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Welfare, Liberty, and Security for All? U.S. Sex Education Policy and the 1996 Title V Section 510 of the Social Security Act

Justin E. Lerner[1] · **Robert L. Hawkins**[2]

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Abstract When adolescents delay (meaning they wait until after middle school) engaging in sexual intercourse, they use condoms at higher rates and have fewer sexual partners than those who have sex earlier, thus resulting in a lower risk for unintended pregnancies and sexually transmitted infections. The 1996 Section 510 of Title V of the Social Security Act (often referred to as A–H) is a policy that promotes abstinence-only-until-marriage education (AOE) within public schools. Using Stone's (2012) policy analysis framework, this article explores how A–H limits welfare, liberty, and security among adolescents due to the poor empirical outcomes of AOE policy. We recommend incorporating theory-informed comprehensive sex education in addition to theory-informed abstinence education that utilizes Fishbein and Ajzen's (2010) reasoned action model within schools in order to begin to address adolescent welfare, liberty, and security.

Keywords Title V Section 510 of the Social Security Act · Sex education · Reasoned action model

✉ Justin E. Lerner
justinlerner@nyu.edu

Robert L. Hawkins
robert.hawkins@nyu.edu

[1] New York University Silver School of Social Work, 79 Washington Square East, New York, NY 10003, USA

[2] New York University Silver School of Social Work, 1 Washington Square North, New York, NY 10003, USA

Introduction

Initiation of sexual behavior (touching, kissing, mutual masturbation, oral sex, and anal sex) among adolescents often arises during middle school (typically grades 6–8 and ages 10–14) in the U.S. (Guilamo-Ramos, Jaccard, Dittus, Gonzalez, & Bouris, 2008). This type of adolescent sexual initiation is considered risky because it usually impacts the teens engaging in the behavior, their peers, and society at large (Ellis et al., 2012). Adolescents who have sex at an early age often have greater levels of erratic condom usage (Manlove, Ryan, & Franzetta, 2007) and higher numbers of sexual partners (OR 4.10) than adolescents who delay having sex, resulting in a larger risk for unintended pregnancies (OR 4.82) (O'Donnell, O'Donnell, & Sueve, 2001) and STIs (OR 2.25) (Kaestle, Halpern, Miller, & Ford, 2005). In the United States, approximately 615,000 adolescent girls under the age of 20 become pregnant each year (Kost & Henshaw, 2014), which generates one of the highest teenage pregnancy rates (∼ 5.7 %) of any developed country in the world (Sedgh, Finer, Bankole, Eilers, & Singh, 2015). While 15–24 year olds within the U.S. make up only a quarter of the sexually active population, they are responsible for almost half of all newly transmitted STIs (CDC, 2010; Kirby, 2007; Weinstock, Berman, & Cates, 2004).

Unintended pregnancies resulting from an early sexual initiation are correlated with negative childhood experiences, unsupportive home environments, and mental health problems such as conduct disorder and substance abuse (Anda et al., 2002; Chen, Stiffman, Cheng, & Dore, 1997; Rickert, Wiemann, Harrykissoon, Berenson, & Kolb, 2002; Woodward & Fergusson, 1999). Early sexual intercourse is risky because younger adolescents are less likely than older adolescents or adults to consistently use condoms during their first sexual intercourse (Pratt, Mosher, Bachrach, & Horn, 1984). Girls who begin having sexual intercourse at earlier ages often have older partners and relationships that contain a power imbalance (Pedlow & Carey,

2004), resulting in a lower frequency of condom use (Ford, Sohn, & Lepkowski, 2001). Adolescents who delay having sex, however, are more likely to use condoms (Guttmacher et al., 1997).

According to the National Campaign to Prevent Teen Pregnancy (2013), in 2010 the cost to taxpayers (federal, state, and local) for adolescent childbearing was $9.4 billion. These costs include expenses incurred during the birth year plus the next fourteen years of the child's life. Further, the average annual cost to taxpayers for a child born to a teen mother for each year from birth to 15 is approximately $1682. The most significant costs stem from public sector health care ($2.1 billion annually), child welfare ($3.1 billion annually), and incarceration ($2 billion annually) (National Campaign to Prevent Teen Pregnancy, 2013). These costs also include those that the parents incur. Since not all expenditures can be measured, these numbers are likely much more conservative than the full cost of a teen birth.

Among sexually active teens in the U.S., one fourth have an STI (CDC, 2010; Kirby, 2007). The 2009 Youth Risk Behavior Survey (YRBS), which surveyed 16 middle schools in the U.S., found that approximately 34.7 % of eighth grade students never received any HIV/AIDS education in school (Moore, Barr, & Johnson, 2013). Not surprisingly, in 2009, young people aged 13–24 years comprised the largest group (26 %) of new HIV infections in the U.S. (CDC, 2011). These astronomical rates of teenage pregnancy and STIs as well as the costs associated with teen pregnancy have been at the political forefront in recent decades, forcing the legal system, researchers, and policymakers to focus on adolescent sexual behavior as a social problem in need of a solution (Ellis et al., 2012).

