

Negative Health Outcomes of Non-Comprehensive Sex Education

The Negative Physical, Mental, and Emotional Health Outcomes of Non-Comprehensive Sex
Education on Rural Populations

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Research Question:

What are the negative physical, mental, and emotional health outcomes that result from non-comprehensive sex education in rural populations of the United States?

Introduction:

Sex education is a vital component of youth development and health. Sex education gives students knowledge, resources, and self-efficacy with regards to making safe sex decisions, feeling confident in sexual situations, and being educated on sexual health overall. The United States ranks first among developed nations in rates of teenage pregnancy, abortion, and sexually transmitted infections (Blanton, 2019). There are three main sex education curricula implemented within the United States including Abstinence-Only, Abstinence-Plus, and Comprehensive sexual education. Nearly 750,000 teenagers in the United States will become pregnant this year, and half of the 20 million new cases of sexually transmitted diseases in young people ages fifteen to twenty-four (Blanton, 2019). For this reason, sex education within the United States is necessary for students, specifically for those living in areas where sex education is not emphasized, specifically rural areas (Lanteri-Simmons, 2017).

Abstinence-Only programs teach abstinence as the only morally sound trajectory for teenagers. The curriculum within Abstinence-Only programs does not include information on contraception or condoms to prevent diseases or unintended pregnancies. Abstinence Plus programs also stress abstinence until marriage but do provide education on contraception and condoms. Comprehensive Sex Education teaches youth that sexuality is a normal and healthy part of human life and discusses abstinence as the most effective way to avoid unintended pregnancies and sexually transmitted infections (STI's), but also gives students the knowledge

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that they need to make their own personal decisions from an informed perspective (Blanton, 2019). It has been shown that abstinence-only programs are ineffective at promoting abstinence until marriage and importantly, they withhold crucial information from developing adolescents (Boyer, 2018). Though this has proven to be true, \$2 billion dollars in state and federal funding has been allocated for abstinence-only education since 1996 (Boyer, 2018).

Only 39 of America's 50 states have sex education laws, and of these states, 30 require that abstinence be stressed (Guttmacher Institute, 2020). Of the states that stress abstinence education, most of them have large rural populations with conservative beliefs specifically on social and family issues (Alley, 2018; Parker et al., 2018). Specifically, it has been found that conservative states are more likely to stress abstinence in their education than to provide information on contraceptives (Alley, 2018). Further, there are 15 states where rural residents make up more than half of the population, of which 11 have republican governors (Greenblatt, 2016). Despite the majority of states enforcing abstinence education, comprehensive sex-education needs to be increasingly implemented specifically in rural areas as 19.3% of the U.S. population lives in rural areas and nearly every state has some rural counties (Stewart & Finley, 2013). Additionally, although the negative outcomes are noticeable, the Trump Administration and conservatives in congress are pushing for funding increases for abstinence only programs (Boyer, 2018).

In recent years, there have been troubling declines in formal instruction about sex education, particularly for young men and women residing in rural areas (Blanton, 2019). This decline is happening even though 46% of American High School students have had sexual intercourse and are potentially at risk for human immunodeficiency virus (HIV) infection and other STD's (Do Something Campaign, 2019). The declines of formal sex education are also

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concerning as 1 in 4 teens contract a sexually transmitted infection each year and, young people, ages 15-24 account for 50% of all new STDs even though they only represent just 25% of the sexually experienced population (Do Something Campaign, 2019). Although these are staggering statistics, rural students represent crucial statistics of their own as the number of rural girls receiving birth control information has declined from 71 percent to 48 percent in recent years. Among rural boys, the number receiving birth control information decreased from 59 percent to 45 percent (Guttmacher Institute, 2017).

Rural states would benefit from receiving comprehensive-sex education because of the current barriers faced by residents to receive sexual health knowledge and resources. In rural areas, sex education and critical services are hard to come by. For example, according to Stanford eCampus Rural Health, fewer than 10 percent of U.S. physicians practice in rural areas (Stanford Medicine: eCampus Rural Health, 2019). Because of this, health provider shortage areas are created, and rural residents often are required to travel long distances to reach a healthcare provider. Further, this may require individuals, specifically students, to take time off of work and school. In regard to sexual health related problems, young adolescents would benefit from comprehensive sex education because they would have more knowledge and be equipped with preventative measures. Additionally, residents of rural areas are more likely to be uninsured, making the need for sex education to prevent negative health outcomes crucial (Stewart & Finley, 2013).

