



Original article

Increased Parent Support for Comprehensive Sexuality Education Over 15 Years



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A B S T R A C T

Purpose: Comprehensive sexuality education (CSE) has been shown to reduce sexual risk-taking behaviors and promote healthy sexual development, and studies have shown high support for this approach. However, the past decade has seen many changes in the political landscape and social controversies. The present study reports on an updated survey and analysis of changes in support from 2006 to 2021.

Methods: Survey data were collected by telephone in 2006 (N = 1,605) and online and in-person in 2021 (N = 719) from separate samples of Minnesota parents of school-age children. Parents responded to items regarding preferences for CSE, support for teaching numerous specific sexuality education topics, and the grade level at which topics should be introduced. Chi-square tests and logistic regression (with weighted 2021 data) were used to detect differences in support between survey years and across demographic and personal characteristics.

Results: At both time points, approximately 90% of parents thought that CSE should be taught in schools, with significant increases in support within several demographic categories. Support for including all specific topics was high, including for topics typically considered highly controversial (e.g., gender identity, 68.7%; abortion, 77.7% in 2021). Parents endorsed introducing most topics in elementary or middle school years.

Discussion: Findings suggest that policy makers and educators in Minnesota can be confident of strong parental support for CSE covering a wide range of content to meet students' needs. Advocacy and action to advance the use of national sexuality education standards are in keeping with the views of the overwhelming majority of parents of school-age children.

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IMPLICATIONS AND CONTRIBUTION

Parent support for comprehensive sexuality education in schools remains high and has increased in recent years, including for topics perceived as controversial. Policy makers and educators can be confident of strong parental support on this content; advocacy and action to advance the use of national sexuality education standards are recommended.

School-based sexuality education can play a vital role in young people's sexual health and their healthy sexual development. In the United States, sexuality education typically utilizes one of two approaches. Abstinence-only education teaches

young people to refrain from sexual activity outside of marriage [1]; when contraceptive methods are discussed, it is typically to emphasize their failure rates. Abstinence-only education has not been shown to be effective in delaying sexual initiation or preventing unplanned pregnancy or sexually transmitted infections (STIs) [2,3]. This approach also does not address the needs of LGBTQ+ youth or young people who are already sexually active, and denies all youth access to accurate health information.

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In contrast, comprehensive sexuality education (CSE) is defined in a variety of ways. Most narrowly, CSE includes evidence-based information about both contraception and abstinence, as well as condoms to prevent STIs. A broader conceptualization views sexuality holistically, and seeks to provide young people with the knowledge, skills, attitudes, and values to prevent negative health outcomes, as well as opportunities to explore their own identities and values, and to practice communication, negotiation, and decision-making skills they need to create healthy relationships throughout their lives [4,5]. CSE has been shown to reduce sexual risk-taking behaviors and delay sexual activity [6,7], and *Healthy People 2030* includes the objective of increasing the proportion of adolescents who receive formal sex education that includes delaying sex, birth control methods, HIV/AIDS prevention, and sexually transmitted diseases [8]. At a population level, statewide policy requiring sexuality education that includes contraceptive content has been associated with lower rates of sexual activity among youth and higher rates of contraception use among youth who are sexually active [9]. Examining a broader set of developmental outcomes, CSE has also been shown to lower homophobia and homophobic bullying, increase understanding of gender diversity, improve knowledge and skills that support healthy relationships, build sexual abuse prevention skills, and reduce dating violence [10]. Despite this body of evidence, a recent national study demonstrated that only approximately half of 15–19 year olds had received formal sex education that meets the standards articulated in *Healthy People 2030* [11]. Still fewer young people have received formal education with a broader focus on sexuality and healthy sexual development.

Although it is sometimes considered a controversial topic, numerous studies have shown very high support for CSE among parents, voters, and general samples of adults [12–19]. Studies have probed these findings, identifying support for numerous specific sexuality education topics (e.g., reproductive information, gender/sexual orientation issues, sexual abuse prevention) as young as elementary school ages [12,16,17]. Parents from social groups that are expected to be less supportive of CSE, including evangelical Christians and politically conservative parents, have also shown majority support [12,18,19]. An important methodologic consideration of this body of work is that all studies use a single cross-sectional design, presenting opinions at a given moment in time.

