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Model Empowering Youth to Resume Abstinence and Seek Optimal Health Now

December 2020

A Program Model for Encouraging Sexually Experienced Youth to Cease Sexual Activity

This brief was developed as part of a portfolio of youth-focused projects on sexual risk avoidance and cessation sponsored by the U.S. Department of Health and Human Services. The brief presents a program model that describes an intervention approach to promote sexual risk cessation among youth. The program model identifies important program inputs—the overall design, program features, and the infrastructure needed to support implementation—as well as implementation outputs, such as staff characteristics, service delivery, and youth responsiveness. Moreover, the program model specifies the youth outcomes that it is intended to affect and presents considerations regarding the context of implementation. This model is intended to guide policymakers, program and curriculum developers, and program implementers in creating and implementing programming to influence sexual risk cessation.

This brief builds on earlier work to develop a sexual risk cessation conceptual model (summarized in Inanc et al. 2020). The conceptual model identified factors that influence sexual risk cessation, including those modifiable by intervention. In turn, this program model specifies the program components designed to influence the identified modifiable factors.

Sexually active adolescents are vulnerable to adverse health outcomes, such as sexually transmitted infections (STIs) and unintended pregnancy. Empowering youth to make informed decisions, specifically decisions to avoid sexual risks, helps them avoid the potential negative consequences of adolescent sexual activity, and contributes to their optimal health and well-being.

One approach to helping youth avoid the negative consequences of adolescent sexual activity is to help youth cease sexual activity. Many organizations offer programming related to avoiding sex that highlights the potential risks of sexual activity in adolescence. However, these programs may not address the particular needs of youth who are already sexual experienced. In addition, youth with sexual experience may face specific barriers or challenges to ceasing sexual activity that are not addressed by a program focused on delaying initiation of sexual activity. Other programs may work with youth who are currently sexually active, but they may not directly address cessation of sexual activity. To fill this gap, policymakers, program and curriculum developers, and program implementers are interested in creating programs to provide sexually experienced youth with the knowledge and tools they need to cease sexual activity.

Drawing on a conceptual model that identified factors influencing sexual risk cessation (summarized in Inanc et al. 2020), as well as literature on effective program implementation, Mathematica developed a program model to specify the components of programs that can be designed to influence modifiable factors and ultimately empower youth to cease sexual activity. The program model may also serve as an important element of an optimal health model for youth. The goal of the optimal health model, as articulated by the Office of Population Affairs (OPA) in the U.S. Department of Health and Human Services (HHS), is to encourage behaviors that lead to a healthier life (OPA 2020).[1] The model seeks to serve the specific needs of sexually experienced youth with content and skill-building related to ceasing sexual activity. However, the program model may be used with all youth, including those without sexual experience who may use this knowledge and these tools in the future. This work is sponsored by the Office of the Assistant Secretary for Health at HHS and overseen by the Administration for Children and Families' Office of Planning, Research, and Evaluation.

To develop the program model, the team used several data sources. First, we used the refined conceptual model

for sexual risk cessation to identify factors that influence sexual risk cessation and could be targeted by program components (Appendix Figure A.1). Next, we drew on a targeted literature and curricula review to identify program components targeted to sexual risk cessation. Finally, we held discussions with eight experts from the fields of youth sexual risk prevention programming and curriculum development (Appendix Table A.1). The box on the next page describes the data sources in more detail.

In this brief, we detail the components of the program model designed to support sexual risk cessation. Then we highlight next steps and ways in which the program model can be used by policymakers, program and curriculum developers, and program implementers.

Key definitions

Sexual activity: Voluntary engagement in activities that are sexual in nature, including vaginal, oral, and anal sex.

Sexually experienced youth: Youth who have engaged in vaginal, anal, or oral sex at least one time.

Sexual risk cessation: Discontinuing consensual sexual activity after having engaged in it.

Conceptual model: A representation of the factors that influence key outcomes of interest.

Program model: A representation of program components designed to promote sexual risk cessation.

Components: Core elements of the program to be implemented.

A program model to encourage sexual risk cessation

Figure 1 depicts the components of the program model, separated into implementation inputs, implementation outputs, outcomes, and context (see text box for definitions of each component). The model is comprehensive, addressing the range of components needed for a strong program. For some components, the program model includes general, rather than specific, information for a sexual risk cessation intervention. In Figure 1, boxes in white are tailored to sexual risk cessation; boxes shaded in gray reflect implementation best practices, not tailored to sexual risk cessation. Below, we summarize components tailored to sexual risk cessation that are relevant for policymakers, program and curriculum developers, and program implementers seeking to create programming on sexual risk cessation.

