



# Core components of evidence-based teen pregnancy prevention programs

Evidence-based teen pregnancy prevention programs share several common components across their content, delivery mechanisms, formats, and staff.

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## KEY POINTS

- There are many different evidence-based teen pregnancy prevention (TPP) programs, but they often use common approaches or content to achieve their goals.
- This study used a standardized checklist to identify the components that are common across TPP programs with evidence of effectiveness, the subset of components considered core for each program, and those components that serve as the key differentiators across different categories of TPP programs.
- Several key findings emerged:
  - There are shared elements across all TPP programs, as well as within programs with a common goal—such as the components of sexual health education programs versus components of positive youth development programs.
    - TPP programs frequently emphasize four subtypes of **content**: social health, emotional health, sexuality, and sexual behavior.
    - Program **delivery** often includes demonstration, role play, introduction, and in-session assignments.
    - Program **formats** are often in person and rely on full- or small-group activities.
    - Program **staff** often include one or two facilitators in the health education or community health fields who receive developer-led training.
  - Some components varied substantially across programs.
    - Program **dosages** vary widely from program to program.
    - **Content** varies, particularly across different program categories: sexual health programs consistently include sexuality and sexual behavior content, whereas positive youth development programs include more individual values and academic success content.
    - Positive youth development programs include more **delivery mechanisms** overall and these programs tend to include unique delivery mechanisms not found in the remaining program categories, such as artistic expression, motivational interviewing, and text messaging.

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- Developers and distributors did not consistently identify the same handful of important ingredients or core components in all 51 evidence-based programs included in the analysis.
    - Programs are more likely to consider **content** and **delivery mechanisms** as core components than other component types, meaning they might be important to a program’s ability to produce outcomes.
    - Most developers have designed programs for delivery in a specific **context** and to a specific **intended population**, but most settings and population characteristics are not considered core to the program, meaning there is generally flexibility in where programs can be offered and to whom.
  - This brief can be useful for a variety of audiences. For example:
    - **Program implementers** can use the brief to learn about components and core components across all TPP programs and can select evidence-based programs from the Teen Pregnancy Prevention Evidence Review website based on their program-level component information.
    - **Program developers** can use the findings in this brief to build or strengthen TPP programs to include common components of evidence-based TPP programs or core components of programs with specific goals or designed for specific populations or settings.
    - **Researchers** might find this brief to be a useful foundation to build upon when designing studies of program components.
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## INTRODUCTION

Researchers have devoted considerable effort to building a body of evidence to reveal programs that improve teenagers' sexual behavior outcomes. The U.S. Department of Health and Human Services' Teen Pregnancy Prevention Evidence Review (TPPER) has identified 49 active\* teen pregnancy prevention (TPP) programs that meet the review criteria for evidence of effectiveness.<sup>1</sup> However, the current body of evidence for TPP programs is based on evaluations of entire, well-defined programs or curricula. We know much less about the individual ingredients or components of these programs, and whether particular components drive improved sexual behavior outcomes for youth.

To address this knowledge gap, a 2020 report from the National Academies of Sciences (NAS) recommended conducting research to identify, measure, and evaluate the effectiveness of core components of health-promoting programs for adolescents.<sup>2</sup> According to the foundational work of Blase and Fixsen,<sup>3</sup> components are the elements and activities that make up a program, such as using the practices of praise or social skills training in interventions for addressing disruptive behavior in children.<sup>4</sup> The literature uses many terms to describe components of programs, including structural elements, behavioral kernels, core practices, and ingredients, among others.<sup>3,5,6</sup> Program developers and implementers might consider some components of a program to be more important than others. Blase and Fixsen<sup>3</sup> proposed the phrase *core components* to describe the subset of components that are important to a program's ability to produce outcomes. Developers might consider components to be core because the developers hypothesize—based on existing theories or frameworks, or on evidence from research—that the components influence program outcomes.

Programs with evidence of effectiveness are likely to share common components. A review of 2,700 interventions intended to improve children's problem behaviors revealed 60 individual components related to content and delivery mechanisms, and the review found 15 of the 60 components across most evidence-based programs (EBPs).<sup>4</sup> Similarly, it is likely that evidence-based TPP programs share common components. Information on whether evidence-based TPP programs frequently include a subset of common program components can help guide researchers on components that warrant further investigation on effectiveness and inform program administrators on broader adoption and policymakers on investment.

This brief describes the methods and results of this study to identify the common components of evidence-based TPP programs, describes common components within and across different types of such programs, and isolates the subset of components that program developers or distributors consider core elements of effective programs.

## METHOD

We used a well-defined process to organize EBPs into their individual components and describe the prevalent components and core components across those programs. We selected an appropriate sample of programs, developed a checklist instrument, systematically collected data using that instrument, and analyzed the data across all programs in the sample and across subgroups defined by program category. This process yielded a framework for identifying relevant information about programs, extracting individual components from programs, and reporting what these components were.

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\* Active programs are those that are currently available for implementation and have evidence of favorable impacts based on data collected within the past 20 years.

## Breaking down a program

Systematically breaking down, disaggregating, or distilling TPP programs into their component parts provides consistent, organized, and detailed information about what comprises programs and yields the same terminology across all programs.<sup>7</sup> Comparing and contrasting programs distilled in the same way is an efficient approach that is more reliable than comparing programs according to their manuals or other program documentation, which use different terminology, offer different levels of detail, and can be cumbersome to review.

## Sample

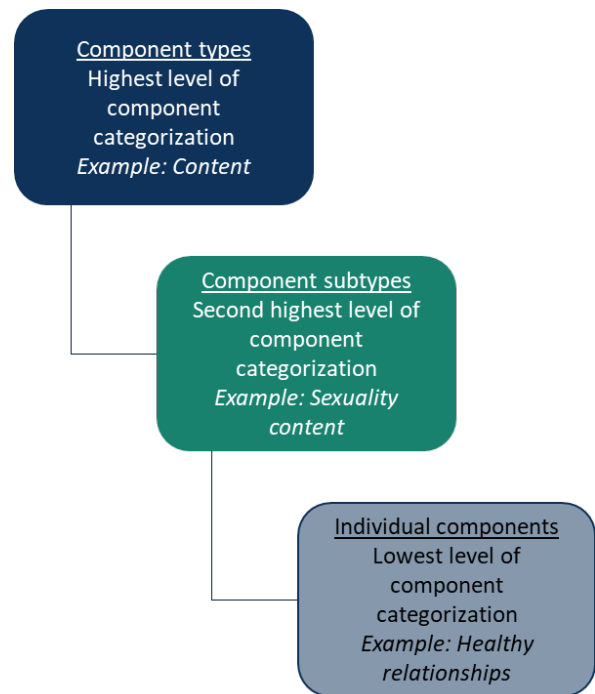
The TPPER is a systematic review of research on TPP programs. It identifies programs with evidence of effectiveness in favorably affecting outcomes related to (1) teen pregnancy, (2) sexually transmitted infections, and (3) sexual behaviors. The TPPER list of EBPs includes a variety of program categories, such as healthy relationships, positive youth development, clinic-based programs, sexual health education, and sexual risk avoidance. Each program has its own set of unique and highly variable implementation guidelines and program components. We contacted the developers or distributors of each of the 57 programs on the TPPER list of EBPs from 2022 and 2023 and asked them to document the components of their program using a standardized checklist. The goal was to distill each program consistently and systematically into its component parts.

## Component checklist

We developed a standardized checklist for program developers and distributors to use to organize their TPP programs into components. The checklist draws on the program characteristics identified through the NAS 2020 review of meta-analyses and systematic reviews on programs that support optimal adolescent health (Chapter 4 [accessible here](#)).<sup>2</sup> We tailored that original list of components to focus on the topics and approaches common to TPP programs, categorizing them into seven broad types: (1) content, (2) delivery mechanism, (3) format, (4) staffing, (5) dosage, (6) environment (referred to as context in this brief), and (7) intended population characteristics.<sup>8</sup> To vet the utility and appropriateness of the checklist, we shared it with a panel of TPP experts, including program developers, practitioners, researchers, and youth participants of TPP programs. The TPP experts piloted the checklist using an EBP they were most familiar with. We worked with the experts over the course of two meetings to produce successive iterations of the list. Finally, we revised the checklist in response to expert feedback and prepared it for dissemination.

Checklist users can disaggregate programs into 169 individual components across the seven broad types of components (Figure 1). For example, the checklist includes 69 individual content components (such as condoms, maternal health, sexual orientation, mindfulness, brain development and substance use, gender identity, and identity development) and 32 individual delivery mechanism components (such as demonstration, lecture, games, reading, role-play, text messages, and social media). Drawing on the program content domains in the NAS review, we consolidated and grouped the 69 individual content components into seven content subtypes in the checklist: social health, sexuality, emotional health, sexual behavior, substance

**Figure 1. Hierarchy of component types, subtypes, and individual components in the checklist**



use, academic success, and other. Each content subtype included as few as four individual content components and as many as 19. We consolidated other component types (such as staffing) into subtypes when appropriate. In total, there are 24 component subtypes (including “other” subtypes). Excluding “other” subtypes, the content components include seven subtypes (social health, emotional health, sexuality, sexual behavior, individual values, substance use, and academic success), the format components include two subtypes (group size and mode), the staffing components include four subtypes (deliverer, experience, training, and number of staff), the context components include two subtypes (implementation settings and environmental context), and the intended population characteristics components include two subtypes (demographics and risk and protective factors). The delivery mechanism and the dosage component types do not have subtypes because neither type could be divided further into meaningful subtypes. For each individual component included in the checklist, there are response options for the user to indicate whether the component is

1. Present and intended to be offered as part of one or more versions of the program
2. Is optional
3. Is not part of the program

For every individual component selected as present in the program, the person completing the checklist differentiates the relative importance of each component within the program by indicating whether the component is core to the program. The instructions accompanying the checklist explained that *core* is a designation that developers or distributors might make if they have a hypothesis based on existing theories or frameworks, or based on evidence from research that the components influence program outcomes. The instructions encouraged respondents to provide the reasoning for why they believed a component to be core in a separate field, though it was not required. For each component type in the checklist, a user has the option to select “other” for components not included in the checklist. The checklist also gives the option to provide clarifying information in an open-field notes column. The full instrument is [publicly available online](#).<sup>9</sup>

## Data collection

We used an identical process to gather information from and follow up with each developer or distributor of the 57 programs on the TPPER list of EBPs from the 2022 and 2023 rounds of the evidence review. We asked developers or distributors to complete and return a component checklist for their EBP by email within three weeks of receiving the checklist and instructions. We received completed checklists on a rolling basis and, when we did not receive a completed checklist after three weeks, we followed up and repeated our initial request. We ceased outreach four months after the initial request. We received a total of 51 completed checklists. Three program developers or distributors declined to complete the checklist, and three did not respond to our initial or follow-up requests.

## Analysis

We reviewed each of the returned checklists to confirm they were filled out completely and respondents had followed the instructions. We compared the data with other information we collected from EBPs, such as the implementation profile data available on the TPPER website, but did not compare the checklists against program curricula to verify the validity of the components described by the developers. We contacted developers or distributors about any inconsistencies or missing information we found in the completed checklists.<sup>†</sup>

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<sup>†</sup> We followed up with 30 developers or distributors to obtain missing information from their checklists.

For each of the 169 individual components across the seven broad types, we coded the component as not present, present,<sup>‡</sup> or present and core. The third category, present and core, differentiates those components highlighted by the developers and distributors as very important to the program. The present category includes all components reported as being in a program, including those that were non-core and core (meaning present includes all present and core components). For numeric variables (such as the number of minutes a given session lasted or the number of facilitators expected to deliver programming), we retained the original numeric data and used them for analysis.