In this theoretical essay, we examine how abstinence-only-until-marriage education (AOE) programs that meet federal criteria within the 1996 Title V Section 510 of the Social Security Act (discussed below) are low in adolescent welfare, liberty, and security. We do not believe that all AOE programs are problematic, and we also do not advocate that all comprehensive sex education (CSE) programs are the best alternative. Rather, we believe that a sex education policy in the U.S. incorporating both AOE and CSE that is theory-informed utilizing the principles of the reasoned action model (examined below) has the potential to increase adolescent welfare, liberty, and security (which will be discussed later) while reducing unintended pregnancies and STIs.

1996 Title V Section 510 of the Social Security Act (A–H)

Reducing unintended pregnancies and STIs among adolescents in the United States has been a continued and critical goal of federal and state policy over the past several decades. Politically driven and morally inspired debates examining the value of AOE versus comprehensive sex education (CSE) within public school curriculums have dominated the discussion on how best to address this social problem (Constantine, Jerman, & Huang, 2007; Irvine, 2004; Luker, 2007; Stanger-Hall & Hall, 2011). During the late 1970s, AOE programs began to surface as a method for conservative Christians to offset the potential expansion of CSE programs (Greslé-Favier, 2013). Under the Reagan administration, AOE programs received their first federal funding opportunity in 1981 through the Adolescent Family Life Act (AFLA) (Greslé-Favier, 2013). This funding came as a response to a perceived high level of unwed teenage pregnancies (Moran, 2000).

In 1996, Congress passed a major piece of welfare reform legislation entitled the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA). PRWORA included Section 510 of Title V of the Social Security Act (often referred to as A–H), which was a 5-year, $250 million grant for abstinence-only sex education (Williams, 2011). Additional funding, known as the Community-Based Abstinence Education (CBAE) program, followed the passage of A–H (Williams, 2011). From 2000 to 2009, AOE received about $200 million in federal and state funding through AFLA, A–H, and CBAE (Williams, 2011). With the election of President Obama in 2008, the administration ended most AOE programs and replaced them with CSE programs (Greslé-Favier, 2013). Even though A–H was supposed to become obsolete alongside a defunct CBAE program, A–H was reinstated for 5 years as part of the U.S. health care reform in March 2010 (Clemmitt, 2010). As the twentieth anniversary of A–H approaches, the survival of this policy will likely depend on the 2016 presidential election outcome.

For almost the past 20 years, A–H has served as the leading law addressing adolescent unintended pregnancies and STIs as a legacy of welfare reform mandating that the U.S. government fund state-level A–H policy within public schools (Jeffries, Dodge, Bandiera, & Reece, 2010). In order for states to receive federal funding, the policy forbids any teaching about contraceptive methods except to emphasize their failure rates (Santelli, Ott, Lyon, Rogers, & Summers, 2006a). A–H defines AOE as an instructional or motivational program that meets the eight guidelines listed in Table 1.

Since A–H mandates are often at odds with other local and state mandates and funding restrictions, sex education in the U.S. is frequently fragmented from one state to another (Donovan, 1998; Lindberg, Santelli, & Singh, 2006; Waxman, 2004). While this topic is often emotionally charged, debates over the best way to approach sex education commonly focus on evidence-based research (Constantine et al., 2007) in three domains: (1) the effectiveness of AOE programs; (2) the effectiveness of CSE programs; and (3) parental and public support for either of these programs (Constantine, 2008). Research has demonstrated thus far that AOE programs meeting A–H guidelines in their current form are not effective and that parents overwhelmingly support CSE (Constantine, 2008).

Table 1 Section 510 A–H guidelines of Title V of the Social Security Act

A. Has as its exclusive purpose, teaching the social, psychological, and health gains to be realized by abstaining from sexual activity
B. Teaches abstinence from sexual activity outside marriage as the expected standard for all school age children
C. Teaches that abstinence from sexual activity is the only certain way to avoid out-of-wedlock pregnancy, sexually transmitted diseases, and other associated health problems
D. Teaches that a mutually faithful monogamous relationship in the context of marriage is the expected standard of human sexual activity
E. Teaches that sexual activity outside of the context of marriage is likely to have harmful psychological and physical effects
F. Teaches that bearing children out-of-wedlock is likely to have harmful consequences for the child, the child's parents, and society
G. Teaches young people how to reject sexual advances and how alcohol and drug use increases vulnerability to sexual advances
H. Teaches the importance of attaining self-sufficiency before engaging in sexual activity

Meta-Analytic Reviews of Abstinence-Only Education and Comprehensive Sex Education

Quantitative, meta-analytic reviews have examined the literature on both AOE and CSE programs. Silva (2002) reviewed the findings from controlled school-based sex education interventions for both AOE and CSE published from 1987 to 2001. Twelve controlled studies were included in the meta-analysis. The overall estimated effect size ($d+$) from these 12 studies was 0.05 with the 95 % confidence interval about the mean ranging from 0.01 to 0.09, indicating a very small overall effect size. No significant effect was detected among school-based sex education programs, demonstrating that neither an AOE nor a CSE approach was associated with abstinent behavior among adolescents.

