California Parents' Preferences and Beliefs Regarding School-Based Sex Education Policy

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CONTEXT: *Policy debates over the merits of abstinence-only versus comprehensive approaches to sex education are ongoing, despite well-documented public support for comprehensive sex education. Although parents are key stakeholders in the outcomes of these debates, their views have been less thoroughly considered.*

METHODS: *A random digit dial survey of 1,284 California parents was conducted in 2006. Parents were asked about their sex education policy preferences, the importance of teaching selected topics at different grade levels and reasons for their preferences. Cross-tabulations and odds ratios were used to assess regional and other subgroup differences.*

RESULTS: *Overall, 89% of parents reported a preference for comprehensive sex education, and 11% for abstinence-only education. Support for comprehensive sex education was high in all regions (87–93%) and across all subgroup characteristics: race or ethnicity (79–92%), age (86–94%), education (84–93%), household income (87–92%), religious affiliation (86–91%), religious service attendance (69–96%) and ideological leaning (71–96%). Four types of reasons for preferences emerged: those focused on the consequences of actions, on the importance of providing complete information, on the inevitability of adolescents' engaging in sex and on religious or purity-based morality concerns. While 64% of abstinence-only supporters cited the last type (absolutist reasons), 94% of comprehensive sex education supporters cited one of the first three (pragmatic reasons).*

CONCLUSIONS: *The high levels of support for comprehensive sex education across California's diverse regions and demographic subgroups suggest that such support may be generalizable to communities and school districts both in California and around the country. Furthermore, ideological differences might be less important to the sex education debates than the distinction between pragmatic and absolutist perspectives.*

Perspectives on Sexual and Reproductive Health, 2007, 39(3):167–175, doi: 10.1363/3916707

Ongoing and sometimes rancorous policy debates at the federal, state and local school district levels focus on the relative merits of sex education that teaches abstinence-only until marriage versus approaches that include instruction on contraception and protection against STDs for students who do become sexually active. At the same time, widespread support for including information on contraception and STD protection in sex education curricula has been documented among American adults, voters, parents, students, teachers and health professionals, nationally and in diverse regions of the country.[1–6] Despite such support, much of the sex education provided by American schools is minimal and fragmented, with essential topics often omitted or inaccurately presented, especially those related to methods of contraception and STD protection for sexually active youth.[7–10]

The California Education Code supports the inclusion of contraception and STD protection in sex education curricula, yet implementation at the local school district level remains challenging. This study assesses sex education preferences among California parents—a critical and understudied population of potentially influential stakeholders.

BACKGROUND

The phrase "comprehensive sex education" is commonly used in policy debates and by the media to distinguish approaches that cover contraception and protection from those that strategically omit these topics. A more expansive definition of comprehensive sex education includes three key components: It provides complete, accurate, positive and developmentally appropriate information on human sexuality, including the risk reduction strategies of abstinence, contraception and STD protection; it promotes the development of relevant personal and interpersonal skills; and it includes parents or caretakers as partners with teachers.[11]

Although most American students receive some type of sex education by the time they leave high school,[4] only about 5–10% receive complete and high-quality comprehensive sex education.[11,12] Instead, largely because of federal funding policies over the last decade, a growing proportion of students have been receiving education that stresses abstinence-only until marriage, and omits medically accurate and developmentally appropriate reproductive health information.[13–15]

A national survey found that although 89% of secondary school students receive sex education at least once in school, only 68% receive information on how to use condoms correctly.[4] About half of the students surveyed wanted to know more about HIV (47%), other STDs (50%), what to do in cases of rape or sexual assault (55%), how to deal with the emotional consequences of being sexually active (55%), how to talk to a partner about birth control and STDs (46%), and how to use and where to get birth control (40%). Fifty-three percent were aware that having an STD can increase the risk of getting HIV if one is sexually active—about the proportion that would be expected if every student simply guessed the answer.

