex [2]. An explanation for our finding is that obstetrician–gynecologists might be more uniform in their support for safe-sex counseling than physicians from other specialties. Our other finding—that religious physicians were more likely to believe abstinence counseling reduces sexual activity—parallels both studies showing, for instance, that adolescents from religious families tend to initiate sexual activity at an older age [8], and studies showing that weekly attendance at religious services is associated with virginity in adults aged 25–45 years [9]. A possible explanation is that patients and physicians might self-aggregate according to religious beliefs or social values, with the result that physicians who counsel patients to delay sexual activity see more patients who are likely to adhere to the advice.

Among the study respondents, there was an association between endorsing a directive approach to patient counseling and believing that abstinence counseling reduces sexual activity. This suggests that some physicians—irrespective of their religious commitments or demographic backgrounds—conceive their role as promoting a clinical or moral good that the patient may not have even considered (or chosen) without the physician's direction.

The following limitations of the study should be mentioned. The survey questions did not specify the content of each type of counseling. Some physicians might counsel more effectively than others, and varying patient populations might respond differently to counseling. Only obstetrician–gynecologist physicians were surveyed. Lastly, the response rate was strong, but non-responder bias might influence the results.

In summary, obstetrician–gynecologists were found to have various views on the effectiveness of physician counseling. Their views vary depending on the topic being discussed and on the personal beliefs that they bring to the table.

Synopsis

Most obstetrician–gynecologists reported believing that safe-sex counseling reduces risky sexual behaviors. Some reported believing that abstinence counseling makes patients less likely to have sex.

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Table 1**Respondent characteristics**

	Data^{b, c}
Sex	
Female	537 (47)
Male	617 (53)
Race	
White	774 (69)
Black	67 (6)
Asian	202 (18)
Hispanic	64 (6)
Other	22 (2)
Age, years	47.8 ± 9.2 (26–65)
Age range, years	
25–40	291 (25)
41–47	305 (26)
48–55	281 (24)
56–65	277 (24)
Region	
South	373 (32)
Midwest	249 (22)
Northeast	288 (25)
West	242 (21)
Immigration history	
US born	817 (72)
Immigrated to US	323 (28)
Medical training	
US medical graduate	932 (81)
International medical graduate	222 (19)
Religious affiliation	
No affiliation	119 (11)
Hindu	91 (8)
Jew	160 (14)
Muslim	54 (5)
Catholic/orthodox	262 (23)
Evangelical Protestant	91 (8)
Non-Evangelical Protestant	300 (27)
Other religion	48 (4)
Importance of religion	
Not at all important	272 (24)
Fairly important	321 (28)
Very important	385 (34)

	Data ^{b, c}
Most important thing	57 (14)
Attendance at services	
Never	123 (11)
≥1 a month	547 (48)
≥2 a month	466 (41)
Clinical/personal characteristics	
ACOG member	1052 (92)
Board certified	963 (83)
Practice primarily in academic medical center	305 (27)
Parent	973 (86)
Married	965 (84)
≥10% weekly patients <18 years	678 (61)

Abbreviation: ACOG, American College of Obstetricians and Gynecologists.

^a Values are given as mean ± SD (range) or number (percentage).

^b Responses were not adjusted for survey design.

^c Percentages may not sum to 100% owing to rounding error.

Table 2

Obstetrician–gynecologists' beliefs about safe-sex and abstinence counseling

	Number (percentage) ^a
If physicians counsel patients about safe-sex practices, the patients will be much less likely to engage in risky sexual behaviors	
Agree strongly	308 (25)
Agree somewhat	699 (62)
Disagree somewhat	123 (11)
Disagree strongly	18 (2)
If physicians counsel patients about abstinence, the patients will be much less likely to engage in sexual activity	
Agree strongly	41 (3)
Agree somewhat	315 (28)
Disagree somewhat	484 (43)
Disagree strongly	308 (26)

^aPercentages are adjusted for survey design and reflect estimates of the population of all US obstetrician–gynecologist physicians.

Table 3

Obstetrician–gynecologists' beliefs about counseling according to religious beliefs and practices

	Agree that counseling about safe sex reduces risky behaviors			Agree that counseling about abstinence reduces sexual activity		
Religious affiliation	n (%)	p ^a	Odds ratio (95% CI) ^b	n (%)	p ^a	Odds ratio (95% CI) ^b
No affiliation	98 (82)	0.5	1.0 referent	20 (17)	<0.001	1.0 referent
Hindu	85 (92)		1.8 (0.4–8.5)	37 (43)		
Jew	137 (87)		1.8 (0.8–3.9)	26 (18)		1.2 (0.6–2.4)
Muslim	49 (93)		2.2 (0.6–7.5)	19 (33)		2.1 (0.8–5.3)
Catholic/Orthodox Christian	231 (89)		1.4 (0.7–2.9)	86 (34)		2.7 (1.5–4.8)
Evangelical Protestant	76 (84)		1.3 (0.6–3.0)	48 (52)		5.3 (2.7–10.5)
Non-Evangelical Protestant	262 (88)		1.5 (0.8–2.9)	89 (29)		2.0 (1.1–3.5)
Other religion	45 (91)		2.0 (0.6–7.0)	18 (34)		2.5 (1.0–6.1)
Importance of religion						
Not at all important	231 (84)	0.2	1.0 referent	49 (18)	<0.001	1.0 referent
Fairly important	281 (87)		1.4 (0.8–2.4)	100 (30)		1.9 (1.2–3.0)
Very important	347 (90)		2.0 (1.1–3.4)	122 (32)		2.2 (1.4–3.4)
Most important	133 (86)		1.3 (0.7–2.4)	76 (52)		5.0 (3.1–8.2)
Attend services						
Never	106 (86)	0.7	1.0 referent	28 (23)	<0.001	1.0 referent
≤1 a month	477 (87)		1.1 (0.6–2.2)	138 (24)		1.1 (0.7–1.9)
≥2 a month	410 (88)		1.3 (0.7–2.5)	181 (39)		2.2 (1.3–3.7)

^a *p* values reflect the bivariate association between background characteristics and beliefs about safe-sex or abstinence counseling.^b Results of multivariate logistic regression. Analysis includes sex, race, immigration history, board certification, age, and region.