

EVALUATING THE USE OF EVIDENCE IN NEWS REPORTS OF SCHOOL-BASED
SEXUAL HEALTH EDUCATION POLICY

By

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ABSTRACT

This paper examines the use of evidence types in discussing sexual health education reform in the United States within news articles. The types of evidence used by actors to support or oppose K-12 comprehensive sexual health education was analyzed in 14 online news articles sampled from the Nexis Uni database between 2017-2019. From the 14 news articles coded, 123 pieces of evidence were identified. The research aims of this analysis were to: a) evaluate the types of evidence used in discussions of K-12 sexual health education, b) identify the affiliations of speakers who utilized evidence in reports of sexual health education in school K-12 settings, and c) identify which speaker affiliation used evidence to support or oppose comprehensive sex education in schools.

INTRODUCTION

Public health policy has a significant impact on the United States health system and the overall health status of the population (Institute of Medicine, 2002). It has been identified that missing from public health policy is a complete understanding and use of evidence-based data and research (Bowen & Zwi, 2005). To address this gap, an "evidence-informed policy and practice pathway" was used as a framework to explore how evidence was used in issues surrounding a pertinent public health issue (Bowen & Zwi, 2005). For this project, sexual health education reform in K-12 settings was chosen due to its controversial nature throughout history (Hall, Sales, Komro, & Santelli, 2016), with some believing that medically-accurate comprehensive education *decreases* risky sexual behaviors and others believing that medically-accurate comprehensive education *increases* risky sexual behaviors (National SexEd Conference, 2015). These arguments have created a divergence among community leaders and members on if and how sexual health education should be implemented in schools (National SexEd Conference, 2015). Additionally, sexual and reproductive health topics are consistently listed as the CDCs top 10 public health priorities (Centers for Disease Control, 2019).

Content analysis has been frequently used as a method to make valid inferences through interpretation and coding of media or testimony about health-related topics (Saraisky, 2016). The analysis of newspaper articles reporting on sexual education reform in K-12 settings provided the ability to examine how evidence was used by actors in events reported in the news using qualitative and quantitative methods.

BACKGROUND

The Role of Research in Policymaking

The role of evidence-based research utilization in public policymaking has been examined across various contexts to better understand the effect on policy decision making patterns. Current analysis of the use of research within health policymaking has suggested that systematic reviews of defined health care issues are beneficial in supplementing evidenced-based public health policy decisions (Lavis, Posada, Haines, & Osei, 2004). However, some studies have shown that there is not always a clear pathway between evidenced-based research and public health policy implementation (Brownson, Chiqui, & Stamatakis, 2009). This poses a challenge for public health researchers seeking to produce data that is relevant to policymaking discussions and for policymakers wanting to make informed policy decisions. Also, it is important to note that the effect of research utilization in a policymaking context varies depending on the setting, the focus of policy, and the role of recipients of the information (i.e. elected officials) (Rutten et. al, 2003).

Research is likely to influence the development of policy over an extended process of communication and interaction. Models that are used to explain how research influences policymaking indicate that research may hold an equal to or less important value than other factors (Brownson, Chiqui, & Stamatakis, 2009). Political, ideological, and economic factors often influence policy development over research evidence (Bowen & Zwi, 2005).

Understanding how to use data may also play a role in its use in policy; in one survey, policymakers stated that they were not trained to distinguish between good and bad data and could, therefore, be influenced by the "misuse" of data (Brownson, Chiqui, & Stamatakis,

2009). The use of evidence by policymakers is largely determined by beliefs and values in addition to political and economic factors (Bowen & Zwi, 2005).

Barriers to the successful implementation of effective public health policy include an insufficient evidence base, the fact that researchers may be isolated from the policy process, and that experts lack the skills (e.g. ability to interpret data and formal training in public health) needed to influence the use of evidence in making policy (Brownson, Chiriqui, & Stamatakis, 2009).

Types and Level of Evidence

The definition of “evidence-based policy” or “evidence” is not universal within the literature making it challenging to prescribe best practices for policymaking. One definition is: a “systematic observation to establish facts and research conclusions” (BMJ, 2019). Various levels of evidence can be assigned to research studies based on the quality of their design, validity, and applicability to health care (Research Hub, n.d.). Bowen & Zwi (2005) created a typology of evidence that are used in informing the policy process including: **research** (e.g. randomized trials, epidemiological studies, qualitative research, “observations, experiences and case reports” (p. 0601)); **knowledge and information** (e.g. results of consultation processes, internet, and published documents/reports (p. 0601)); **ideas and interests** (e.g. “expert knowledge” of individuals, groups, networks (p. 0601)); **politics** (e.g. relevant to political agenda, political risk assessment, opportunity, crises (p. 0601)); and **economics** (e.g. finance implications, cost effectiveness, economic evaluation, and opportunity cost (p. 0601)).

The Role of Mass Media in Policy Making

News can be used as a source of information for the examination of evidence type use. Mass media is a means of technology that is meant to reach the greater general public, including

newspapers, magazines, radio, or television (Chicago School of Media, 2020). It plays a critical role throughout the entirety of the policymaking process. Media outlets have the unique ability to draw public attention to or away from a subject. The role of the media is defined in two prominent theories, agenda-setting, and issue framing, both have important implications in the ability to persuade the public and policymakers (Hernández-Aguado & Chilet-Rosell, 2019).

Agenda-setting theory states that as a result of mass media outlets, people are aware or unaware, or invest or do not invest, time, into a particular topic (Shaw, 1979). The core assumptions of the theory are 1) the media filters and shapes the information the audience consumes and 2) the more attention that a media outlet gives to a subject the more the public will give it attention (Shaw, 1979).

A secondary theory is based on issue framing. Differing from agenda-setting, framing theory proposes that information can be presented to an audience in a manner that will change how a group perceives a problem (Communication Studies, 2012). Often an issue can be framed in a way where certain information is withheld or added, or certain details are emphasized.

Both agenda-setting and issue-framing are important to consider in the content analysis of media and how it is intended to sway an audience, particularly within health care issues. Although this specific study does not examine how the authors of the articles examined the agenda-setting theory or framing theory to make selections in the information provided, both of these theories are discussed here for study context.

Public Health Policy Issues and the Media

HIV/AIDS serves as an example of a public health issue that was brought to the public light by the news media. The first documented cases in the United States of AIDS were reported by the CDC in June, 1981 in the U.S. (Institute of Medicine, 2002). However, news media

coverage did not begin until August of 1982 when first reported by the New York Times (Institute of Medicine, 2002). Generally, after this point, the public had heard about HIV/AIDS but was often misinformed (Institute of Medicine, 2002, p. 336). News coverage up until the late 1980s is thought to have contributed to improved public health awareness on the public health issue (Institute of Medicine, 2002, p.336).