Rural students are largely affected by sex education, regardless of curriculum. However, rural students are even more impacted from not receiving comprehensive sex education. The purpose of this literature review is to examine the specific negative health outcomes, both physical and mental/emotional that result from non-comprehensive sexual education in rural

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populations of the United States in order to provide insight to needs and gaps present within rural youth students' education.

Population of Interest:

The population of interest for this literature review is adolescents and young adults from rural populations of the United States having received formalized sexual education.

Methods:

This literature review consists of articles found from a variety of databases. Multiple databases were searched in order to obtain data from a variety of search fields. Upon the completion of obtaining articles to be included in this review, PsycINFO, Education Research Complete, the Education Database, and the UGA multi-search database provided results that were used. Articles chosen were examined to ensure that they provided answers to all or parts of the research question, *what are the physical, mental, and emotional health outcomes that result from non-comprehensive sex ed in rural populations of the United States?* In total, eleven articles contribute to the category of negative physical health outcomes and nine articles contribute to the category of mental/emotional outcomes with overlap between some articles.

All searches conducted for this literature review, regardless of database, were completed through an Advanced Search tool to include multiple key search terms and ensure sufficient search results. Results were then filtered by scholarly (peer-reviewed) journal articles conducted between the years of 2010-2020. Selected studies were further narrowed by requiring research to have been conducted in the United States or provide results that could be easily applied to rural populations in the United States. Six different searches provided articles that met these qualifications and adequately explained different negative outcomes, both physical and

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mental/emotional, of non-comprehensive sex education for rural populations. Figure 1 below shows in detail the above-mentioned methods to obtain articles within each search.

Three searches were conducted within the PsycINFO database. This database was chosen with the hopes of finding articles that answered the mental/emotional part of my research question. First, the Boolean phrase “(abstinence only sex education) AND (rural)” was entered. The search results were then refined using the filters mentioned previously of which seven results were produced. Of these seven results, three articles were chosen (Cook, 2019; Joseph M. Currin et al., 2017; Lloyd et al., 2012). Next, the Boolean phrase “(abstinence only sex education) AND (teen pregnancy)” was entered. This search yielded 13 results after the same filters were applied. Of these thirteen results, two results were chosen (Hill, Lynne-Landsman, Graber, & Johnson, 2016; Kershner, Corwin, Prince, Robillard, & Oldendick, 2017). The last search conducted within the PsycINFO database used the Boolean phrase “(abstinence only sex education) AND (outcomes or impact)” This search produced 18 results after being refined by the same filters and two articles were chosen for use in this literature review (Gardner, 2015; Hoefer & Hoefer, 2017).

The UGA Library’s database was also utilized through the multi-search tool. The Boolean phrase “(sexual education) AND (abstinence) AND (rural)” was entered and 285 articles were produced after having the same filters applied as all other searches. Six articles from this search were used for this review (Dave et al., 2017; Hover & Bertke, 2017; Howard, Larkin, Ballard, McKinney, & Gore, 2017; Katz et al., 2019; Miller, Baptist, & Johannes, 2018; Smith, Wilson, Menn, & Pulczynski, 2014).

The Education Research Complete database was also searched for this literature review. The Boolean phrase “(sex education) AND (rural)” was entered and results were refined using

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the same filters mentioned previously. This search yielded 83 results of which two were chosen (Barral et al., 2020; Piotrowski & Hedeker, 2016).

Lastly, the Education Database was searched in hopes of finding articles that would answer all or part of the research question. The Boolean phrase “(sex education) AND (rural) AND (outcomes)” was entered. After applying the same filters as previous searches, 361 results were produced of which five were chosen (Baams, Dubas, & Van-aken, 2017; Campo PhD, Askelson MPH PhD, Spies MS, & Losch PhD, 2010; Joseph M Currin, Hubach, & Croff, 2019; Gillum, 2017; Ritchwood, Penn, Peasant, Albritton, & Corbie-Smith, 2017).