We created a data file that included the responses for all 51 program checklists. We calculated descriptive statistics (means, frequencies, and ranges) to assess the prevalence of each program component—and the subset of components considered core—across all EBPs. For content components, we ran the analysis for each component separately, a second analysis pooled components into content component subtypes (described earlier) to ease interpretation. In addition to examining the prevalence of components across the 51 EBPs, we sought to highlight the differences in components included in programs that had different focuses or goals. Therefore, we conducted the same analysis for subgroups of programs defined by program categories. We focused this subgroup analysis on the two most prevalent program categories in the sample, sexual health education and positive youth development programs. To enable a consistent interpretive lens in reviewing results, we highlighted components commonly present across many programs in the sample—defined as those observed in at least 75 percent of programs—and those components that were not commonly present, defined as those observed in fewer than 25 percent of programs. In our interpretation of the subgroup analysis, we again focused on components observed in at least 75 percent or in fewer than 25 percent of programs, and specifically on how the programs in different categories differed from each other. We focused on the content and delivery mechanism component types for the subgroup analysis because we expected programs from different categories to differ most on these components rather than the other, less substantive components. Full results are available in Appendix A.

## RESULTS

### Components present and core across TPP programs

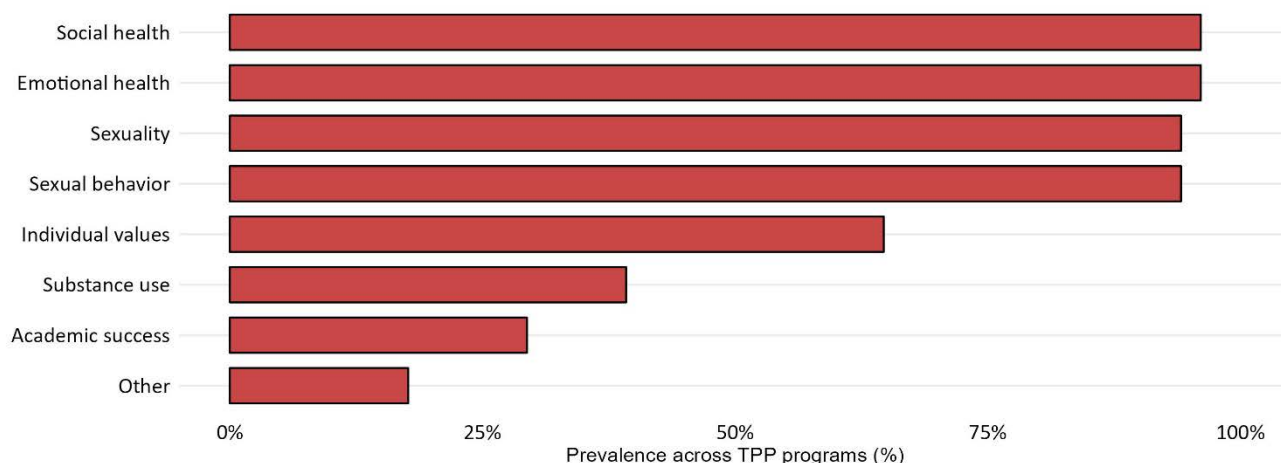
***Content: Common content component subtypes of TPP programs are social health, emotional health, sexuality, and sexual behavior.***

Content refers to the subject matter delivered in the program. Programs include an average of five of the eight content component subtypes (observed range = 3–8 content subtypes across programs). Figure 2 shows the prevalence of components across subtypes. Subsequent sections present the definitions and descriptive statistics for each subtype. The most common content component subtypes across the 51 EBPs in the sample are social health (96 percent), emotional health (96 percent), sexuality (94 percent), and sexual behavior (94 percent). The less prevalent content component subtypes include individual values (65 percent), substance use (39 percent), academic success (29 percent), and other (18 percent). Notably, 73 percent of the time that a content component subtype was coded as present in a program (observed range = 65–78 percent across different content component subtypes), the developers also coded it as core to the program (not shown in Figure 2).

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<sup>‡</sup> The present category included components coded as optional. Four percent of the components analyzed as present were originally coded as optional.

**Figure 2. Content component subtypes present across TPP programs**



On average, programs include 31 of the 69 individual content components. The figures that follow present the individual components within each content subtype. In addition, Figures 3–6 distinguish the components considered present and core (reflected by darker shading) versus present alone (reflected by lighter shading).

**Boundary-setting and refusal skills and communication skills are the most common social health content components.**

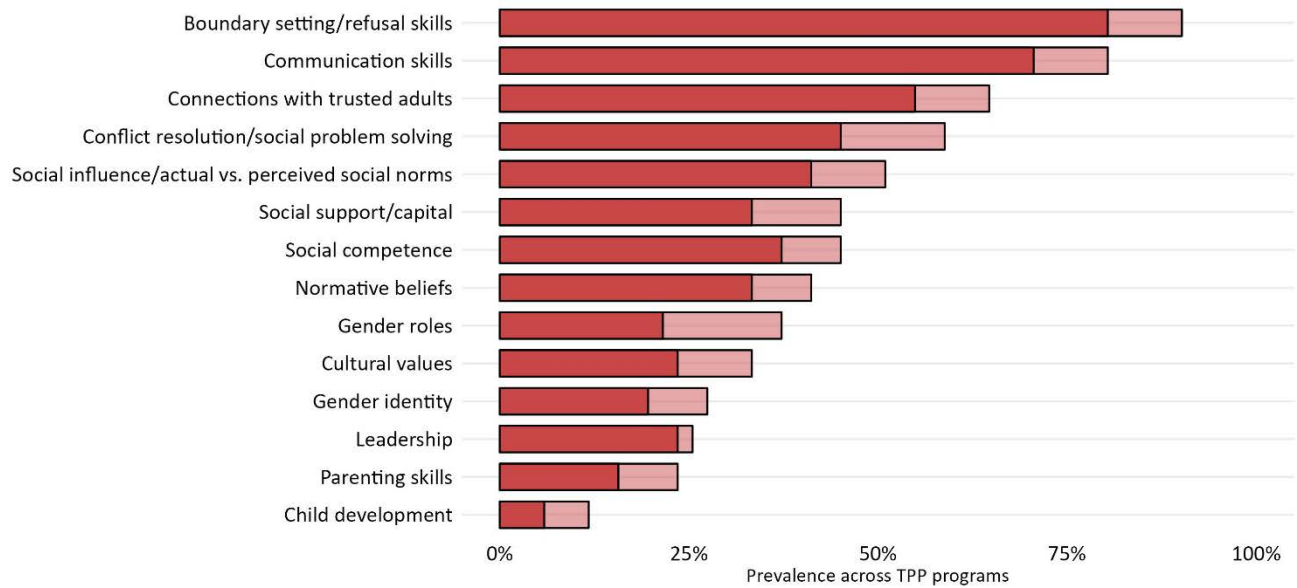
Social health content addresses interpersonal skills, relationships, and belief systems. On average, programs include six of the 14 social health content components (Figure 3; observed range = 0–13). Of the social health content subtypes, boundary setting and refusal skills and communication skills are the most prevalent content components, found in 90 and 80 percent of programs, respectively. Child development is the least prevalent social health content component, found in 12 percent of programs.<sup>†</sup> Of the social health content components identified as present, 76 percent are considered core to the program.

**About 75 percent of programs include emotional health content about self-efficacy and empowerment and goal setting.**

Emotional health content addresses intrapersonal processes and strengths. On average, programs include four of the 12 emotional health content components (Figure 4; observed range = 0–12). Self-efficacy and empowerment (80 percent) and goal setting (76 percent prevalence) are the most prevalent. Motivational interviewing (24 percent), brain development and emotions (22 percent), mindfulness (18 percent), resilience (16 percent), meditation (10 percent), and cognitive behavioral therapy (8 percent) are the least prevalent. Of the emotional health content components identified as present, 73 percent are considered core to the program.

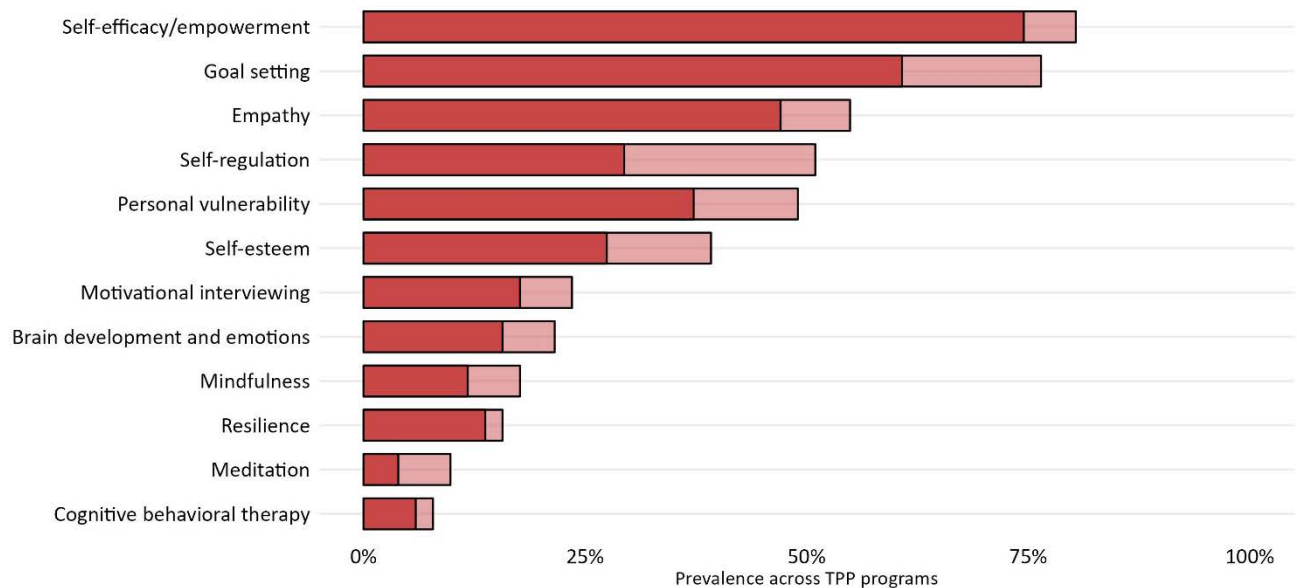
<sup>†</sup> Child development content is defined as “content about the sequence of physical, language, thought, and emotional changes that occur within a child from birth through adulthood,” and might be reserved for programs for expecting or parenting teens or programs that include sessions that parents or families attend alongside their developing teens.

**Figure 3. Social health content components considered present and core across TPP programs**



Note: The shorter, darker stacked bars in the figure reflect prevalence of components coded present and core. The longer, lighter stacked bars in the figure reflect the prevalence of components coded as present.

**Figure 4. Emotional health content components considered present and core across TPP programs**



Note: The shorter, darker stacked bars in the figure reflect prevalence of components coded present and core. The longer, lighter stacked bars in the figure reflect prevalence of components coded as present.

***Decision making is the most common sexuality content component.***

Sexuality content addresses the nonphysical behaviors and experiences related to healthy sexual behavior, its preconditions (such as consent), and its potential consequences (such as healthy relationships). On average, programs include four of the eight sexuality content components (Figure 5; observed range = 0–8). Decision-making, meaning how young people make decisions about sex and relationships, is the most prevalent sexuality content component, found in 80 percent of programs. Body image is the least prevalent sexuality content component, found in 24 percent of programs. Of the sexuality content components reported as present, 65 percent are considered core to the program.