The rising concern of teen pregnancy in the 1960s and the HIV/AIDS pandemic starting in the 1980s emphasized the need for formal sexual health education for adolescents (Hall, Sales, Komro, & Santelli, 2016). As a result, there was widespread implementation of school and community programs. How sexual health education is implemented is constantly evolving, making sexual health education an ideal public health topic to study to better understand how it is influenced through evidence.

Overview of the History of Sexual Education in the U.S.

1913-1980

For over a century, sexual health education in the United States has been at the center of controversy (Hall, Sales, Komro, & Santelli, 2016). Traditionally, sexual health education was the responsibility of the household and religious institutions (National SexEd Conference, 2015).

Fig. 1 Definition of Terms

Sexual Health: “a state of mental, physical, and social well-being concerning sexuality” (World Health Organization, 2016). The definition includes the idea that sexual health involves the respectful approach to sexuality and relationships and the ability to have pleasurable and safe experiences free of violence, discrimination, and violence (WHO, 2016).

Sexuality: Sexual health cannot be defined without sexuality. Sexuality encompasses sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy, and reproduction (WHO, 2016).

Comprehensive sex education: Provides medically accurate age-appropriate sexual education that presents information on abstinence, safer sex practices such as contraception use to prevent STI’s and unplanned pregnancies. Often information on communication skills, healthy relationships, and human development are included (Kaiser Family Foundation, 2018).

Medically accurate: Verified or supported by research that utilizes accepted scientific methods. It is recognized as accurate and objective information (Bradford & Johnson, 2020).

Abstinence-only education: Also referred to as “Sexual Risk Avoidance.” Teaches that abstinence is the standard practice for teenagers. It often excludes information on contraception methods to prevent STI’s and unplanned pregnancies. It sometimes follows the 8-point federal definition which supports sexual activity only in the context of a monogamous faithful marriage is standard (Kaiser Family Foundation, 2018).

At the beginning of the twentieth century the spread of venereal disease was a top concern for health organizations. Rates of syphilis and gonorrhea were on the rise and the stigma surrounding sexually transmitted disease perpetuated the silent spread (Anderson, 2014). To address this public health crisis the American Social Hygiene Association (ASHA) was founded in 1913 on the basis of two reform movements: the health and sanitary reform movement, and the anti-prostitution movement. The AHSA constitution stated “ that they would “promote social health;” “advocate the highest standards of private and public morality;” “suppress commercialized vice;” defend the community against STIs through “education, sanitary or legislative” means; investigate “prostitution and the venereal diseases in American towns and cities;” and promote cooperation between local organizations to support this work” (Anderson, 2014, p. 8). This was the marking of the first formal efforts to provide sexual education. The earliest campaigns included information on basic reproduction, personal responsibility for sexual health, sexual abstinence, and personal morality. Sex education pamphlets, exhibits, and posters were utilized (Anderson, 2014). In addition to education provided to schools it was strongly emphasized that the family was the social unit and primarily responsible for sexual health education (AHSA, 2020). Education was provided to parents on talking about sexual education within the home. The AHSA’s work continued well into the 20th century and is now formally known as the American Sexual Health Association (AHSA, 2020).

The rate of STIs increased during World War I further fueling the social hygiene movement (Fraguna, 2019). This momentum continued into the 1920s with the U.S. Public Health Service releasing a manual with suggestions to providing sex education, primarily from a moralistic basis (United States Public Health Service, 1970). Continuing into the 1950s the goal

of sexual education within the American public-school system was to promote pre-marital abstinence and faithfulness to attain health and happiness (Carter, 2001).

Between the 1960s and the 1970s, a sexual revolution was sparked. As seen in previous decades there was a rise in venereal disease thought to be associated with a decline in morals (Allyn, 2000). These developments were attributed to the emergence of counterculture such as the “Hippie” movement, anger with the “establishment,” and race riots (Allyn, 2000). Sexual health education came under fire by conservative and religious groups who argued that teaching teenagers about sex would only promote risky sexual health behaviors (Iyer & Aggleton, 2014). In 1968 a pamphlet titled *Is the School House the Proper Place to Teach Raw Sex Ed?* by the Christian Crusade was a key document in the conservative fight against sexual health education (Irvine, 2004, p.59).

1980-Present

The identification of HIV/AIDs in the United States in 1981 further supported arguments for increased sexual health education. However, it also gave reason for advocates to promote abstinence-only education creating a volatile debate (Hall, Sales, Komro, & Santelli, 2016). Since 1981, the federal government has spent over \$2.1 billion dollars on abstinence-only education (SIECUS, 2018).

The federal government began funding sexual health programs in 1996. The Title V Abstinence-Only-Until-Marriage (AOUM) was established as part of the Welfare Reform Act signed into law by President Clinton (SIECUS, 2018). It required that all programs adhere to the A-H definition of abstinence only education preventing contraception and condom education to be taught unless used to teach failure rates (SIECUS, 2018). States were required to match every four federal dollars received with three state dollars (Kaiser Family Foundation, 2018).

Following the AOUM two other major federal programs emerged in the support of abstinence education: Adolescent Family Life Act (AFLA), the Community-Based Abstinence Education program (CBAE) (Kaiser Family Foundation, 2018). These programs provided grants to states and communities to promote self-discipline and chastity through the teaching of abstinence-only education (SIECUS, 2018). The AOUM remains today as one of the largest funding sources for abstinence-only education.

During the Obama Administration, views on sexual health education funding began to pivot. There was a focus on evidenced-based comprehensive sexual health education. The creation of programs such as the Teen Pregnancy Prevention Program (TPPP) and the Personal Responsibility Education Program (PREP) provided grants to states to focus on evidence-based program models (Kaiser Family Foundation, 2018).

In 2017, the Trump Administration preemptively cut funding to 2017 TPP grant recipients. After a ruling from the courts the grants were allowed to continue through the end of the cycle in 2020. President Trump announced new guidelines for the TPP program that follow one of two models: the sexual risk avoidance model and the sexual risk reduction model (SIECUS, 2018). Both of these models emphasize abstinence. As of 2017, one-third of federal-funding for sexual health education was for abstinence education (SIECUS, 2018).

Additionally, in 2018 Congress passed a Consolidation Appropriations Act that included a \$10 million funding increase for the Sexual Risk Avoidance Program (Consolidation Appropriations Act of 2018).

Identifying the Problem

The 2017 Youth Risk Behavior Surveillance System (YRBSS) reported 39.5% of high school students in the United States had engaged in sexual intercourse and 9.7% reported having

sexual health intercourse with 4 or more people (Centers for Disease Control, 2018). While these numbers have greatly decreased since the CDC began the survey in 1991, sexually Transmitted Infections (STI) and teen pregnancy are still public health concerns. Of the U.S. high school students surveyed 46.2% reported not using a condom during their last sexual intercourse, 13.8% did not use any method to prevent pregnancy, and 70.6% did not use any form of birth control (Centers for Disease Control, 2017).