Given the scarcity of comprehensive sex education in American classrooms, one might think that Americans do not support such education. Yet opinion surveys and other studies have consistently shown widespread public support: Eighty-two percent of U.S. adults in a nationally representative survey conducted in 2005 supported teaching about both abstinence and protection from pregnancy and STDs, and 69% supported teaching about the proper use of condoms.[3] A 1999 nationally representative survey reported that 92% of Americans supported teaching about condoms in high school;[4] another national survey from the same year found that 90% of adults thought condom use was an appropriate subject for 11th and 12th graders, and 58% thought this was appropriate for seventh and eighth graders.[16] Other national and state-level surveys have reported similar results.[1,2,6] Although parents have been polled less frequently than the general adult population, a 2003 representative survey of North Carolina parents found that 89% supported comprehensive sex education.[5]

This public support has a strong professional grounding. Most mainstream education, health and medical associations have formally endorsed school-based comprehensive sex education, including the Society for Adolescent Medicine, the American Medical Association, the National Association of School Nurses, the American Psychological Association and the American School Health Association.[17–21]

California's Sex Education Policy

The federally funded abstinence-only-until-marriage grant program, Section 510 of Title V of the Social Security Act, prohibits instruction in or promotion of the use of contraceptive methods.[22,23] California is the only state to have consistently opted out of the program since its inception in 1996 (eight other states have subsequently opted out).

The Section 510 funding program is in direct conflict with the California Comprehensive Sexual Health and HIV/AIDS Prevention Education Act of 2003. This act, codified as sections 51930–51939 of the California Education Code, mandates that if a district chooses to provide sex education, these classes must commence by seventh grade and be age-appropriate, factual, medically accurate and objective, and must cover abstinence as well as all contraceptive and STD prevention methods approved by the U.S. Food and Drug Administration. Furthermore, these requirements apply to HIV and AIDS prevention education, which is mandated for all students at least once in both middle school and high school.

According to a 2005 survey by the California Department of Health Services' Office of AIDS, 85% of the state's adults support comprehensive sex education in public schools, whereas 10% support abstinence-only education.[6] Another 2005 California survey found that 78% of adults think sex education programs should teach about abstaining from sexual activity and how to obtain and use condoms and contraceptives.[2] This survey also found that 91% of adults feel that having sex education as part of the school curriculum is somewhat or very important. These findings are supported by a 2003 survey of California school districts, which showed that only a small proportion of parents opt out of classes for their 6th–12th-grade children.[7] Seventy percent of districts surveyed reported an opt-out rate of no more than 1%, and 93% of districts reported an opt-out rate of no more than 5%.

In spite of model legislation and high levels of public support for the comprehensive approach, California schools still have not widely implemented such programs. Although 94% of the middle and high schools sampled in the school district survey reported providing sex education or STD prevention education, 88% violated one or more provisions of the state sex education code, and 48% did not cover all required topics.[7] California Department of Education staff have found similar violations during compliance review visits with individual school districts.[24] One justification they have frequently heard for the omission of key aspects of the mandated comprehensive sex education is fear of community opposition, together with the belief that state and national surveys showing high levels of support are not applicable to a district's unique community. This justification is consistent with concerns and beliefs reported by community stakeholders, including parents and health and education professionals. In a series of focus group interviews, these stakeholders overwhelmingly supported comprehensive sex education, yet most participants reported feeling intimidated by actual or anticipated challenges involved in bringing such education to their school districts.[25]

The present analysis examines the breadth, depth and motivational determinants of sex education preferences and beliefs among parents. Because of the size and diversity of California, this study was designed to allow for regional and subgroup estimates of parents' preferences, beliefs and feelings. The aim is to provide information that will be useful to policymakers involved in reviewing and developing state and local sex education policy, as well as to contribute to the sparse literature on parental preferences and beliefs regarding sex education.

METHODS

The survey questions and sampling plan were developed between fall 2005 and spring 2006. The survey instrument and protocol were reviewed by the Public Health Institute's institutional review board and declared exempt. The protocol for obtaining informed consent followed standard practice for telephone surveys.

Interviewers were trained in spring 2006. Two rounds of pilot testing were conducted to assess and improve question wording and interviewer performance. This involved audio recording of 18 pilot interviews, each of which was reviewed by two researchers, who assessed potential issues in question presentation, follow-up and comprehensibility. Some questions were subsequently reworded or eliminated, and additional training was provided to interviewers as necessary. Data collection took place in the spring and summer of 2006, during which supervisors and study staff monitored interviewers and provided further feedback.

