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An Evaluation of A National Sexual Violence Prevention Program: The Rape Prevention and Education Program

Arielle Shiver

ABSTRACT

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By

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November 27, 2017

INTRODUCTION: Sexual violence is a serious public health problem that can be harmful to one's health, both physically and psychologically (WHO, 2010). While progress has been made in recent years to build the evidence-base for sexual violence prevention, additional research is needed to expand the inventory of effective sexual violence prevention strategies and evaluate prevention-based programs.

AIM: This study seeks to evaluate the Rape Prevention and Education program, a national sexual violence prevention program, to determine the degree to which the best known prevention principles are being incorporated into state sexual violence prevention plans by grantees.

EVALUATION: State sexual violence prevention plans were obtained through online research using the state health departments' websites when available. A total of 42 state plans were collected. Eight states and the District of Columbia were not included in the study due to the state plan being inaccessible. Each state plan was carefully examined to determine if the plan contained the seven variables.

RESULTS: In terms of the degree to which prevention principles were incorporated into the state plans, 6 state plans (14%) incorporated six or more principles, 7 state plans (17%) incorporated six principles, 23 state plans (55%) incorporated three to five principles, and 6 state plans (14%) only incorporated one to three principles.

DISCUSSION: Individual prevention principles that states had the greatest strengths in were collaboration (100%), primary prevention (98%), culturally appropriate (83%). Areas that require further improvement include identifying an evidence-based sexual violence intervention to be incorporated into their plans. While majority of states (52%) identified the need to use an evidence-based intervention, only 41% of states were able to explicitly identify the use of an evidence-based sexual violence intervention and determine sufficient dosage for these interventions. By continuing to invest in the evaluation of prevention-based prevention programs and promising practices, researchers and funders can also help to expand our understanding of what works to prevent sexual violence.

AN EVALUATION OF A NATIONAL SEXUAL VIOLENCE PREVENTION PROGRAM: THE RAPE PREVENTION AND EDUCATION PROGRAM

by

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APPROVAL PAGE

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THE RAPE AND EDUCATION
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Author's Statement Page

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Introduction

Every year millions of women, men, and children in the United States are victimized by sexual violence (CDC, 2014). Sexual violence is a serious public health problem that can be harmful to one's health, both physically and psychologically (WHO, 2010). Furthermore, evidence indicates that violence experienced early in life can put one at increased risk for subsequent victimization as an adult (Smith et al., 2017). While progress has been made in recent years to build the evidence-base for sexual violence prevention through research, additional research is needed to expand the inventory of effective sexual violence prevention strategies (Basile et al., 2016). Progress can be made in the field if new programs are identified and evaluated for effectiveness (Basile et al., 2016). Thus, this study seeks to evaluate the Rape Prevention and Education program, a national sexual violence prevention program, to determine the degree to which the best known prevention principles are being incorporated into the program by grantees.

Definitions

The Centers for Disease and Control and Prevention (CDC) defines sexual violence as a sexual act that is committed or attempted against someone without that person's freely given consent (Basile, Smith, Breiding, Black, & Mahendra, 2014). Sexual violence is divided into the following subtypes: rape or penetration of a victim, alcohol or drug-facilitated penetration of a victim, forced or alcohol or drug-facilitated penetration of someone else, non-physically forced penetration, unwanted sexual contact, and non-contact unwanted sexual experiences (Basile et al., 2014). All of these subtypes constitute sexual violence whether the acts were attempted or completed or if the victim was unable to consent due to being too intoxicated, incapacitated, lack of consciousness, or lack of awareness (CDC, 2017a).

Study Rationale

Significant progress has been made to build the evidence-base for sexual violence however, additional research is needed to expand the inventory of identified effective sexual violence prevention strategies (Basile et al., 2016). By continuing to invest in the evaluation of prevention-based programs, researchers, practitioners, and funders can utilize the best available evidence for sexual violence prevention (Basile et al., 2016). This study aims to evaluate the progress to date of the Rape Prevention and Education grantees state sexual violence prevention plans to determine the degree to which the best prevention principles are being incorporated.