The American Public Health Association (APHA) has contributed to the conversation about sexual education in the U.S. by identifying young women and youth from minority backgrounds as at persistent risk for sexually transmitted (infections), HIV, and unintended pregnancy (American Public Health Association, 2014). APHA has emphasized that there is a tremendous need for adolescents to be provided the knowledge, skills, and attitudes to make health-conscious reproductive health decisions.

Current Sexual Health Education Policy

The most recent data from the 2016 School Health Policies and Practices Study (SHPPS) addresses how schools are working towards more positive sexual health outcomes. Using a nationally representative sample of public-school districts, 41.3% reported that schools will follow standards based on the National Sexuality Education Standards. The percentage of districts that adopted a policy that schools will teach human sexuality as a health topic included 51.9% of elementary schools, 75.4% of middle schools, and 79.6% of high schools (Centers for Disease Control, 2016). Furthermore, 7.2% of elementary schools, 49.6% of middle schools, and 76.3% of high schools taught abstinence as the most effective method to avoid pregnancy, HIV, and other STDS (or STIs) (Centers for Disease Control, 2014).

Policies associated with STI prevention and teen pregnancy are determined at local and state levels, making sexual education policies inconsistent. As of May 2020, 39 states and the District of Columbia (DC) mandated sex education and or HIV education. Thirty states and D.C. mandated that sex education and HIV education programs meet certain requirements:

(Guttmacher Institute, 2020):

- 17 states require programs to be medically accurate
- 26 states and DC require content to be age-appropriate
- 9 states require that program instruction is relevant to a student's cultural background and is not biased
- 3 states prohibit the promotion of religion in content

Content requirements for the teaching of sexual education also vary state by state:

- 39 states and D.C. require the delivery of information on abstinence with 29 of those states requiring that abstinence be stressed.
- 19 states require the stressing of the concept that sexual activity should only be engaged in within a marriage.
- 17 states and D.C. specify an inclusive or discriminatory view of sexual orientation.

Additionally, 40 states and D.C. require school districts to involve parents within sexual and HIV education (Guttmacher Institute, 2020).

Comprehensive vs. Abstinence-Only Education

The CDC's Division of Adolescent and School Health defines quality sexual health education as providing the skills and knowledge to students to assist them in making health decisions in the efforts to avoid STIs, HIV, and unintended pregnancy (Centers for Disease

Control, 2020). This type of curriculum is medically accurate, age-appropriate, and *culturally relevant* to promote healthy sexual development and behavioral outcomes. The CDC highlights several characteristics of quality sexual health education programs including they are taught by qualified and highly-trained teachers and staff, address the needs of all students and sexual orientations, and foster positive relationships. Students who participate in the delivery of a medically-accurate version of education are more likely to delay initiation of sexual intercourse, have fewer sex partners, increase the use of protection, and improve academic performance (Centers for Disease Control, 2020).

Despite this recommendation, 33 states across the United States do not require some form of medically accurate sexual health education (Guttmacher Institute, 2020, p. 12). Abstinence-only education still serves as the primary mode of education (Centers for Disease Control, 2020).

Proponents of sexual health education argue that abstinence-only education will delay sexual initiation in teenagers, however, there is a lack of a strong body of evidence to support this statement. Four Title V program outcomes were analyzed in a study concluding that abstinence-only programs had no significant effect on the sexual abstinence of youth (Clark, Devaney, Forston, Trenholm, Quay, & Wheeler, 2007). Youth within these programs were not less likely to partake in unprotected sex (Clark et al., 2007). Additional studies have found similar results in comparing the timeline of a teenager's sexual activity initiation between those participating in comprehensive versus abstinence-only sexual health education programs (Santelli et al., 2017).

There is a significant amount of evidence supporting comprehensive education as effective in delaying sexual initiation and increasing the use of contraceptives (Kohler, Manhart, & Lafferty, 2008). A 2008 study found that teenagers introduced to information on

contraceptives and condoms were at a 50% lower risk of teen pregnancy than teenagers participating in abstinence-only education (Kohler et al., 2008).

The Current Study

Despite the presentation of evidence-based data supported outcomes from comprehensive sexual health education programs, high federal funding for risk avoidance programs remains and the support of such program's by local leaders and community members continues. Using Bowen & Zwi's (2005) typology of evidence used in informing the policy process (research, knowledge and information, ideas and interests, politics, and economics), the aims of this study were to:

- a) evaluate the types of evidence used in discussing sexual health education,
- b) better understand the affiliations of speakers who utilized evidence in reports of sexual health education in school K-12 settings, and
- c) identify which speaker affiliation used evidence to support or oppose comprehensive sex education in schools.

METHODS

Sources and sample

To identify K-12 debates about sexual education, the Nexis Uni database was utilized (Lexis Advance,2020) from the University of Arizona Libraries. This database contains over 15,000 news, business, and legal sources. To search the database, keywords used included: *sexual education, schools, and curricula* and excluded the term *Netflix*. Types of sources included: local, state, and national news sources. The continent was specified as North America and the region as the United States.

In the original search, both news articles and opinion/commentary pieces were included between January 1, 2017, to January 1, 2019. This yielded 306 articles. The full-text of the

articles was read by the thesis author and inclusion criteria was a mention of sexual health education curriculum in relation to K-12 school districts, school boards, or parents. Duplicates of articles (i.e. the same article picked up and published by another news source) were excluded if the word count was the same, the content was the same, and if there only were minor changes in article formatting. Of 306, 116 articles met inclusion criteria.

A preliminary content analysis was conducted on the 116 articles using qualitative and quantitative mixed methods.

Development of Abstraction Sheet

Applying information from Bowen & Zwi (2005), Brownson et., al (2009), and Irvine (2004), the author developed an abstraction sheet for the article’s information. Abstraction categories were established based on previous literature and were used as headings in abstraction sheet. A preliminary reading of the 116 articles was conducted to ensure that categories were relevant and that all important information was included in the coding scheme.

The first section of the abstraction sheet gathered descriptive information (Table 1).

Table 1: Descriptive Information

Headline (verbatim)	
Publication	
Publication date (Month/Date/Year)	
Article Type	News, Editorial, Op-ed, Commentary, Other
Section	Front Page, Business, Education, Health, Feature, Other
News or commentary Author (name)	
Location	

This information assisted in the identification of duplicate articles or "family articles" that were populated in the initial search.

Reviewing Iyer & Aggelton (2014) and APHA (2014), the author identified 10 keywords that have historically appeared frequently in the debate surrounding sexual health education with

the purpose of data reduction in the sampling process (See Table 2). The keywords decided upon were not exhaustive and can be further expanded.

To analyze the content of each article, a two-level coding scheme was created to account for both the presence of these keywords and the use of evidence. Each article was read and number of times each keyword appeared in an article was quantified. The article was read again to code for the use of evidence and speaker-analysis. The levels of analysis allowed for an understanding of what keywords were most prominent in the sexual health education discussion and how evidence was utilized by speakers to advocate for or against sexual health education reform.