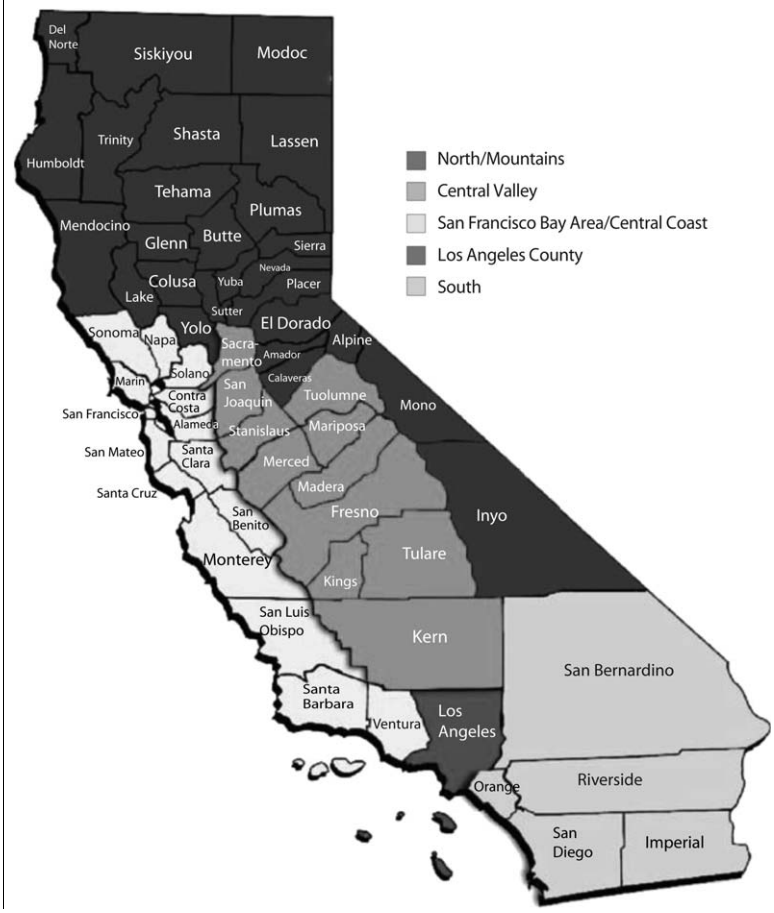
Sampling

We conducted a list-assisted, random digit dial survey of California parents. The sample was derived from the population of all households in California, and was classified into five regions consisting of groups of contiguous counties organized by demographic similarity (North/Mountains, Central Valley, San Francisco Bay Area/Central Coast, Los Angeles County and South—Figure 1). The person answering the phone was asked the numbers of adults and children in the household; if a child aged 18 or younger answered, the interviewer asked the youngster to identify a parent in the household. If a parent was available, he or she was read the informed consent script and then invited to participate. Follow-up appointments were made if the respondent was unable to complete the interview at that time. Initial calls were conducted in English; Spanish-speaking interviewers called back respondents who spoke Spanish. At least 10 calls were made to consistently unanswered or busy phone numbers and answering machines.

A total of 1,284 parents completed interviews. An overall household response rate of 53% was calculated using the RR3 method of the American Association for Public Opinion Research.[26] This method divides the number of completed interviews by the estimated number of eligible households called, which is estimated by a formula involving known eligible and ineligible households, and those of unknown eligibility. Phone numbers with follow-up calls not yet completed when a region's quota was reached were not included in the calculations. Our response rate is near the maximum that can be expected for rigorous large-scale random digit dial surveys, in which nonresponse bias is typically minimal.[27,28]

To enhance statistical efficiency for estimates within each region, sampling rates were higher for the smaller regions. To compensate for the resulting difference in selection probabilities, we used stratum weights in all statewide analyses that pooled data across regions. The resulting design effect attributable to weighting was minimal (1.13). For statewide estimates (N=1,284), 95% confidence intervals were plus or minus 2–3 percentage points; for regional estimates (N=253–262), plus or minus 5–6 percentage points. Confidence intervals for subgroup estimates were larger.

FIGURE 1. California regions (and component counties) as defined in a survey of parents' opinions about sex education, 2006



Measurement and Analysis

The primary survey question asked about a respondent's preference for sex education policy: "What do you think teenagers should be taught in sex education classes? (a) *only* about abstinence, that is, not having sex until marriage, (b) *only* about how to prevent pregnancies and the spread of sexually transmitted infections if they do decide to have sex, (c) *both* about abstinence *and* about how to prevent pregnancies and the spread of sexually transmitted infections if they do decide to have sex." We refer to these options as abstinence-only, protection-only and abstinence-plus-protection, respectively.