Results:

Mental and Emotional Impacts:

Beginning with the mental and emotional impacts of non-comprehensive sexual education for rural populations, many negative outcomes are observed throughout the obtained data. While a variety of different outcomes were present in the data, four main themes emerged with regards to negative mental/emotional health outcomes. First, many articles pointed towards individuals who did not receive comprehensive sexual education feeling low in confidence and overall knowledge in regards to sexual health leading to many negative mental and emotion health impacts (Gardner, 2015; Hoefler & Hoefler, 2017; Miller et al., 2018). Another large theme found among data is individuals feeling pressure from school teachers and parents to abide by non-comprehensive education resulting in negative mental and emotional health outcomes as well (Barral et al., 2020; Howard et al., 2017). Further, the theme of prevalence of negative mental health outcomes among minority groups was largely represented in data, specifically individuals within the sexual minority/LGBTQ+ population (Baams et al., 2017; Joseph M

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Currin et al., 2019; Joseph M. Currin et al., 2017) as well as individuals within racial minority groups (Barral et al., 2020; Lloyd et al., 2012).

Throughout selected articles, results suggested that individuals from rural populations having received or receiving non-comprehensive sexual education reported feeling of a lack of confidence as well as not feeling mentally equipped when faced with sexual health situations (Gardner, 2015; Hoefler & Hoefler, 2017; Miller et al., 2018). One study found that every respondent from states with high rural populations reported having received abstinence-based education that stressed virginity, resulting in feeling of guilt and negative emotions when choosing to be in a sexual situation (Gardner, 2015). Nine of the 15 participants were also given the option to sign virginity pledges, in which six completed. Of those six, there were reports of feeling uncomfortable and pressured to sign in order to “not seem promiscuous” (Gardner, 2015). The majority of participants also reported that their abstinence-based education stressed the idea of marriage, causing many participants to feel pressured to get married at a young age. However, this idea of marriage being stressed in abstinence only education also resulted in participants reporting that it encouraged them to participate in sexual activities when having the belief that they were not going to get married. This is a large concern as these participants entered sexual encounters with low-confidence and inadequate information on contraceptive measures due to their education (Gardner, 2015).

Another study conducted at a large rural Southwestern university with participants having received non-comprehensive sexual education reported that most participants felt frustrated with their school systems and the sexual education they provided (Hoefler & Hoefler, 2017). Several students reported that the abstinence-only approach made it impossible to get the information they needed and resulted in low self-confidence of sexual health of students. Five students also

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reported frustration as they experienced a condescending tone from their sex education curricula and educators. Further, this study found that participants reported sexist and heterosexual stereotypes, resulting in feelings of exclusion for some students (Hoefler & Hoefler, 2017).

Another study with young adolescents ages 8-15 from four rural counties in Kansas conducted focus groups to assess the challenges faced by rural students in regard to sexual health and education. Findings suggested that because schools lacked comprehensive sex education, there was a pressure for students to be “cool” and engage in sexual activity which potentially led to unprotected sex. The lack of comprehensive sex education also was reported to largely affect females in mental and emotional ways as it was reported to be less acceptable for females to engage in sexual activity, causing those who did to be shamed (Miller et al., 2018).

Another theme associated with negative mental and emotional outcomes for rural students not receiving comprehensive sex education was feeling forced to abide by education because of teacher and parent views (Barral et al., 2020; Howard et al., 2017). In a study with 84 Latino youth from rural Kansas, cultural barriers of virginity and sexuality as well as religious beliefs reinforced by their sex education and adult figures resulted in a lack of knowledge and feelings of guilt and shame (Barral et al., 2020). Another study conducted at a rural Kentucky middle school found that 73% of parents believed education given to their children should be abstinence-based, causing students to feel pressured to abide by their parent and educator views (Howard et al., 2017).

Within selected data was the prevalence of negative mental and emotional health outcomes faced by sexual minority students specifically (Baams et al., 2017; Joseph M Currin et al., 2019; Joseph M. Currin et al., 2017). One study found that sexuality and gender were rarely taught to participants from rural high schools (Baams et al., 2017). Because of this, members of

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the LGBTQ community were increasingly likely to be a part of name-calling situations. This study found that when given extensive sexual education to cover topics of sexuality and gender, students are more likely to intervene in LGBTQ name-calling situations leading to a safer school climate overall (Baams et al., 2017). Also, with regards to members of the sexual minority being increasingly affected, another study analyzed the effect of sex education on gay and bisexual men from rural Oklahoma. A large portion of participants (58) reported having received no sex education. Of the 46 who did, 34 reported their education having a heterosexual and abstinence focus. This led to participants feeling mentally unequipped with sexual health knowledge leading them to receive information from peers and media sources (Joseph M Currin et al., 2019). Another study conducted with 20 gay and bisexual men also from rural Oklahoma found that because comprehensive sex-education was not given to participants, these men often felt stigmatized. Without self-efficacy to initiate conversations combined with feelings of exclusivity, participants felt shame and punishment (Joseph M. Currin et al., 2017).