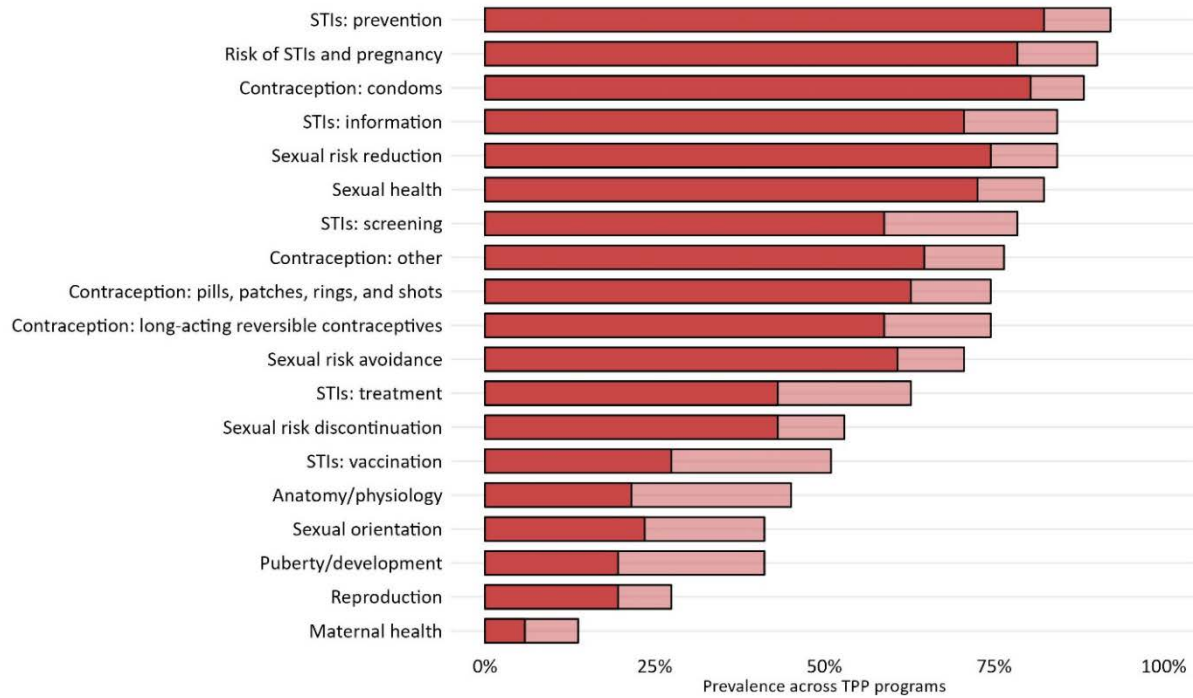
**Figure 5. Sexuality content components considered present and core across TPP programs**

Note: The shorter, darker stacked bars in the figure reflect prevalence of components coded present and core. The longer, lighter stacked bars in the figure reflect prevalence of components coded as present.

**Most TPP programs include sexual behavior content focused on preventing sexually transmitted infections (STIs) and risk of STIs and pregnancy.**

Sexual behavior content has the highest count of individual components and includes content that addresses the physical behaviors related to sexual activity, its preconditions (such as puberty), and its potential consequences (such as pregnancy). On average, programs include 12 of the 19 sexual behavior content components (Figure 6; observed range = 0–19). STI prevention (92 percent prevalence), risk of STIs and pregnancy (90 percent), condoms (88 percent), sexual risk reduction (84 percent), STI information (84 percent), and sexual health (82 percent) are the most prevalent. Maternal health is the least prevalent component related to sexual behavior, found in just 14 percent of programs.<sup>‡</sup> Nearly three-quarters (74 percent) of the sexual behavior content components reported as present are considered core to the program.

**Figure 6. Sexual behavior content components considered present and core across TPP programs**



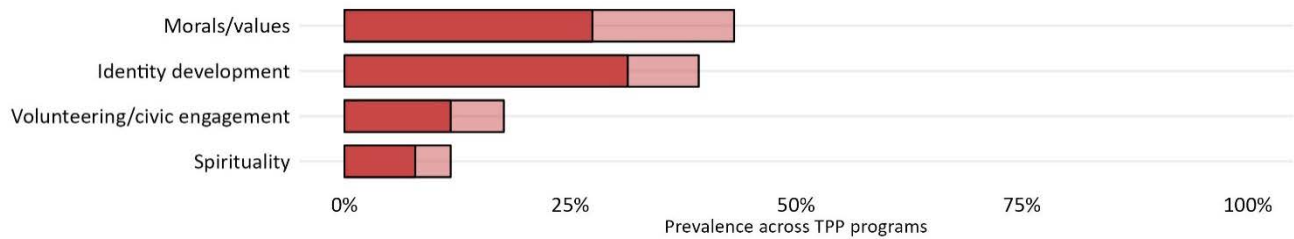
Note: The shorter, darker stacked bars in the figure reflect prevalence of components coded present and core. The longer, lighter stacked bars in the figure reflect prevalence of components coded as present.

<sup>‡</sup> Maternal health content is defined as “content about the health of women during pregnancy, childbirth, and the postnatal world,” and might be reserved for programs designed for expecting or parenting teens.

**Individual values content was present in fewer than 75 percent of programs. Morals and values content was the most common individual values component.**

Individual values content addresses youths’ personal identity and belief systems. On average, programs include one of the four components related to content on individual values (Figure 7; observed range = 0–4). Fewer than 50 percent of programs include each of these components. Morals and values (43 percent prevalence) and identity development (39 percent) are the most prevalent individual values components. Volunteering and civic engagement (18 percent) and spirituality (12 percent) are the least prevalent. More than two-thirds (69 percent) of the individual values content components reported as present are considered core to the program.

**Figure 7. Individual values content components considered present and core across TPP programs**

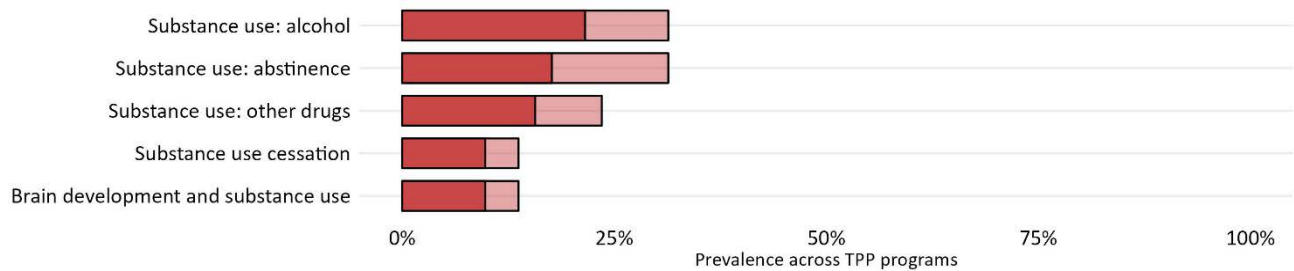


Note: The shorter, darker stacked bars in the figure reflect prevalence of components coded present and core. The longer, lighter stacked bars in the figure reflect prevalence of components coded as present.

**Substance use content was present in fewer than 50 percent of programs. Alcohol and abstinence were the most common substance use content components.**

Substance use content addresses the avoidance of, reduction of, and risks related to using substances. On average, programs include one of the five components related to substance use content (Figure 8; observed range = 0–5). Fewer than 50 percent of programs include each of the substance use components. Alcohol (31 percent prevalence) and abstinence (31 percent) are the most prevalent substance use components. Other drugs (24 percent), substance use cessation (14 percent), and brain development and substance use (also 14 percent) are the least prevalent. Two-thirds (67 percent) of the substance use content components reported as present are considered core to the program.

**Figure 8. Substance use content components considered present and core across TPP programs**



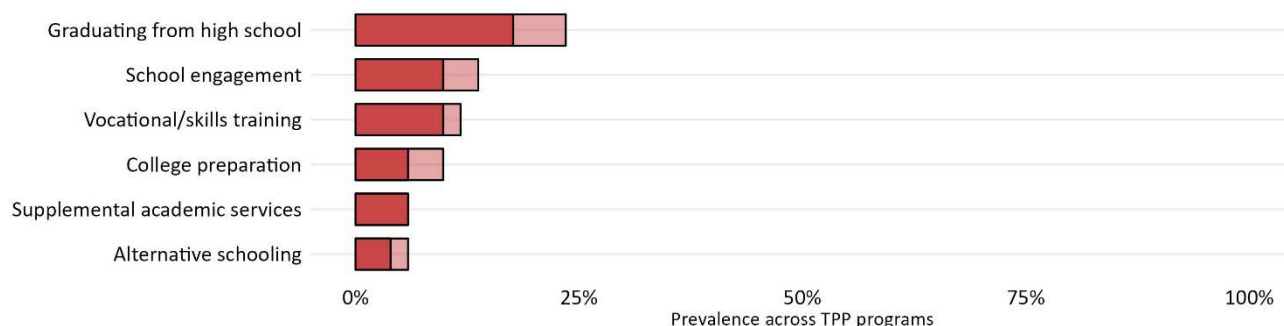
Note: The shorter, darker stacked bars in the figure reflect prevalence of components coded present and core. The longer, lighter stacked bars in the figure reflect prevalence of components coded as present.

**Academic success was the least common content component, present in fewer than 30% of TPP programs.**

Academic success content addresses youth’s academic success. On average, programs include one of the six academic success content components (Figure 9). About 25 percent or fewer programs include each of these components. Graduating from high school (24 percent prevalence) is the most prevalent academic success component. School engagement (14 percent prevalence), vocational and skills training (12 percent), college preparation (10 percent), supplemental academic services (6 percent), and alternative schooling (6 percent)

are the least common. Three-quarters (76 percent) of the academic success content components reported as present are considered core to the program.