Table 1: Keywords Within Sexual Health Education Literature

Keyword	# times each keyword appeared	Additional Codes
Comprehensive education		
Medically accurate education		
Abstinence-only education		
Parent		--parents are included in conversation surrounding sexual health education --parents' choice parent empowerment
School Board		
Pregnancy		
Sexually Transmitted Infections		
Pornography		
Opt-in/opt-out		
Sexual orientation		

Data reduction

Due to time limitations, data reduction was necessary. An analysis of the 116 articles yielded the finding that the words *comprehensive, abstinence, pregnancy, parent, and sexual-orientation* were the most frequently mentioned. The 116 articles were then placed into each subgroup dependent on which of the five primary keywords was mentioned most frequently (i.e.

if the most mentions of one of these terms in “Article A” was, for example, abstinence-only education, then Article A was placed in the abstinence-only sub-group). From each of these 5 subgroups, 4 articles were selected randomly for further content analysis. These 20 articles were published between January 1,2017 and January 1,2019. At this time, articles were classified by the thesis author as being news (i.e. articles reporting on events) (n=14) or opinion/commentary pieces (i.e. may report on events but include the author’s opinion) (n=6). Commentary articles were then excluded from further analyses given that the research questions were focused on understanding the use of evidence in events.

Article-level of Analysis

Evidence analysis

Each of the 14 articles were coded for the presence or absence of evidence as shown in Table 2. The type of evidence was classified using the 5 categories developed by Bowen & Zwi (2005). Each type of evidence was coded into mutually exclusive categories. Quotes exemplifying the evidence types were put into the coding spreadsheet.

Table 2: Type of Evidence Used Based on Direct Quotes

Type of Evidence	Knowledge and Information Research Ideas and Interests Politics Economics
Evidence Standing	-support of abstinence-only education -support of comprehensive-only education -neutral

Standing

A quote classified as a piece of evidence was further coded for its “standing” in the sexual health education debate. Standing is essential in policy discourse as it determines which actors have legitimacy (Saraisky, 2016).

“Standing refers to gaining the status of a regular media source whose interpretations are directly quoted. Standing is not identical to receiving any sort of coverage or mention in the news; a group may appear when it is described or criticized but still have no opportunity to provide its own interpretation and meaning to the event in which it is involved. Standing refers to a group being treated as an actor with voice, not merely as an object being discussed by others.” (Ferree, Gamson, Gerhards & Rucht, 2002, p. 13)

Actors are viewed as agents who are active and engaged in constructing meaning around social ideas (Saraisky, 2016).

Standing was classified into 3 categories based upon information provided by the APHA which categorized sides of the sexual health education debate as being: 1) in support of abstinence-only education 2) in support of comprehensive sexual education or 3) neutral. Determination of standing was made by the thesis author on the basis of whether the piece of evidence indicated support of comprehensive sexual education, abstinence-only sexual education, or neutral.

Speaker-level analysis

To investigate the question of which actors had a voice in the debate surrounding sexual health education, article text segments (not direct quotes from a speaker, i.e. news article author text) or speech acts (direct quotes, paraphrases, or statements from speaker or the author that

were coded as representing a piece of evidence quotes from speakers in the news article) were coded for speaker affiliation and standing. Speakers were categorized into seven groups and noted for standing; 1) in support of comprehensive sexual education, 2) in opposition to comprehensive sexual education or 3) neutral noted in Table 3.

Table 3: Speaker Analysis

Direct Quote	
Speaker Affiliation	Government (Local, State, Federal) Organization (School District member, administrator, teacher) Parent or parent organization Student Professional (Lawyer, doctor) Community member
Speaker Support or Against Comprehensive Sexual Education	Supporter Opponent Neutral

Content Analysis

Content analysis was the primary method implemented to analyze the sampled articles for the relationships between concepts to make inferences on the use of evidence within sexual health education reform discussion. Content analysis is defined as “A research technique for the objective, systematic and quantitative description of the manifest content of communication” (Berelson, 1952, p. 18). It can be implemented to reveal communication patterns of content and identify the intentions or focus of the communication of groups, individuals, or institutions (Colombia, 2019).

A deductive approach to the research aims were taken in conducting a qualitative content analysis. Predetermined keywords and categories were determined based off Bowen & Zwi (2005) serving as a basis for coding categories (Kondracki, Wellman, & Amundson, 2002).

Additional categories that emerged during the coding process included *Indications that the debate is controversial/level of interest in the topic* and *Other issues-expanding scope of comprehensive sexual education*.

Excel spreadsheets were used to identify relationships between the five categories of evidence with the frequency of use, standing, and affiliation of actors within news articles.

The thesis author consulted with the advisor for the methods at all stages of the coding process. Analysis approach, coding categories and examples of codes were discussed in an iterative process and the advisor coded a selection of articles in the preliminary stage of the analysis

RESULTS

Types of Evidence Identified

Within the 14 news articles, 123 individual pieces of evidence were identified and coded into the five categories. Of the 123 pieces of evidence 58 (47.2%) were identified as *knowledge and information*, 50 (40.6%) were identified as *ideas and interests*, 6 (4.8%) *politics*, 5 (4%) *research*, and 4 (3.2%) *economics* (Table 4). Examples of each type of evidence are provided. No additional categories for the type of evidence emerged.

Table 4: Type of Evidence in News Articles

Type of evidence	News Articles (n=14)
	Frequency (n=123)
Research	5 (4%)
Knowledge and Information	58 (47.2%)
Ideas and Interests	50 (40.6%)
Politics	6 (4.8%)
Economics	4 (3.2%)

Evidence Category 1: Research

The use of research evidence identified within the 14 news articles was 4%. Examples of research based on Bowen & Zwi (2005, p. 0601) include “empirical evidence from randomized controlled trials and other trials, analytic studies, time series analyses, observations experiences and case reports, qualitative studies, and before and after studies.” Although there were 18 instances where statistics or numeric data were cited in 5 of 14 articles, these were only 5 instances of research as defined by Bowen & Zwi (2005) within 4 articles. Example:

Access to contraception is an important piece of Thrive OKC's plan, which includes partnering with local health clinics. Forty-three percent of Oklahoma high school students have had sexual intercourse, according to the 2017 Youth Risk Behavior Survey, conducted by the Centers for Disease Control and Prevention and Oklahoma State Department of Health (Slipke and Felder,2018). (News Article Author)

Evidence Category 2: Knowledge and Information

In the 14 news articles, of all instances of evidence used (n=123), 47.2% was evidence based on *knowledge and information*. *Knowledge and information* evidence were indicated by results of consultation processes, internet, and mention of published documents/reports which can included policy evaluation and statistical analyses (Bowen & Zwi, 2005). Pieces of evidence were employed primarily to relay numerical data from cited studies surrounding sexual health in adolescents in grades K-12. Indicators of the utilization of knowledge and information evidence included quotes or sentences including the words: “According to...”, “A study...”, or the use of keywords such as “rates.”