The past decade has seen many changes in the political landscape, with controversies becoming deeper and more contentious, and substantial shifts in policy and social discourse around topics such as same-sex marriage. A 2012 report on the General Social Survey showed increased support for sex education in public schools between the 1970s (78%) and approximately 90% in 2012 [20], but we are not aware of any studies that have explored changes in these public attitudes—or details such as specific sexuality education topics or demographic groups with stronger support—in the past decade. Using a repeated cross-sectional design, the present study builds on our prior study of parents' support for CSE [12], with an updated survey and analysis of changes in support from 2006 to 2021.

Methods

Sampling design and data collection

In 2006, we conducted a telephone survey of parents of school-age children in Minnesota, using a purchased list which

stratified on the state's eight legislative districts. Trained interviewers from the University of Minnesota's Center for Survey Research conducted computer-assisted telephone interviews from September 2006 to March 2007. Eligible households had at least one child aged 5–18 and a parent or guardian able to complete the survey in English or Spanish. The average length of time to do the survey was 18 minutes, and completion of the interview implied consent to participate. In total, 1,605 parents completed the 2006 survey. Additional details are available in our previous publications [12,21–23].

In 2021, we used two different approaches to sampling given changes in telephone survey response in the past decade [24,25]. First, using a purchased mailing list of likely parents (oversampling people of color) from all eight legislative districts, postcards were mailed inviting parents to take the web-based survey using a unique access code. A \$5 electronic gift card was offered to those completing the survey. The invitation was followed by two email reminders to addresses with matching email addresses and a second postcard was sent to persons in non-metropolitan legislative districts. Ten weeks after the first mailing, a postcard was mailed to a fresh sample of likely parents in non-metropolitan districts, again followed by two email reminders to addresses with matching email addresses. Two final email reminders including an offer of a \$10 electronic gift card were sent to all nonrespondents. This phase of data collection was led by the University of Minnesota's Office of Measurement Services (<http://oms.umn.edu>) during April–August 2021. In total, 382 parents provided data through this recruitment strategy. Second, visitors to the 2021 Minnesota State Fair were invited to participate as part of the “Driven to Discover” research program [26]. The Minnesota State Fair is the largest fair in the United States by average daily attendance, drawing visitors from throughout the state. The Driven to Discover Research Facility was launched in 2014 to bring university research and researchers into closer contact with the Minnesota community. Fairgoers passing by the booth were invited into the research area and screened for eligibility. Those who were eligible took the survey on an iPad, and received a small gift. This phase of data collection took place during August–September 2021, and 337 parents provided data. The average time to complete the online survey in 2021 was approximately 9 minutes. All protocols used in 2006 and 2021 were approved by the University of Minnesota Institutional Review Board.

Survey and measures

The original 2006 survey was developed by the study team based on a systematic review of items that had been used in previous surveys of parents [27–29]; drafts were reviewed by experts in adolescent health and survey methodology, and pilot-tested with eligible parents before finalizing. The original survey was revised in 2021, with input from experts in the field of sexuality education and adolescent health, to include current issues (e.g., topics taught in sexuality education) and reduce the overall survey length. Changes to the wording of specific questions were minimized in order to maximize comparability across waves.

In both 2006 and 2021, one question asked about support for CSE, using a relatively narrow definition suitable to a brief survey format: “Thinking about sex education classes in school, do you think teenagers should be taught...a) Only about abstinence: that is, not having sex until marriage; b) Both about abstinence

AND about how to prevent pregnancies and sexually transmitted infections; c) Sex education should not be taught in schools at all.”

Considering CSE slightly more broadly, 12 items assessed support for teaching specific sexuality education topics at both time points, including reproductive anatomy, pubertal development, importance of healthy relationships, communication skills, pregnancy and birth, parenting responsibilities, reasons for abstaining from sex, pregnancy prevention, STIs, sexual orientation, sexual abuse, and abortion. Three additional items were included in 2021: gender identity, consent in sexual relationships, and managing/avoiding online sexual content. Each sexuality education topic included yes/no response options, and “yes” responses (indicating they believed the topic should be taught) further specified the earliest grade level at which that particular topic should be taught: early elementary (Kindergarten–2nd), older elementary (3rd–5th), middle school (6th–8th), or high school (9th–12th). For analysis of grade at which each topic should be taught, early and older elementary grade levels were combined. Specific topic items were asked of all participants, including those who responded to the initial question that sexuality education should not be taught in schools at all, and their data were retained in analysis. This allowed participants to consider topics they may not have initially thought of as sexuality education (e.g. puberty, healthy relationships); in addition, question wording for specific topics provided nuance beyond the initial question (e.g. “the transmission, symptoms and treatment of sexually transmitted infections such as HIV or AIDS, chlamydia, HPV and herpes”).