Research Questions

This study aims to answer the following research questions (RQ):

- **RQ1:** What is the degree to which states are incorporating effective prevention principles in their plans?
- **RQ2**: What is the percentage of states that incorporate primary prevention strategies in their prevention plans?
- **RQ3:** Are prevention strategies culturally relevant and appropriate to the target population?
- **RQ4:** Were the prevention strategies developed in collaboration with relevant partner organization, coalitions, and community members?
- **RQ5:** Does the plan identify the use of an evidence-based sexual violence interventions?
- **RQ6:** Do prevention activities have sufficient dosage?

Literature Review

Sexual violence is a serious public health problem that affects millions of women and men each year (CDC, 2014). The health and economic consequences for victims and society are substantial, resulting in a range of mental, physical, and psychological problems costing trillions of dollars to society (Campbell, 2002; Peterson et al., 2017). However, sexual violence is preventable. Primary prevention strategies have the greatest impact in preventing sexual violence before it beings, as well as reducing risk for victimization and negative health outcomes (CDC, 2016). The best available evidence must be utilized and incorporated in sexual violence prevention strategies and programs (CDC, 2016).

About 1 in 3 US women (36.3%) and 1 in 6 men (17.1%) experienced a lifetime prevalence of a form of contact sexual violence (Smith et al., 2017). The vast majority of sexual violence victims are young girls who are victimized before the age of 18 (Masho & Ahmed, 2007; Thompson, McGee, & Mays, 2012). Among women reporting a history of rape, 40% had their first experience before the age of 18, and 28% indicated that were first raped between the ages of 11 and 17 (Brieding et al., 2015). Contrarily, 27.8 % of men indicated they were first raped when they were age 10 or younger (Black et al., 2011). Collectively, 44.6% of women and 22.2% of men reported a lifetime prevalence of sexual coercion, unwanted sexual contact, and non-contact unwanted sexual experiences (Black et al., 2011).

Multiracial, American Indian/Alaska Native, and Non-Hispanic Black women and men have increased prevalence estimates as compared to other racial/ethnic groups (Thompson et al., 2012). This may be due to socioeconomic factors experienced by minorities such as, low income, less access to education, fewer employment opportunities, and limited access to community resources (Smith et al., 2017). Research is needed to understand the risk factors among

multiracial and minority populations (Smith et al., 2017) in order to understand implications for prevention programs.

Consequences of Sexual Violence for Victims and Society

Sexual violence can result in harmful and lasting physical, psychological, and economic consequences for victims, families, and society (Basile & Smith, 2011). Since the majority of the available national data on the impact of sexual violence health focuses specifically on rape, the identified consequences will focus primarily on the impact of rape. However, other forms of sexual violence are likely to have similar outcomes as rape (NSVRC, 2010).

Health impact for victims. The impact of sexual violence on victims can result in immediate and long-term physical and psychological outcomes (Basile & Smith, 2011). Immediate physical health consequences include injuries sustained during rape including bruises, scrapes, broken bones, and genital trauma (Muram, 1992). Long-term physical health consequences include gastrointestinal syndrome, irritable bowel syndrome, chronic pain, sexually transmitted infections (STDs), pelvic inflammatory disease, irregular vaginal bleeding, and urinary tract infections (Heltkemper et al., 2001; Mark et al., 2008; Koss et al., 1994). Specifically, as a result of rape, Sommers (2007) found that 50% to 90% of rape survivors have genital injuries and 4% to 30% of rape survivors contract STDs (Koss & Heslet, 1992). An estimated 32,101 pregnancies result from rape-related pregnancy each year (Holmes, Resnick, Kilpatrick, &Best, 1996).

Sexual violence can have substantial psychological impacts lasting anywhere from months to several years (Koss & Figuerredo, 2004; Yuan Koss, & Stone, 2010). Immediate psychological impacts include: fear, anxiety, confusion, denial, and withdrawal (Herman, 1992). After these initial reactions, victims commonly report shame, guilt, nervousness, low self-

esteem, and insomnia (Elkit & Christiansen, 2010; Littleon, Grills-Tacquechel, & Axsom, 2009). Negative changes in beliefs systems, such as the goodness of people and the world being safe and fair, are often permanent consequences of rape (Basile & Smith, 2011; Frazier, Colon, & Glaser, 2011; Janoff-Bulman, 1992). Chronic psychological consequences include generalized anxiety, eating disorders, sleep disorders (Sarkar & Sarkar, 2005) post-traumatic stress disorder (PTSD), and depression (Burnam, Stein, & Golding, 1988; Chen et al., 2010; Rothbaum, Foa, Riggs, Murdock, &Walsh, 1992; Sorenson & Golding, 1990). Depression and PTSD in particular were found to be the most prevalent sequelae of sexual violence (Campbell, 2002). Further, Davis and Bresalu (1994) found that rape victims may be the one of the largest groups of victims suffering from PTSD. Women with PTSD may use drugs and alcohol as a coping mechanism to escape the reality of sexual violence (Campbell, 2002).