For most of our analyses, we combined the protection-only and abstinence-plus-protection categories into one called comprehensive sex education. This categorization is consistent with the key policy debate distinction of

TABLE 1. Percentage distribution of survey respondents, by selected characteristics, California, 2006

Characteristic	% (N=1,284)
Region	
North/Mountains	9.3
Central Valley	13.0
Bay Area/Central Coast	25.2
Los Angeles County	26.9
South	25.6
Gender	
Female	74.8
Male	25.1
Missing	0.1
Age	
≤29	17.1
30–39	33.9
40–49	33.4
≥50	15.1
Missing	0.5
Race/ethnicity	
Hispanic	45.7
White	38.2
Asian	6.2
Black	4.7
Other	4.1
Missing	1.2
Language of interview	
English	67.3
Spanish	32.6
Missing	0.1
Education	
<H.S. graduate	17.5
H.S. graduate/GED	28.1
Some college	17.4
College graduate	21.5
Graduate school	15.2
Missing	0.3
Household income	
<$20,000	15.8
$20,000–39,999	18.8
$40,000–59,999	11.7
Household income (cont.)	
$60,000–99,999	18.1
≥$100,000	19.9
Missing	15.7
Place of birth	
United States	53.8
Mexico	30.2
Other Central/South American country	5.4
Asia	5.7
Europe	1.8
Other	2.4
Missing	0.6
Religious preference	
Catholic	44.8
Protestant	12.6
Other/unspecified Christian	20.7
Other	5.9
None	14.1
Missing	1.8
Born-again/evangelical Christian	
Yes	19.0
No	79.2
Missing	1.8
Religious service attendance	
Rarely/never	28.7
Few times a year	17.2
1–3 times a month	16.8
Once a week	24.8
>once a week	10.9
Missing	1.6
Ideological leaning	
Very conservative	11.2
Somewhat conservative	25.9
Moderate	27.1
Somewhat liberal	16.7
Very liberal	7.3
Missing	11.8
Total	100.0

Note: Percentages are weighted.

including versus excluding instruction about how to prevent pregnancy and the spread of STDs for students who become sexually active. The simplified definition yields a dichotomous variable (comprehensive vs. abstinence-only sex education), which is amenable to odds ratios and other types of categorical analyses.

Survey questions also assessed the importance of teaching about specific topics (regarding dating relationships, attitudes about sexuality, sexual intercourse, contraception and STD protection) at different grade levels. Other precoded questions asked how strongly parents felt about their overall policy preference and how important this preference was in their decisions of whom to vote for in school board elections. An open-ended question asked about the reasons for the stated policy preference.

Quantitative analyses were performed using SPSS 12.0. Cross-tabulations and odds ratios were used to assess regional, racial and ethnic, and other potential subgroup differences; statistical significance was determined by Pearson's chi-square test. (For expected frequencies of fewer than five, we used Fisher's exact test or, if computational limits were reached, the Monte Carlo approximation.) Subgroups with fewer than 25 parents were collapsed into other groups as appropriate. To assess the relationship between membership in each social or demographic subgroup and preference for comprehensive sex education, we calculated unadjusted odds ratios using each subgroup as a dichotomous variable. An alpha level of .05 was used to evaluate statistical significance, and only statistically significant odds ratios are reported.

Qualitative analytic methods were used for the open-ended question on parents' reasons for their preference, and involved open coding of data to develop substantive categories. The first and third authors each independently coded a sample of 100 responses across the three policy preference categories. Differences were discussed and

resolved, and a coding dictionary was developed. The third author then coded the remainder of the responses, and the first author reviewed these codes; any differences were resolved by the two coders.

RESULTS

Respondent Characteristics

A majority of the 1,284 sampled parents were female (75%) and aged 30–49 (67%—Table 1). The largest racial or ethnic subgroups were Hispanic (46%) and white (38%); 67% of interviews were conducted in English, and 33% in Spanish. Twenty-eight percent of parents had earned a high school diploma or GED, and 37% had at least a college degree. Household income varied; 35% reported income of less than $40,000, and 38% reported $60,000 or more. A majority of parents were born in the United States, and 30% were born in Mexico. Catholics made up 45% of the sample, and 19% of parents identified as born-again or evangelical Christians. A quarter of parents reported attending religious services once a week, and one in 10 attended more often; nearly three in 10 attended rarely or never. Thirty-seven percent of parents identified themselves as somewhat or very conservative, 27% as moderate and 24% as somewhat or very liberal.