Numerous demographic and personal characteristics were measured, with categories shown in Table 1. In some cases, categories were collapsed for analysis due to small sample numbers (e.g., age group 20–29 was combined with 30–39; racial/ethnic groups; religious affiliations). Geographic indicators (four-category urban-rural designation) were assigned using ZIP codes by matching US Census Bureau ZIP Code Tabulation Area [30] centroids to National Center for Education Statistics locale codes [31] in ArcGIS Online [32].

Data analysis

Given demographic differences between the 2006 and 2021 samples, inverse probability weights were generated and applied to analysis with the 2021 sample to more closely reflect the demographic profile of the 2006 sample and thereby increase comparability [33,34]. Weights were created using a logistic regression model with all covariates described above plus year, and multiple imputation was used to account for differential missingness due to the different data collection methods.

The full analytic sample included 2,324 parents of school-age children. Chi-square tests of significance were used to detect differences in support between the two survey years for CSE, support for specific topics, and grade level at which they should be introduced for the sample overall and within each demographic or personal characteristic subgroup. To account for remaining differences between the 2006 and 2021 samples, multiple logistic regression was used to model support, using year as the primary independent variable and adjusting for all demographic variables (except born again Christianity, as it was derived from the religion variable and was not independently associated with support for CSE). An alpha level of 0.05 was used to determine statistical significance for all analyses.

Table 1

Characteristics of Minnesota parents in 2006 and 2021 samples

	2006		2021		2021
	n	%	n	%	Weighted %
Total	1,605	100	719	100	100
Gender					
Female	1,165	72.6	500	74.5	73.3
Male	440	27.4	171	25.5	26.7
Age group					
30s and under	453	28.3	208	31.0	32.6
40s	905	56.5	317	47.2	50.0
50s and over	244	15.2	147	21.9	17.5
Education					
High school or less	228	14.2	41	6.1	11.5
Vocational/tech/business school	196	12.2	27	4.0	7.7
Some college or associate's degree	387	24.1	149	22.0	21.6
Bachelor's degree	544	33.9	247	36.5	36.5
Graduate school	250	15.6	212	31.4	22.8
Race					
Non-Hispanic White only	1,543	96.1	563	88.7	93.7
Person of color	62	3.9	72	11.3	6.3
Public school					
Yes	1,367	85.2	591	87.2	85.8
No	237	14.8	87	12.8	14.2
Political orientation					
Very conservative	163	10.3	75	11.2	12.3
Somewhat conservative	463	29.4	146	21.9	25.9
Middle-of-the-road	518	32.9	202	30.3	29.5
Somewhat liberal	311	19.7	157	23.5	21.7
Very liberal	121	7.7	87	13.0	10.5
Religion					
Protestant	865	54.6	351	53.0	53.2
Catholic	507	32.0	138	20.9	30.0
Other/no religion	211	13.3	173	26.1	16.8
Born again (among Protestants, Catholics)					
Yes	496	32.7	126	18.7	24.4
No	1,020	67.3	549	81.3	75.6
Income					
<\$40,000	130	8.5	36	6.1	6.0
\$40,000–<\$60,000	334	21.8	41	6.9	16.3
\$60,000–<\$100,000	584	38.1	138	23.4	33.9
\$100,000 or more	486	31.7	375	63.6	43.8
Location type (residence)					
Urban	304	19.0	127	17.7	20.7
Suburban	481	30.0	255	35.6	30.3
Town	153	9.5	48	6.7	6.3
Rural	666	41.5	287	40.0	41.7

Results

Characteristics of the 2006 and 2021 samples are shown in Table 1. At both times, the sample was predominantly female and non-Hispanic White, and approximately half were in their 40s and reported a Protestant religious background. Both samples included parents across the political spectrum and from a variety of location types. Slight differences remained between the two samples; for example, the weighted 2021 sample had a higher proportion of respondents with a graduate school education and high ($\geq \$100K$) income than the 2006 sample.