Definitions for program model components

Implementation inputs: Key components of the intervention, including the overall design, program features, and the systems needed to support implementation.

Implementation outputs: Information about the implementation of the program, including staff characteristics and youth responsiveness.

Outcomes: Youth knowledge, attitudes, intentions, skills, and behavior that the program model intends to affect.

Context: Individual and community factors that may influence implementation.

The program model identifies components that intend to influence outcomes related to ceasing sexual activity and preventing pregnancy and STIs. However, the program model recommendations may also influence a broader set of nonsexual outcomes, such as academic achievement and mental health, that reflect overall health and well-being (or optimal health).

Implementation inputs. Implementation inputs are broken into three areas: program design, program features, and implementation supports and infrastructure. We summarize each area below, highlighting information most tailored to risk cessation.

Program design. Program design covers the program's objectives, content, and approaches needed to achieve the objectives.

The overarching objective for the program model is to encourage youth to cease or continue to avoid sexual activity. This objective is intended to apply broadly to all youth—regardless of their sexual history—because some programs may serve groups that include both sexually experienced and sexually inexperienced youth. For youth with sexual experience, the program model has a second, more targeted objective: to support cessation of sexual activity through goal setting and skill building to enable this behavior change.

To meet these objectives, the program model recommends instruction in 10 content areas (Table 1). Eight of these content areas address a factor identified by the conceptual model as influencing sexual risk cessation outcomes, with six of the content areas covering modifiable factors from the conceptual model. Experts noted that the other two topics in the program model—sexual consent and the benefits of and barriers to ceasing sexual activity —were important to include. Many of these topics overlap with those covered in existing curricula for the avoidance of sexual risk or prevention of pregnancy and STIs in youth. Although a program focused on cessation could be used to supplement either type of curriculum, the content areas in the program model specifically aim to support and empower youth to make behavior changes around ceasing sexual activity.

Finally, program approaches are the format or mode of delivery used to provide the program content, such as group or individual sessions, or both. The approach selected by a program will shape many of the program features described below, such as the curriculum, teaching strategies, setting, and service delivery plan. The program model encompasses two key approaches for delivering content, which may be used alone or in combination.

Data sources

We analyzed data from four sources to identify components to include in the program model:

- **Conceptual model.** Mathematica created a conceptual model for sexual risk cessation that identified 30 factors that may influence outcomes related to risk cessation for sexually experienced youth (Appendix Figure A.1; Inanc et al. 2020). Fourteen of the factors are considered modifiable, meaning parents or school or community organization staff might be able to change or modify them through an intervention. We identified ways in which the program model may be able to address these 14 modifiable factors. We also drew on the outcomes identified by the conceptual model team when determining the program model's outcomes. For more detail, including the methods for developing the conceptual model, see the conceptual model brief (Inanc et al. 2020).
- **In-depth literature review.** We searched a wide range of academic databases, as well as select websites, for articles that (1) examined outcomes relevant to sexual risk cessation, (2) involved sexually experienced youth, and (3) examined a program or intervention. We reviewed 41 relevant articles and extracted information on content and methods used in interventions that serve sexually experienced youth, along with the support and systems needed for successful implementation. We also extracted information on the specific outcome measures used to assess cessation.
- **Expert consultation.** In November 2018, we held virtual meetings with eight experts to get input on (1) relevant knowledge, skills, and messages that encourage youth to cease sexual activity; (2) the types and sequencing of education strategies that might work best, including whether and how to include parents; (3) recommended program features, such as the target population, teaching strategies, and setting; and (4) the ideal implementation features, such as the skill set for facilitators or program partnerships. Appendix Table A.1 lists the experts consulted.
- **Curricula.** We conducted a review of 15 curricula for the avoidance of sexual risk or prevention of pregnancy and STIs in youth selected in conjunction with HHS staff and leadership (for two curricula, REAL Essentials and Promoting Health Among Teens, we reviewed two versions of each). We extracted information related to content, program features, and educational methods that may be relevant to sexually experienced youth. The curricula were the following:

    1. Above the Waist (8th grade)
    2. Aspire
    3. Choosing the Best
    4. ¡Cuidate!
    5. FLASH
    6. Game Plan
    7. Making a Difference!
    8. Making Proud Choices!
    9. My Future–My Choice
    10. Positive Potential
    11. Prime Time
    12. Promoting Health Among Teens! (Abstinence-Only and Comprehensive)
    13. REAL Essentials (Advance and Health)

Figure 1. Program model for encouraging sexually experienced youth to cease sexual activity

Implementation inputs

Program design

Program objectives: Encourage all adolescents to choose or return to sexual risk avoidance. For youth with sexual experience, encourage cessation of sexual activity through goal setting and skill-building that increases self-efficacy to support this behavior change.

