FRAMING research

PROJECT Brief

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The Effects of Healthy Marriage and Relationship Education Programs for Youth

Healthy marriage and relationship education (HMRE) programs for youth aim to improve young people's understanding of romantic relationships and prepare them to have healthy romantic relationships in adulthood (Administration for Children and Families [ACF] 2020a; Kerpelman 2007). Although many youth receive instruction in school or through programs in the community on how to prevent teen pregnancy and sexually transmitted infections (STIs), few receive instruction on the social or emotional aspects of romantic relationships (Centers for Disease Control and Prevention 2015). To help fill this gap, HMRE programs for youth typically provide instruction on topics such as the signs of healthy and unhealthy relationships, teen dating violence, and effective communication and conflict management skills (Scott et al. 2017; Scott and Huz 2020). Some programs also provide information on decisions about sexual activity and avoiding pregnancy (Scott et al. 2017; Scott and Huz 2020).

Beginning in the mid-2000s, the federal government authorized funding to support healthy marriage initiatives, including HMRE programming for youth (Karney et al. 2007). Since then, a growing number of organizations across the country have developed and implemented HMRE programs for this population. Of the 45 organizations that received federal funding from ACF's Office of Family Assistance (OFA) to provide HMRE services from 2015 to 2020, 26 organizations served youth younger than 18 (Public Strategies 2020). In 2020, OFA allocated separate funding to youth HMRE programs for the first time (ACF 2020a), awarding more than $24 million to 25 programs serving high-school-age youth and young adults between ages 18 and 24 (ACF 2020b).

This brief summarizes the existing evidence on the effectiveness of HMRE programs for youth. We identified and reviewed rigorous research on HMRE programs that served any youth

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younger than 18 to distill key lessons for the field. Although current HMRE grant funding also supports relationship education programming for young adults between ages 18 and 24, programs for young adults tend to cover different content than programs for younger age groups (Scott and Huz 2020). In addition, there have been very few impact studies of HMRE programs for young adults between ages 18 and 24 (as we note in the final section of this brief). This also motivated our decision to focus on studies of programs that served youth younger than 18.

We begin by describing HMRE programs for youth, including the types of services they offer, how they are structured, and who they serve. We then summarize the research we identified and highlight findings about the effectiveness of the programs included in our review. To summarize the research, we use an evidence and gaps map, which is a way of visualizing research findings about the evidence on a given topic, the strength of that evidence, and gaps in the knowledge base (Campbell Collaboration 2020). Finally, we identify promising directions for building the evidence base on the effectiveness of HMRE programs for youth.

OVERVIEW OF HMRE PROGRAMS FOR YOUTH

HMRE programs for youth reflect a recognition that young people's early relationship experiences can set the foundation for their future relationship and marital success (Hawkins 2017). The programs aim to support youth's socioemotional development and build their relationship skills to improve their relationship quality and stability in adolescence and adulthood (ACF 2020a). In the short run, the goals of HMRE programs are to help youth improve their relationship skills, recognize the difference between healthy and unhealthy relationships, and adopt attitudes that will increase their chances of having stable, high quality relationships as adults. In the longer run, the goals of HMRE programs for youth are to help youth avoid dating violence and other negative relationship outcomes, and to form and maintain healthy relationships in adolescence and adulthood (Kerpelman 2007; Simpson et al. 2018).

To achieve these objectives, HMRE programs for youth typically feature a structured curriculum delivered by trained teachers or facilitators. Commonly used curricula consist of 10 to 15 lessons, each lasting around 60 to 90 minutes and involving a mix of teacher-led instruction and interactive small group discussions, role-playing, and skill-building activities (Scott et al. 2017; Scott and Huz 2020; Simpson et al. 2018). Some curricula also incorporate homework assignments for youth to work on with a parent or trusted adult. Curricula might also include websites or online applications for youth to access curriculum materials on their own time (Allen et al. 2014; Pearson and Reed 2015). Most HMRE programs for youth address topics related to identifying personal values and goals; understanding the characteristics of healthy relationships and the warning signs of unhealthy relationships; safely ending relationships; and communication and conflict management skills (Scott et al. 2017; Scott and Huz 2020). Some but not all curricula also include instruction on the benefits of marriage and what makes marriages successful, reducing risky sexual behavior and teenage pregnancy, and enhancing readiness for college and a career (Scott et al. 2017; Scott and Huz 2020).