Economic impact of sexual violence. While the individual implications are significant alone, sexual violence poses major economic costs to society resulting from survivors' use of health care and other services (Basile & Smith, 2011), as well as loss in productivity (Loya, 2015). The lifetime cost of rape per-victim was estimated to be $122,461 per victim or a burden of $3.1 trillion for greater than 25 million U.S. adults (Peterson, DeGue, Florence, & Lokey, 2017). Of the total population cost, 39% was due to medical expenses, 52% due to lost work productivity among victims and perpetrators, 8% in criminal justice activities and 1% in property loss or damage (Peterson et al., 2017). The average cost of lost quality of life and pain and suffering is an estimated $198,000 per survivor (McCollister, French, & Fang, 2010). Annually, survivors of rape lose an average 8.1 days of paid work (Walters, Chen, & Breiding, 2013). Women with a history of sexual violence victimization tend to use more medical services than those who have not experienced sexual violence (Golding, 1999). A qualitative study by Loya

(2015) exploring how isolated occurrences of sexual violence affect female survivor's employment and economic well-being found that resulting trauma resulted in diminished work performance, job loss, or inability to work. It is clear sexual violence prevention efforts are greatly needed and have the potential to greatly reduce the impact on individuals and society as a whole.

Risk Factors for Sexual Violence

To understand how best to prevent sexual violence and its consequences, it is critical to understand the risk factors that contribute to a greater likelihood of perpetration (Vivolo, Holland, Teten, & Holt, 2010). The Social Ecological Model (SEM) is a framework for understanding the dynamic interactions between individuals and the environment within multiple levels of a social system (WHO, 2017). This framework views violence as the outcome of interactions between four levels: individual, relationship, community and, societal (Dahlberg, Mercy, & Krug, 2002) illustrated in Figure 1.

Figure 1. **The Social-Ecological Model**. Reprinted from *The Social-Ecological Model: A Framework for Prevention*, by CDC, 2015, Retrieved from https://www.cdc.gov/violenceprevention/overview/social-ecologicalmodel.html.

The risk factors at each level of the SEM are shown in Table 1. At the *individual* level, personal and biological factors influence how individual behave and increase their likelihood of becoming a victim or perpetrator of violence (Dahlberg et al., 2002; WHO, 2017). *Relationship*

factors are an individual's personal relationships such as with family, friends, intimate partners, and peers that influences whether an individual engages in or becomes a victim or perpetrator of sexual violence (WHO, 2017). *Community* factors explores settings in which social relationships occur such as schools, neighborhoods, and workplaces and identifies characteristics within these settings that are associated with becoming victims or perpetrators (Dahlberg et al., 2002). At the last level, *societal* factors can either promote or inhibit sexual violence (Dahlberg et al., 2002). These factors include economic and social policies, gender inequality, cultural belief systems (Dahlberg et al., 2002). These factors can start in childhood and continue and across the lifetime. To have efficient and broader benefits in reducing sexual violence, prevention programs, policies, and activities should be maximized by targeting the best available evidence and primary prevention strategies at multiple levels of the social ecological model (Basile et al., 2016).