Content: Programs targeting sexual risk cessation should address:

- Sexual cessation
- Benefits of and barriers to ceasing sexual activity
- Sexual health
- Sexual consent
- Communication, negotiation, and refusal skills
- Building healthy relationships
- Self-perception
- Setting goals to encourage the cessation of sexual activity
- Identifying and engaging supportive peers and trusted adults
- Role of media and online interactions

Program approaches: Programs can start with group sessions for broad or targeted groups to help identify youth who are considering cessation of sexual activity. Offer individualized services to these youth to support their return to a lifestyle without sex.

Program features

Target population: Youth with sexual experience; however, some content and messages are applicable to general youth populations.

Curricula: Identify curricula consistent with content and objectives.

Teaching strategies: For individualized support, use strategies like motivational interviewing, mentoring, and case management. For group sessions, incorporate a range of teaching strategies such as lecture, discussion, role-play, games, and worksheets, and include hands-on or interactive activities.

Setting: The model may work in multiple settings (including schools, community organizations, and clinics). Identify an appropriate setting based on the curriculum selected, population served, and type of individualized support.

Service delivery plan: When individualized support follows group sessions, begin with curriculum delivery by a trained facilitator. Individual follow-up then should reinforce curriculum messages. If individualized support is the main approach, trained facilitators provide all services. The number and length of group and individual sessions may vary.

Supplemental services: As appropriate, refer youth to supportive services or offer youth opportunities for community engagement.

Program materials: Give facilitators all materials needed to deliver both group and individual content, such as a manual, PowerPoint slides, handouts, flip charts, and DVD players.

Implementation system/ infrastructure

Staff selection/requirements: Identify facilitators with adequate skills and experience, which may include past experience working with youth, comfort discussing sexual health, and commitment to encouraging youth to cease sexual activity to avoid sexual risk.

Staff training and certification: Train facilitators on the skills necessary to implement the program, including the selected curriculum and facilitation quality, as necessary. Build capacity of implementation sites by training staff (like teachers in schools or providers in clinics) to promote program sustainability.

Staff supervision and support: Provide facilitators with supervision, feedback, and coaching to support high-quality program delivery and interactions with youth. May include group and/or individual feedback.

Recruitment strategies for youth: Form strong partnerships with implementation sites or other community organizations with adequate staff resources and access to youth in the target population. Develop processes for obtaining consent.

Engagement and retention strategies for youth: Collaborate with implementation sites to deliver programming at convenient times and places for youth. Consider offering incentives to youth.

Partnerships: Establish partnerships with medical providers or health clinics, mental health organizations, and other relevant service providers.

Referrals: Define process for referring youth to other community service providers as needed and appropriate.

Data systems: Develop system to facilitate tracking of program implementation, including youth enrollment and participation and referrals. Use data to address challenges and guide program improvement.

Measurement of fidelity: Define a process and develop tools for monitoring adherence to program expectations. If available, use existing fidelity tools.

Implementation outputs

Staff

Staff with knowledge and skills to deliver the program and coordinate services with schools, community organizations, or clinics
Credibility and comfort of staff with youth
Staff satisfaction and commitment to the program model
Receipt of sufficient training, support, and supervision, for staff to successfully carry out their jobs

Service delivery

Program provided at intended dosage
Program delivers core content and activities with fidelity
Facilitators address individual needs of youth
Facilitators coordinate with partner staff to address youth needs

Participant responsiveness

Youth enroll at expected pace
Youth attend program regularly and complete intended components
Youth satisfied with program services

Outcomes

Changes in knowledge, attitudes and intentions

- Relevant knowledge, including about sexual health, communication and refusal skills, healthy relationships, identifying and engaging supportive peers and trusted adults, benefits of cessation, and the role of media and online interactions
- Attitudes supportive of sexual risk cessation
- Sexual risk cessation intention

