



Office of
Population Affairs

Core Components of Teen Pregnancy Prevention Programs

Rigorous impact evaluations funded by the Office of Population Affairs (OPA) and other federal agencies have produced an extensive body of evidence about the effectiveness of teen pregnancy prevention (TPP) programs. For example, the U.S. Department of Health and Human Services Teen Pregnancy Prevention Evidence Review has identified 48 TPP programs that have evidence of effectiveness in improving sexual behavior outcomes (Lugo-Gil et al. 2018).

However, we know much less about which aspects of those programs drive improved outcomes for youth. Are there key portions, or core components, of program content that are necessary to change youth outcomes? Further, is the program content effective on its own, or is it critical for a dynamic facilitator to deliver the program content or for program delivery to occur in a specific type of setting? Or is a particular combination of all three of these (or more) components necessary?

To address this challenge, OPA has developed tools to enable the field to systematically document the components of TPP programs. Documenting program components can benefit people involved in various aspects of TPP program design and implementation. For instance, program developers can document which program components are core and should not be adapted. Program implementers can document how they have adapted components of programs to illustrate how they are maintaining fidelity to a program while meeting the particular needs of a given population. Researchers can conduct analyses that link program components to outcomes to identify those components that appear to drive the effectiveness of programs. These activities will support future research that examines common components across programs and will potentially build the evidence of their effectiveness.

This brief intends to establish key terms, definitions, tools, and processes for TPP program developers, implementers, researchers, and others to use when identifying and describing program components. The first section of the brief situates this work within the broader literature on core components and defines key terms in the context of TPP programs. The next section introduces new materials that OPA has developed to establish a foundational understanding of components of TPP programs; in particular, we introduce a checklist that developers and implementers can use to describe the components of programs and the subset that are considered core components. We then elaborate on the potential benefits of using the checklist for various audiences. Finally, the brief concludes with an illustration of the potential next steps that OPA might take as part of its broader research agenda related to components of TPP programs.

Key terms

Program components

According to the foundational work of Blase and Fixsen (2013), components are the elements and activities that constitute a program. Many terms in the literature describe components of programs, including structural elements, behavioral kernels, core practices, ingredients, and others (Blase and Fixsen 2013; Embry 2004; Dymnicki et al. 2020). Drawing heavily on guidance from The National Academy of Sciences (NAS) Promoting Positive Adolescent Health Behaviors and Outcomes report (NAS 2020), we define seven types of program components that compose TPP interventions (see Figure 1).