Analysis of the associated text demonstrated that *knowledge and information* were implemented by actors and/or the news article’s author to provide insight into the use or effect of

risky sexual behaviors in specific regions across the United States as well as the effect of sexual health education.

In several of the news sources studies, articles, or surveys were referenced in a general way, without a specific citation or mention of a specific region, for example:

Studies have shown abstinence-only education is better than no sex education at all in terms of getting teenagers to delay sex (States News Service,2017b). (News Article Author)

This is in contrast with the use of a direct citation of a study and/ or a reference to sexual health education within a specific state, such as:

A recent study by the Texas Freedom Network showed that a quarter of Texas schools no longer taught sex education in classrooms during the 2015-16 school year (Estrada, 2017). (News Article Author).

Both examples demonstrate the use of data to provide information on sexual health education.

Another form of knowledge and information evidence found was the citation and description of current laws and policies in place.

Florida law requires that any sex education program in the state include "an awareness of the benefits of sexual abstinence as the expected standard and the consequences of teenage pregnancy," but it does not preclude comprehensive education that covers birth control and other controversial subjects (Strauss,2017). (News Article Author)

Of the news articles examined, 10 of the 14 referenced a state law or local policy. The passage or support of the passage of the Healthy Youth Act was mentioned in 4 news articles.

Evidence Category 3: Ideas and Interests

In the 14 news articles, of all instances of evidence used (n=123), 40.6% were coded as evidence based on *ideas and interests*. Examples of ideas and interests evidence include opinion and view, the expert knowledge of groups, networks, and individuals (Bowen & Zwi, 2005). All 14 news articles included at least one personal or professional experience from the viewpoint of the news article author or the actor. For example:

Turner Bitton, executive director of the Utah Coalition Against Sexual Assault, said his organization works with sexual assault victims who are unable or unwilling to say the word "vagina," and who don't recognize their experiences as assault. "That is the legacy of our failed abstinence-plus system," he said (Wood,2017). (Actor, Affiliation=Organization/NGO)

Additionally, beliefs and values, a component of *Ideas and Interests*, were used as a way to advocate for a personal stance on sexual health education. These statements were most frequently made by parents across all articles.

"For instance, they said a sixth-grade lesson titled "Being a Sex Ed Sleuth" offers tips on evaluating the credibility of online advice on sexual health. Offering an example of a student looking for information on the effectiveness of condoms, it cautions about relying on religious organizations for information." Does it talk only about abstinence and body parts, or does it include other information about sexual health as well?" a powerpoint on the lesson asks "Look for bias - regardless of your own religion, a faith-based organization may have biases based on their own beliefs and teachings that may limit the extent of the sexuality-related information." Corwin acknowledged that passage didn't sit well with her either, and said the district plans to revise it." As somebody who

attends church on a regular basis, I don't necessarily agree with that statement," she said (Brennan,2018). (Actor, Affiliation=School District Member).

Evidence Category 4: Politics

Of the 14 articles, 4.8% of evidence coded was categorized as *politics*. Bowen &Zwi (2005, p. 0601) characterized evidence as political if it is “information relevant to the agenda of the government,” political risk assessment and saleability,” “opportunity,” or “crisis” (p. 0601), for example:

On Feb. 23, 2016, the House Education Committee voted 11-2 along party lines to defeat a comprehensive sex education bill by King, and it adjourned without voting on a bill by Stratton to require prior consent for abuse-prevention courses (Wood,2017). (News Article Author)

The mention of “party lines” or the specification of party by the news article author i.e. Democrat and Republican were indicators of the use of politics.

Evidence Category 5: Economics

In the 14 news articles, of all types of evidence used, 3.2% were coded as *economics*. Economic evidence was indicated by finance and resource implications, cost effectiveness, economic evaluations, or opportunity cost (Bowen & Zwi, 2005). Statements made surrounding federal and state spending on sexual health education and budget cuts were used to predict ramifications or benefits to those impacted by sexual health education:

.....Now abstinence education gets about \$90 million in federal money annually, and this past summer, President Trump cut more than \$200 million in federal grants to scores of organizations that work to decrease teen pregnancy rates, which could affect sex education programs in some areas (Strauss, 2017). (News Article Author)

Three of the five economic statements referred to the decrease or increase of funding in combination with the mention of political partisanship.

Use of Evidence and Position in Debate

We examined the type of evidence provided by news article authors and actors by its position in the sexual health education debate (Table 5).

Table 5: Type of Evidence and Standing in K-12 Sexual Education Debate

Type of Evidence	Comprehensive Sexual Education		
	Support (n=62)	Opposition (n=35)	Neutral (n=26)
Research	5 (8%)	0 (0%)	0(0%)
Knowledge and Information	22 (39%)	15 (42.8%)	21 (80.7%)
Ideas and Interests	33 (53.2%)	16 (45.7%)	1 (3.8%)
Politics	0 (0%)	3 (8.5%)	3 (11.5%)
Economics	2 (3%)	1 (2.8%)	1 (3.8%)

The analysis showed that 62 (50.4%) of 123 pieces of evidence coded were used in support of comprehensive sexual health education 35 (28.4%) pieces of evidence were used in opposition to comprehensive sexual health education, and 26 (21.3%) pieces of evidence were neutral in position. Of the evidence used in support of comprehensive sexual health education, 53.2% was coded as *ideas and interests*, 39% as *knowledge and information*, 8% as *research*, 3% as *economics*, and 0% *politics* (Table 5). In opposition, 45.7% of evidence was coded as *ideas and interests*, 42.8% *knowledge and information*, 8.5% *politics*, 2.8% *economics*, and 0% *research*.

Use of Evidence, Speaker Affiliation, and Standing

Of the 123 pieces of evidence coded, 53 were provided by an actor and 70 were provided by the news article author. Shown in Table 6, organizations/NGOs (11) and school district members (administrators or teacher) (14) provided evidence more frequently than any other speaker affiliation type. The use of evidence by parent or parent organizations and community members were most frequently used in opposition to comprehensive sexual health education. Organization/NGOS, School District Members (admin. and teachers), Students, and Professionals most frequently used evidence in support of comprehensive sexual health education. A neutral position was only taken by the news article author (Table 6).

Table 6: Speaker Affiliation and Standing

Speaker Affiliation	Comprehensive Sexual Education			
	Support (n=36)	Opposition (n=17)	Neutral (n=70)	Total (n=123)
Government	3 (8.3%)	2(11.7%)	0(0%)	5
Organization/NGO	9 (25%)	2 (11.7%)	0(0%)	11
School District member (admin. or teacher)	9 (25%)	5 (29.4%)	0(0%)	14
Parent or parent organizations	0 (0%)	4 (23.5%)	0(%)	4
Student	7 (19.4%)	0 (0%)	0(0%)	7
Professional (lawyer, doctor)	7 (19.4%)	1(5.8%)	0(0%)	8
Community Member	1 (2.7%)	3 (17.6%)	0(0%)	4
News Article Author	0 (0%)	0 (0%)	70 (100%)	70

Shown in Table 7, *research* as evidence was primarily used in a neutral position by the news article author with one instance of use by a community member in support.