Changes in skills and behaviors

- Skill development related to sexual health, communication and refusal skills, healthy relationships, identifying and engaging supportive peers and trusted adults, goal-setting, and role of media and online interactions
- Decreased number of romantic or sexual partners
- Decreased frequency of sexual activity
- Discontinuation of sexual activity (for example, in last 3, 6, 12 months)
- Improvement in non-sexual outcomes, such as:
  - Academic achievement
  - Mental health
  - Relationship quality
  - Self-sufficiency
- Decrease in non-sexual outcomes, such as:
  - Alcohol/drug use
  - Delinquency
- Decrease in sexually transmitted infections
- Decrease in teen pregnancy

Context Availability and accessibility of other services, community norms and values related to adolescent sexual behavior, community context (pregnancy rates, economic conditions), and relevant national, state, or local policies.

Table 1. Overview of recommended content

Content	Recommended topics	Related findings from conceptual model for sexual risk cessation[2]
Sexual cessation	Defining sexual risk cessation, identifying steps needed to choose cessation, and empowering youth to consider cessation as a viable option	Health education programs can help achieve intended sexual risk cessation outcomes.
Benefits of and barriers to ceasing sexual activity	Identification of positive consequences of choosing to avoid sex; brainstorming ways to overcome perceived barriers to sexual avoidance	None identified.
Sexual health information	Reproductive anatomy, the optimal health model and its application to sexual activity, risks involved with sexual activity, like pregnancy and STIs, and contraception options	Prior contraction of a STI was associated with a greater desire to discontinue sexual intercourse.
Sexual consent	Defining consent and skills related to asking for and providing consent to partners, and information on sexual consent laws in your state	None identified.
Communication, negotiation, and refusal skills	Conflict resolution, dealing with pressure to have sex, and decision-making skills	Sexual self-efficacy, avoidance self-efficacy, and sexual refusal skills were found to be protective factors for cessation. Partners' expectations for sex were negatively associated with cessation outcomes.
Building healthy relationships	Identifying characteristics of healthy and abusive relationships, how to escape unhealthy relationships, and the benefits of healthy relationships	Being in a serious or steady relationship was negatively associated with cessation.
Self-perception	Defining self-worth and self-efficacy and how they relate to healthy relationships	Negative self-perception or body objectification was associated with lower levels of cessation. Having a strong sense of self-determination (namely, believing that your own actions, and not external forces like fate and luck, determine what happens to you) and positive beliefs about avoiding sex until marriage were found to positively influence cessation outcomes.
Setting goals to encourage the cessation of sexual activity	Setting personal goals, including those related to community engagement; identifying steps for achieving goals; and assessing how not having sex may affect goals	Intending to discontinue sex was positively associated with cessation.
Identifying and engaging supportive peers and trusted adults	Identifying a support system for cessation, such as peers and trusted adults, and ways to engage supportive peers, parents, or other trusted adults	Risky peer behavior, such as alcohol and drug use, was negatively associated with cessation. Living with two biological parents at age 14 was associated with less frequent sexual activity and fewer pregnancies in youth's early 20s.
Role of media and online interactions	Identifying media influences, how to handle social media interactions, examining how media depict sexual stereotypes	Media exposure and use of or exposure to Internet pornography were both negatively associated with outcomes related to risk cessation.

One approach is for programs to offer group sessions to introduce the concept of sexual risk cessation. Group sessions typically allow programs to reach more youth and may spark the interest of some youth to seek individualized support. Groups that include both sexually experienced and inexperienced youth may be most feasible for certain settings, like schools. When working with groups of youth, program implementers will most likely not know which youth are sexually experienced. Thus, the program model suggests that implementers offer youth interested in ceasing sexual activity the option to receive additional, tailored services, which would be delivered one-on-one. In the second approach, programs provide only individualized sessions to youth considering sexual cessation. This approach does not include group sessions and focuses primarily on sexually experienced youth. This approach may work best in settings like clinics or community-based organizations where implementers are more likely to be able to identify youth who are considering sexual cessation.

Program features. Program features guide implementation and include the population the program will serve, where implementation will occur, and strategies and materials used during implementation. As previously described, the target population is primarily youth with sexual experience, but it may also include more general youth populations, particularly for group sessions.