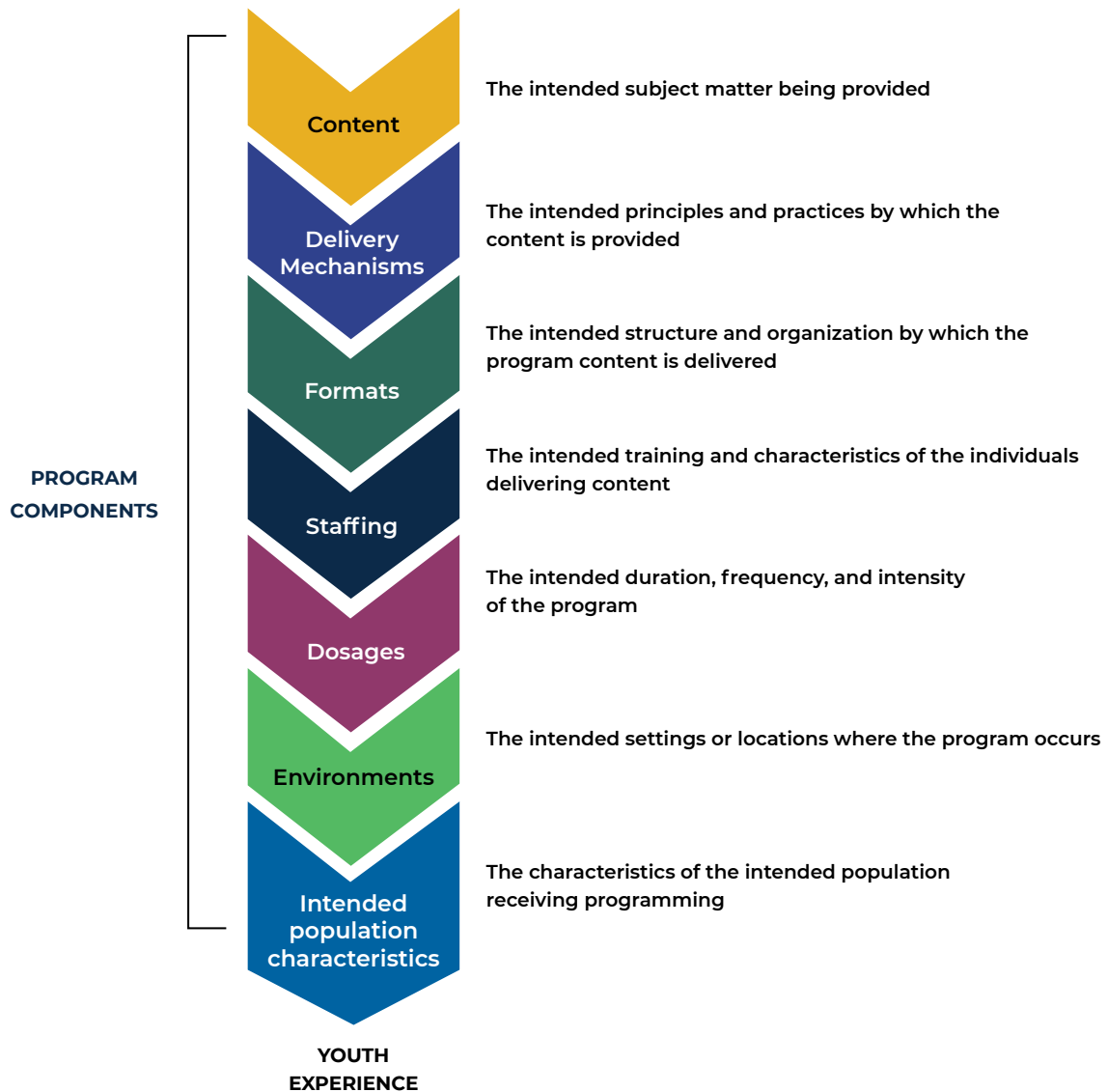
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These seven types of program components make up the distinct parts of programs, and when combined, constitute the ingredients of a TPP program. Components span the intended content, the delivery mechanism and format, the staff delivering the content, the dosage, the location for implementation, and features of the group intended to receive the program.

■ **Figure 1. Types of program components**



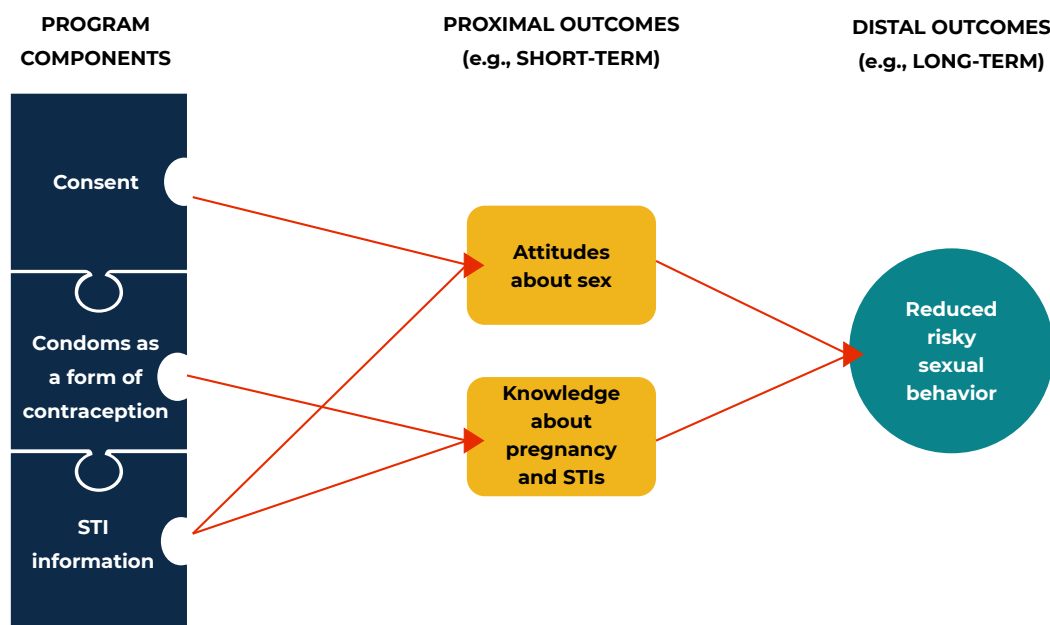
These seven component types are **not** independent, stand-alone elements of programs. Rather, program components exist and operate *together* in many combinations. Program **content** is intended to be offered through a particular **delivery mechanism**, for a certain **dosage**, in a certain **environment**, and so on. These combinations of features describe the intended program delivery, and it might be these specific combinations that are necessary for TPP programs to favorably affect youth outcomes.