Chin et al. (2012) conducted a meta-analysis that focused on both group-based comprehensive risk reduction and abstinence education intervention approaches to prevent or reduce teenage pregnancy, HIV, and STIs. Chin et al. found 66 studies that focused on CSE approaches and 23 studies that examined AOE programs. The coordination team identified seven main outcomes for each strategy, which included current sexual activity, frequency of sexual activity, number of sexual partners, frequency of unprotected sexual activity, use of protection (including condoms and/or hormonal contraception), pregnancy, and STIs. The CSE interventions demonstrated significant effectiveness for all of the outcomes for teens that received CSE as compared to those teens who did not participate in CSE interventions or who participated minimally. Sexual activity was reduced (OR 0.84), frequency of sexual activity was reduced (OR 0.81), number of sexual partners decreased (OR 0.83), unprotected sex decreased (OR 0.70), STIs (OR 0.65) and pregnancies (OR 0.88) were reduced, and use of protection (OR 1.39) increased. The AOE interventions did not exhibit effectiveness for any of the outcomes (except sexual activity) for teens who received AOE as compared to those teens who did not participate or who minimally contributed. Sexual activity was significantly reduced (OR 0.81) through the AOE intervention. Since all of the AOE studies except 1 focused on adolescents aged 10–14, the meta-analysis could not draw any conclusions on the effectiveness of group-based AOE interventions for older adolescents (ages 15–19).

Tyson, Covey, and Rosenthal (2014) conducted a meta-analysis that reviewed the use of the Theory of Planned Behavior (TPB) (Ajzen, 1991) and the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975) to examine the efficacy of these theory-based interventions in reducing unwanted pregnancies and STIs among heterosexual individuals. The reasoned action model (RAM) (Fishbein & Ajzen, 2010) is built from these two theories (discussed below). Thirty-two unique articles were published between 1981 and 2012. Most studies consisted of teenagers or participants in their early 20s ($M = 18.13$ years, range 11–87 years). The pooled effect size from the interventions that measured condom use/protected sex was highly significant yet small ($D = 0.12$). These theory-based interventions, however, performed well when compared with control conditions in which participants received no information or little sexual health content. The finding of no difference in control groups is important since it shows that TPB- or TPA-informed interventions outperform methodologically rigorous control conditions even when they have controlled for sexual health content (Tyson et al., 2014). This essay draws on literature from these meta-analyses and also utilizes much of the extant literature. Additionally, forward and backward reference searching from the articles within the meta-analyses has been incorporated into the current essay.

Reasoned Action Model

The RAM is a theory-based model focusing on a specific behavior of interest that must be clearly defined and accurately operationalized (Fishbein & Ajzen, 2010), such as adolescents refraining from having sex, that could inform sex education policy in the U.S. RAM assumes that the information or beliefs people have about the specific behavior of interest can lead to behavior that is either planned or improvised. These beliefs can come from a multitude of sources, including the media, personal experiences, exchanges with other people, schools, etc. Individuals' social backgrounds as well as personality traits likely contribute to how they process this information to which they become exposed. Regardless of how people acquire their beliefs towards a given behavior, these beliefs

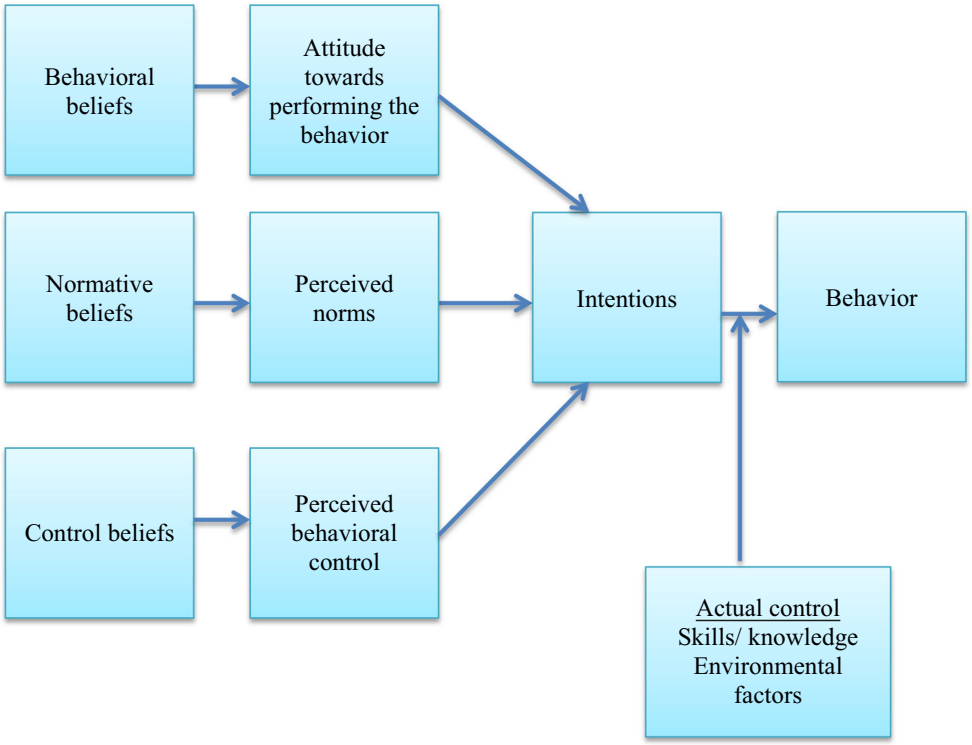

Fig. 1 Reasoned action model (RAM) conceptual model

facilitate whether or not to perform the behavior. RAM posits that a person's decision to perform or to not perform a behavior depends on that person's intention to perform or to not perform that behavior (Fishbein et al., 2001). The intention is influenced by three primary beliefs outlined below. See Fig. 1 for a conceptualization of these beliefs.