Table 7: Type of Evidence Utilized to Support Speaker Standing

Speaker Affiliation	Support	Opposition	Neutral
Research			
Government	0	0	0
Organization/NGO	1	0	0
School District member (admin. or teacher)	0	0	0
Parent or parent organization	0	0	0
Student	0	0	0
Professional (lawyer, doctor)	0	0	0
Community member	0	0	0
Author	0	0	4
Knowledge and Information			
Government	0	0	0
Organization/NGO	3	0	0
School District member (admin. or teacher)	1	3	0
Parent or parent organization	0	0	0
Student	0	0	0
Professional (lawyer, doctor)	2	0	0
Community member	0	0	0
Author	0	0	49
Ideas and Interests			
Government	3	2	0
Organization/NGO	5	2	0
School District member (admin. or teacher)	8	2	0
Parent or parent organization	0	4	0
Student	7	0	0
Professional (lawyer, doctor)	5	1	0
Community member	1	2	0
Author	0	0	8
Politics			
Government	0	0	0
Organization/NGO	0	0	0
School District member (admin. or teacher)	0	0	0
Parent or parent organization	0	0	0
Student	0	0	0
Professional (lawyer, doctor)	0	0	0
Community member	0	1	0
Author	0	0	5
Economics			
Government	0	0	0
Organization/NGO	0	0	0
School District member (admin. or teacher)	0	0	0
Parent or parent organization	0	0	0
Student	0	0	0
Professional (lawyer, doctor)	0	0	0
Community member	0	0	0
Author	0	0	4

The use of *knowledge and information* was used in support of comprehensive sexual health education, in opposition of comprehensive sexual health education, and within a neutral position. Of the 58 pieces of evidence identified as *knowledge and information* 49 (84%) were provided by the news article author in a neutral position, 6 (10.3%) were provided in support by actors affiliated with an organization/NGO, School District, or a professional position, and 3 (5%) were provided in opposition by school district members (Table 7).

Of the 50 pieces of evidence coded as *ideas and interests*, 8 (16%) were provided by the news article author in a neutral position. School district members 8(16%) and Student 7(14%) speaker affiliations had the highest frequency of *ideas and interests* evidence use in support of comprehensive sexual health education. Parent and Parent Organizations 3 (6%) in opposition to comprehensive sexual health education primarily cited *ideas and interests* evidence (Table 7).

Five of the six recorded instances of the use of *politics* was provided by the author in a neutral position and community members used one case of *politics* evidence in opposition (Table 7).

The use of *economics* as evidence was provided by the news article author in a neutral position a total of 4 times out of the 4 coded (Table 7).

DISCUSSION

Based on current literature, evidence use in the discussion of public health policy issues is limited as lawmakers and constituents often rely on politics, economics, and personal beliefs to make decisions (Bowen & Zwi, 2005). Current research led to the thesis author's prediction that an analysis of news articles would further highlight the gap in the use of evidence such that there would be differences in the types of evidence used by parents, students, and experts. This textual analysis of 14 news articles published between January 1, 2017 and January 1, 2019 discussing

sexual health education reform in the K-12 setting focused on a) the types of evidence used in discussing sexual health education b) speaker affiliations who utilized evidence and c) which speaker affiliation used types of evidence to support or oppose comprehensive sex education in schools. The thesis author's preliminary analysis is insufficient at this point to fully explore the author's predictions, yet.

In general, the news articles coded were in support of comprehensive sexual health education. More than half of the evidence provided in these articles were in favor of comprehensive sexual health education. When comparing the types of evidence used in support or opposition, *knowledge and information* types of evidence was used with high frequency primarily by news article authors. Actors in the news events that were reported cited *ideas and interests'* evidence at the highest rate. Both *knowledge and information* and *ideas and interests* were distributed evenly across all 14 articles. *Politics – evidence* and *economics -evidence* were seldom used explicitly as evidence seen despite acting as the main drivers of general public policymaking decisions according to the literature review. From the direct quotes categorized as evidence the news article author often used both economics and politics evidence in conjunction with one another.

Additionally, *research*, as defined by authors was limited in the articles. The lack of statements supported by conclusions from peer-reviewed research studies supported Bowen & Zwi's (2005) assertion that research data is not effectively or frequently used in policy debates. However, in this study there were examples of surveys and data that were coded as *knowledge and information* rather than *research*. This coding decision was made based on reference to Brown & Zwi's (2005) definition as well as the inability to confirm whether data referenced by actors in the news reported was collected from an experiment or analysis. This is

one limitation from using reports of events rather than having direct access to testimony or transcripts of the events. If the definition of research was expanded to include reports and surveys it can be predicted that the frequency of research as evidence would be higher.

The original assumption that any type of evidence would be used more frequently by supporters of comprehensive sexual education could not be supported at this time. Similarly, there was limited patterns found between speaker affiliation and the use of evidence (Table 7). Student and parent actors in news events related to sex education in school's affiliation used *ideas and interests* to relay personal beliefs and morals associated with their educational concerns. Students providing evidence were not found to be in opposition of comprehensive sexual health education. Additionally, School District Members, a key constituent in the sex education debate, utilized *ideas and interests* in favor of comprehensive sexual health education but *knowledge and information* primarily in opposition of comprehensive sexual health education.

This research adds to research on sexual health education by providing the analysis that there is variability in the implementation of sexual health education and how evidence is used in discussing sexual health education. This variability remains despite what appears to be a general support of comprehensive sexual health education across speaker affiliations.

Future Research Implications

The use of content analysis is essential to understanding how evidence plays a role in the context of mass media. Future research directions could include the analysis of a larger sample of articles and possibly including both news articles and opinion/commentary. Additionally, similar methods should be applied to investigating other platforms of advocating, such as committee testimony. This would remove the filter provided by the news article author. This expansion

would allow for a more in-depth dive into variables such as speaker affiliation and the use of evidence. It should be noted that analysis of testimony was the original intent in this thesis, but there were concerns about the lack of explicit consent to use of citizen's testimony, though public, for research purposes. Unless this barrier can be addressed, future access to testimony may be limited. Data conclusions have the potential to inform both public officials and the public on best practices for utilizing various types of evidence in debating public health policy decisions. How policymakers weigh different types of evidence is also of interest.

Limitations

There were several limitations to the study. One challenge is that the events and information coded was by necessity filtered through what the news article author decides to describe and write about. There could have been uses of evidence in reported events that the author did not include, thus there is a possible bias in the information in the events reported whose direction the author could not determine. In addition, the use of the Bowen & Zwi's (2005) evidence typology coding was just one of many possible ways to categorize evidence. If evidence was categorized using a different framework, there may be different responses.

Strengths

While information was filtered through the author, the news articles were likely credible, and we assumed fact-checking and verification took place. The LexisNexis database from which news articles were sampled provides "credible" and "accurate" sources (Lexis Advance,2020). The assumption that all news articles sampled were reputable suggests that the news article author most likely provided balanced information supporting either side of the sexual health education debate.