Not only are members of the LBGTQ community increasingly mentally and emotionally affected, but African American youth are also increasingly affected by non-comprehensive sexual education (Lloyd et al., 2012). African American youth continue to be at high risk for HIV infection. While this will also be discussed in the negative physical outcomes of non-comprehensive sex education, it is important to note the mental and emotional effects this has on African American youth. In a study with 11 focus groups with African American youth and adults from rural North Carolina, a majority of participants felt emotionally concerned about not receiving comprehensive sexual education as there was a lack of advocacy, lack of effectiveness, and lack of proper educators to make students feel comfortable and properly taught (Lloyd et al., 2012).

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Physical Impacts:

Aside from the mental and emotional effects of non-comprehensive sex education on rural students, a large amount of serious physical impacts are observed in this literature review as well. Importantly, rural female students are especially likely to be largely physically impacted. The prevalence of teen and unintended pregnancies among rural students without comprehensive sex education was found to be high and a cause for concern (Barral et al., 2020; Campo PhD et al., 2010; Hill et al., 2016; Smith et al., 2014). Additionally, individuals receiving non-comprehensive sexual education are potentially at an increased risk for developing STIs (Dave et al., 2017; Hover & Bertke, 2017). It was also noted that individuals not receiving comprehensive sex education were likely to engage in sexual activity at an earlier age, and in association, not use and or have low self-efficacy on contraceptive methods (Kershner et al., 2017; Lindberg & Maddow-Zimet, 2012; Piotrowski & Hedeker, 2016; Ritchwood et al., 2017). Lastly, another physical impact found that rural students not receiving comprehensive sex education could be linked to potentially experiencing dating violence and sexual coercion (Gillum, 2017; Katz et al., 2019).

The topic of teen and unintended pregnancies in rural students was largely found in the obtained data of this review. In one study of high school freshman girls, females were more affected by non-comprehensive sexual education simply because of their ability to get pregnant (Smith et al., 2014). Further, 34.4% of respondents in this study had engaged in sex in the previous year although receiving abstinence-based education and not having been given information on contraception (Smith et al., 2014). It was explained that the normative belief that abstinence was the only path to take affected teen girls' willingness to have sex (Smith et al., 2014). Another study with 106 women from a rural midwestern state found that one of the main

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reasons females do not report using contraceptives is a lack of knowledge (Campo PhD et al., 2010). In this study, women reported not having sufficient knowledge in contraceptive methods, side effects, availability, and the likelihood of becoming pregnant with each method, which are all topics that would have been covered if students had received comprehensive sex education (Campo PhD et al., 2010). Another study conducted with sixth to eighth grade female students in rural Florida studied the effect of a pregnancy and STI prevention after-school program to compensate for a lack of comprehensive sex education. Upon completion, female students who participated in the Go Girls program were more likely to have accepting attitudes of delaying sexual intercourse, showing the importance of giving pregnancy and STI education to students (Hill et al., 2016). As previously mentioned, a study analyzing the beliefs and knowledge towards sexual health of Latino women who did not receive comprehensive sexual education found that in nine of the 15 focus groups, sex education classes focused on general health and abstinence and did not mention contraception. Additionally, in eight of the 15 focus groups, participants knew teen pregnancy was a problem, but they did not know what they could do to stop it, leaving them especially at risk (Barral et al., 2020). Further, these individuals lack access to contraception (Barral et al., 2020)

Rural students are likely to be at increased risk for STIs due to not having sufficient background knowledge on topic of HIV and STIs. A study conducted in rural North Carolina with 249 African American Youth along with their parent/caregiver aimed to assess the effectiveness of Teach One Reach One, an STI/HIV risk-reduction program to improve adult-youth communication. In this study, adult participants who received proper sex education felt more comfortable communicating with their youth students (Dave et al., 2017). This is important because youth who do not receive comprehensive sex education may turn to their

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parents/guardian figured for information on sexual topics, specifically HIV and STIs. In another study conducted in rural Virginia, 65% of participants reported receiving non-comprehensive sex education. Seventy-nine percent of interview participants and 55% of questionnaire participants wished they had learned more about herpes and STIs in high school. When asked about Herpes Simplex 1 and 2, 60% of respondents did not know the difference between the two and 68.5% of participants did not know how it is transmitted (Hover & Bertke, 2017).