(1) *Peoples' attitude towards performing (or not performing) the behavior*s. This attitude is influenced by behavioral beliefs (see Fig. 1) about the positive or negative consequences of performing (or not performing) the behavior. To the extent a person perceives that the performance of a behavior is likely to result in a positive outcome, that person will more likely have a favorable attitude toward performing the behavior.

(2) *Peoples' perceptions of the social or normative pressure (labeled perceived norms in Fig. 1) placed on them to perform or to not perform the behavior*. People form beliefs about how important others in their lives would approve or disapprove of their performance of a behavior (known as injunctive norms) as well as beliefs concerning whether or not important others in their lives are performing the behaviors (known as descriptive norms). Injunctive and descriptive norms combine to create general subjective norms (labeled perceived norms in Fig. 1), meaning the perceived social pressure people experience to perform or to not perform a behavior. The higher the approval towards a behavior from important others as well as if most important others are engaging in the behavior, the more likely someone is to perceive social pressure to participate in the behavior.

(3) *People's beliefs about personal and environmental factors (labeled perceived behavioral control in Fig. 1) that help them to perform or to not perform a behavior.* These beliefs are influenced by a general perception of control with regard to the specific behavior (labeled control beliefs in Fig. 1), resulting in a feeling of high or low self-efficacy (Bandura, 1986, 1997). If these control beliefs result in identifying more facilitating than inhibiting factors to perform the behavior, then people's level of perceived behavioral control should be high.

RAM also focuses on how a behavioral intention can only be expressed if a person has free will to choose or not to choose to perform the behavior (Ajzen, 1991). Non-motivational, environmental factors, such as time, money, skills, cooperation of others, etc. (Ajzen, 1985), will often largely influence a person's decision to perform or to not perform the behavior (Ajzen, 1991). Combining these factors of intention and volition creates the actual control (see Fig. 1) that a person needs to perform the behavior. If the person has actual control and intends to perform the behavior,

then that person should be successful in completing the behavior (Ajzen, 1985). See Fig. 1 for a conceptual representation of all of the aforementioned constructs that contribute to RAM.

Review of Abstinence-Only Education and Comprehensive Sex Education Literature

An evaluation of 11 states that implemented AOE programs that met A–H guidelines could not demonstrate a lasting, positive impact on reducing adolescent sexual risk behavior over time (Hauser, 2004). Systematic reviews suggest that limited empirical evidence supports Guidelines E and F (see Table 1) or their ability to help reduce pregnancy or STIs (Kohler, Manhart, & Lafferty, 2008). A randomized controlled trial of 4 federally funded AOE programs meeting A–H guidelines found no significant decrease in the number of sexual partners, STIs, pregnancy, or sexual initiation among adolescents (Trenholm et al., 2007). These guidelines appear within A–H because they attempt to promote morality among adolescents (Irvine, 2004; Luker, 2007).

Empirical evidence does not support reducing unintended pregnancies and STIs through an A–H abstinence-only educational framework that lacks a theory-based approach. AOE interventions that meet A–H guidelines have received harsh criticism for providing erroneous information, depicting sex as negative, using a moralistic tone (Santelli et al., 2006a; Waxman, 2004), and risking inadvertent negative consequences (Borawski, Trapl, Lovegreen, Colabianchi, & Block, 2005; Santelli et al., 2006a; Underhill, Montgomery, & Operario, 2007). Even though limited evidence supports the A–H guidelines, the U.S. had primarily funded AOE education through the George W. Bush administration that met these guidelines at home and abroad (Santelli et al., 2006a). Many states have also mandated that education focused on reducing STIs for children focus on abstinence using the A–H guidelines (Landry, Kaeser, & Richards, 1999).

Other high-income countries have done a more effective job than the U.S. in reducing unintended pregnancies. In 2013, the U.S. had 26.5 births for every 1000 teenage women aged 15–19 years (HHSODA, 2013). In the Netherlands during the last quarter of the twentieth century, the country dropped its birth rate from 8.4 to 4.1 births for every 1000 teenage women aged 15–19 (Lewis & Knijn, 2002). Scandinavia, Germany, and France also have teen birth rates of less than 10 births per 1000 teenage women within this same age group (Duncan, 2007; Ross, Baird, & Porter, 2014). This disparity may be attributed to high levels of contraceptive use and comprehensive sex education (Ross et al., 2014). Rates may also be lower in these countries, especially in the Netherlands and Scandinavia, since attitudes towards teenage sex are less anxiety ridden. Much of the responsible teen sex that occurs in these countries stems from feedback from parents and peers rather than schools, which may reduce negative outcomes.

Promoting Health Among Teens-Abstinence Only Intervention Approach

Promoting Health Among Teens-Abstinence Only (PHAT-AO) is one of the very few AO theory-based interventions developed by Jemmott, Jemmott, and Fong (2010) to help adolescents develop skills to practice abstinence and to address their motivation to do so using behavior change principles of RAM. The curriculum is an 8-h abstinence-only (AO) intervention divided into 8 one-hour modules (HHS, 2012). This curriculum was designed to increase knowledge about HIV/STIs, increase behavioral beliefs that abstinence can prevent pregnancy and STIs as well as aid future goal attainment, help adolescents view abstinence as a positive choice, aid adolescents in understanding that abstinence is the best way to avoid unintended pregnancies, and strengthen skills to negotiate abstinence and resist peer pressure to engage in sexual intercourse (ETR Associates, 2007–2009; Jemmott et al., 2010; Walker, Mwaria, Coppola, & Chen, 2014).