**Figure 9. Academic success content components considered present and core across TPP programs**



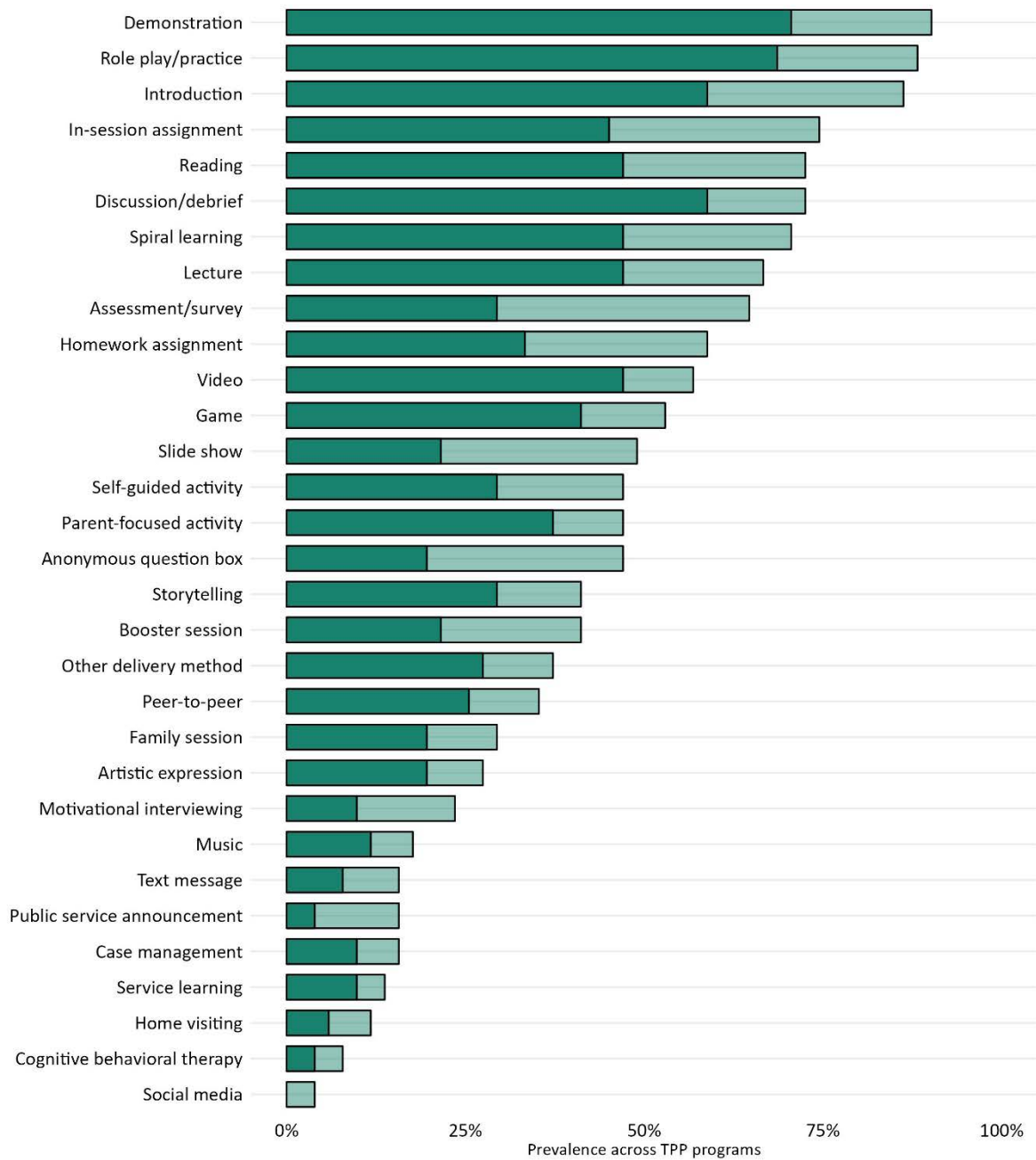
Note: The shorter, darker stacked bars in the figure reflect prevalence of components coded present and core. The longer, lighter stacked bars in the figure reflect prevalence of components coded as present.

***Delivery mechanisms: TPP programs use, on average, 14 different delivery mechanisms to provide program content.***

Delivery mechanisms refer to the principles and practices by which programs provide the content. For instance, spiral learning includes returning to content multiple times and peer-to-peer includes peers delivering program material to program participants. Other delivery mechanisms involve activities—for instance, introduction includes activities to establish group norms, goals for the program, and ice-breakers; and assessment and survey includes measuring participants’ knowledge on a specific topic.<sup>5</sup> On average, programs use 14 of 31 delivery mechanism methods (Figure 10; observed range = 1–26). Demonstration (90 percent prevalence), role play and practice (88 percent), introduction (86 percent), and in-session assignment (75 percent) are the most prevalent delivery mechanism components across programs. Music (18 percent prevalence), text messages (16 percent), public service announcements (16 percent), case management (16 percent), service learning (14 percent), home visiting (12 percent), cognitive behavioral therapy (8 percent), and social media (4 percent) are the least prevalent delivery mechanisms across programs. Of the delivery mechanism components identified as present, 61 percent are considered core to the program.

<sup>5</sup> Refer to the [component checklist instrument](#) for definitions of each component.

**Figure 10. Delivery mechanism components considered present and core across TPP programs**



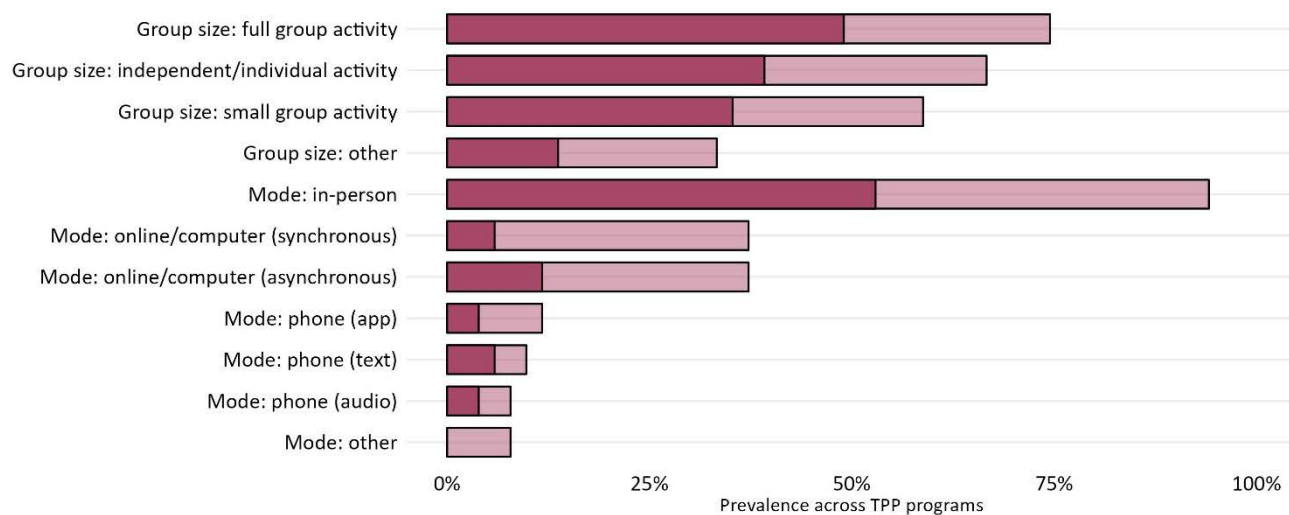
Note: The shorter, darker stacked bars in the figure reflect prevalence of components coded present and core. The longer, lighter stacked bars in the figure reflect prevalence of components coded as present.

**Formats: Most program formats involve a mix of group sizes and modes, but nearly all programs involve in-person delivery mode.**

Format components are the structure and organization by which programs deliver content. Figure 11 illustrates that programs are intended to be delivered through a variety of group sizes and modes. On average, programs use two of four possible group sizes (observed range = 1–4). Full-group activities (75 percent) are the most common. Most programs use a mix of group sizes; 65 percent include two or more, whereas 22 percent include only one group size consistently throughout the program. On average, programs used two of seven possible modes (observed range = 1–5). In-person delivery (94 percent prevalence) is the most common mode.

The least common modes were mobile apps (12 percent), texting (10 percent), and audio (8 percent). As they did with group sizes, most programs use a mix of modes; 65 percent use two or more, whereas 22 percent use only one mode consistently throughout the program. Among the format components identified as present, 39 percent are considered core to the program.

**Figure 11. Format components: Group size and mode components considered present and core across TPP programs**



Note: The shorter, darker stacked bars in the figure reflect prevalence of components coded present and core. The longer, lighter stacked bars in the figure reflect prevalence of components coded as present.

***Dosage: All TPP programs have an intended dosage, but there is often flexibility in how condensed a program is, how often delivery occurs, and how much total time is spent delivering the program.***

Dosages are the intended duration, frequency, and intensity of the program. Every program includes all three of three dosage components: intensity, frequency, and duration. The median program intensity is 55 minutes per intervention encounter, lesson, or session (observed range = 20 minutes–6 hours). The median program frequency was twice per week (observed range = single encounter–daily). Programs range widely in their intended duration, with the shortest program just 23 minutes long and the longest lasting 200 hours. The median program duration is 10 hours. Some programs deliver their intervention content outside of a standard intervention lesson or session, such as through text messages, and consider intensity to be the number of text messages sent to participants rather than length of program lesson or session. Across the three dosage components and across all programs, developers consider 55–59 percent to be core, meaning that although there is always an intended program dosage, there is often flexibility in how condensed a program delivery is (intensity), how often program delivery occurs (frequency), and how much time is spent delivering the program (duration).

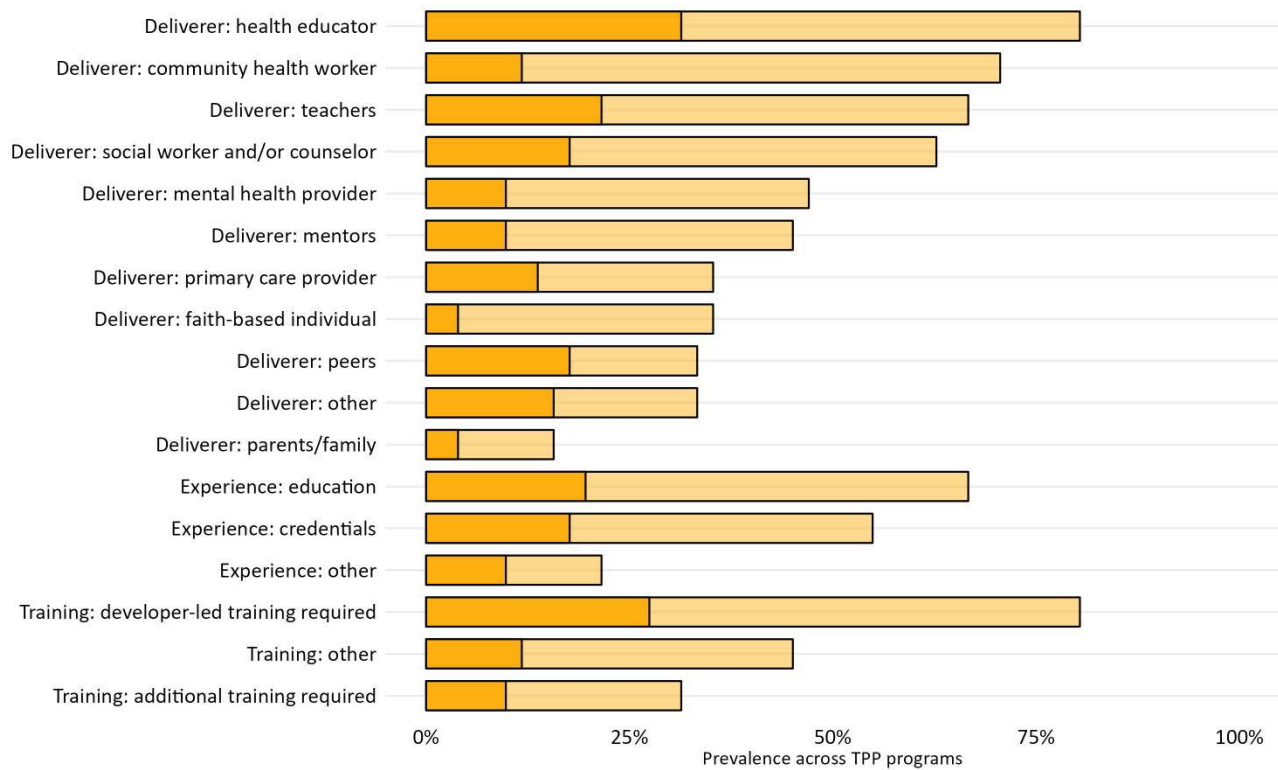
***Staffing: TPP programs typically expect one or two facilitators in the health education or community health fields, who receive developer-led training, to deliver content.***

Staffing components include the intended training and characteristics of the individuals delivering the program content. Figure 12 illustrates that programs intend various types of staff who have different levels of education and training to deliver content. On average, programs say they use 5 of 11 possible deliverers (observed range = 0–11). The most common intended deliverers of TPP programs are health educators (80 percent prevalence) and the least common deliverers are parents or family members (16 percent). Developers commonly require developer-led training (80 percent) for staff delivering the TPP programs. The number of staff programs use to

deliver TPP programs ranges from one to 13. Most programs (76 percent) plan for one or two facilitators to deliver content.