Support for Comprehensive Sex Education

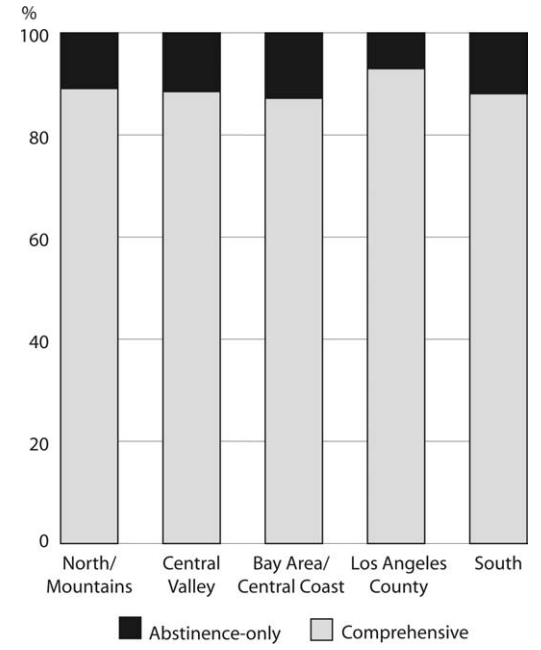
•*Breadth.* Overall, 82% of the sample reported a policy preference for abstinence-plus-protection sex education, 7% for protection-only and 11% for abstinence-only. Thus, 89% supported comprehensive sex education.

Levels of support for comprehensive sex education were uniformly high across regions (87–93%), differing only within the expected range of random sampling error (Figure 2). In addition, large proportions of parents from all racial or ethnic groups preferred comprehensive sex education: 92% of whites, 90% of Hispanics, 89% of blacks, 82% of Asians and 79% of parents identified as other (not shown). Asian parents had reduced odds of supporting comprehensive sex education compared with all other parents (0.5), and parents identified as being of other ethnicity had reduced odds compared with everyone else (0.4).

Parents in all age-groups showed high levels of support for comprehensive sex education (86–94%); the highest level of support was among those younger than 30, and they were more likely than older parents to express such support (odds ratio, 2.0). Similarly, respondents of all education levels preferred the comprehensive approach (84–93%): The lowest level of support was found among parents with less than a high school education, and they were less likely than other parents to prefer this approach (0.5). Support for comprehensive education did not vary significantly across income levels (87–92%).

The level of preference for comprehensive sex education did not differ between born-again or evangelical Christians and others (86% vs. 91%), and it showed little variation by frequency of attendance at religious services.

FIGURE 2. Percentage distribution of respondents, by type of sex education they support, according to region



High proportions of respondents who rarely or never attended and those who attended 1–3 times a month preferred the comprehensive approach (95–96%), and these subgroups were more likely than others to prefer this approach (odds ratios, 3.8 and 2.8, respectively). Although both those who attended religious services once a week and those who attended more than once a week were predominantly supportive of comprehensive

FIGURE 3. Percentage distribution of respondents, by type of sex education they support, according to ideological leaning

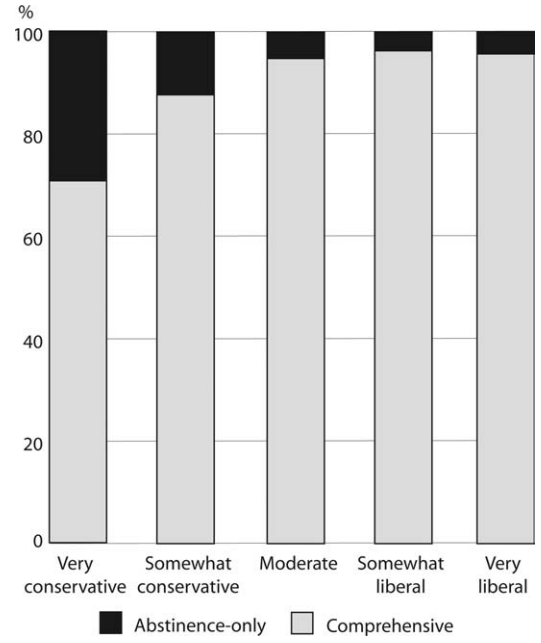


TABLE 2. Percentage distribution of respondents, by their rating of the importance of teaching selected sex education topics at different school levels