The curriculum for PHAT-AO contains four theory-based components using RAM (HHS, 2012). These theory-based components focus on the target behavior, which is abstaining from vaginal, anal, and oral intercourse until later in life when an adolescent feels more prepared to handle the consequences of engaging in sexual behavior (Jemmott et al., 2010). The accuracy rate of condoms is discussed, and facilitators are trained to correct any notions that condoms are ineffective (Jemmott et al., 2010). PHAT-AO provides medically accurate information, does not suggest that abstinence-until-marriage is necessary, and does not make any moral judgments about teen pregnancy and STIs as an unwanted outcome (ETR Associates, 2007–2009).

Jemmott et al. (2010) piloted the efficacy of the PHAT-AO program with 662 African American adolescents aged 11–14 years in Grades 6 and 7 who were randomly assigned to an 8-h AO intervention, an 8-h safer sex-only intervention, or an 8-h health promotion control group. Results indicated that the theory-based PHAT-AO program significantly reduced self-reported sexual intercourse by about 33 % after 24 months when compared with the health promotion control intervention. While other studies have shown that AO interventions have reduced the number of adolescents that engage in sexual intercourse, this study was the first randomized controlled trial that found a reduction in adolescent sexual intercourse for an extended period of time following the intervention. Even though the intervention did not meet federal A–H criteria for funding AO interventions, it escapes many criticisms that AO interventions meeting A–H federal criteria often receive, in particular the lack of methodological rigor used to test the efficacy of the AO interventions (Fortenberry, 2005; Santelli et al., 2006b; Waxman, 2004). A major limitation of this study, however, was that a reduction in sexual intercourse was only observed at 24 months following the AO intervention and that no effects were found between 3 and 18 months following the intervention. This study needs to be replicated in

order to better understand why the effect was only found at one time point.

The Policy Paradox of the 1996 Title V Section 510 of the Social Security Act

Stone's (2002, 2012) *Policy Paradox: The Art of Political Decision Making* is a useful framework to use when analyzing policy, such as sex education policy. Since policy making is commonly a political struggle over values and ideas, utilizing Stone's framework helps uncover the manifold paradoxes that underlie policy decisions that may appear straightforward on a surface level. Stone's model is dominant within the public policy field because of its ability to demonstrate how politics cannot be separated from policy making in favor of a more rational, scientific analysis. Its framework highlights how the enduring values of community life, rather than the specific goals of detailed policy issues, create controversy over particular policy goals. Since these values are the standard of analysis most frequently mentioned within policy debates, its framework provides richness in exploring the goals of welfare, liberty, and security as they inform the U.S. sex education policy.

Policy scholars within various disciplines commonly employ Stone's framework to analyze sex education policy within the U.S. Rom (2011) explained how advocates of any issue report numbers in ways that appear favorable to the cause. In the case of sex education, advocates supporting AOE will focus on presenting numbers that distort federal versus state spending, while advocates for CSE will spin a different story. Counting is a concept that Stone (2012) calls political because "Measuring any phenomenon implicitly creates norms about how much is too little, too much, or just right" (p. 196). Oster (2008) applied *Policy Paradox* to illustrate how the policy of *No Child Left Behind* mandates that all school programs be supported by scientifically based research in order to preserve quality control, yet most scientifically based research has shown that the majority of AOE programs conforming to A–H guidelines are ineffective in preventing unintended pregnancies and STIs. Rasmussen (2012) explored how the condom had been used as synecdoche in policy discourse in New York City in the 1990s to reduce the effectiveness of HIV prevention and sex education policy making. The condom was essentially used as a powerful symbol (a concept Stone thoroughly explores) within a policy arena that created a polarization of how to effectively teach sex education within New York City.

Within every debated policy issue in the U.S. exists a struggle over contradictory yet seemingly feasible alternative ideas surrounding how to interpret an intangible goal or value (Stone, 2012), such as reducing unintended pregnancies and STIs. Welfare, liberty, and security are three critical goals that have influenced A–H policy within the U.S. Lesbian, gay, bisexual, and transgender (LGBT) people had been denied the right to participate in legal marriage federally (until the recent Supreme Court decision on June 26, 2015 declared gay marriage legal in all 50 states) and to enjoy the over 1000 benefits that are attached to federal marriage. The lack of access to these benefits decreased LGBT people's ability to experience a full sense of welfare, liberty, and security within the U.S. Before 1990, people with disabilities were not guaranteed a right to physically access any building in the U.S. These U.S. citizens were denied a basic level of welfare, liberty, and security until the American with Disabilities Act passed. Women in the U.S. still do not experience the level of welfare, liberty, and security that men enjoy since no policy exists that guarantees equal pay for equal work. The Equal Rights Amendment has never passed, which would increase welfare, liberty, and security for these citizens. These historical examples provide a foundation in understanding how sex education policy has been approached when examining the welfare, liberty, and security of adolescents in the U.S.