It was also observed in the literature of study that rural students are more likely to engage in sexual activity at an earlier age, and in association, not use or know how to use contraceptive methods. In one study aimed at examining whether formal sex education was correlated to sexual behavior among female participants, those receiving education about contraception were more likely to demonstrate condom use at first sex compared to those who did not receive sex education (Lindberg & Maddow-Zimet, 2012). Although this study found that formal sex education regardless of type is better than no sex education, 85% of rural participants received abstinence-based education which would not include information on contraceptives (Lindberg & Maddow-Zimet, 2012). An additional study focused on delaying the onset of sexual behavior through the program, *Be the Exception*, as rural communities have higher rate of adolescent parenthood and declines in formal sex education. Upon the conclusion of the intervention, *Be the Exception* intervention group students reported engaging in sexual activities less often than the comparison group, showing that including information on how to safely engage at a safe age is important for students (Piotrowski & Hedeker, 2016).

Knowledge of contraception among rural students is limited, but when given, it has a positive effect on health outcomes demonstrating the need for comprehensive sex education. In a study assessing support for contraception in rural South Carolina, 75% of South Carolina public

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schools do not comply with at least one of the six measurable requirements of the mandated reproductive health requirements. The study also reported that these schools are not heavily monitored and do not have to be accurate and unbiased, leaving easy opportunity to leave out contraception education. However, when participants of the phone interview in this study were asked about support for supplying contraception, 70.7% of respondents agreed that contraception should be available in schools, which would be covered by comprehensive sex-education, further reinforcing the need for this type of sex ed for rural students (Kershner et al., 2017). In another study of 465 rural North Carolinian youth, greater condom use self-efficacy correlated with greater condom knowledge (Ritchwood et al., 2017).

Lastly, the physical impact of being exposed to dating violence and sexual coercion was observed for rural adolescents with limited sexual education. One study highlighted that school systems in rural areas have failed to include sexuality and gender in their sex education which can contribute to sexual violence as 58% of participants reported experiencing physical victimization within the context of their adolescent relationships, 86% of participants reported experiencing psychological aggression, and 41% reported perpetrating physical violence within the context of their relationships. The rates reported in this study were noted to be 22 times higher than the national average (Gillum, 2017). Another study revealed this problem as it studied youth in 10th grade classes from a rural, midwestern, low-to-middle income area having not received sexual education in order to investigate issues of sexual coercion and sexual consent. This study found that 22% of females and 8% of males reported experiencing sexual coercion at least once. This study also investigated the impact of gender roles on coercion as these individuals are often not taught about gender and healthy relationships in their sexual

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education leading to the implementation of traditional gender roles and the potential for violence (Katz et al., 2019).

Discussion:

The purpose of this literature review was to explore the negative physical, mental, and emotional health outcomes for rural individuals that arise from non-comprehensive sex education. Rural students are lacking comprehensive sex education and it is coming at a cost.

Mental/Emotional Health Outcomes:

Many mental and emotional health outcomes resulting from non-comprehensive sex education arose in this literature review. Individuals within minorities, specifically sexual and racial minorities, are at an increased risk of being affected by non-comprehensive sex education. Sex education programs must focus on being inclusive and progressing with the time as today's society is socially different than it was when these sex education programs were created. The majority of students, regardless of being in a minority group, reported feeling uncomfortable and unbenefited by their programs, if any. The action of including gender and sexual identity within these programs can not only benefit experiences of students but a better school climate as well.