Topic and importance	Middle school (N=620)	High school (N=663)
Having a healthy and positive relationship with someone a teenager is dating***		
Very important	74.6	85.4
Somewhat important	15.0	11.2
Not important	7.8	2.9
MIssing/don't know	2.6	0.5
Avoiding dating relationships***		
Very important	48.2	34.2
Somewhat important	30.6	29.7
Not important	20.3	34.7
MIssing/don't know	0.9	1.4
Developing healthy and positive attitudes about sexuality		
Very important	77.1	80.4
Somewhat important	16.0	13.9
Not important	5.5	5.0
MIssing/don't know	1.4	0.7
Avoiding sexual intercourse***		
Very important	85.2	71.3
Somewhat important	11.8	22.8
Not important	3.1	5.4
MIssing/don't know	0.0	0.5
Avoiding pregnancy and STDs if sexually active		
Very important	93.5	94.0
Somewhat important	3.5	4.4
Not important	2.1	1.1
MIssing/don't know	0.9	0.5
Total	100.0	100.0

***Distributions are significantly different at p<.001.

education (84% and 69%, respectively), they were less likely than others to prefer such education (0.5 and 0.2, respectively).

Levels of support for comprehensive sex education were also high among all ideological subgroups (Figure 3, page 171): Very conservative parents expressed the least support (71%), followed by those who were somewhat conservative (88%), while those who were moderate to very liberal expressed the most support (95–96%). Very conservative parents were less likely than others to prefer the comprehensive approach (odds ratio, 0.2), whereas both moderate and somewhat liberal parents were more likely than others to prefer this approach (2.5 and 3.4, respectively).

•*Depth.* Large majorities of both abstinence-only and comprehensive sex education supporters (94% and 80%, respectively) reported having very strong or extremely strong feelings about the issue. Similarly, large majorities (91% and 69%, respectively) considered this issue very or extremely important in their decisions regarding school board elections. On average, abstinence-only supporters reported stronger feelings about the issue and its importance as a voting issue than did supporters of comprehensive sex education; however, because of the much greater proportion of the latter in the sample, the majority of these strong feelings were associated with support for the comprehensive approach. Almost three-quarters of respondents preferred comprehensive sex education and rated their feelings as extremely strong or very strong, and nearly two-thirds preferred such education and felt that this was an extremely or a very important voting issue.

In addition, respondents rated the importance they attributed to the teaching of selected sex education topics; parents were randomly asked about instruction in either middle school or high school. Most parents thought teaching about avoiding pregnancy and STDs was very important (94%), with no variation between school levels (Table 2). A large majority of parents also thought teaching about avoiding sexual intercourse (85% and 71%, respectively) and having a healthy and positive relationship with a dating partner (75% and 85%, respectively) was very important at the middle school and high school levels; lower proportions of parents thought the topic of avoiding dating relationships was very important at either of these levels (48% and 34%, respectively).

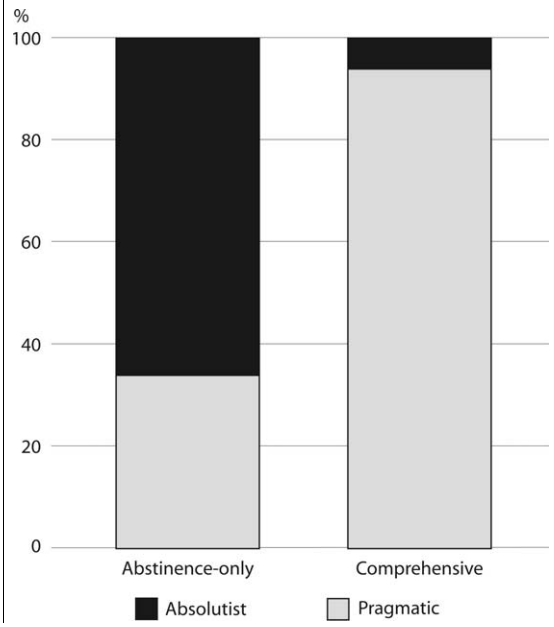
Respondents also indicated the earliest school level at which they thought selected topics should be taught. Although support for the teaching of various topics depended on school level, at least 96% of parents thought that most of the topics—including contraception and STD protection, as well as abstinence—should be taught by the time students are in high school (Table 3). Fourteen percent of parents completely opposed teaching about homosexuality; this opposition ranged from 8% in Los Angeles County to 23% in the North/Mountains region (not shown). We also found regional differences in support for teaching specific topics at the elementary school level; for example, only 8% of parents from the South versus 20% from the Central Valley thought it was appropriate to teach about STDs at this level.