The Dirty "W" Word

When policymakers think about a social problem, they often conceptualize the problem in terms of how to promote human welfare (Stone, 2012). Human welfare focuses on how a society should help individuals and families when they are in need. Policy discussions and decisions often become contentious when a society has to determine how to operationalize what need truly means. While the goal of A–H is the need to reduce pregnancies and STI rates, this seemingly "objective" welfare need becomes complicated when examining the nature of this goal.

A–H inherently messages to adolescents that sex is dangerous through the policy's focus on the social, psychological, and health benefits from abstaining from sexual activity (Guideline A), its emphasis on monogamy (Guideline D), its focus on teaching that sexual activity outside of marriage for school-aged children is likely to produce harmful psychological and physical effects (Guideline E), and its teaching that bearing children out-of-wedlock will likely have harmful consequences for the child, the child's parents, and society (Guideline F) (Social Security Act, 1996). This message communicates to adolescents a puritanical viewpoint of sex in the U.S. that deems sex shameful and detracts from the real message that research supports that waiting to have sex decreases a teen's chance of becoming pregnant or contracting an STI (Cates, Herndon, Schulz, & Darroch, 2004).

The goal of A–H focuses on measuring whether abortions, STIs, and pregnancies are reduced (Social Security, 1996). The policy, however, does not measure skills that adolescents need to meet this goal. For example, learning communication tools for negotiating sexual decision making, engaging in difficult conversations, and articulating accurate knowledge about pregnancy and STIs with a sexual partner are critical skills for adolescents to develop (Halpern, Joyner, Udry, & Suchindran, 2000; Pedlow & Carey, 2004). The sexual well-being of adolescents is dependent on obtaining these skill sets that focus on risk appraisal, decision

Table 2 Summary of strengths and limitations for abstinence-only education (AOE) and comprehensive sex education (CSE)

	Abstinence-only education (AOE)	Comprehensive sex education (CSE)
Strengths	1. Generally more federal funding opportunities	1. Parents overwhelmingly support
	2. State legislatures and Congress tend to support	2. Majority of evidence-based research supports
	3. Practicing abstinence guarantees no unintended pregnancies and STIs will occur	3. Not generally moralistic in nature
	4. Clear message that focuses on abstinence	4. Does not portray sex as negative
	5. Religious organizations tend to support with few reservations due to moralistic nature	5. High in welfare, liberty, and security
		6. Prepares teens with communication and decision making skills
		7. Supporting literature often theory-based using RAM
		8. Promotes abstinence in addition to other safer sex methods
Limitations	1. Parents do not overwhelmingly support	1. Generally fewer funding opportunities
	2. Limited evidence-based research support	2. State legislatures and Congress tend not to support
	3. Generally moralistic in nature	3. Does not guarantee an absence of unintended pregnancies and STIs
	4. Often portray sex as negative	4. Messaging is not always clear and can become confusing for adolescents if not framed well
	5. Low in welfare, liberty, and security	
	6. Does not typically stress communication and decision making skills	5. Religious organizations tend to display opposition due to lack of moralistic nature
	7. Supporting literature often not theory-based	
	8. Does not promote other safer sex methods besides abstinence	

making, problem solving, and examining the short-term and long-term consequences of risky sex (Pedlow & Carey, 2004).

A–H does not promote adolescent human welfare because the policy does not address how adolescents will obtain the ability to communicate and to negotiate around sexual decision making. Since systematic reviews of AOE that are not theory-informed have demonstrated minimal effects on adolescent sexual behavior (Kohler et al., 2008), a critical focus on increasing adolescent welfare could potentially provide policymakers with a more productive, theory-based approach to AOE. Even though AOE programs meeting A–H guidelines are morally based, CSE is not value free since its focus devalues and degrades early teen sex through prevention. This distinction is important because both approaches can never be truly objective and provide the highest level of adolescent welfare in a society such as the U.S. in which sexuality is an issue fraught with moral tension.

With (or Without) Liberty for All

Throughout U.S. history, liberty has often encompassed the freedom and ability to make an informed decision. Lawmakers tend to look for tangible criteria to guide and to justify their decision making, yet policymakers constantly grapple with how to determine when government can intervene and interfere with citizens' decisions and behaviors (Stone, 2012). A–H policy has created a low level of liberty for adolescents by greatly restricting their ability to make informed decisions about their sexual behavior. These restrictions stem from a policy that emphasizes disgust, negative liberty, and paternalism toward adolescent sexual behavior decision making.

Liberty can often be restricted in a society because a group feels disgust towards providing that liberty. Nussbaum (2010) argued that restrictions on LGBT rights have been justified based on disgust rather than any factual evidence that gay marriage or adoption is harmful to anyone. Opponents of LGBT rights have been successful at times in persuading courts and voters that LGBT people are dangerous through an appeal to disgust and moral repugnance. A–H policy has been based on this same moral repugnance towards sex and sexuality within the U.S. Empirical evidence indicating that youth who participate in programs that meet A–H standards are more likely to remain abstinent than youth who do not participate does not exist (Trenholm et al., 2007).