The program model suggests finding a curriculum or developing content that aligns with the model's content and objectives and providing staff with all necessary training and materials to implement that curriculum and any other program content. For programs planning individualized support, program implementers can use strategies such as motivational interviewing, mentoring, and case management. For group sessions, program implementers can incorporate a range of teaching strategies such as lectures, discussions, and role-playing to engage youth.

As the program model can work in multiple settings, the setting should be selected to be appropriate for the chosen curriculum, target population, and service delivery plan. Finally, staff should identify supplemental services that can be offered to the target population depending on identified needs, such as mental health counseling or STI testing, as appropriate.

Implementation system/infrastructure. Organizations need a well-defined implementation system and infrastructure to support program implementation. Such systems or infrastructure would include processes for staff selection, preparation, and support, including training, recruiting and engaging participants, engaging with partners and external services, and collecting data to assess program implementation. In most cases, data sources for the program model did not address the implementation system, so the team relied on best practices for effective programming (Metz and Albers 2014; Meyers et al. 2012; Fixsen et al. 2005).

The box on the right highlights several considerations that organizations might take to build a strong implementation infrastructure.

Considerations for building a strong infrastructure for implementation

- Select facilitators with adequate general skills and experience and enthusiasm for the program objectives, train them on the necessary specific skills to implement the program, and provide consistent support, supervision, and feedback.
- Create a plan with partners (such as implementation sites or community organizations) to recruit youth into the program—including obtaining parental consent for participation, if necessary.
- Establish partnerships with medical providers or health clinics, mental health organizations, and other relevant service providers for supportive services.
- Identify a process for referring youth to other services in the community.
- Create a system to track data, such as youth enrollment and participation, and develop a process for monitoring adherence to the program model.
- Work with partners to implement the program at times and places convenient to youth to boost their engagement and retention in the program.

Implementation outputs. Implementation outputs support an assessment of whether the inputs were implemented as intended. Based on best implementation practices for serving youth (Metz and Albers 2014; Meyers et al. 2012; Fixsen et al. 2005), we organized implementation outputs into three categories: (1) staff, (2) service delivery, and (3) participant responsiveness. Table 2 defines each category and provides examples of measures that could be assessed. Programs should consider which outputs are appropriate to measure and analyze, based on their program.

Table 2. Examples of measures for three categories of implementation outputs

Category	Definition of category	Examples of measures
Staff	Background and skills of facilitators and how well they deliver the program	• Staff characteristics (age, education, race/ethnicity, gender, etc.) • Observed quality of interactions between youth and staff • Staff comfort, satisfaction, and commitment to the program gathered through observation or self-report • Staff's assessment of training and support provided
Service delivery	How the program is provided in a real-world setting	• Dosage delivered • Staff's adherence to the program as written • Level of coordination between facilitator and partner staff in addressing youth's needs (such as number of successful referrals)
Participant responsiveness	How the enrolled youth respond to the program	• Number of youth enrolled in the program • Youth attendance • Youth satisfaction with the program • Number of youth who complete the program

Outcomes. Outcomes are organized into two categories: (1) changes in knowledge, attitudes, and intentions; and (2) changes in skills and behavior. The program model includes the outcomes listed in the conceptual model for sexual risk cessation and outcomes that the program model might influence, judging from the literature review and discussions with experts.

Knowledge, attitudes, and intentions refer to nonbehavioral outcomes that are typically observed soon after the program to assess if youth understood and responded to the content—for example, participants' attitudes toward sexual risk cessation. The program model includes three nonbehavioral outcomes:

- Relevant knowledge about, for example, pregnancy and STIs, communication and refusal skills, healthy relationships, identifying and engaging supportive peers and trusted adults, benefits of cessation, and the role of media and online interactions
- Attitudes supportive of sexual risk cessation
- Sexual risk cessation intentions

Behavioral outcomes refer to changes in skills and behaviors after participation in the program, which may not manifest until some time after the intervention. Experts described a continuum of sexual risk reduction, with discontinuation of sexual activity at one end of the continuum. Youth may demonstrate progression toward discontinuation of sexual activity through intermediate steps, such as reducing the number of romantic or sexual partners or reducing the frequency of sexual activity. These outcomes are included as potential behavioral outcomes, partly reflecting the challenge of measuring the discontinuation of sexual activity, as programs must collect data from youth over an extended period of time (3, 6, or 12 months after the end of the program, for example). When it is not possible to collect longer-term data (for instance, if the program staff can collect data only immediately after the end of the program), programs may wish to collect measures such as the number of partners or the frequency of sexual activity. The program model identifies several expected outcomes related to skills and behavior:

- Skill development related to communication and refusal skills, healthy relationships, identifying and engaging supportive peers and trusted adults, and goal setting
- **Decreased number of romantic or sexual partners**
- **Decreased frequency of sexual activity**
- **Discontinuation of sexual activity (for example, in the last 3, 6, or 12 months)**
- Decrease in STIs
- Decrease in teen pregnancy
- Improvement in nonsexual outcomes, including academic achievement, mental health, relationship quality, and economic self-sufficiency
- Improvement in nonsexual outcomes, including decreased alcohol and drug use and delinquency

(The three bolded outcomes are on the continuum of sexual risk reduction.)

Context. The context of a program model includes the broader conditions found in the community, state, and country in which the program is implemented. These conditions will likely have some influence on the implementation of the program model. The text box below lists individual and community factors to consider before implementing a program on sexual risk cessation.

Contextual factors to consider before implementation

- Availability and accessibility of other services. The program model suggests referring youth to supplemental services. Programs will need to assess what supplemental services and opportunities for engagement are available and accessible in their community.
- Community norms and values related to adolescent sexual behavior. Messages related to sexual risk cessation should be acceptable to and consistent with norms and values of the community. Programs should consider how the community's values may influence the acceptability of services addressing cessation.
- Community context (such as pregnancy rates and economic conditions). Programs should understand relevant community factors that may affect the population the program serves, the implementation setting, or the service delivery plan. For example, if a community has a high-rate of teenage pregnancy, programs may want to target some services to pregnant and parenting teens, or they may partner with other programs for this population.
- Relevant national, state, or local policies. Programs need to be knowledgeable about policies concerning health education and related topics that could affect programming, such as policies mandating the type of health education youth should (or should not) receive.

Conclusion and next steps

By identifying the components needed for a comprehensive program, the program model for encouraging sexually experienced youth to cease sexual activity offers useful guidance to policymakers, program and curriculum developers, and program implementers. Using the program model:

- **Policymakers** can identify program components and outcomes to integrate into the development of future grant opportunities that address sexual risk cessation.
- **Program and curriculum developers** can build a program or curriculum for sexually experienced youth that meets their needs and addresses relevant content, or identify potential modifications to a current program or curriculum that would foster a focus on sexual risk cessation.
- **Program implementers** can assess whether they are meeting the needs of sexually experienced youth and identify modifications that could be made to current programming.

The program model represents an initial attempt to describe an intervention approach to promote sexual risk cessation among youth. However, evidence related to youth programming on sexual risk cessation, including the existing literature and curricula, is limited. Given these limitations, many components of the program model are not yet backed by rigorous impact or efficacy studies, and the interplay of the components is not known. To assess the program model's efficacy in impacting youth outcomes, future research could evaluate interventions that are implemented consistent with the model described in this brief.

Endnotes

[1] The concept of health, as defined by the World Health Organization, is "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" (WHO n.d.). Expanding on this definition, the optimal health model articulated by OPA defines optimal health as "a dynamic balance of physical, emotional, social, spiritual, and intellectual health…. Lifestyle change can be facilitated through a combination of learning experiences that enhance awareness, increase motivation, and build skills and, most important, through the creation of opportunities that open access to environments that make positive health practices the easiest choice" (O'Donnell 2009).

[2] Inanc et al. 2020.