CONCLUSION

The use of evidence plays an evident role in reporting of key public health issues. In the current study, evidence was used by actors in support and in opposition to comprehensive sexual health education. There is an emphasis on the use of citing studies and description of personal or professional events to support comprehensive or abstinence-only sexual education. In short, the complexity of evidence used in advocating for public health policymaking decisions is evident in mass media. How this contributes to policymaking decisions in sexual health education needs more investigation.

REFERENCES

- AHSA. (2020). Who We Are. Retrieved from <http://www.ashasexualhealth.org/who-we-are/>
- Allyn, D. (2000). *Make love, not war*. New York: Little, Brown & Company
- American Public Health Association. (2014). Sexuality Education as Part of a Comprehensive Health Education Program in K to 12 Schools. Retrieved from <https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2015/01/23/09/37/sexuality-education-as-part-of-a-comprehensive-health-education-program-in-k-to-12-schools>
- Anderson, L. M. (n.d.). Early History of ASHA. Retrieved from http://www.ashasexualhealth.org/pdfs/Linnea_Anderson_Essay.pdf
- Berelson, B. (1952). *Content Analysis in Communication Research*. New York: Free Press.
- Bharath, D. (2018). O.C. school districts resist state sex ed law; Parents, conservative Christian groups criticizing curriculum that includes HIV, LGBTQ information. *Chico Enterprise-Record (California)*. Retrieved from <https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5SV8-G601-F02B-Y3H2-00000-00&context=1516831>.
- BMJ. (2019). What is the best evidence and how to find it. Retrieved from <https://bestpractice.bmj.com/info/us/toolkit/discuss-ebm/what-is-the-best-evidence-and-how-to-find-it/>
- Bou-Karroum, L., El-Jardali, F., Hemadi, N., Faraj, Y., Ojha, U., Shahrour, M., ... Akl, E. A. (2017). Using media to impact health policy-making: an integrative systematic review. *Implementation Science*, 12(1). doi: 10.1186/s13012-017-0581-0
- Bowen, S., & Zwi, A. B. (2005). Pathways to “Evidence-Informed” Policy and Practice: A Framework for Action. *PLoS Medicine*, 2(7). doi: 10.1371/journal.pmed.0020166
- Bradford, K., & Johnson, T. (2020). State Policies on Sex Education in Schools. Retrieved from <https://www.ncsl.org/research/health/state-policies-on-sex-education-in-schools.aspx>

- Brennan, S. D.. (2018). Oceanside schools scrap K-6 sex ed. *The San Diego Union Tribune*. Retrieved from <https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5SY P-1SB1-DY37-F3M4-00000-00&context=1516831>.
- Brownson, R. C., Chiqui, J. F., & Stamatakis, K. A. (2009). Understanding Evidence-Based Public Health Policy. *American Journal of Public Health*, 99(9), 1576–1583. doi: 10.2105/ajph.2008.156224
- Carter, J. (2001). Birds, bees, and venereal disease: Toward an intellectual history of sex education. *Journal of the History of Sexuality*, 10, 213-249.
- Centers for Disease Control. (2014). *SHPPS Pregnancy Prevention* [PDF file]. Retrieved from https://www.cdc.gov/healthyyouth/data/shpps/pdf/2014factsheets/pregnancy_shpps2014.pdf
- Centers for Disease Control. (2016). *Results from the School Health Policies and Practices Study* [PDF File]. Retrieved from https://www.cdc.gov/healthyyouth/data/shpps/pdf/shpps-results_2016.pdf
- Centers for Disease Control. (2017). *Teen Pregnancy Prevention* [PDF File]. Retrieved from https://www.cdc.gov/healthyyouth/data/yrbs/pdf/2017/2017_US_Pregnancy.pdf
- Centers for Disease Control. (2018). Data & Documentation. Retrieved from <https://www.cdc.gov/healthyyouth/data/yrbs/data.htm>
- Centers for Disease Control, 2019. CDC Strategic Framework. Retrieved from <https://www.cdc.gov/about/organization/strategic-framework/index.html>
- Centers for Disease Control.(2020).What Works: Sexual Health Education. Retrieved from <https://www.cdc.gov/healthyyouth/whatworks/what-works-sexual-health-education.htm>
- Chicago School of Media . (2020). Mass media. Retrieved from <https://lucian.uchicago.edu/blogs/mediatheory/keywords/mass-media/>
- Chuang,A., (2018). Indiana lawmakers weigh 'opt-in' requirement for sex ed. *Associated Press State & Local*. Retrieved from <https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5RNC-V5S1-JC65-51HG-00000-00&context=1516831>.

Clark, M., Devaney, B., Forston, K., Trenholm, C., Quay, L., & Wheeler, J. (2007). Impacts of Four Title V, Section 510 Abstinence Education Programs. Mathematica Policy Research, Inc. Retrieved from <https://www.mathematica.org/our-publications-and-m-findings/publications/impacts-of-four-title-v-section-510-abstinence-education-programs>

Colombia. (2020). Content Analysis. Retrieved from <https://www.publichealth.columbia.edu/research/population-health-methods/content-analysis>

Communication Studies. (2012). Framing Theory. Retrieved from <https://www.communicationstudies.com/communication-theories/framing-theory>

[Consolidated Appropriations Act "H.R.1625 – 115th Congress"](#). U.S. Congress. March 22, 2018.

Estrada, M. (2017). Texas continues to push abstinence-only education, regardless of results. *Foghorn: Del Mar College*. Retrieved from <https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5N3R-Y2G1-JBSN-31DG-00000-00&context=1516831>.

Faraguna, E. (2019). The Rise and Fall of Sex Education in the Progressive Era. Retrieved from <https://commons.trincoll.edu/edreform/2019/04/sex-education-in-the-progressive-era/>

Guttmacher Institute. (2020). Sex and HIV Education. Retrieved from <https://www.guttmacher.org/state-policy/explore/sex-and-hiv-education>

Hall, K. S., Sales, J. M., Komro, K. A., & Santelli, J. (2016). The State of Sex Education in the United States. *Journal of Adolescent Health, 58*(6), 595–597. doi: 10.1016/j.jadohealth.2016.03.032

Hauser, D. (n.d.). Advocates for Youth. [Five Years of Abstinence-Only-Until-Marriage Education: Assessing the Impact](#).