Berlin (1969) described positive liberty as the ability to participate in an activity without interference, while negative liberty takes the form of coercion or enslavement. Mill (1999/1859) argued in his essay *On Liberty* that government should never stop people from using their free will to exercise choices that could potentially harm themselves and deny them future opportunities. This concept Mill refers to is known as paternalism. Stone (2012) argued that criteria for deciding whether a group has the ability to exercise free choice, such as minors, are vulnerable to the interpretation and manipulation of people in power, thus creating both a negative and paternalistic liberty. A–H provides negative liberty for adolescents. If they choose not to remain abstinent and have received only AOE meeting A–H standards, then they become unprepared. They will experience difficulty participating in any form of sexual behavior, because they are uninformed about how to prevent pregnancies and STIs. Additionally, they may also receive inaccurate information from other sources (such as the Internet, television, and peers), thus creating even higher levels of neg-

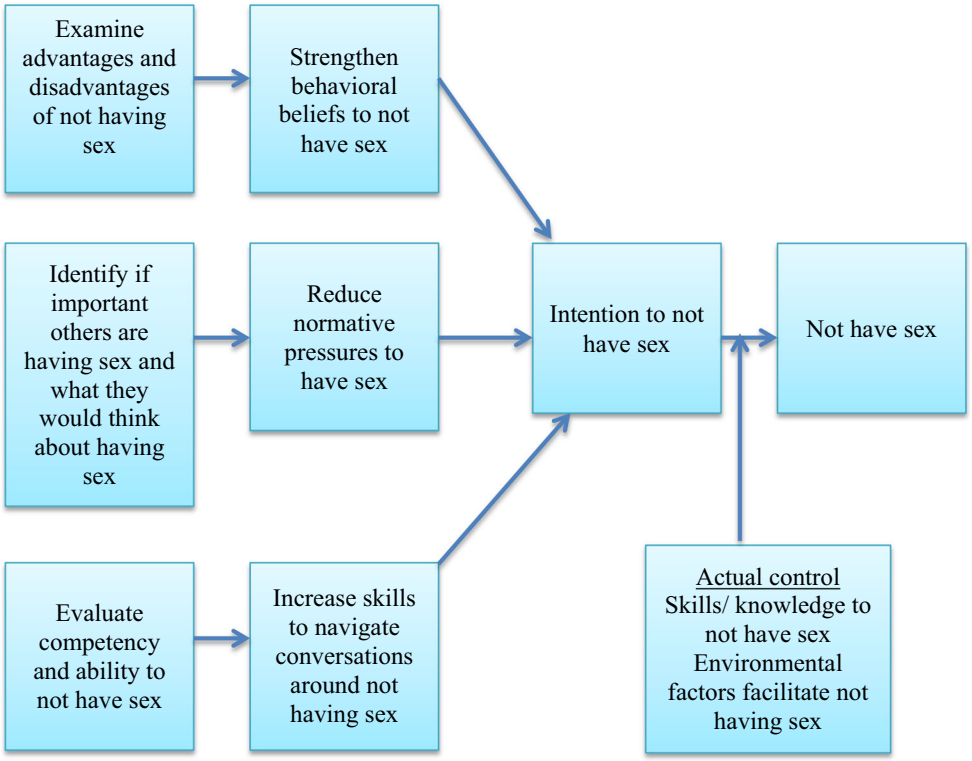

Fig. 2 Reasoned action model (RAM) applied to adolescent sexual risk behavior

ative liberty. These high levels of negative liberty and low levels of positive liberty lead to a lack of sexual self-determination for teens. See Weinman (2011) and Wehmeyer (1998) for a more detailed discussion.

Securing Our Borders or Our Teens?

Stone (2012) asserts that the goal of security "might be defined as an ideal of perfect safety, the guaranteed absence of bad things and, therefore, a total lack of worry" (p. 130). Security is essentially a psychological state perpetuated through policy leaders' attempts to communicate to the public that they are in control (Stone, 2012). Policymakers developed A–H using this construct of security to promote that social, psychological, and health security are inherent aspects of A–H that provide adolescent security against sex before marriage (Social Security Act, 1996). Lawmakers, therefore, effectively messaged that A–H provides a moral and cultural type of abstinence (Santelli et al., 2006a) that will guarantee a faithful monogamous relationship leading to a security that creates an absence of teenage pregnancies and STIs.

Stone (2012) considers safety a form of security that is meant to protect people from the unintended accidents of daily living. These activities include walking, eating, playing sports, and anything adults engage in as they go about their daily lives (including sexual activity). Adolescents who engage in sex should have the preparation and information that provides them with similar security that adults hold. Without the proper knowledge of how to engage in sexual intercourse through using condoms or other STI/pregnancy measures, adolescents are not provided this same level of security.

A–H is based on the idea of avoiding insecurity, which is the space between a bad thing and the fear of it (Stone, 2012). The fear of adolescents developing STIs or becoming pregnant forms the foundation of A–H, yet this fear is somewhat concealed through the policy's major focus on a morally and culturally specific definition of abstinence (Santelli et al., 2006b). In reality, A–H is creating high levels of insecurity since empirical studies time and again have demonstrated that A–H does not stop adolescents from having sex, does not decrease adolescent sexual frequency, and does not reduce STI incidence (Hauser, 2004; Kirby, 2007).