Although 11% of surveyed parents reported a preference for the abstinence-only approach, only 4% said that "information about birth control pills, condoms and other types of protection, and their role in preventing pregnancy and sexually transmitted infections" should not be taught at any school level.

TABLE 3. Cumulative percentage of respondents, by school level at which they believe sex education topics should be taught

Topic	Elementary school	Middle school	High school	Not at all
Reproductive facts	44.4	90.9	98.5	0.9
Puberty changes	44.5	93.8	98.5	0.6
Importance of responsible relationships	17.3	68.8	97.4	1.9
Sexual decision making	16.8	70.9	96.8	2.4
Pregnancy and childbirth	12.5	65.4	97.0	2.8
Parenting responsibilities	13.8	58.8	97.6	2.2
Abstinence	18.1	80.5	96.6	2.6
Contraception and STD protection	9.4	67.4	95.8	3.7
STDs	12.9	73.9	98.9	1.0
Sexual abuse and assault	40.5	79.1	99.1	0.5
Homosexuality	18.0	60.8	84.3	13.7

FIGURE 4. Percentage distribution of respondents, by type of reason given for sex education preference, according to preference



Reasons for Policy Preference

We identified four clusters of reasons for parents' stated policy preferences. The first cluster comprised reasons that referred to the positive consequences of the preferred approach or to the negative consequences of the approach that was not preferred (e.g., "Because abstinence can help them avoid diseases, it's better that they wait" and "It is important that they know all the information so that they can protect themselves from disease"). The second cluster consisted of reasons that focused on the importance of providing full and complete information to adolescents (e.g., "Because information is power, they'll be able to make better-informed decisions" and "They should know both sides, both views, so they can be prepared for anything"). The third cluster encompassed reasons that referred to the inevitability of adolescents' eventually having sex (e.g., "You can teach abstinence, but human nature says they will sooner or later have sex anyway" and "You can't stop kids from having sex"). The final cluster included reasons based on approval or disapproval of actions, often with reference to religious beliefs or moral principles, but without any mention of potential consequences (e.g., "Because of my philosophy of life–I get it from the Bible–there is a moral absolute, and in my mind abstinence is right" and "It's up to the parents to talk about abstinence, and schools shouldn't be involved. That is a moral deal, and schools should teach only facts, not morals").

We combined the first three clusters of reasons into a category labeled "pragmatic," whereas the final cluster was labeled "absolutist." Overall, 88% of parents gave pragmatic reasons. Parents who preferred comprehensive sex education overwhelmingly provided pragmatic reasons (94%), while the majority of parents who preferred abstinence-only education provided absolutist reasons (64%–Figure 4).

DISCUSSION

Consistent with previous national and state-level studies on this topic,[1–6] this study found that a substantial majority of California parents surveyed preferred approaches to sex education that included instruction on how to prevent pregnancies and the spread of STDs for students who decide to have sex. This support was high across all regions of the state, and across all subgroups examined. Furthermore, 96% of parents supported teaching about birth control pills, condoms and other types of protection by the time students were in high school. An equally large majority supported teaching about abstinence.

These findings show that survey respondents overwhelmingly supported approaches that were consistent with the state's education code on the provision of sex education. At the same time, they were nearly unanimous in opposing key components of the federal funding program that requires the teaching of abstinence-only until marriage and prohibits instruction in or promotion of the use of contraceptive methods, regardless of grade level.[22,23]

This survey found uniformly high levels of support for comprehensive sex education across the state's five regions, which exhibit considerable political and demographic variability. This finding, combined with the strong feelings and voting behavior considerations reported by parents, should allay the fears of some school districts that have not complied with the education code[24] partly because of the perception that high levels of support for sex education are limited to large coastal metropolitan areas. The uniform support across regions–along with the high levels of support across categories of race and ethnicity, age, household income, education, religious service attendance and ideological leaning, as well as self-identification as a born-again or evangelical Christian–demonstrates the breadth of support for comprehensive sex education in California, and the generalizability of these results to geographically and demographically diverse areas.