Hernández-Aguado, I., & Chilet-Rosell, E. (2019). The role of the media in the health policymaking process: perspectives of key actors in Spain. *Critical Public Health, 30*(3), 270–279. doi: 10.1080/09581596.2019.1575949

Institute of Medicine (US). (2002). The Future of the Public's Health in the 21st Century. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK221224/>

- Irvine, J. M. (2004). *Talk about sex: the battles over sex education in the United States*. Berkeley, Calif: University of California Press.
- Iyer, P., & Aggleton, P. (2014). Seventy years of sex education in *Health Education Journal*: a critical review. *Health Education Journal*, 74(1), 3–15. doi: 10.1177/0017896914523942
- Kaiser Family Foundation. (2018). Abstinence Education Programs: Definition, Funding, and Impact on Teen Sexual Behavior. Retrieved from <https://www.kff.org/womens-health-policy/fact-sheet/abstinence-education-programs-definition-funding-and-impact-on-teen-sexual-behavior/>
- Kohler, P. K., Manhart, L. E., & Lafferty, W. E. (2008). Abstinence-Only and Comprehensive Sex Education and the Initiation of Sexual Activity and Teen Pregnancy. *Journal of Adolescent Health*, 42(4), 344–351. doi: 10.1016/j.jadohealth.2007.08.026
- Kondracki, N. L., Wellman, N. S., & Amundson, D. R. (2002). Content Analysis: Review of Methods and Their Applications in Nutrition Education. *Journal of Nutrition Education and Behavior*, 34(4), 224–230. doi: 10.1016/s1499-4046(06)60097-3
- Ladas, A. (2000). *Make Love Not War; The Sexual Revolution: An Unfettered History*. By David Allyn. Boston: Little, Brown and Co., 2000. 300 pages, photos, bibliography, index. ISBN 0-3216-03930-6, hardback, \$26.95., *Journal of Sex Education and Therapy*, 25:4, 299-300, DOI: [10.1080/01614576.2000.11074368](https://doi.org/10.1080/01614576.2000.11074368)
- Lexis Advance®. (2020). Retrieved from <https://advance.lexis.com/bisacademicresearchhome/?pdmfid=1516831&crd=c67166a5-5250-4d65-ad7d-32ae2caa5a6&ecomp=2sm5k&prid=5fda85ac-fbee-41ea-9392-83ea40888749>
- Lowell Sun. (2017). Sex ed supporters tout need for bill, inclusion of opt-out clause. *Lowell Sun (Massachusetts)*. Retrieved from <https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5N9S-SGW1-JCB3-451R-00000-00&context=1516831>.
- McCombs, Maxwell, and Shaw D. (1972). The agenda-setting function of mass media. *Public Opinion Quarterly* 36 (2): 176-87
- Menconi, K. (2017). Cupertino Union hopes new sex education class passes muster with parents. *Computer Column*. Retrieved from <https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5R96-1WC1-DYNS-3492-00000-00&context=1516831>.

- National SexEd Conference. (2015). The CSE's National Sex Ed Conference " Dec 8-11, 2020 " The History of Sex Education. Retrieved from <https://sexedconference.com/the-history-of-sex-education/>
- Oosting, J. (2018). Sexual assault bills draw backlash in House panel. *The Detroit News (Michigan)*. Retrieved from <https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5S7W-1561-DYJJ-P39Y-00000-00&context=1516831>.
- Plantz, K. (2017). Sununu signs Sex Education Parental Notification Bill. *InsideSources.com, Washington, D.C.*. Retrieved from <https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5NC1-8NP1-DYNS-30P1-00000-00&context=1516831>.
- Research Hub (n.d.) Evidence based practice toolkit: Levels of evidence. Retrieved from <https://libguides.winona.edu/c.php?g=11614&p=61584>
- Rütten, A., Lüschen, G., Lengerke, T. von, Abel, T., Kannas, L., Rodrigue Diaz, J.A., Vinck, J., Zee, J. (2003). Determinants of health policy impact: A theoretical framework for policy analysis. *Sozial- und Präventivmedizin*: 48, 2003, nr. 5, p. 293-300
- Santelli, J. S., Kantor, L. M., Grilo, S. A., Speizer, I. S., Lindberg, L. D., Heitel, J., ... Ott, M. A. (2017). Abstinence-Only-Until-Marriage: An updated review of U.S. Policies and programs and their impact. *Journal of Adolescent Health*, 61(3), 273–280. doi: 10.1016/j.jadohealth.2017.05.031
- Saraisky, N. G. (2016). Analyzing public discourse: Using media content analysis to understand the policy process. *Current Issues in Comparative Education*, 18, 26–41.
- Sex and HIV Education. (2020). Retrieved from <https://www.guttmacher.org/state-policy/explore/sex-and-hiv-education>
- Shaw, E. F. (1979). Agenda-setting and mass communication theory. *Gazette (Leiden, Netherlands)*, 25(2), 96–105. doi: 10.1177/001654927902500203
- SIECUS. (2018). A history of federal funding for abstinence-only-until-marriage programs. [PDF file]. Retrieved from <https://siecus.org/wp-content/uploads/2018/08/A-History-of-AOUM-Funding-Final-Draft.pdf>

- Slipke, D. & Felder, B.(2018). Comprehensive approach reduces local teen pregnancy rates. *The Daily Oklahoman (Oklahoma City, OK)*. Retrieved from <https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5T04-TGD1-DY2Y-B16G-00000-00&context=1516831>.
- Sobotka, A. (2018). Health pros: sex ed in schools can play key role in students' lives. *The Daily Globe (Worthington, Minnesota)*. Retrieved from <https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5TXS-08C1-JC6P-C1C5-00000-00&context=1516831>.
- Soroka, S., Lawlor, A., Farnsworth, S., Young, L., Ramesh, M. H., Fritzen, S., & Araral, E. (2012). Mass media and policymaking. *Routledge handbook of public policy*, 1-15. Retrieved from https://www.academia.edu/17913555/Mass_media_and_policy-making
- States News Service. (2017a). 10 REVELATIONS FROM SEX EDUCATION STUDY OF TEXAS SCHOOL DISTRICTS. *States News Service*. Retrieved from <https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5N0V-B2B1-JCBF-S0CV-00000-00&context=1516831>.
- States News Service. (2017b). Tthe power of inclusive sex education. *States News Service*. Retrieved from <https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5P28-55T1-DYTH-G54Y-00000-00&context=1516831>.
- Strauss, V. (2017). Fla. school district picks abstinence-only center for sex education. Lesson 8: 'Steps of intimacy and how to stop them'; Here are the other 11 lessons. *Washington Post Blogs The Answer Sheet*. Retrieved from <https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5PP3-2FR1-JB4M-V4TV-00000-00&context=1516831>.
- United States Public Health Service. (1970). High schools and sex education. A manual of suggestions on education related to sex: United States. Public Health Service. Retrieved from <https://archive.org/details/highschoolssex00unit/page/n4/mode/2up>

Wood, B. (2017). Utah sex ed needs attention, legislators say, but abstinence angle will continue; HB215 defeated Some Republicans agree Utah children need better instruction and advice on the subject, but party-line vote all but kills proposal. *The Salt Lake Tribune*. Retrieved from <https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5N0B-WGM1-JCB3-X4H2-00000-00&context=1516831>.

World Health Organization. (2016). Sexual health. Retrieved from https://www.who.int/topics/sexual_health/en/