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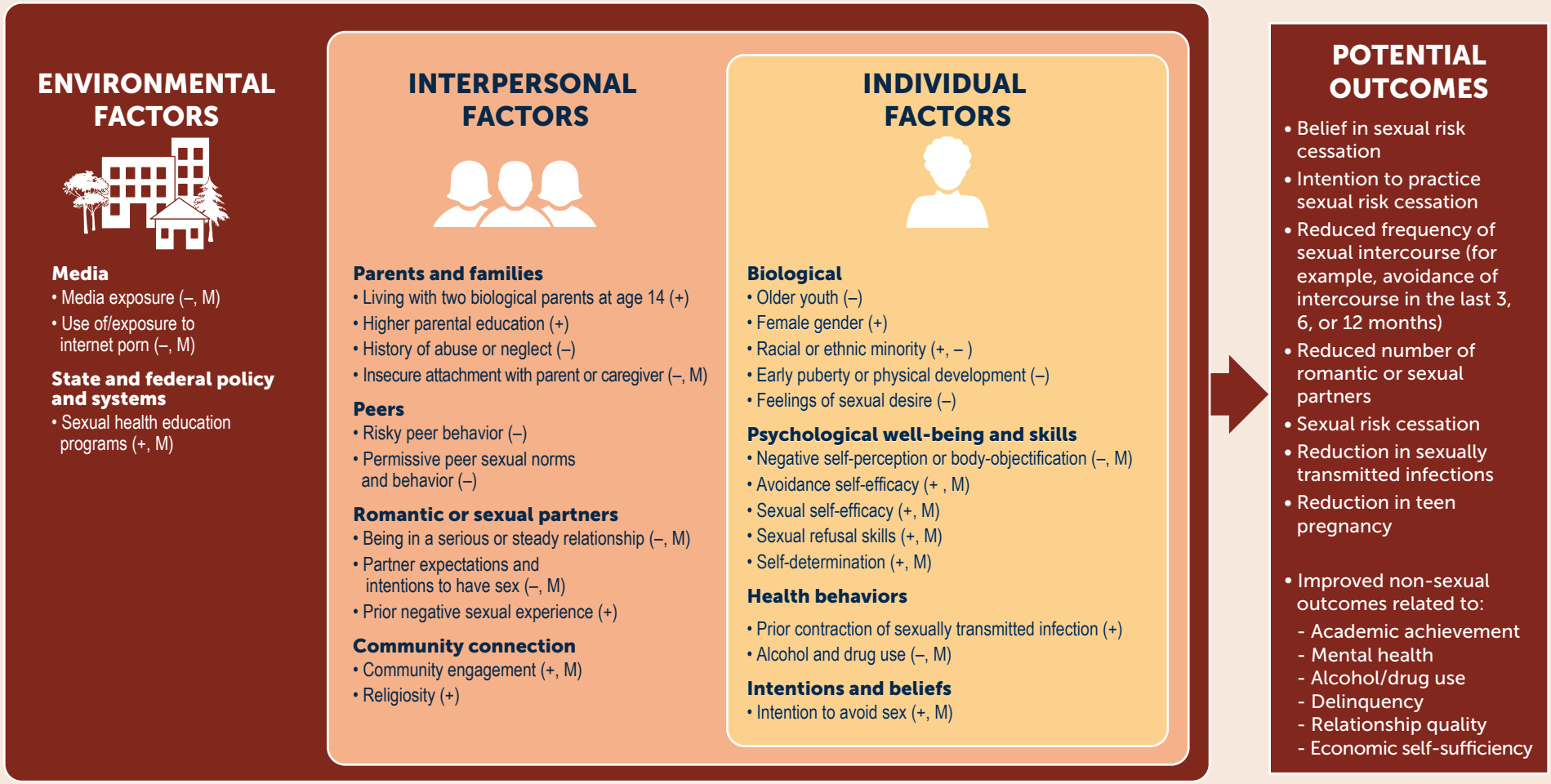
Figure A.1 Conceptual model for sexual risk cessation



Sexual risk cessation is defined as discontinuing consensual sexual activity after having engaged in it. This figure displays factors identified through a literature review as influential for sexually active youth on at least one of the potential outcomes. Only those factors identified as having sufficient evidence are included. Factors fall into three interrelated categories: environmental, interpersonal, and individual. They are grouped in order from distal to proximal in relation to the outcomes. Factors are marked as a protective factor or a risk factor based on whether the evidence showed that the factor was a positive (protective) influence (+) or a negative (risky) influence (-) on potential outcomes related to sexual risk cessation. In one case (racial or ethnic minority), evidence was mixed on the directionality of the influence. Given this, we labeled this factor with both a (+) and a (–). Factors may interact with each other to influence outcomes. Factors that are considered potentially modifiable by program intervention are marked with an "**M**".

Source: Inanc et al. 2020.

Table A.1. Experts consulted for the development of the program model

Name	Title
Diane Foley	Deputy assistant secretary of the Office of Population Affairs, Office of the Assistant Secretary for Health
Joneen Mackenzie	President and Founder, Center for Relationship Education
Thelma Moton	Founder, Choosing to Excel
Peggy Pecchio	Executive director, Operation Keepsake
Kristin Plastino	Program director, University of Texas Teen Health
Lisa Rue	Senior Advisor and Strategic Partnerships, Cliexa
John Vessey	Associate professor of psychology, Wheaton College
Bernadette Vissani	Director, YES You Can!