Table 1. Sexual Violence Risk Factors at Each Level of Social Ecology

Level	Risk Factors
Individual	• Alcohol and drug use[1] • Delinquency[1] • Empathic deficits[1] • Early sexual initiation[1] • Coercive sexual fantasies1 • Hyper-masculinity[1] • Suicidal behavior[1] • Adherence to traditional gender role norms, general aggressiveness and acceptance to violence[1] • Prior sexual victimization or perpetration[1]
Relationship	• Family environments characterized by physical violence or emotional instability[2] • Childhood history of abuse[2] • Poor parent-child relationships[2] • Involvement in an abusive intimate relationship[2]
Community	• Poverty[3] • Lack of job opportunities[3] • Lack of institutional support from police and judicial system[3] • General tolerance of sexual violence within a community[3] • Weak community sanctions against perpetrators[3]
Societal	• High crime levels of crime[4] • Weak laws and policies related to sexual violence and gender equality[4] • Societal norms of in support of sexual violence[4] • Male superiority[4] • Women's sexual submissiveness[4]

Note: Adapted from [1]Bagely & Shewchuk-Dann (1991); Godenzi, Schwartz, & DeKeserdy (2001); Murnen & Kohlman (2007) [2] Borowsky et al. (1997); Knight & Sims-Knight (2003); McCormack, Hudon & Ward (2002); Widom (2001).[3] Baren & Straus (1987); Jewkes et al. (2002); Sanday (1981). [4]Koenig, Stephenson, Ahmed, Jejeebhoy, & Campbell (2006).

Sexual Violence Prevention

Public health emphasizes the importance of primary prevention for sexual violence (Basile, 2003; Basile 2015). A comprehensive approach with preventive interventions at

multiple levels of the social ecological model is critical to having a population level impact on sexual violence. Compared to other types of violence (e.g., youth violence) and other public health topics (e.g., HIV prevention), the evidence base for sexual violence prevention is less developed (Basile et al., 2016). There is a need to continue to build the evidence base of what is effective in preventing sexual violence by investing in rigorous evaluation of promising prevention approaches. In the meantime, we must act on the evidence that does exist. To have the greatest impact on sexual violence prevention, we must focus on the strategies and approaches most likely to impact sexual violence (WHO, 2017).

Prevention principles. Until more rigorous research is available on sexual violence, the principles of effective prevention programs can be used by program planners to strengthen their approaches and evaluate the effectiveness of new or existing programs (CDC, 2017b). The principles of principles identified by Nation et al. (2003) are common characteristics of effective prevention strategies in behavioral health and are defined in Table 2. The nine principles state that effective prevention strategies are: comprehensive, appropriately timed, theory-driven, include outcome evaluation, utilize varied teaching methods, administered to well-trained staff, socio-culturally relevant, promote positive relationships, and have sufficient dosage (Nation et al., 2003).

Table 2. Definitions of Principles of Effective Principles.

Prevention Principle	Definition
Comprehensive	Strategies should include components that address risk and protective factors at multiple levels of social ecology
Appropriately Timed	Program activities should occur at a time that have the maximal impact in the participant's life.
Theory-Driven	Programs have a theoretical justification and are supported by empirical research
Outcome Evaluation	Programs have clear goals and objectives that are measurable to determine program effectiveness.
Varied Teaching Methods	Programs involve diverse teaching methods that focus on awareness, understanding of the problem, and on acquiring skills
Well-Trained Staff	Programs need to be implemented by staff members who are competent and have received sufficient training, support, and supervision.
Socioculturally Relevant	Programs should be tailored to fit within cultural beliefs and practices of specific groups as well as community norms
Positive Relationships	Programs should provide exposure to adults and peers to foster strong relationships and positive outcomes
Sufficient Dosage	Programs provide enough exposure to the intervention to produce the desired effects and provide follow-ups as necessary to maintain effects

Prevention strategies. In a systemic review by DeGue et al. (2014), 140 studies were examined for effective primary prevention strategies used in current prevention methods. Primary prevention strategies were defined as interventions directed at the general public and those aimed at individuals with an increased risk for perpetration (DeGue et al., 2014). The results found that only two interventions fit the criteria for being effective for sexual violence behavioral outcomes (DeGue et al., 2014). The interventions were *Safe Dates* and *Shifting Boundar*ies. *Safe Dates* is a dating violence prevention program for middle and high school students (Foshee et al., 1998) and *Shifting Boundaries*, is a six to ten-week school-based dating violence intervention for middle school students (Taylor, Stein, Woods, &Mumford, 2011). Despite this knowledge, it is often difficult to replicate these programs in the field with the same integrity and outcome success. Thus, there is a gap between the development of evidence-based

prevention programs and the delivery of these programs by practitioners to families and children in the United States (Nation et al., 2003).