Programs for youth are most commonly delivered in high schools to small groups of 15 to 30 youth as part of an existing class, such as health or family and consumer sciences (Scott et al. 2017; Scott and Huz 2020). Programs might also be offered after school or in community-based settings, such as libraries, community centers, or places of worship (Public Strategies 2020). The length of programs can vary. For example, some programs might deliver lessons once per week for several weeks, whereas others might deliver lessons every day for a week or two (Futris et al. 2013). Programs offered outside of schools often have more flexibility in terms of scheduling. For example, one program included in our review delivered a 13-hour program to youth over two consecutive Saturdays (Barbee et al. 2016).

HMRE programs for youth operate throughout the United States (ACF 2020b) and serve youth from a mix of racial and ethnic backgrounds (Avellar et al. 2020). When offered in high schools as part of the school day, programs typically serve a general population of youth, including youth who have been in romantic relationships and those who have not. For youth who have not yet been in a relationship, some of the information they receive will not have an immediate application to their lives. Instead, the information is meant to prepare them for future romantic relationships. Unlike HMRE programs offered in schools, many programs offered after school or in the community are targeted to specific high-risk populations, such as teen parents or youth who are aging out of the foster care system (Allen et al. 2014; Leip et al. 2021). These programs might tailor their content to address topics relevant to the population they serve.

RESEARCH ON THE EFFECTIVENESS OF HMRE PROGRAMS FOR YOUTH

To summarize the impact literature on HMRE programs for youth, we reviewed studies that measured program effects relative to a comparison group that was generated through randomization or was matched to the treatment group using a quasi-experimental design. Studies were eligible if they examined a program that served any youth younger than 18. In order to manage the scope of our review, we did not include studies of teen pregnancy prevention programs or dating violence prevention programs, which cover some but not all of the same topics as HMRE programs. To identify studies, we drew on four sources: (1) an unpublished review conducted by the Marriage Strengthening Research and Dissemination Center (MAST Center) at Child Trends (MAST Center 2021); (2) an unpublished review conducted by Mathematica as part of the Strengthening the Implementation of Marriage and Relationship Programs project (ACF 2021); (3) a meta-analysis on the effects of HMRE programs for youth and young adults conducted by Simpson et al. (2018); and (4) final reports from impact studies of HMRE programs for youth that were funded as part of OFA's 2015 grant cohort. In total, we identified 15 impact studies of HMRE programs for youth. Appendix Table A.1 provides details about each study included in our review.

Description of studies included in our review

The 15 studies we reviewed focused on programs that were similar in many ways. All but two of the studies evaluated programs delivered in high schools during the school day. One study evaluated a community-based program delivered in day camps (Barbee et al. 2016) and another served youth in the community who were aging out of foster care (Leip 2021). Many of the programs used the same curricula: six delivered *Relationship Smarts* or *Relationship Smarts PLUS*, four delivered *Connections: Relationship and Marriage*, three delivered *Love Notes*, one delivered *What's Real: Myths and Facts about Marriage,* and one delivered *Real Essentials Advance*. These curricula covered many similar topics. All of the programs addressed topics related to identifying healthy and unhealthy relationships and developing strong communication skills. Some also discussed the benefits of marriage and the components of healthy marriages. Most of the programs also included content on personal well-being, including identity development, self-esteem, and articulating personal values. Many of the programs also included content on preventing STIs and teenage pregnancy. The amount of content was similar across programs; most programs offered 12 to 18 hours of content, with the exception of the *What's Real* curriculum, which was 7 hours long, and the *REAL Essentials Advance* curriculum, which was 6 hours long (Rhoades et al. 2021). In contrast, the period over which the programs were delivered varied considerably, ranging from a week (Barbee et al. 2016) to a full school year (Gardner et al. 2016).