On average, programs reported incorporating one of three components for staff experience (observed range = 0–3). Based on the notes provided in the checklist for the staff experience: education component, only 20 percent of programs require or recommend that program deliverers have advanced education, such as a bachelor’s degree, whereas the remainder require substantive experience or skills (27 percent), completion of other trainings (8 percent), or did not specify education requirements (45 percent). On average, programs reported using two of three staff training components (observed range = 0–3). Developers considered only 32 percent of the staffing components to be core to the programs.

**Figure 12. Staffing components: Deliverer, experience, and training components considered present and core across TPP programs**

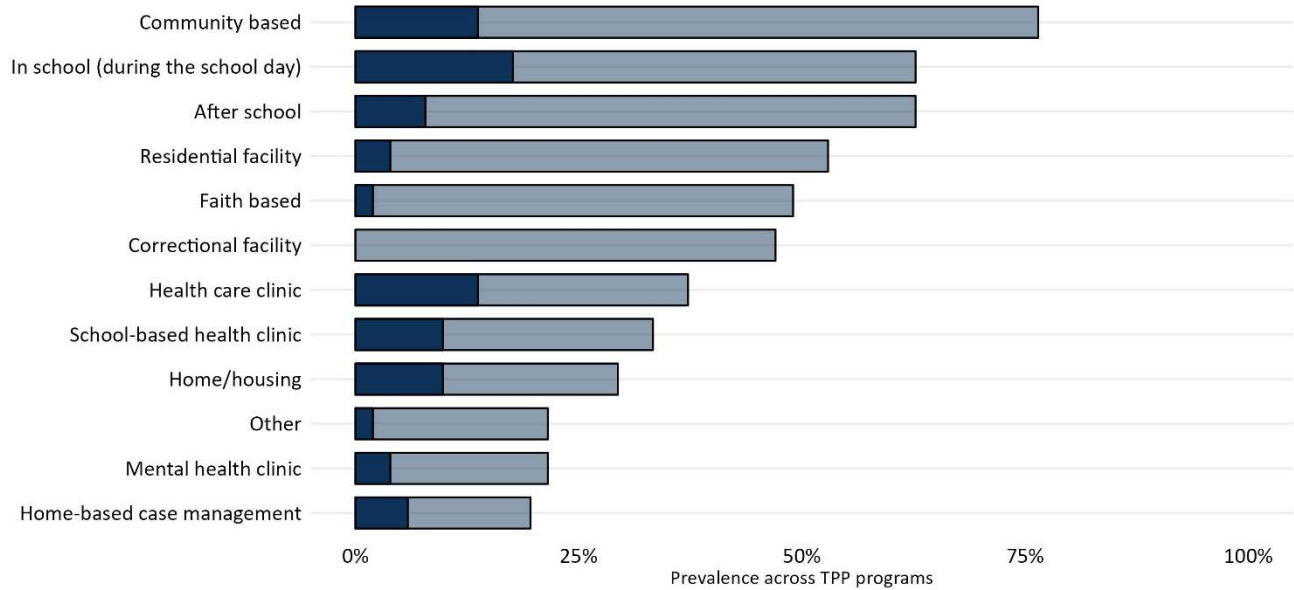


Note: The shorter, darker stacked bars in the figure reflect prevalence of components coded present and core. The longer, lighter stacked bars in the figure reflect prevalence of components coded as present.

**Context: Specific settings might not be core to the implementation of most TPP programs.**

Context components include the intended settings or locations of the program. On average, programs use five of the 12 implementation settings (Figure 13; observed range = 0–11). The most common settings are community-based settings (76 percent). The least common settings are mental health clinics (22 percent) and home-based case management settings (20 percent). Just 22 percent of the reported settings are considered core, meaning there is generally flexibility in where programs can be offered and a specific setting might not be important to the implementation of the program.

**Figure 13. Context components: Implementation settings considered present and core across TPP programs**

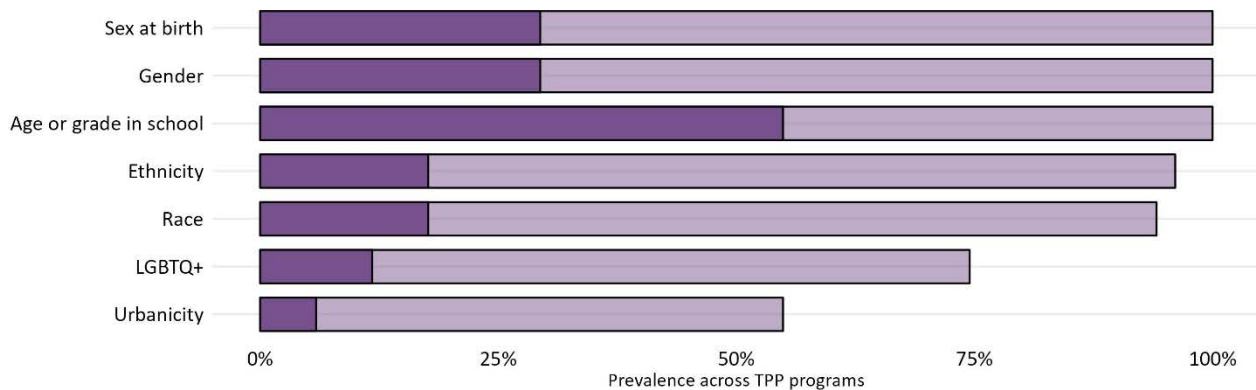


Note: The shorter, darker stacked bars in the figure reflect prevalence of components coded present and core. The longer, lighter stacked bars in the figure reflect prevalence of components coded as present.

**Intended population characteristics: Although most programs are designed for an intended population, few programs consider the characteristics—other than age or grade in school—to be core to the program.**

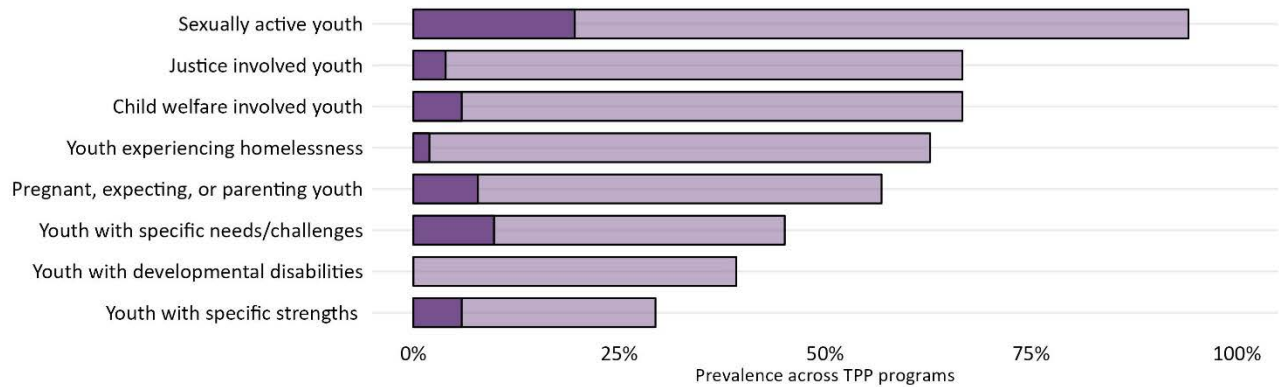
Intended population characteristic components reflect the characteristics of the individuals receiving the program. Figures 14 and 15 illustrate that programs design the EBPs in the sample to serve a variety of populations, and only a few are narrowly defined in terms of who they are intended to serve. On average, programs reported incorporating 11 of the 15 intended population components (six demographic characteristics and five risk and protective factors; observed range = 5–15). Only 25 percent of the reported demographic components and 12 percent of the reported risk and protective factor components are considered core to the programs.

**Figure 14. Intended population characteristic components: Demographic components present and core across TPP programs**



Note: The shorter, darker stacked bars in the figure reflect prevalence of components coded present and core. The longer, lighter stacked bars in the figure reflect prevalence of components coded as present.

**Figure 15. Intended population characteristic components: Risk and protective factor components present and core across TPP programs**



Note: The shorter, darker stacked bars in the figure reflect prevalence of components coded present and core. The longer, lighter stacked bars in the figure reflect prevalence of components coded as present.

### Components across categories of TPP programs

In addition to examining the prevalence of components across the 51 EBPs, we assessed the components that differed by program category. Of the 51 programs included in this sample, 32 (63 percent) were sexual health education programs, nine (18 percent) were positive youth development programs, and 10 (20 percent) were other program categories (clinic-based, healthy relationship, and sexual risk avoidance programs).\*\*

Next, we review the content component subtypes and delivery mechanism components prevalent across the different TPP program categories. Refer to the Appendix for detailed findings on components reflecting content and those reflecting staffing, format, dosage, environment, and intended population across program categories. We do not present results from clinic-based, healthy relationship, or sexual risk avoidance program categories in the main body of this brief because there are too few of them to generalize the findings (four programs each in the clinic-based and sexual risk avoidance categories, two programs in healthy relationship programs). Details about components included in these program categories are available in the appendix.

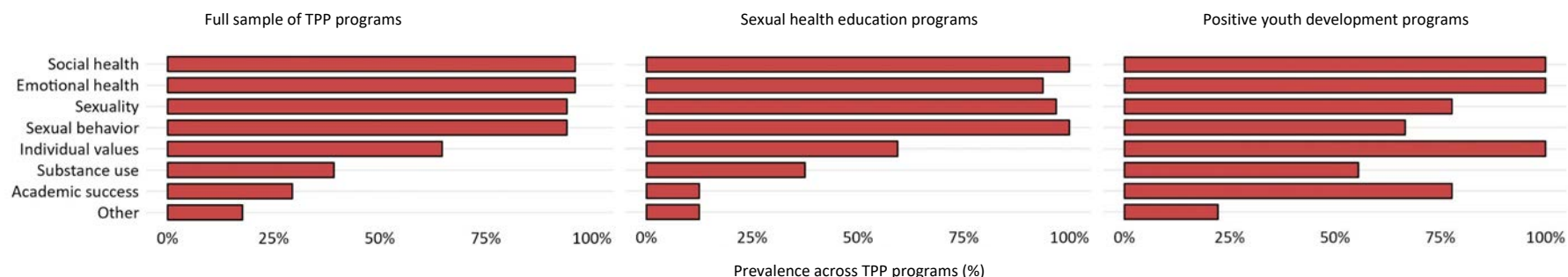
\*\* See Forrester and Cole (2023b) for additional details and definitions of these program categories; developers and distributors used these categories to describe the focus for each program.



**Both sexual health education programs and positive youth development programs emphasize social health and emotional health content. Sexual health education programs also include sexuality and sexual behavior content and positive youth development programs more typically offer individual values and academic success content.**

Figure 16 displays the prevalence rates of content component subtypes across the full sample, sexual health education programs, and positive youth development programs. On average, positive youth development programs include content across more subtypes (six of eight; observed range = 4–8) than sexual health education programs (five; observed range = 3–7). The most common content components varied across program categories. Sexual health programs consistently emphasize four broad subtypes of content: social health, emotional health, sexuality, and sexual behavior, whereas positive youth development programs consistently emphasize three types of content subtypes: social health, emotional health, and individual values content. When compared with the sexual health education programs in the sample, which nearly all include sexuality content and all include sexual behavior content, fewer positive youth development programs include sexuality and sexual behavior content components, and more of them include individual values and academic success program content components. Both the sexual health education programs and positive youth development programs include social health content components in 100 percent of the programs.