Primary prevention. Primary prevention (in contrast to secondary or tertiary prevention) aims to stop sexual violence before it occurs (Dalberg et al., 2002). Primary prevention involves a continuum of activities that are comprehensive, multidisciplinary, and informed by the best available data and evidence (NRSVRC, 2011). To accomplish primary prevention, local, state, and national public health experts must be engaged in in promoting protective factors and reducing risk factors (Dalberg & Krug, 2002; NAESV& NSVRC, 2011). An example of this collaborative engagment is the Rape Prevention and Education Program.

Rape Prevention and Education Program.

The Rape Prevention and Education (RPE) program was enacted by Congress through the Violence Against Women Act (VAWA) and was designated to the Division of Violence Prevention at CDC in 2001(Basile et al., 2005). Also in 2001, the Division of Violence Prevention began to shift programmatic and research efforts from victimization to perpetration of sexual violence (DeGue et al., 2012). This represented a paradigmatic shift towards primary prevention of sexual violence in the practice field (DeGue et al., 2012). Up until this point, the majority of advocacy efforts were largely devoted to victim services and support (DeGue et al., 2012). An example of the major shifts in the practice field was articulated in the refined focus for the 2006 Funding Opportunity Announcement (FOA) for RPE (DeGue et al., 2012). This included explicit emphasis on primary prevention, community change strategies, and the development of a state sexual violence prevention plan (DeGue et al., 2012).

Currently, the RPE program is the only national program that provides funding and technical assistance to support primary prevention of sexual violence to state health departments

in all 50 states, the District of Columbia, Puerto Rico and five U.S. Territories (NAESV& NSVRC, 2011). RPE grantees work to stop sexual violence before it occurs by engaging sexual violence coalitions, educational institutions, law enforcement entities, rape crisis centers, and community organizations to guide implementation of their state sexual violence prevention plans (Basile, Lang, Bartenfield, & Clinton-Sherrod, 2005). RPE program activities include: delivering community and school-based primary prevention strategies such as engaging bystanders, educating youth about healthy relationships, and changing social norms; working collaboratively with universities and colleges to implement campus-based sexual violence prevention strategies; addressing the prevention of alcohol-facilitated sexual violence; and strengthening the ability of states and communities to plan, implement, and evaluate their sexual violence prevention efforts (CDC, 2017c).

Program activities are guided by principles that include: using the best available evidence when planning, implementing, and evaluation prevention programs including state and local data and incorporating social and behavior change theories into prevention programs (CDC, 2017c). 2013). In the most recent 2013 Funding Opportunity Announcement (FOA), eligibility requirements stated that grantees state sexual violence prevention plans should adhere to six prevention principles that have been proven to be effective in programs. (CDC, 2013). The six principles consist of the same prevention principles outlined by Nation et al. (2003) and includes: primary prevention, comprehensive, dosage, culturally appropriate, collaborative, and evidence-based (CDC, 2013).

Although RPE is rooted in using the best available evidence for planning and implementing programs, the current state of the evidence is limited. The evaluation of sexual violence prevention programs such as RPE is critical for researchers, practitioners, and funders

to expand their understanding of the most effective sexual violence prevention strategies. The purpose of this study is to evaluate the RPE grantees state sexual violence prevention plans to determine the degree to which the best primary prevention strategies are currently being incorporated. Specifically, this study seeks to identify the number of states that are incorporating efforts that are primary prevention centered, culturally relative, collaborative, evidence-base, appropriately dosed; as well as, the overall degree to which all of these principles are being incorporated.

Study Evaluation

Data Collection and Analysis

The Rape Prevention and Education program grantees were required to develop statewide strategic sexual violence prevention plans under the 2006 FOA and established that plans should include sexual prevention strategies that adhere to the general principles of effective prevention in the 2013 FOA. These principles include: emphasizing primary prevention, addressing multiple levels of social ecology cultural relevance, collaborative development of the plan with various stakeholders, using evidence-based programs, and having sufficient dosage for these programs. These principles are the standard for this evaluation to assess how well the prevention principles are being incorporated into the plans.

After contacting the Georgia State University's IRB, the current study was determined to be exempt from IRB review. State sexual violence prevention plans were obtained through online research using the state health departments' websites when available. A standard e-mail was sent to each grantee's contact person (i.e., the person listed as the contact person on the Rape Prevention and Education website) if the plan was not available on the state health department website. A total of 42 state plans were collected that were published from 2006 to 2017. Eight

states and the District of Columbia were not included in the study due to the state plan being inaccessible.