Overall, a large majority of parents of school-age children thought that CSE should be taught in schools—approximately 90% at both time points. As shown in Table 2, support increased significantly in several demographic categories, including the 50+ age group (86.0% in 2006, 96.5% in 2021, $p = .002$), parents

Table 2

Proportion of parents supporting comprehensive sexuality education in 2006 and 2021 (weighted)

	2006	2021	Chi-square, <i>p</i> value
Total	89.3	90.6	0.88, .349
Gender			
Female	89.7	92.4	2.85, .091
Male	88.2	86.8	0.22, .637
Age group			
30s and under	91.0	85.6	4.43, .035
40	89.4	92.7	3.12, .077
50s and over	86.0	96.5	9.33, .002
Education			
High school or less	89.5	96.7	3.83, .051
Vocational/tech/business school	90.8	87.4	0.56, .456
Some college or associate's degree	88.6	93.5	2.88, .090
Bachelor's degree	89.3	87.6	0.48, .489
Graduate school	89.1	92.7	1.45, .229
Race			
Non-Hispanic White only	89.5	92.5	4.62, .032
Person of color	85.3	89.8	0.43, .510
Public school			
Yes	91.7	94.2	3.68, .055
No	75.1	72.2	0.32, .574
Political orientation			
Very conservative	50.6	69.2	7.79, .005
Somewhat conservative	86.6	90.6	1.95, .163
Middle-of-the-road	96.5	93.7	2.80, .095
Somewhat liberal	97.7	96.7	0.46, .495
Very liberal	100.0	100.0	-
Religion			
Protestant	87.5	91.6	4.37, .037
Catholic	92.3	87.6	3.83, .0501
Other/no religion	93.6	94.2	0.03, .857
Born again (among Protestants, Catholics)			
Yes	83.2	78.9	1.56, .212
No	92.9	94.8	1.93, .165
Income			
<\$40,000	86.1	96.9	3.51, .061
\$40,000–<\$60,000	86.5	94.7	5.33, .021
\$60,000–<\$100,000	88.8	87.7	0.19, .665
\$100,000 or more	92.6	93.1	0.06, .807
Location type (residence)			
Urban	92.1	93.6	0.35, .552
Suburban	86.0	94.1	4.87, .002
Town	91.5	87.4	0.69, .407
Rural	89.9	86.9	1.91, .167

Boldface font indicates statistical significance, $p < .05$. *p*-value is for difference between years, within demographic category.

who describe themselves as very conservative politically (50.6% in 2006, 69.2% in 2021, $p = .005$), and parents in suburban locations (86.0% in 2006, 94.1% in 2021, $p = .002$). Only parents in their 30s and younger had significantly lower support for CSE between waves (91.0% in 2006, 85.6% in 2021; $p = .035$).

Among the 12 specific education topics, support was highest for teaching reproductive anatomy (99.2%), puberty (99.2%), and sexual abuse/assault (98.8%) and lowest for abortion (77.7%), sexual orientation (73.0%), and gender identity (68.7%). For topics for which we had two waves of data, support for including the topic increased significantly for seven of them, even after adjusting for potential confounding by demographic characteristics in logistic regression models (Table 3). For example, in 2006, 92.9% of parents supported including information about relationships in sexuality education classes, and this increased to 95.9% in 2021 (adjusted odds ratio [AOR] = 1.06, 95% confidence

interval [CI]: 1.03–1.10). The two largest increases in support were for the topics of sexual orientation (66.6%–73.0%, AOR = 1.04, CI: 1.02–1.06) and abortion (63.4%–77.7%, AOR = 1.07, CI: 1.05–1.09), which are generally considered among the most controversial. Of note, the topic of gender identity—also a common area of controversy—had a similarly high level of support in 2021 (68.7%), although it was not assessed in 2006. Support did not go down significantly for any topic.

Figure 1 shows the proportion of parents in favor of each topic who wanted it introduced at each grade level; at both time points parents thought almost all specific topics should first be taught in elementary or middle school. Of the 12 specific topics, there were significant shifts over time in the grade level at which parents thought they should be introduced for nine of them; in general, parents wanted more topics to be introduced in high school in 2021 than in 2006. In some cases this was complicated, in that more parents also wanted the same topic introduced in elementary school (e.g., pregnancy and birth). The exception to this pattern was sexual orientation. In 2006, 27.5% of parents who wanted sexual orientation taught thought that instruction should start in high school, but in 2021, only 21.1% gave this response; the proportion wanting sexual orientation introduced in elementary school more than doubled from 13.3% in 2006 to 27.3% in 2021 ($p < .001$). This pattern of results was maintained after accounting for demographic characteristics (Table 4). For example, 2021 parents had lower odds of wanting “talking about sex” taught in elementary school or middle school compared to 2006 parents (AOR = 0.92, CI: 0.91–0.94), adjusting for gender, age group, education, person of color, public school, political orientation, religion, income, and location type.