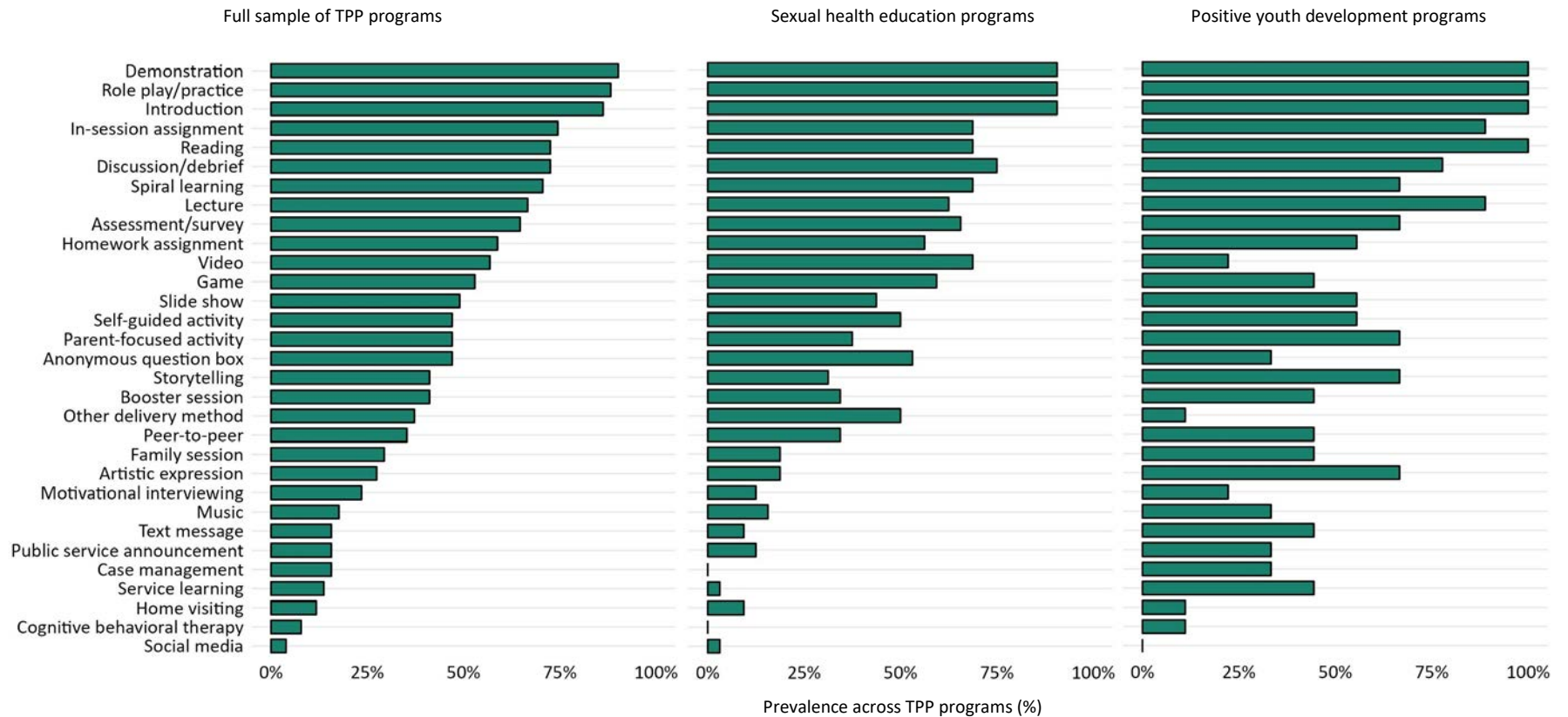
**Figure 16. Content component subtypes prevalent across TPP program categories**



**Compared with sexual health education programs, positive youth development programs are more likely to include a higher number and a wider variety of delivery mechanisms.**

Figure 17 displays the prevalence rates of delivery mechanism components across the full sample, sexual health education programs, and positive youth development programs. Sexual health education programs and positive youth development programs both use role demonstration, play and practice, introduction, and discussions and debriefs as delivery mechanisms. On average, sexual health education programs use fewer delivery mechanisms than positive youth development programs (13 compared with 16). Compared with sexual health education programs, positive youth development programs are more likely to include less common delivery mechanisms, such as artistic expression, motivational interviewing, music, text messaging, public service announcements, case management, service learning, and cognitive behavioral therapy. The positive youth development approach, which involves prosocial and holistic engagement of youth within their communities and schools, might explain this difference.

**Figure 17. Delivery mechanisms prevalent across TPP program categories**



## DISCUSSION

The findings from this study address key gaps in knowledge about the common features of TPP EBPs. By using a standardized checklist of program components, we could compare TPP EBPs, identify the components that are common across programs and the subset of components that are considered core, and reveal those components that serve as the key differentiators between programs of a given type.

The findings from this study are similar to those in other fields that have identified a common set of components across programs with similar goals.<sup>10</sup> Across all of the TPP EBPs examined, common content components include social health content (boundary setting and refusal skills and communication skills), emotional health (self-efficacy and empowerment and goal setting), sexuality content (decision making), and sexual behavior content (STI prevention, risk of STIs and pregnancy, condoms, STI information, sexual risk reduction, and sexual health). Common components of delivery mechanisms include role play and practice, demonstration, introduction, and in-session assignments. Most programs include full-group activities in addition to at least one individual or small-group activity. Most programs are intended to be delivered by a health educator in a community-based setting, with many different populations with different characteristics. In addition, a common finding across programs was that program content was often a core element of their programs—more so than the delivery mechanisms, staffing, format, dosage, environments, and populations intended to receive programming. This suggests programs can adapt many features of EBPs to enable more flexible implementation, provided that the program delivers the core content as intended by the developer.

Some components varied substantially across programs. For instance, the program durations varied widely from program to program. Also, content components varied particularly across different program categories. For example, although sexual health education and positive youth development programs both include social health and emotional health content, sexual health education programs consistently include sexuality and sexual behavior content, whereas positive youth development programs tend to have less sexuality and sexual behavior content and include more individual values and academic success content. In addition, positive youth development programs include more delivery mechanisms overall and these programs tend to include unique delivery mechanisms that were less common in the remaining program categories, such as artistic expression, motivational interviewing, music, text messaging, public service announcements, case management, service learning, and cognitive behavioral therapy.

Furthermore, some program components show up relatively rarely when looking across all 51 EBPs, but these components often reflect important differentiators of how specific EBPs are intended to achieve their goals. For instance, few programs indicated online or app-based phone methods as core components; however, programs that use these modes do so to reach a geographically dispersed population. Only two programs intend to serve high-needs populations, including juvenile justice- or child welfare-involved youth. However, these two programs purposively identify these populations as core to their program. In other words, component (and core component) prevalence rates do not necessarily reflect a component's utility, popularity, or importance. Rather, diversity of components across TPP EBPs, particularly in delivery mechanisms, formats, and intended population characteristics, might reflect unique and central goals of different programs.

In sum, there are shared elements across all TPP programs, as well as within programs with a common goal (such as the components of sexual health education programs versus components of positive youth development programs). However, there are also less common, but still intentional and important, components across EBPs, whereby programs might include certain components specifically to meet the needs of intended populations or in certain implementation settings. Importantly, developers and distributors do not consistently identify the same handful of important ingredients or core components in all 51 EBPs included in our analysis. Rather, developers and distributors believe many different varieties of components and core components might be more or less useful for different goals, with different populations, and in different

settings. This paper provides an initial exploration into the nature of components of TPP EBPs and sets the stage for additional explorations into this work in the future.

## Limitations

Readers should interpret this study's findings in the context of its limitations. First, although we had a relatively robust response rate from EBP developers and distributors, we did not receive a response from six developers or distributors we reached out to, which is 11 percent of the sample of all TPP EBPs. These programs are similar in prevalence to the programs we did report on, in that five of them are sexual health education programs (83 percent) and one is a healthy relationship program (17 percent). Therefore, our observed sample is broadly representative of the TPP EBPs identified through the TPPER and we do not suspect the missing data on these programs would change our overall conclusions from this study. Going forward, researchers should continue to collect these data from programs as they are added to the TPPER list of EBPs, and the analysis presented in this paper can be conducted again as the list of programs grows or changes.

Second, we could not confirm the relative reliability of checklist completers to determine whether and how their interpretations of the checklist prompts were similar to or different from one another. We shared the same detailed instructions with developers or distributors and examined the completed checklists to confirm they were completed the way they were supposed to be. However, it is possible there was some variability in the respondents' understanding or application of the checklist to their programs. Similarly, it is possible some were more liberal in applying the core designation and others were more selective, although we provided the same instruction and definition of *core* to all checklist completers.

Finally, we did not conduct independent curriculum reviews for programs included in this study. We encouraged checklist completers to share the location(s) of the components they indicated as present in their programs on the checklist as a way for them to check their work. However, this step was not mandatory and the absence of this information did not prohibit including any data in this study.

## Implications for future research

This study and its findings provide a foundation for a series of future research directions that will yield valuable insights for TPP program developers and providers.

One future analysis that will build on and complement the findings from this study could be to examine the groups of components that commonly co-occur across TPP EBPs, potentially through cluster or latent class analysis. For instance, we might find that there are different profiles of program components that are typically present across programs, potentially spanning programs of different types (for example, sexual health and positive youth development). This analysis will reveal common clusters of program components across TPP EBPs instead of using a priori groups to examine the prevalence of components. This analysis will not describe the prevalence of individual program components; instead, it will describe how different types of components (such as content, delivery mechanism, staffing, and so on) combine to make up whole programs. Because programs do not implement components in isolation but simultaneously, this analysis has the potential to be a realistic depiction of the components of TPP programs as they are intended to be delivered. Knowing which components often co-occur with each other across EBPs could enable practitioners and program developers to develop important insights about which components might work well together.

A second set of future research would be to systematically assemble the evidence on the effectiveness of individual components. The 2023 round of TPPER reviewed evidence of the effectiveness of well-defined components or combinations of components to begin addressing this need. Thus far, evidence of effectiveness has emerged for booster sexual health counseling (a combination of a delivery mechanism component and a

content component) and in-person format (a format component).<sup>1</sup> Continuing to comprehensively review the research on the effectiveness of individual components of TPP programs and identifying gaps in the research will be a major contribution to the field's understanding about effective components.

The current data set of program components of TPP EBPs can also provide insight into the effectiveness of components. Combining these component data with information about the effectiveness of these programs could begin to answer questions about which components *influence* program impacts. By linking this components data set with the TPPER database of effect size information<sup>††</sup> for all TPP EBPs, we could estimate the influence of program components on program impacts. This analysis would provide evidence about the effectiveness of a potentially large number of components identified through the component checklist activity. By using the data set that covers many components across many studies, the resulting study would be a substantive contribution to the field, showcasing the subset of components that appear to have evidence of driving program outcomes.

## CONCLUSION

This study used a standardized checklist of program components to compare TPP EBPs, identify the components that are common across programs, and understand how programs vary in the components they use. The findings from this study offer a summary of the components commonly used across EBPs designed to promote adolescent sexual and reproductive health. Future work can build on these findings by continuing to study the components, the ways they are combined across programs, and the associations between components and sexual behavior outcomes. This can deepen understanding of the drivers of TPP program effects and which components need more research.

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<sup>††</sup> Effect sizes are a way to express program impacts in common units to compare impacts across different programs. Effect sizes are the estimated program impact—or the difference in outcomes between treatment and control groups—expressed in units of the standard deviation of the outcome.