A codebook (see Appendix A) was developed to operationalize and code for seven variables. Each state plan was carefully examined to determine if the plan contained the seven variables. The indicators used to assess the degree to which plans are incorporating the best prevention principles included 1) the number of states emphasizing primary prevention, 2) the number of states utilizing strategies at all levels of social ecology, 3) the number of states developing the plans with various stakeholders, 4) the number of states conducting needs assessment to determine strategies to ensure strategies are culturally relevant, 5) the number of states explicitly stating the intention to use a known evidence-based intervention for sexual violence, 6) the number of states including sufficient dosage for an evidence-based sexual violence intervention, and 7) identifying the number of states that intend to use an evidence-based sexual violence intervention. After completing data collection, each variable was analyzed. The analysis was performed using Excel to calculate the percentages of each variable.

Results

In total, 42 plans were analyzed. All of the state plans (100%) were developed in collaboration with stakeholders. Forty-one state plans (98%) of plans emphasized primary prevention strategies and targeted strategies at all levels of social ecology. Thirty-five state plans (83%) were culturally appropriate. Fourteen state plans (41%) of state plans explicitly incorporated the use of a specific sexual violence evidence-based intervention. Twenty-two state plans (52%) of plans expressed the intention to use an evidence-based or identified a promising intervention that has not yet been deemed evidence-based. Six state plans (14%) did not incorporate the use of any evidence-based intervention. Fourteen state plans (41%) did have

sufficient dosage for the evidence-based intervention. In terms of the degree to which prevention principles were incorporated into the state plans, 6 state plans (14%) incorporated six or more principles, 7 state plans (17%) incorporated six principles, 23 state plans (55%) incorporated three to five principles, and 6 state plans (14%) only incorporated one to three principles. Table 2 list the degree to each state effectively incorporated the prevention principles into their plans.

Table 2. Degree to which states incorporated prevention principles in plan

One to Three	Three to Five	Six	Six or More
Delaware	Alabama	Georgia	Massachusetts
Florida	Alaska	Idaho	Nebraska
Kentucky	Arizona	Indiana	New Jersey
Louisiana	California	Iowa	North Carolina
Montana	Colorado	Michigan	North Dakota
Wisconsin	Connecticut	Missouri	Virginia
	Kansas	New Mexico	
	Minnesota		
	Nevada		
	New Hampshire		
	New York		
	Ohio		
	Oklahoma		
	Oregon		
	Pennsylvania		
	Rhode Island		
	South Carolina		
	South Dakota		
	Texas		
	Utah		
	Vermont		
	Washington		
	West Virginia		
Note: Arkansas, D.C., Hawaii, Illinois, Maine, Maryland, Mississippi, Tennessee, and Wyoming were excluded from the study.			

Discussion

The Rape Prevention and Education program is currently the only national program that funds and provides technical assistance to support primary prevention of sexual violence to state health departments. To determine the current sexual violence prevention strategies that are

utilized by RPE, state prevention plans were evaluated. A minority of state plans (31%) mt the minimum requirement to include all six prevention principles into their plans. Plans that significantly did not meet the minimum requirement (fewer than 4 principles) represented 14% of the total plans analyzed. On the contrary, 17% of plans were identified to exceed the minimum requirement by incorporating the six required prevention principles outlined in the funding opportunity announcement and one the remaining prevention principles found by Nation et al. (2003).

Individual prevention principles that states had the greatest strengths in were collaboration (100%), primary prevention (98%), culturally appropriate (83%). All state plans were developed in collaboration with various stakeholders. This may be due in part to the nature of the RPE program infrastructure. The strengths of these collaborations help to leverage resources and enhancing prevention opportunities. The focus of primary prevention in 98% of the plans is also a strength. As more recent efforts have prioritized the primary prevention of sexual violence, it is important this shift is reflected and implemented into the practice field. Further, 83% of plans conducted a needs assessment to better identify provide culturally appropriate strategies for their target population.