Core components

Program developers and implementers might consider some components within a program to be more important than others. Blase and Fixsen (2013) proposed the phrase “core components” to describe the subset of components that are critical to a program’s ability to produce outcomes. Core components can be based on theory or based on evidence. For example, developers might consider components to be core because they hypothesize—based on existing theories or frameworks—that the components influence program outcomes. Or, developers might have received feedback from the population served about the components of the program they thought were most valuable at driving outcomes. Alternately, developers might consider components core because existing evidence demonstrates they do in fact affect outcomes favorably.

The outcomes that a core component is hypothesized to affect could be distal (e.g., long-term) optimal health, such as sexual behavior outcomes for TPP programs; alternatively, the core component could affect proximal (e.g., short-term) outcomes, such as antecedents to sex that include knowledge, attitudes, and intentions to abstain (Kirby 2007), that program developers expect to influence distal outcomes. Figure 2 provides an illustrative logic model that a program developer might use to show how they hypothesize that three individual content components of their program aim to affect proximal and distal outcomes.

■ **Figure 2. Logic model of a hypothetical TPP program**



Note: STI = sexually transmitted infection.

Noncore components

Program developers often make an implicit (or explicit) argument about core components as those that are necessary and critical for implementation. For instance, a core component might involve the participants viewing a 15-minute video about consent, whereas a noncore component might be filler or transition content, such as an icebreaker activity. Alternatively, the content itself might be prespecified as core, but the delivery mechanism might be noncore and therefore more flexible. For instance, perhaps a developer believes their program’s content about sexually transmitted infections is core, but the delivery mechanism—lecture—is not.

Adaptations

Some TPP program developers provide adaptation guidance which can be used by program implementers and funders alike to maintain program integrity when making adaptations. Core and noncore components can be thought of through this same lens; if a developer designates a program component as core, then any adaptation of this component is probably not permissible and likely considered a major adaptation. (These major adaptations might constitute an implementation that lacks fidelity to the model [Chan and Scher 2020].) On the other hand, making minor adaptations to noncore components to address the specific needs or constraints in a given implementation setting might be allowable in many situations. For example, if a program developer intends for Program X to be delivered via two-hour lessons over six weeks but does not specify this dosage as core, then a teacher of a 30-minute health class might adapt the program lessons to be 30-minutes each and stretch them over a longer time period, such as a full semester or year, to more closely align with the implementation setting. Developers might also provide guidance on such allowable adaptations, as well as ways to make their programs more inclusive using minor adaptations. For example, if the original program was developed several years ago, it might not include information about gender identity or sexual health needs of LGBTQ+ youth. Developers might feel that specific additions or modifications to content components are allowable in order to improve the inclusivity of their program.

New materials from OPA to operationalize components of TPP programs

OPA has developed a new tool, the program component checklist, to enable developers to disaggregate TPP programs into their individual components. A standardized checklist that describes the types of content and other components in a TPP program makes it feasible to document all TPP programs using a consistent process and lens.

This checklist is currently being used on the Teen Pregnancy Prevention Evidence Review (TPPER) – developers of programs that have been found to have evidence of effectiveness are using the checklist to document the components of their programs. A tabular presentation of the components of these evidence-based programs (EBPs) will be posted as part of the program profile of each EBP on the [TPPER website](#) in the future.

OPA intends to make these component checklists of EBPs collected through TPPER available to implementers of EBPs. EBP implementers can build on the components of the program as articulated by developers, to document the unique set of components they plan to offer to youth.

Developer checklist and instructions

The developer component checklist aims to help TPP program developers disaggregate a program into discrete and well-defined components, including content, delivery mechanisms, formats, and dosages. The checklist provides a tool for developers to comprehensively document **all** components they intend for participants to experience, using all component types shown in Figure 1. Developers can articulate the collection of components that comprise their program in its entirety, describing all program components present throughout the program; or, they can separately articulate the components present in each lesson or activity of the larger program, offering a more precise description of the intended implementation of the combination of individual components. Components might receive different levels of emphasis in a program, program lesson, or program activity. To accommodate this, after documenting every component intended for participants, developers can differentiate components' relative importance in the program by using checklist designations such as "core" and "optional." Finally, developers can use the checklist to briefly describe allowable (minor) and unallowable (major) adaptations to individual components, to inform future program implementation.