The popular sociological literature reinforces a common belief that the sex education debates largely involve a clash between conservatives and liberals.[29,30] For example, sociologist Kristin Luker describes abstinence-only education supporters and activists as conservatives with religious-based opposition to sex outside of marriage, while describing comprehensive sex education supporters as hedonistic liberals having mostly factual concerns about sexual behavior.[30] Luker's distinction might be viewed as representing a conflict between absolutist values (protected, trade-off–resistant, deontological values based on rules concerning behaviors) and pragmatic values

(negotiable values focused on outcomes and subject to value trade-offs to achieve the best results).

The finding that 64% of abstinence-only supporters gave absolutist reasons for their support is not inconsistent with Luker's view. Nevertheless, high levels of support for comprehensive sex education among parents who identify themselves as very conservative (71%) or as born-again or evangelical Christian (86%) reveal limitations in equating religious conservativism with abstinence-only support. At the same time, the finding that 88% of the full sample, including more than a third of abstinence-only supporters, claimed that their policy preference was based on pragmatic rather than absolutist considerations further challenges the proposition that the sex education debates are best characterized as a clash between religious conservatives and hedonistic liberals, suggesting instead the importance of the absolutist versus pragmatic distinction.

Limitations

We note several limitations associated with this research. The concepts and components of comprehensive sex education and abstinence-only education are challenging to describe in survey questions intended for parents of varying backgrounds. Some parents may have misunderstood these questions. Nevertheless, the consistency of our results across regions and subgroups, as well as with other national and state-level surveys of this type, suggests an acceptable level of reliability and validity among responses.

Our decision to combine the protection-only and abstinence-plus-protection groups into the larger category of comprehensive sex education allowed us to mirror the key issue in the policy debates on this topic—whether to teach about methods of contraception and STD protection. We recognize that including protection-only in the comprehensive category is inconsistent with some definitions of comprehensive sex education, which include abstinence instruction as part of a comprehensive approach. However, we believe that our grouping is consistent with the common use of these terms by policymakers and the general public.

In taking advantage of the efficiency and power of a large telephone survey, we collected the open-ended responses with a minimum of probing and follow-up questioning. We recognize that self-reported reasons for preferences might not provide a complete and unbiased explanation of the various factors that have influenced these preferences. In-depth questioning and probing about these topics with a smaller sample might provide additional useful information and insights. Furthermore, because moral judgments frequently arise from automatic cognitive and affective processes,[31] some of the pragmatic reasons provided for preference choices may actually have been post hoc justifications for intuitively derived moral judgments. If so, the incidence of absolutist motivation would be higher than reported. Further research employing responses to randomized comparisons of controlled sex education scenarios might help clarify this question.[32]

The fact that three-quarters of the interviewed parents were mothers may have biased our results if their views differed systematically from fathers' views. However, we tested differences between mothers' and fathers' preferences and other beliefs, and none were statistically significant. For example, 89% of mothers and 88% of fathers preferred comprehensive sex education.

A further limitation is that California parents speak many languages, but resource constraints limited our interviews to English and Spanish. Thus our findings are not representative of the full parent population in California, and might underrepresent Asian American parents. Yet many surveys of this type are conducted only in English,[1,3–5] and we conducted one-third of our interviews with parents who preferred to or who could only speak Spanish.

Conclusions

The findings of this study have potentially important policy implications. The breadth, depth and motivational determinants of support for comprehensive sex education found among California parents can inform future discourse on several major policy initiatives in California. These include the state's legislated comprehensive sex education standards, its large investment in supporting teenage pregnancy prevention programs that include comprehensive sex education and its decision to sacrifice millions of dollars of federal funding each year available through the Section 510 abstinence-only-until-marriage program.

These findings also should be illuminating to the school boards and administrators who are responsible for local school districts' compliance with California's comprehensive sex education code. In particular, this study addresses potential concerns about whether the broad support for comprehensive sex education found in national and statewide surveys is generalizable to specific communities, as well as concerns about the depth of feeling and the importance as a voting issue among supporters of comprehensive sex education. Similarly, states and school districts around the country can be informed by the consistency of the various aspects of support for comprehensive sex education found across California's diverse regions and demographic subgroups.

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Acknowledgments

This study was funded by a grant from The California Wellness Foundation. Additional funding was provided by the W.T. Grant Foundation. The authors thank Paul Gibson, Chris Berry, Carmen R. Nevarez, Mike Miller, Wendy L. Constantine, Veronica Raymonda, Gerald Sumner, Michael Kupkowski and the California Adolescent Sexual Health Work Group for consultation and review. Survey data were collected by Quantum Market Research.

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