Applying the Reasoned Action Model to Adolescent Sexual Behavior

Using RAM as a theoretical framework to help adolescents refrain from having sex and to reduce unintended pregnancies and STIs is a viable option considering the empirical evidence that supports the use of RAM for these outcomes of problematic behaviors (Jemmott, Jemmott, Braverman, & Fong, 2005; Jemmott, Jemmott, & Fong, 1992, 1998; Jemmott et al., 2010; Jemmott, Jemmott, Fong, & McCaffree, 1999). Several meta-analyses have also demonstrated the theory's predictive power in relation to condom use

(Albarracin, Johnson, Fishbein, & Muellerleile, 2001; Armitage & Connor, 2001; Sheeran & Orbell, 1998; Webb & Sheeran, 2006). Since RAM has been employed to explain a large range of health behaviors (Fishbein & Ajzen, 2010) as well as sexual behaviors, it is a potentially useful theoretical approach to inform both AOE and CSE interventions with adolescents. RAM adapts different behaviors to various people and focuses on how predictors of behavior will change depending on the behavior and population (Jemmott, 2012). RAM does not necessarily include all of the variables that are important to a particular behavior in a specific population, but it provides a framework so that the variables can be incorporated as precursor determinants of the three main theoretical mediators of the model (see Fig. 1) (Jemmott, 2012).

Behavioral beliefs about sex and attitudes towards having sex impact adolescents' decisions to choose to engage or to not engage in having sex. Normative beliefs as well as perceived norms factor into decisions to have sex or to not have sex. Control beliefs as well as perceived behavioral control will also inform whether or not an adolescent will choose to have sex. Interventions that utilize RAM identify and target behavioral beliefs (which influence attitudes towards the behavior), normative beliefs (which influence perceived norms), and control beliefs (which influence perceived behavioral control) about having sex. These constructs can influence adolescents' intentions to have sex, which may then ultimately lead to a behavioral change of delaying sex (see Fig. 2) (Jemmott, 2012). A–H has not utilized this theory-driven framework to inform the policy.

Discussion

Recommendation

Since Section 510 of Title V of the Social Security Act is low in providing the goals of welfare, liberty, and security and lacks a theory-based approach to reduce adolescent unintended pregnancies and STIs, a viable alternative policy that is theoretically informed becomes necessary. With the advent of the Patient Protection and Affordable Care Act in 2010, new U.S. federal funding has become available for evidence-based programs that use curriculum-based sex education or youth development approaches to prevent teen pregnancy. While the funding requirements do not specifically mandate that programs address STI or HIV prevention, this alternative funding is a step towards more effectively addressing adolescent pregnancies and STIs. Limited published information about AOE program costs exists (for those programs fulfilling A–H guidelines), so estimating the cost savings of implementing other programs to replace these programs is difficult to quantify (Chin et al., 2012).

The National Sexuality Education Standards: Core Content and Skills, K-12 is a document released in January 2012 by a consortium of leading school health education groups (Future of Sex Education Initiative, 2012) that is one potential option to replace A–H. Seven topics (anatomy and physiology, puberty and adolescent development, identity, pregnancy and reproduction, STIs and HIV, healthy relationships, and personal safety) are utilized to promote K-12 sexuality education (Future of Sex Education Initiative, 2012). The standards constitute minimum, essential, and core elements of CSE, which is important in an era in which AOE that meets A–H guidelines is gaining some new momentum within state legislatures and an increasingly conservative Congress (Boonstra, 2012). Adding a theory-based component that examines both CSE and AOE programs to these standards would be a step in the right direction.

Limitations

In order to ensure that we have provided a balanced perspective on sex education policy, we must emphasize that CSE programs are not value free and can also promote negative and paternalistic liberty among adolescents. A cross-cultural perspective indicates that teen sexuality is normal and potentially useful rather than inherently problematic (Whiting, Burbank, & Ratner, 2009). In many non-Western cultures (particularly "simple" societies), teens are encouraged to engage in sex so that they can develop sexual competence, an achievement that makes them more desirable as marriage partners later on. The U.N. Committee of the Rights of the Child (1990), however, whose voice is Western based, advocates that teens have access to sexual information, not actual sexual experiences. Utilizing CSE and AOE with RAM arguably can create negative liberty and welfare for adolescents since the focus is on prevention rather than adolescents gaining sexual experience. We acknowledge that utilizing RAM to change adolescent attitudes and beliefs can be viewed as a form of paternalistic control.

Since the U.S. is a complex society, with cultural needs that tend to be better met by restricting teen sex (to reduce teen pregnancies, foster educational and career development, and combat STIs) (see Whiting, Burbank, & Ratner, 2009, for a detailed review), we believe that RAM combined with a CSE and AOE approach is the best strategy to meet these needs, especially within the constraints of our political climate. In some future society, perhaps we may allow teens greater positive rights regarding their sexuality, when the social and health problems currently at hand are under control. Lastly, this article also presents a cisgender, heteronormative perspective on sex education policy. While pregnancy is not a concern for LGBT people, STIs are an issue that can still be addressed through condom use as well as outercourse (i.e., non-penetrative sex) and should be addressed in future research.

Conclusion

Theory-based interventions utilizing RAM, such as *Promoting Health Among Teens-Abstinence Only*, that integrate principles from AOE and CSE should be incorporated into federal sex education policy. See Table 2 for a summary of the strengths and limitations of both approaches. These types of interventions

have the promise to reduce adolescent unintended pregnancies and STIs. As the majority of parents within the U.S. support some type of CSE starting as early as elementary school (Barr, Moore, Johnson, Forrest, & Jordan, 2014), the political climate seems ripe for implementing more theory-based CSE and AOE programs within schools so that A–H policy can be retired once and for all.

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