Discussion

Using survey data collected from parents of school-age children in Minnesota in 2006 and 2021, this study finds that support for CSE remains very high, with increases in support in some demographic categories over the past 15 years. Support for education about several specific topics increased, with the greatest increases seen for topics that are generally viewed as more controversial. However, parents also tended to think that most topics should first be taught at slightly older ages than previously.

Findings are consistent with a body of research showing high support for CSE in schools [12–19], including support for teaching topics such as sexual orientation and gender identity as early as elementary school [16]. However, we are not aware of previous research exploring changes in parent support in the past decade, during which the United States has experienced substantial changes in policy and social support relating to sexuality, and greater divisiveness on political issues.

The finding that parents in 2021 were more likely to want many topics taught, but also want them introduced at slightly older ages than in 2006 is an unexpected juxtaposition. It may be that parents whose support is more tentative—perhaps because they are newer to the ideas of CSE—feel this content is only appropriate for the oldest segment of youth. Qualitative research is recommended to understand the reasoning behind these viewpoints. Longitudinal research with a cohort of parents could determine if they become more comfortable with CSE topics over time and more supportive of introducing age-appropriate content earlier in a young person's development.

Table 3

Proportion of parents who think each sexuality education topic should be taught (% yes, weighted)

Topic	2006	2021	Chi-square, <i>p</i> -value	AOR ^a (95% CI)
Reproductive anatomy	98.6	99.2	2.05, .152	1.06 (0.98–1.14)
Puberty	97.7	99.2	6.28, .012	1.09 (1.01–1.17)
Relationships	92.9	95.9	7.50, .006	1.06 (1.03–1.10)
Talking about sex	92.9	91.1	2.06, .151	1.00 (0.98–1.03)
Pregnancy, birth	91.8	95.7	11.09, .001	1.06 (1.03–1.10)
Responsibilities of parenting	95.9	97.1	2.16, .142	1.02 (0.99–1.07)
Reasons for not having sex	97.6	96.7	1.51, .219	0.99 (0.95–1.03)
Pregnancy prevention	91.3	93.2	2.31, .129	1.05 (1.01–1.08)
Sexually transmitted infections	94.6	97.7	10.90, .001	1.08 (1.03–1.13)
Sexual orientation	66.6	73.0	9.11, .003	1.04 (1.02–1.06)
Gender identity	-	68.7	-	-
Sexual abuse/assault	97.4	98.8	4.45, .035	1.05 (0.99–1.11)
Consent	-	94.0	-	-
Online sexual content	-	94.3	-	-
Abortion	63.4	77.7	45.26, .001	1.07 (1.05–1.09)

Boldface font indicates statistical significance, *p* < .05.

AOR = adjusted odds ratio; CI = confidence interval.

^a Models adjusted for gender, age group, education, person of color, public school, political orientation, religion, income, and location type.

It is particularly noteworthy that the topic areas that have widely been considered the most controversial for inclusion in public education had the greatest increases in support over the past 15 years. The wording of the abortion item did not change over time (i.e. “medical information and laws related to abortion”) and the sexual orientation item changed only slightly to reflect today’s broader understanding of sexual orientation and sex/gender (in 2006: “including what makes someone attracted to the opposite sex or the same sex”; in 2021: “including what makes someone attracted to people of the same gender and/or other genders”). The large increases seen for these topics but not for other topics may be due to the comparatively low levels of support in 2006. That is, support for most topics was extremely high in 2006 (>90%), which may have resulted in a ceiling effect (i.e., minimal room to increase) that was not present for education about abortion and sexual orientation.

However, other explanations might be at play. Social shifts in acceptance of same-gender relationships have been pronounced over time. In a 2013 report, NORC noted that Americans saying homosexual sex was always wrong fell from 76% in 1987 to 43% in 2012. The 2015 Supreme Court decision on same-sex marriage also ushered along broader acceptance of same-gender relationships. Understanding that the concept of sexual orientation can be introduced in an age-appropriate manner for young children (e.g., two-mom families) may also account for support for beginning this topic in elementary school. In contrast, the recent decision of *Dobbs versus Jackson Women’s Health Organization* has brought questions of abortion rights and access back to the forefront of public discourse and civic action. Although the present study found that over three quarters of parents supported teaching about abortion, all data were collected before this case was heard by the Supreme Court. It remains to be seen how schools will adjust their teaching of this topic in light of the recent decision and how parents’ views on teaching about abortion may further evolve.