Areas that require further improvement include identifying an evidence-based sexual violence intervention to be incorporated into their plans. While majority of states (52%) identified the need to use an evidence-based intervention, only 41% of states were able to explicitly identify the use of an evidence-based intervention and determine sufficient dosage for these interventions. As noted in the literature, there are very limited evidence-based interventions aimed at preventing sexual violence. There is an increasing number of interventions that demonstrate significant promise such as, *Green Dot* and *Coaching Boys into Men*, which were

also included in several plans that were reviewed. However, since these interventions have not been rigorously evaluated they could not be considered as an evidence-based intervention. This illustrates the major gap in the field and demonstrates the need for rigorous evaluations for promising interventions and guidance on the implementation of evidence-based interventions so that the best known strategies can be utilized in the practice field.

Study limitations. The results of this evaluation should be considered within the context of their limitations. The plans that were collected varied in the year that they were developed. Thus, the availability of the best-known evidence, literature, and state sexual violence prevention plans would vary depending on when the plans were developed and made accessible to the public. Further, some grantees did not have had a state plan available due to current development of the next iteration of the plan. Additionally, grantees were strongly encouraged to include all of the prevention principles into their plans over time. Therefore, some states may have elected to exclude some principles in the earlier iterations of their plans.

Future research and directions. Rigorous research is needed to better understand what specific interventions, activities, and strategies are being implemented within each state to better evaluate if states are performing at similar levels and to better assess priority areas. Additionally, outcome evaluations should be conducted to determine the overall effectiveness of the Rape Prevention and Education Program. The findings of this study demonstrate that collaborative efforts by various stakeholders and sectors is a great strength of the RPE program. It is important that the multi-sector collaboration is encouraged and supported through funding, policy, and research.

Conclusion

Sexual violence is a significant public health problem that is preventable. The prevention principles represent the best available evidence to address the problem. In keeping with CDC's emphasis on the primary prevention of perpetration, the Rape Prevention and Education program has demonstrated this shift in primary prevention as well. However, as previously noted, the current state of the evidence for sexual violence is limited and must be continuously improved through rigorous evaluation (Basile et al., 2016). By continuing to invest in the evaluation of prevention-based prevention programs and promising practices, researchers and funders can also help to expand our understanding of what works to prevent sexual violence. As these prevention programs are proven to be effective, they should be disseminated and implemented by the RPE program.

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Appendix A

Codebook

Variable Name	Variable Label	Item Wording	Value Labels	Operational Definition
RQ1	Prevention Principles	What is the degree to which states are incorporating effective prevention principles in their plans?	0=No Information 1= Very Limited 2= Limited 3=Minimum 4=Exceeds Minimum	0= None of the 6 prevention principles are included 1= One to three prevention principles are included 2= Four to Five prevention principles are included 3=All six prevention principles are included 4= 7 or more prevention principles are included (6 from FOA#CE14-1401 + ay from Nations et al. (2003) (well-trained staff, appropriately-timed, and outcome evaluation) *6 core prevention principles: Comprehensive, dosage, culturally appropriate, collaborative, evidence-based
RQ2	Primary Prevention	What is the percentage of states that incorporate primary prevention strategies in their prevention plans?	0=No 1=Yes	Universal + selected strategies
RQ3	Comprehensive	Are the prevention strategies targeted at all levels of social ecology?	0=No 1=Yes	Strategies address multiple levels of social ecology (individual,

				relationship, community, society)
RQ4	Culturally Appropriate	Are prevention strategies culturally relevant and appropriate to the target population?	0=No 1=Yes	A needs assessment was performed to include participants in the development and implementation of prevention strategies
RQ5	Collaborative	Were the prevention strategies developed in collaboration with relevant partner organizations, coalitions, and community members?	0=No 1=Yes	Prevention strategies were developed in collaboration with relevant partner organizations, coalitions, and community members
RQ6	Evidence-Based	Does the plan identify the use of an evidence-based intervention?	0=None 1=Intended 2=Specified	Plan identifies (intended or specified) the use of an evidence-based program
RQ6_A	Evidence-Based	Does the plan identify the use of a specific evidence-based sexual violence intervention?	0=No 1=Yes	Plan identifies an evidence-based program for a program activity. SV EPP include Safe Dates, Real Consent, and Shifting Boundaries
RQ7	Dosage	Are prevention strategies/activities offered more than one-time?	0=No 1=Yes	Interventions include multiple sessions