## APPENDIX

Table A.1. Frequency statistics for each component across programs reviewed

	Sexual health education programs (n = 32)	Positive youth development programs (n = 9)	Sexual risk avoidance programs (n = 4)	Healthy relationship programs (n = 2)	Clinic-based programs (n = 4)	Full sample (N = 51)	
Component type/Component subtype/Individual Component	Programs selected component as present %					Programs selected component as present %	Programs selected component as present and core % <sup>a</sup>
<b>Component type: Content</b>	.	.	.	.	.	.	.
<b>Sexual behavior content subtype<sup>b</sup></b>	<b>100.00</b>	<b>66.67</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>92.12</b>	<b>88.24<sup>c</sup></b>
Anatomy and physiology	53.13	33.33	50.00	45.10	0.00	45.10	21.57
Contraception—Condoms	96.88	66.67	75.00	88.24	100.00	88.24	80.39
Contraception—Long-acting reversible contraceptives	78.13	66.67	50.00	74.51	100.00	74.51	58.82
Contraception—Other	81.25	66.67	50.00	50.00	100.00	76.47	64.71
Contraception—Pills, patches, rings, and shots	78.13	66.67	50.00	50.00	100.00	74.51	62.75
Maternal health	12.50	0.00	25.00	0.00	50.00	13.73	5.88
Puberty and development	37.50	55.56	50.00	50.00	25.00	41.18	19.61
Reproduction	28.13	22.22	25.00	50.00	25.00	27.45	19.61
Risk of STIs and pregnancy	100.00	55.56	100.00	50.00	100.00	90.20	78.43
Sexual health	90.63	66.67	75.00	50.00	75.00	82.35	72.55
Sexual orientation	50.00	33.33	25.00	50.00	0.00	41.18	23.53
Sexual risk avoidance	81.25	44.44	100.00	50.00	25.00	70.59	60.78
Sexual risk discontinuation	56.25	33.33	100.00	100.00	0.00	52.94	43.14
Sexual risk reduction	90.63	55.56	75.00	100.00	100.00	84.31	74.51
STIs—Information	90.63	55.56	100.00	50.00	100.00	84.31	70.59
STIs—Prevention	100.00	66.67	100.00	50.00	100.00	92.16	82.35

	Sexual health education programs (n = 32)	Positive youth development programs (n = 9)	Sexual risk avoidance programs (n = 4)	Healthy relationship programs (n = 2)	Clinic-based programs (n = 4)	Full sample (N = 51)	
Component type/Component subtype/Individual Component	Programs selected component as present					Programs selected component as present	Programs selected component as present and core
	%					%	% <sup>a</sup>
STIs—Screening	81.25	55.56	100.00	50.00	100.00	78.43	58.82
STIs—Treatment	65.63	44.44	75.00	50.00	75.00	62.75	43.14
STIs—Vaccination	50.00	44.44	50.00	50.00	75.00	50.98	27.45
Sexuality content subtype	<b>96.88</b>	<b>77.78</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>94.12</b>	<b>82.35</b>
Body image	18.75	33.33	50.00	50.00	0.00	23.53	15.69
Consent	59.38	55.56	75.00	50.00	50.00	58.82	41.18
Decision-making	81.25	66.67	100.00	100.00	75.00	80.39	64.71
Healthy relationships	68.75	66.67	100.00	50.00	75.00	70.59	45.10
Healthy romantic relationships	62.50	66.67	100.00	50.00	75.00	66.67	41.18
Sexual health needs and experiences of LGBTQ youth	46.88	22.22	25.00	0.00	25.00	37.25	19.61
Social media, texting, and online interactions	40.63	55.56	100.00	50.00	25.00	47.06	25.49
Values and sexuality	62.50	77.78	100.00	50.00	25.00	64.71	45.10
Emotional health content subtype	<b>93.75</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>96.08</b>	<b>92.16</b>
Brain development and emotions	6.25	66.67	50.00	50.00	0.00	21.57	15.69
Cognitive behavioral therapy (CBT)	6.25	0.00	25.00	50.00	0.00	7.84	5.88
Empathy	50.00	66.67	75.00	100.00	25.00	54.90	47.06
Goal-setting	65.63	100.00	100.00	100.00	75.00	76.47	60.78
Meditation	6.25	22.22	25.00	0.00	0.00	9.80	3.92
Mindfulness	12.50	44.44	25.00	0.00	0.00	17.65	11.76

	Sexual health education programs (n = 32)	Positive youth development programs (n = 9)	Sexual risk avoidance programs (n = 4)	Healthy relationship programs (n = 2)	Clinic-based programs (n = 4)	Full sample (N = 51)	
Component type/Component subtype/Individual Component	Programs selected component as present					Programs selected component as present	Programs selected component as present and core
	%					%	% <sup>a</sup>
Motivational interviewing	15.63	22.22	25.00	0.00	100.00	23.53	17.65
Personal vulnerability	50.00	44.44	75.00	100.00	0.00	49.02	37.25
Resilience	3.13	44.44	25.00	100.00	0.00	15.69	13.73
Self-efficacy and empowerment	87.50	77.78	100.00	50.00	25.00	80.39	74.51
Self-esteem	25.00	66.67	75.00	100.00	25.00	39.22	27.45
Self-regulation	43.75	66.67	75.00	100.00	25.00	50.98	29.41
Academic success content subtype	<b>12.50</b>	<b>77.78</b>	<b>25.00</b>	<b>50.00</b>	<b>50.00</b>	<b>29.41</b>	<b>21.57</b>
Alternative schooling	0.00	22.22	25.00	0.00	0.00	5.88	3.92
College preparation	0.00	33.33	25.00	0.00	25.00	9.80	5.88
Graduating from high school	12.50	44.44	25.00	50.00	50.00	23.53	17.65
School engagement	0.00	55.56	25.00	0.00	25.00	13.73	9.80
Supplemental academic services	0.00	22.22	25.00	0.00	0.00	5.88	5.88
Vocational and skills training	6.25	33.33	0.00	0.00	25.00	11.76	9.80
Substance use content subtype	<b>37.50</b>	<b>55.56</b>	<b>50.00</b>	<b>50.00</b>	<b>0.00</b>	<b>39.22</b>	<b>25.49</b>
Brain development and substance use	3.13	33.33	50.00	50.00	0.00	13.73	9.80
Substance use—Abstinence	25.00	55.56	50.00	50.00	0.00	31.37	17.65
Substance use—Alcohol	31.25	33.33	50.00	50.00	0.00	31.37	21.57
Substance use—Other drugs	21.88	33.33	25.00	50.00	0.00	23.53	15.69



	Sexual health education programs (n = 32)	Positive youth development programs (n = 9)	Sexual risk avoidance programs (n = 4)	Healthy relationship programs (n = 2)	Clinic-based programs (n = 4)	Full sample (N = 51)	
Component type/Component subtype/Individual Component	Programs selected component as present					Programs selected component as present	Programs selected component as present and core
	%					%	% <sup>a</sup>
Substance use cessation	9.38	22.22	25.00	50.00	0.00	13.73	9.80
Social health content subtype	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>50.00</b>	<b>96.08</b>	<b>88.24</b>
Boundary-setting and refusal skills	96.88	100.00	100.00	50.00	25.00	90.20	80.39
Child development	9.38	22.22	25.00	0.00	0.00	11.76	5.88
Communication skills	84.38	88.89	100.00	50.00	25.00	80.39	70.59
Conflict resolution and social problem-solving	53.13	77.78	100.00	100.00	0.00	58.82	45.10
Connections with trusted adults	56.25	100.00	100.00	100.00	0.00	64.71	54.90
Cultural values	28.13	44.44	75.00	50.00	0.00	33.33	23.53
Gender identity	31.25	22.22	25.00	50.00	0.00	27.45	19.61
Gender roles	37.50	44.44	50.00	50.00	0.00	37.25	21.57
Leadership	12.50	66.67	50.00	50.00	0.00	25.49	23.53
Normative beliefs	46.88	22.22	75.00	50.00	0.00	41.18	33.33
Parenting skills	12.50	33.33	50.00	100.00	25.00	23.53	15.69
Social competence	43.75	66.67	50.00	50.00	0.00	45.10	37.25
Social influence and actual versus perceived social norms	56.25	44.44	75.00	50.00	0.00	50.98	41.18
Social support and capital	37.50	88.89	50.00	50.00	0.00	45.10	33.33
Individual values content subtype	<b>59.38</b>	<b>100.00</b>	<b>100.00</b>	<b>50.00</b>	<b>0.00</b>	<b>64.71</b>	<b>49.02</b>
Identity development	34.38	55.56	75.00	50.00	0.00	39.22	31.37
Morals and values	37.50	77.78	75.00	0.00	0.00	43.14	27.45

	Sexual health education programs (n = 32)	Positive youth development programs (n = 9)	Sexual risk avoidance programs (n = 4)	Healthy relationship programs (n = 2)	Clinic-based programs (n = 4)	Full sample (N = 51)	
Component type/Component subtype/Individual Component	Programs selected component as present					Programs selected component as present	Programs selected component as present and core
	%					%	% <sup>a</sup>
Spirituality	6.25	22.22	50.00	0.00	0.00	11.76	7.84
Volunteering and civic engagement	9.38	55.56	25.00	0.00	0.00	17.65	11.76
<b>Component type: Delivery mechanism</b>							
Anonymous question box	53.13	33.33	75.00	50.00	0.00	47.06	19.61
Artistic expression	18.75	66.67	25.00	50.00	0.00	27.45	19.61
Assessment and survey	65.63	66.67	100.00	0.00	50.00	64.71	29.41
Booster session	34.38	44.44	75.00	50.00	50.00	41.18	21.57
Case management	0.00	33.33	25.00	100.00	50.00	15.69	9.80
Cognitive behavioral therapy	0.00	11.11	50.00	50.00	0.00	7.84	3.92
Demonstration	90.63	100.00	100.00	100.00	50.00	90.20	70.59
Discussion and debrief	75.00	77.78	100.00	100.00	0.00	72.55	58.82
Family session	18.75	44.44	50.00	100.00	25.00	29.41	19.61
Game	59.38	44.44	75.00	50.00	0.00	52.94	41.18
Home visiting	9.38	11.11	25.00	0.00	25.00	11.76	5.88
Homework assignment	56.25	55.56	100.00	100.00	25.00	58.82	33.33
In-session assignment	68.75	88.89	100.00	100.00	50.00	74.51	45.10
Introduction	90.63	100.00	75.00	100.00	25.00	86.27	58.82
Lecture	62.50	88.89	75.00	50.00	50.00	66.67	47.06
Motivational interviewing	12.50	22.22	50.00	50.00	75.00	23.53	9.80
Music	15.63	33.33	25.00	0.00	0.00	17.65	11.76
Parent-focused activity	37.50	66.67	100.00	100.00	0.00	47.06	37.25
Peer-to-peer	34.38	44.44	50.00	50.00	0.00	35.29	25.49
Public service announcement	12.50	33.33	25.00	0.00	0.00	15.69	3.92