EBP implementer checklist and instructions

The EBP implementer checklist aims to help implementers of EBPs (as defined by TPPER) describe the program components they plan to deliver to youth (which may differ or expand on what EBP developers intend). Notably, the EBP implementer checklist allows implementers to describe the adaptations to the components of the EBP or additional components that will be offered to the intended population to meet their needs. Each EBP implementer checklist includes the initial documentation of components by the program developer, and asks implementers to document their specific implementation of components relative to this initial developer-completed documentation. Implementers can confirm the program components they intend to deliver in a given setting with a given population (relative to the documentation of the components of the program as completed by the developer), and they can note any additions or revisions to components they plan to offer. Through this documentation, it will be clear whether and how an implementation of an EBP's components deviated from the original intended components of that EBP to meet the needs and constraints of the population served. OPA expects that these deviations might include enhancements, adaptations, or other differences from the developer-intended program implementation that should be documented to better understand the programs being implemented using OPA funds.

Benefits and purposes of components checklists

Articulating program components and determining which components are core might be a fruitful step toward many goals for those involved in the TPP program field. For all audiences, articulating program components and core components helps efficiently describe programs. Program manuals and other documentation of program components can be lengthy (for example, some program manuals are hundreds of pages long) and are not often publicly available. In presentations and dissemination to wide audiences, describing the ingredients of programs using the component checklist might help clarify programs through a consistent and standardized presentation of information.

For program developers, articulating the components of their programs contributes to transparency about the programs' features. Many audiences (for example, program providers or grantees) will want to know information about program content, activities, etc., when selecting programs intended to meet the needs of the populations they serve. Further, articulating which components are core might support developers' efforts to create guidance for implementers who need to make appropriate adaptations. Developers might decide that making adaptations to noncore program components is permissible but that making substantial adaptations to core components would result in a program that deviates too significantly from the original.¹ In addition, knowing the components of programs can help developers create implementation monitoring tools and measures to understand the extent to which components were implemented and received as expected.

For program providers and implementers, articulating the components of their intended implementation of an EBP will show how their planned implementation aligns with the expectations of a program developer. In addition, this articulation can include planned intentional adaptations, used in a particular implementation setting to address their population's needs. Although an existing EBP can address many needs, it is unlikely that a single program without adaptations or additional components will match the needs and strengths of every population and setting. Using the checklist to articulate the components (for instance, parent workshops) that implementers intend to offer to complement an EBP (for instance, a particular curriculum) as a means to address those gaps, can help implementers describe

¹ Many programs have established guidance about adaptations. For example, ETR Associates and the Centers for Disease Control and Prevention's Division of Reproductive Health developed green/yellow/red guidance for several evidence-based programs (Firpo-Triplett and Fuller 2012). Green (safe), yellow (proceed with caution), and red (unsafe) light adaptations intend to help practitioners adapt programs without sacrificing required components of the program. Recently, the Office of Population Affairs has used the terms "major" and "minor" to describe categories of adaptations (Office of Population Affairs 2020).

exactly how offered program components meet the specific needs in a given setting. Importantly, implementers should only adapt noncore components of evidence-based components and should only do so after discussing the proposed adaptations with their federal project officers.

For researchers, articulating the components of programs they are researching will help fill knowledge gaps about what makes an effective program and which components drive successful programming. Researchers can test the logic model or design a study to test components against one another to determine which are effective for different outcomes of interest. Across TPP programs, researchers will be able to use data about program components to understand, descriptively, which components are most common in EBPs, and how different or similar the combinations of components are across programs. Researchers can then investigate—through a variety of approaches, including rigorous studies—whether these core components drive impacts on outcomes and are therefore evidence-based. In addition, knowing the components of programs can help researchers evaluate the impact of implementation fidelity— or the extent to which components were implemented as intended and received as expected—on youth outcomes.