The lack of comprehensive sex education stems from multiple components from the overarching adult and decision-making figures within rural communities. Among many articles, findings suggest that the influence of educators and parental figures plays a large role in the acquisition and mental perception of sexual health knowledge for the youth. Many participants of included studies felt pressure to abide by the views of these figures and felt shame for having views that were different. Religion and conservative political climate seemed to play a large role in the views on sex education by these adult figures, and it is important that educators are able to give these rural students information in the absence of their own bias. Further, these educators

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must be reminded that the topic of sex education is not a political issue, but a public health concern, and students must feel comfortable with their educators. For this reason, it is largely important to increase communication between the youth and adult figures. This action is especially important in rural communities not receiving comprehensive education because if educators are not providing extensive information and a safe and comfortable environment, children are likely to turn to their parental figures with questions. The more comfortable and open a dialogue between adults and children, the more likely youth are to ask important questions and receive important information (Dave et al., 2017).

Physical Outcomes:

This literature review addressed many physical outcomes as well. Self-efficacy of contraception use by rural students must improve in order to avoid unintended pregnancies and the increased risk of developing STI's for this population. However, this cannot happen unless contraception is included in their sex education classes at appropriate times. Findings show that sex education was often being given at a disadvantageous time, either too early on or too late into students' academic career. As a result, when these youth chose to engage in sexual activity, the information they had been taught, if any, was not fresh in their minds (Gardner, 2015). Aside from time of instruction, rural students need access to contraceptive knowledge and positive educators to reduce the chances of negative physical outcomes. Many individuals, both parents and students, are in favor of including contraception in sex education which reinforces the need for comprehensive sex education for rural students (Howard et al., 2017; Lloyd et al., 2012; Ritchwood et al., 2017).

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Limitations:

This literature review contains multiple limitations. To begin, most of the studies included in this review are non-experimental. Because these studies are non-experimental, they only provide associations, not direct effects. The sample sizes of the studies included are also too small to safely be able to generalize results to a larger population. Additionally, while all participants had rural backgrounds, many of these studies focus on one specific racial, ethnic, or social population further making it difficult to generalize results. Further, not all studies had the same age range of participants. While most studies had participants of adolescent age, this review also includes members of adult populations who had previously been impacted by non-comprehensive sex education or who were parent/guardian figures for the youth participant. For this reason, it is also difficult to apply found correlations to all ages, as some results pertained to youth while others pertained more towards adults.

Most included in this review also required individuals to self-report their formal or current sex education and in some cases sexual or risky behavior. This establishes the possibility of bias being present as people are more likely to report behaviors that they feel are more socially acceptable or expected by a researcher, which would mean false reporting could be possible. Further, multiple studies included often involved the participation or permission of adult/parental figures, which could further lead to bias as students may have feared reported information would be able to be given to parents. The action of self-reporting can also be negatively affected by the length of time passed between when sex education was given and when a study was conducted.

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Implications of Research:

An important implication of this review is the significant need for further research on rural populations specifically, and the successes of comprehensive sex education. While there is great information on abstinence education, research on comprehensive education is lacking. This lack of research makes it increasingly difficult to establish both accuracy and consistency as well as be able to develop programs that meet the needs of rural students as they face problems students in urban and suburban areas do not face. It is also important that when research is conducted, researchers ensure participants that information will be kept confidential to avoid the bias issues mentioned previously. More accurate reporting would take place when participants feel more confident towards a study's confidentiality and safe within the study environment.

Conclusion:

The results of non-comprehensive sex education on rural populations are largely negative and impact youth in all realms of health, emotional, mental, and physical. The implementation of sexual education curriculum that is inclusive, comprehensive, and creates a comfortable environment for students is largely needed, specifically among rural populations. The current social climate that controls rural America combined with lack of participation from school systems make this problem that much larger. The United States government continues to fund abstinence-based education even though this type of sexual education program has been proven to be insufficient. Additionally, abstinence education remains on the political agenda and the needs of rural students, particularly with regards to sexual health, continue to be under served.

Future research should focus on rural populations specifically as success among rural youth would be a large achievement and basis for implementation among other populations. Further, research should aim to be inclusive and unbiased as well as include larger sample sizes

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in order to increase generalizability. Importantly, this research should especially aim to focus on those within the LGBTQ communities and minority populations. This research is needed to improve school climate and relationships among peers as well as increase feelings of comfortability. Finally, further research needs to inspire change among the rural school system as well as policy makers in education. Comprehensive sex education should be offered in order to see the best possible health outcomes in students and serve as a role model to rural youth.

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