Support was also high for teaching about gender identity—a relatively new content area for most sexuality education

programs. Gender identity has been at the center of extensive and often contentious debate in the policy and public spheres in recent years [35], making this finding somewhat surprising. Support for teaching this topic may stem from a desire to create a safe and welcoming school environment for gender diverse youth, and the fact that gender identity can be taught without any explicit reference to sexual behaviors. Qualitative research is recommended as a next step to further understand parents’ views on this issue.

Limitations and strengths

Results of this study must be viewed in light of certain limitations. First, the response to the mailed and emailed invitations to participate in this study was very low, in spite of multiple reminders and a financial incentive. Respondents may be more likely to represent people with strong beliefs about the issue of sexuality education rather than the mainstream. Second, different recruitment and data collection methods were used at each time point (i.e., phone in 2006, mailed/emailed invitations and State Fair recruitment in 2021). It is possible that these differences influenced response patterns, such as social desirability bias in a phone survey, but this cannot be tested here. Similarly, the demographic profiles of the 2006 and 2021 samples differed in important ways. Although we used weights and statistical adjustments to account for this limitation, it is possible that residual differences or other unmeasured characteristics may have influenced results. Third, additional variables which might shed light on changes in support over time were not available for the present study. For example, although there has been no change in state-level policies regarding school-based sexuality education, different districts and schools may have altered their programming over time; exposure to such changes may have contributed to parents’ views on the acceptability of specific topics. Finally, as a single-state study, findings may not be generalizable to other areas. We also note that this study provides evidence of change among parents in Minnesota, but it is not a longitudinal study of changing beliefs within individuals. Findings therefore cannot uncover the development of personal attitudes, beliefs, knowledge, or other experiences that may influence parents’ opinions on this subject over time.

This study also has several strengths. It includes a large sample of parents from rural, suburban, and urban areas throughout the state, including politically conservative and politically progressive areas. The multiple, complementary modes of data collection allowed us to reach participants all over the state. Additionally, survey items were modeled on previous studies on this topic and were highly consistent across survey waves, thus permitting direct comparison within this analysis and across studies.

Conclusions

Parent support for CSE in schools remains high and has increased in recent years. CSE, including the specific topics—sexual orientation and abortion—that have long been thought to be the most controversial, can no longer be written off as too contentious for schools to consider. Our findings suggest that policy makers and educators can be confident of strong parental support for CSE covering a wide range of content to meet students’ needs, and parents and guardians can be