For consumers, the efficient descriptions of programs provided by the program checklists enable them to easily identify and select the program(s) that meets the needs of a given population. For instance, if a school district learns from a recent needs assessment that its middle schoolers have gaps in knowledge related to healthy romantic relationships, administrators can use checklist information to identify a TPP program that incorporates healthy romantic relationship content. The checklist information will also direct consumers to the specific program material (that is, page numbers) where this content is available within the program.

For OPA and the broader TPP field, consistently compiling information about TPP program components through this standardized checklist will make it feasible to compare TPP programs and their components. This will be helpful for OPA's efforts in guiding individual grantee adaptations while upholding fidelity to the model and will also set the field on a course for stronger evidence about programs, their components, and strategies for program improvement.

Potential direction for components work

Broad use of the component checklist will help build foundational information on the components of TPP programs and will set the stage for additional research activities to be conducted as part of OPA's broader research agenda related to program components. With information on the components of TPP programs, OPA can describe the most common components of programs being funded through the TPP or other grant programs, and the extent to which programs share common components. OPA can also combine information about the components of EBPs with estimates of the effects from their evaluations and conduct analyses (e.g., meta-regressions) to understand which components appear to drive program impacts. In addition, OPA might opt to fund rigorous evaluations of components that have been identified by a meta-regression or other exploratory analyses (see Cole and Choi 2020); such evaluations would validate those findings and establish an evidence base about effective components. Finally, OPA might ultimately use information about evidence-based components to inform future grant funding, similar to the way OPA uses information about EBPs to create funding tiers. In sum, the use of the component checklist is intended to be the first step in OPA's long line of potential future research activities related to components.

References

- Blase, K., and D. Fixsen. "Core Intervention Components: Identifying and Operationalizing What Makes Programs Work." Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, Office of Human Services Policy, U.S. Department of Health and Human Services, 2013. Available at <https://aspe.hhs.gov/reports/core-intervention-components-identifying-operationalizing-what-makes-programs-work-0>.
- Chan, S., and L. Scher. "Documenting Adaptations Tip Sheet." Washington, DC: Office of Population Affairs, Office of the Assistant Secretary for Health, U.S. Department of Health and Human Services, 2020.
- Cole, R., and J. Choi. "Understanding How Components of an Intervention Can Influence Outcomes." Washington, DC: Office of Population Affairs, U.S. Department of Health and Human Services, August 2020.
- Dymnicki, A., L. Trivets, C. Hoffman, and D. Osher. "Advancing the Use of Core Components of Effective Programs: Suggestions for Researchers Publishing Evaluation Results." Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, August 2020.
- Embry, D.D. "Community-Based Prevention Using Simple, Low-Cost, Evidence-Based Kernels and Behavior Vaccines." *Journal of Community Psychology*, vol. 32, 2004, pp. 575–591.
- Firpo-Triplett, R., and T. Fuller. "General Adaptation Guidance: A Guide to Adapting Evidence-Based Sexual Health Curricula." Scotts Valley, CA: ETR, and Atlanta, GA: CDC Division of Reproductive Health, 2012. Available at <https://www.etr.org/ebi/assets/File/GeneralAdaptationGuidanceFINAL.pdf>.
- Kirby, D. "Emerging Answers 2007: Research Findings on Programs to Reduce Teen Pregnancy and Sexually Transmitted Diseases." Washington, DC: National Campaign to Prevent Teen and Unplanned Pregnancy, 2007. Available at <https://powertodecide.org/sites/default/files/resources/primary-download/emerging-answers.pdf>.
- Lugo-Gil, J., A. Lee, D. Vohra, J. Harding, L. Ochoa, and B. Goesling. "Updated Findings from the HHS Teen Pregnancy Prevention Evidence Review: August 2015 Through October 2016." Brief submitted to the Office of the Assistant Secretary for Planning and Evaluation. Washington, DC: U.S. Department of Health and Human Services, 2018. Available at https://tppevidencereview.youth.gov/pdfs/Summary_of_findings_2016-2017.pdf.
- National Academies of Sciences, Engineering, and Medicine (NAS). "Promoting Positive Adolescent Health Behaviors and Outcomes: Thriving in the 21st Century." Washington, DC: The National Academies Press, 2020. Available at <https://doi.org/10.17226/25552>.
- Office of Population Affairs. "Fidelity and Adaptation for TPP20 Tier 1 Grantees Webinar." Presented to the TPP20 Tier 1 Grantees, webinar, September 2, 2020. Available at https://rhntc.org/sites/default/files/resources/supplemental/opa_fidelityadapt_sli_2020-9-2.pdf.

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