	Sexual health education programs (n = 32)	Positive youth development programs (n = 9)	Sexual risk avoidance programs (n = 4)	Healthy relationship programs (n = 2)	Clinic-based programs (n = 4)	Full sample (N = 51)	
Component type/Component subtype/Individual Component	Programs selected component as present					Programs selected component as present	Programs selected component as present and core
	%					%	% <sup>a</sup>
Reading	68.75	100.00	100.00	50.00	25.00	72.55	47.06
Role play and practice	90.63	100.00	100.00	100.00	25.00	88.24	68.63
Self-guided activity	50.00	55.56	75.00	0.00	0.00	47.06	29.41
Service learning	3.13	44.44	50.00	0.00	0.00	13.73	9.80
Slide show	43.75	55.56	75.00	50.00	50.00	49.02	21.57
Social media	3.13	0.00	25.00	0.00	0.00	3.92	0.00
Spiral learning	68.75	66.67	100.00	100.00	50.00	70.59	47.06
Storytelling	31.25	66.67	100.00	50.00	0.00	41.18	29.41
Text message	9.38	44.44	0.00	0.00	25.00	15.69	7.84
Video	68.75	22.22	75.00	50.00	25.00	56.86	47.06
Other method	38.64	11.11	0.00	50.00	12.50	28.17	21.13
<b>Component type: Staffing</b>	.	.	.	.	.	.	.
Deliverer: Community health worker	75.00	55.56	100.00	100.00	25.00	70.59	11.76
Deliverer: Faith-based individual	40.63	22.22	50.00	50.00	0.00	35.29	3.92
Deliverer: Health educator	84.38	66.67	100.00	50.00	75.00	80.39	31.37
Deliverer: Mental health provider	43.75	33.33	50.00	100.00	75.00	47.06	9.80
Deliverer: Mentors	43.75	33.33	75.00	50.00	50.00	45.10	9.80
Deliverer: Parents and family	12.50	11.11	50.00	50.00	0.00	15.69	3.92
Deliverer: Peers	37.50	33.33	50.00	0.00	0.00	33.33	17.65
Deliverer: Primary care provider	31.25	22.22	50.00	0.00	100.00	35.29	13.73

	Sexual health education programs (n = 32)	Positive youth development programs (n = 9)	Sexual risk avoidance programs (n = 4)	Healthy relationship programs (n = 2)	Clinic-based programs (n = 4)	Full sample (N = 51)	
Component type/Component subtype/Individual Component	Programs selected component as present					Programs selected component as present	Programs selected component as present and core
	%					%	% <sup>a</sup>
Deliverer: Social worker and/or counselor	62.50	66.67	75.00	50.00	50.00	62.75	17.65
Deliverer: Teachers	71.88	66.67	100.00	50.00	0.00	66.67	21.57
Deliverer: Other	28.13	66.67	25.00	50.00	0.00	33.33	15.69
Experience: Credentials	53.13	55.56	100.00	50.00	25.00	54.90	17.65
Experience: Education	59.38	77.78	100.00	100.00	50.00	66.67	19.61
Other experience	21.88	33.33	0.00	0.00	25.00	21.57	9.80
Training: Additional training required	25.00	33.33	50.00	50.00	50.00	31.37	9.80
Training: Developer-led training required	81.25	88.89	100.00	100.00	25.00	80.39	27.45
Other training	43.75	66.67	50.00	50.00	0.00	45.10	11.76
<b>Component type: Format</b>	.	.	.	.	.	.	.
Group size: Full-group activity	71.88	88.89	100.00	100.00	25.00	74.51	49.02
Group size: Independent or individual activity	68.75	44.44	100.00	0.00	100.00	66.67	39.22
Group size: Small-group activity	62.50	66.67	100.00	0.00	0.00	58.82	35.29
Group size: Other	34.38	33.33	50.00	50.00	0.00	33.33	13.73
Mode: In-person	90.63	100.00	100.00	100.00	100.00	94.12	52.94
Mode: Phone (audio)	0.00	11.11	25.00	0.00	50.00	7.84	3.92
Mode: Phone (text)	12.50	11.11	0.00	0.00	0.00	9.80	5.88
Mode: Phone (app)	15.63	11.11	0.00	0.00	0.00	11.76	3.92
Mode: Online or computer (asynchronous)	40.63	22.22	50.00	50.00	25.00	37.25	11.76

	Sexual health education programs (n = 32)	Positive youth development programs (n = 9)	Sexual risk avoidance programs (n = 4)	Healthy relationship programs (n = 2)	Clinic-based programs (n = 4)	Full sample (N = 51)	
Component type/Component subtype/Individual Component	Programs selected component as present					Programs selected component as present	Programs selected component as present and core
	%					%	% <sup>a</sup>
Mode: Online or computer (synchronous)	40.63	22.22	75.00	50.00	0.00	37.25	5.88
Mode: Other	9.38	0.00	0.00	50.00	0.00	7.84	0.00
<b>Component type: Context</b>	.	.	.	.	.	.	.
Environmental context: Supports	65.63	77.78	100.00	50.00	0.00	64.71	23.53
Environmental context: Constraints	31.25	55.56	25.00	50.00	0.00	33.33	9.80
Environmental context: Other	12.50	33.33	0.00	0.00	0.00	13.73	5.88
Implementation setting: After school	65.63	55.56	100.00	50.00	25.00	62.75	7.84
Implementation setting: Community-based	81.25	55.56	100.00	100.00	50.00	76.47	13.73
Implementation setting: Correctional facility	53.13	22.22	75.00	50.00	25.00	47.06	0.00
Implementation setting: Faith-based	50.00	33.33	100.00	50.00	25.00	49.02	1.96
Implementation setting: Health care clinic	31.25	33.33	50.00	0.00	100.00	37.25	13.73
Implementation setting: Home-based case management	15.63	11.11	50.00	50.00	25.00	19.61	5.88
Implementation setting: Home or housing	31.25	11.11	50.00	50.00	25.00	29.41	9.80
Implementation setting: In school (during the school day)	65.63	66.67	100.00	50.00	0.00	62.75	17.65

	Sexual health education programs (n = 32)	Positive youth development programs (n = 9)	Sexual risk avoidance programs (n = 4)	Healthy relationship programs (n = 2)	Clinic-based programs (n = 4)	Full sample (N = 51)	
Component type/Component subtype/Individual Component	Programs selected component as present					Programs selected component as present	Programs selected component as present and core
	%					%	% <sup>a</sup>
Implementation setting: Mental health clinic	18.75	22.22	50.00	50.00	0.00	21.57	3.92
Implementation setting: Residential facility	56.25	33.33	75.00	100.00	25.00	52.94	3.92
Implementation setting: School-based health clinic	34.38	33.33	50.00	0.00	25.00	33.33	9.80
Implementation setting: Other setting	18.75	44.44	0.00	50.00	0.00	21.57	1.96
<b>Component type: Intended population characteristics</b>			.	.	.	.	.
Demographic characteristics: Age or grade in school	100.00	100.00	100.00	100.00	100.00	100.00	54.90
Demographic characteristics: Sex at birth	100.00	100.00	100.00	100.00	100.00	100.00	29.41
Demographic characteristics: Ethnicity	93.75	100.00	100.00	100.00	100.00	96.08	17.65
Demographic characteristics: Gender	100.00	100.00	100.00	100.00	100.00	100.00	29.41
Demographic characteristics: LGBTQ	71.88	88.89	100.00	100.00	25.00	74.51	11.76
Demographic characteristics: Race	93.75	88.89	100.00	100.00	100.00	94.12	17.65
Demographic characteristics: Urbanicity	56.25	33.33	75.00	50.00	75.00	54.90	5.88
Risk and protective factors: Homeless or runaway youth	65.63	55.56	75.00	50.00	50.00	62.75	1.96
Risk and protective factors: Youth with developmental disabilities	37.50	55.56	25.00	0.00	50.00	39.22	0.00

	Sexual health education programs (n = 32)	Positive youth development programs (n = 9)	Sexual risk avoidance programs (n = 4)	Healthy relationship programs (n = 2)	Clinic-based programs (n = 4)	Full sample (N = 51)	
Component type/Component subtype/Individual Component	Programs selected component as present					Programs selected component as present	Programs selected component as present and core
	%					%	% <sup>a</sup>
Risk and protective factors: Sexually active youth	96.88	77.78	100.00	100.00	100.00	94.12	19.61
Risk and protective factors: Pregnant, expecting, or parenting	59.38	55.56	75.00	0.00	50.00	56.86	7.84
Risk and protective factors: Child welfare	65.63	66.67	75.00	100.00	50.00	66.67	5.88
Risk and protective factors: Juvenile justice	75.00	55.56	75.00	50.00	25.00	66.67	3.92
Risk and protective factors: Population-specific needs and challenges	37.50	55.56	25.00	100.00	75.00	45.10	9.80
Risk and protective factors: Population-specific strengths	21.88	55.56	25.00	100.00	0.00	29.41	5.88

Note: In this table, there are 10 programs from 3 categories (sexual risk avoidance, clinic-based, and healthy relationship programs) that the results presentation in the main body did not present due to the small number of programs within each category (n = 2–4). Readers should interpret these prevalence rates with caution when generalizing the findings outside of the sample of TPPER programs included in this analysis. Percentages might sum to more than 100 due to rounding.

<sup>a</sup> This prevalence rate is not presented in the main body; in the main body, we present the prevalence of core components relative to the components selected as present. Here, we present the overall prevalence of indicating a component is both present and core.

<sup>b</sup> The subtype prevalence rates reflect the percentage of programs in this program category that included any of the content in this subtype.

<sup>c</sup> The prevalence rates in this column are not mutually exclusive; all components that are core are included in the prevalence rates for both present and present and core.

N = number of programs; STI = sexually transmitted infection; LGBTQ = lesbian, gay, bisexual, transgender, and queer; TPPER = Teen Pregnancy Prevention Evidence Review.

**Table A.2. Numeric information for dosage components**

Dosage	Minimum	Maximum	Median
Intensity (the length of time for a typical intervention encounter, lesson, or session)	20 minutes	6 hours	55 minutes
Frequency (how often the program occurs during a given period)	Single encounter, lesson, or session	Daily	Twice per week
Duration (the total period of time over which the intervention occurs)	23 minutes	200 hours	10 hours

Note: Respondents provided the data used for these analyses in open-text fields in the checklist. Minimum = minimum value recorded; Maximum = maximum value recorded. Not all programs have dosages that can be organized into frequency, intensity, and duration components as defined in the checklist, such as text-messaging based programs which do not consider intensity in minutes, but in number of text messages. Not all program developers or distributors specified a numeric dosage information in the open-text fields (8 did not specify duration; 13 did not specify frequency; 9 did not specify intensity).

**Table A.3. Numeric information for number of staff providing services**

Staffing: Number of staff	N (% programs)
1	18 (35%)
1 or 2	14 (27%)
2	7 (14%)
2–3	1 (2%)
4–6	1 (2%)
7–13	1 (2%)
11	1 (2%)
Not specified	8 (16%)

Note: Respondents provided the data used for these analyses in open-text fields in the checklist. N = number of programs. Percentages might sum to more than 100 due to rounding.



**Table A.4. “Other” components selected across programs with descriptions from developers and distributors**

“Other” components across component types	Programs selected component as present (%)	Programs selected component as present and core (%) <sup>b</sup>	Examples of other components as described in the “Notes” section of the components checklists
Content	18%	14%	Finance management and security; clinic visit information
Delivery mechanism	16%	10%	Skill observation checklist observing peers and sharing feedback
Staffing	20%	8%	Recommend having one additional staff for logistics
Dosage	27%	8%	Recommend that participants complete at least one activity per section
Format	2%	0%	(None provided)
Context	10%	2%	Health center workshop typically delivered in the staff’s health center space
Intended population characteristics	10%	4%	Supportive adults

Note: Respondents provided the data used for these analyses in open-text fields in the checklist. Percentages might sum to more than 100 due to rounding.

<sup>a</sup> The prevalence rates in this column are not mutually exclusive; all components that are core are included in the prevalence rates for both present and present and core.

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