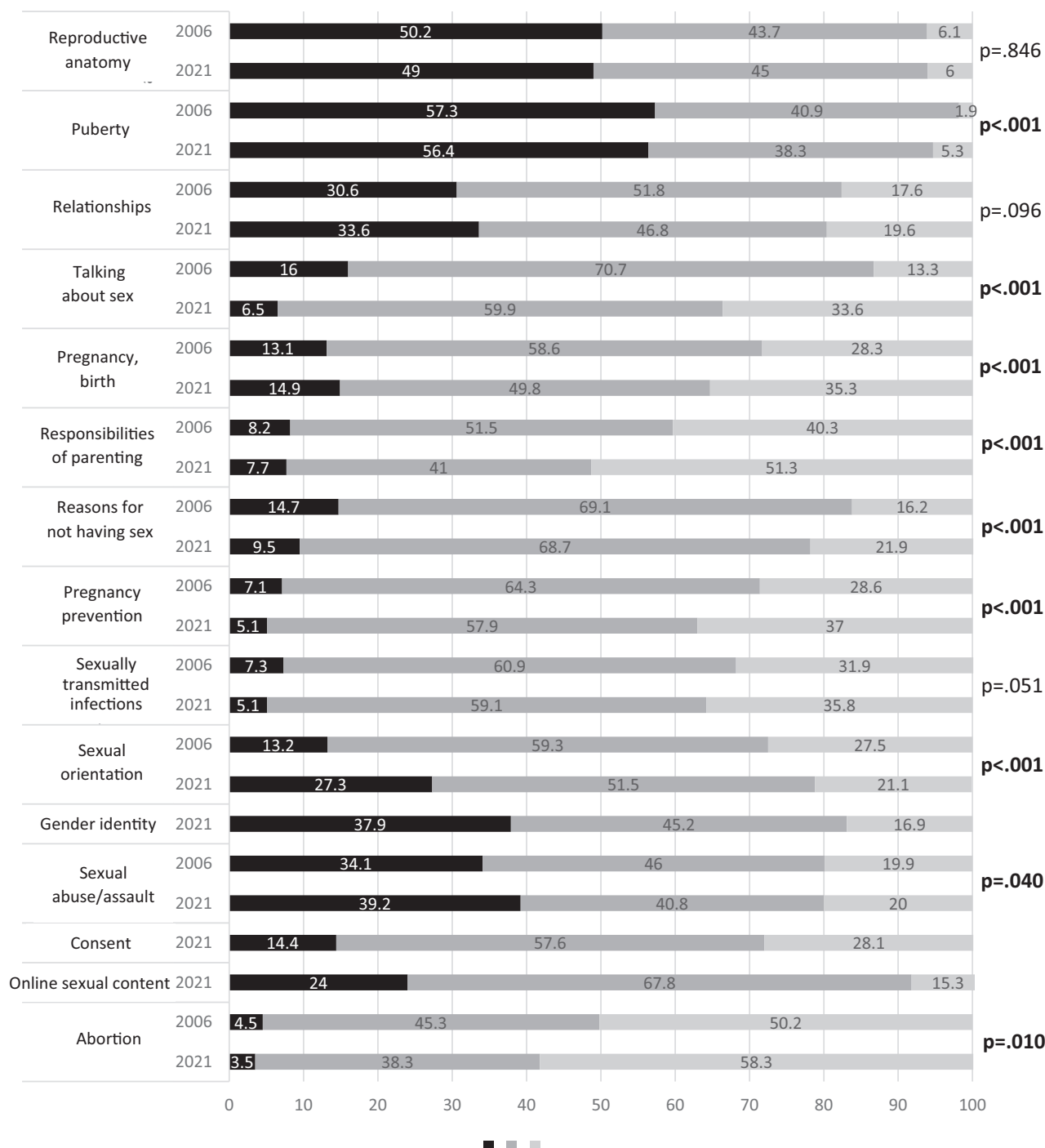


Figure 1. School level at which each specific topic should be introduced, among those who think it should be taught at all (weighted; %)*. *p-values are from unadjusted chi-square tests.

assured that they are among the majority in their support for this subject. Finally, because statewide policy requiring CSE has been associated with better sexual health outcomes among youth [9], this study's findings support advocacy and action to

advance such legislation and underpin the use of national sexuality education standards by grade. These goals are in keeping with the views of the overwhelming majority of parents of school-age children.

Table 4

Adjusted odds of wanting each topic to be introduced in elementary school, or elementary/middle school versus later

	AOR ^a (95% CI) Start in elementary	AOR ^a (95% CI) Start before high school (i.e., elementary or middle school)
Reproductive anatomy	0.99 (0.98–1.01)	1.00 (0.97–1.03)
Puberty	1.00 (0.98–1.01)	0.91 (0.87–0.95)
Relationships	1.01 (0.99–1.01)	0.99 (0.97–1.00)
Talking about sex	0.92 (0.90–0.95)	0.92 (0.91–0.94)
Pregnancy, birth	1.00 (0.98–1.02)	0.97 (0.96–0.99)
Responsibilities of parenting	0.99 (0.97–1.02)	0.97 (0.96–0.98)
Reasons for not having sex	0.96 (0.94–0.98)	0.97 (0.95–0.99)
Pregnancy prevention	0.97 (0.94–1.00)	0.97 (0.95–0.98)
Sexually transmitted infections	0.97 (0.94–1.00)	0.98 (0.97–1.00)
Sexual orientation	1.06 (1.04–1.08)	1.02 (1.01–1.04)
Sexual abuse/assault	1.01 (1.00–1.03)	1.01 (0.99–1.02)
Abortion	0.97 (0.93–1.01)	0.97 (0.96–0.99)

Boldface font indicates statistical significance, $p < .05$.

AOR = adjusted odds ratio; CI = confidence interval.

^a Models adjusted for gender, age group, education, person of color, public school, political orientation, religion, income, and location type.

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