Studies varied in terms of their research design. Seven of the studies we reviewed used a random assignment design, and eight used a quasi-experimental design. Sample sizes varied from about 200 youth to more than 2,000 youth. Nine studies measured program outcomes immediately after the program ended, three studies collected follow-up data after the program ended but less than one year after the start of the program, and six studies collected follow-up data one year or more after the start of the program. Some studies had multiple follow-up assessments. For the purpose of the review, we did not categorize or weight studies by the strength of their design or the risk of bias in the impact estimates.

The studies we reviewed examined program effectiveness on a variety of outcomes. We categorized these outcomes into eight domains. Five of these domains reflect topics that were covered by all the programs we reviewed and are more central to the goals of youth HMRE programming. We refer to these as "core outcome domains." The remaining three domains, while important, reflect topics that were only covered by some of the programs we reviewed. We refer to these as "additional outcome domains."

The five core outcome domains are as follows:

- **Relationship attitudes and beliefs,** including beliefs about what makes a successful marriage, attitudes toward cohabitation and divorce, attitudes toward important qualities in future romantic partners, and beliefs about relationship aggression

- **Openness to future relationship services,** including willingness to use relationship education or counseling services in the future

- **Relationship skills,** such as ability to communicate effectively, manage conflict, and understand others' perspectives

- **Conflict management behaviors,** including use of healthy and unhealthy behaviors for managing conflict in a particular romantic relationship or friendship, such as verbal aggression, physical aggression, and use of reasoning

- **Relationship quality with a romantic partner,** including the overall quality of a romantic relationship, the degree of conflict in the relationship, and whether youth were in an unhealthy relationship

The three additional outcome domains are as follows:

- **Sexual risk behaviors, knowledge, and attitudes,** such as sexual refusal skills, intentions to delay sex, whether sexually active, number of sexual partners, use of birth control, knowledge of birth control and STIs, premarital cohabitation, and pregnancy

- **Personal well-being,** including how positively youth view themselves or whether they report getting into trouble at home or school

- **Relationship quality with parents and friends,** including self-reported quality of communication between youth and their parents or youth and their friends

Overview of evidence and gaps map

To summarize this body of literature on the effectiveness of HMRE programs for youth, we developed an evidence and gaps map ([Figure 1](#)). An evidence and gaps map is a grid that presents an at-a-glance summary of what is and is not known about the evidence on a given topic (Campbell Collaboration 2020). Our map summarizes the evidence on the effectiveness of HMRE programs for youth and how the evidence varies by the length of the studies' follow-up periods. In this map, domains of outcome variables are listed in the rows (for example, relationship attitudes and beliefs, and conflict management behaviors). The columns reflect the time period of follow-up measures, ranging from immediately after the program ended to a year or more after the baseline survey.

The cells of the map indicate whether studies examined a particular outcome at the corresponding timepoint. The cells contain two different icons. The solid green circles denote studies that found a statistically significant, favorable impact on an outcome at the specified follow-up timepoint. The open gray circles denote studies that found no impact on an outcome at the specified follow-up timepoint. There were no statistically significant, unfavorable impacts reported in any of these studies. As an example, if a cell includes a green circle, this means that at least one study found a favorable impact on an outcome at that follow-up timepoint. The size of the dot reflects the strength of the evidence, with larger dots indicating a greater number of studies.

Clicking on the cell brings up a text box that lists the study or studies that found a particular impact. For example, clicking on the top left cell shows that immediately after the program, seven studies found a favorable impact on an outcome within the domain of relationship attitudes and beliefs (Adler-Baeder et al. 2007; Alamillo and Goesling 2021; Gardner 2001; Gardner et al. 2004; Gardner et al. 2016; Ma et al. 2014; Schramm and Gomez-Scott 2012) and six studies found no impact on at least one outcome in the domain of relationship attitudes and beliefs (Adler-Baeder et al. 2007; Alamillo and Goesling 2021; Gardner et al. 2004; Gardner et al. 2016; Hutson et al. 2021; Leip 2021). If a cell is empty, this indicates that none of the impact studies we reviewed examined an outcome within a given domain at the specified timepoint. [Table A.2](#) in the appendix lists the study or studies represented by each dot in the figure.

Figure 1: Evidence and gaps map

Timepoint of follow-up survey
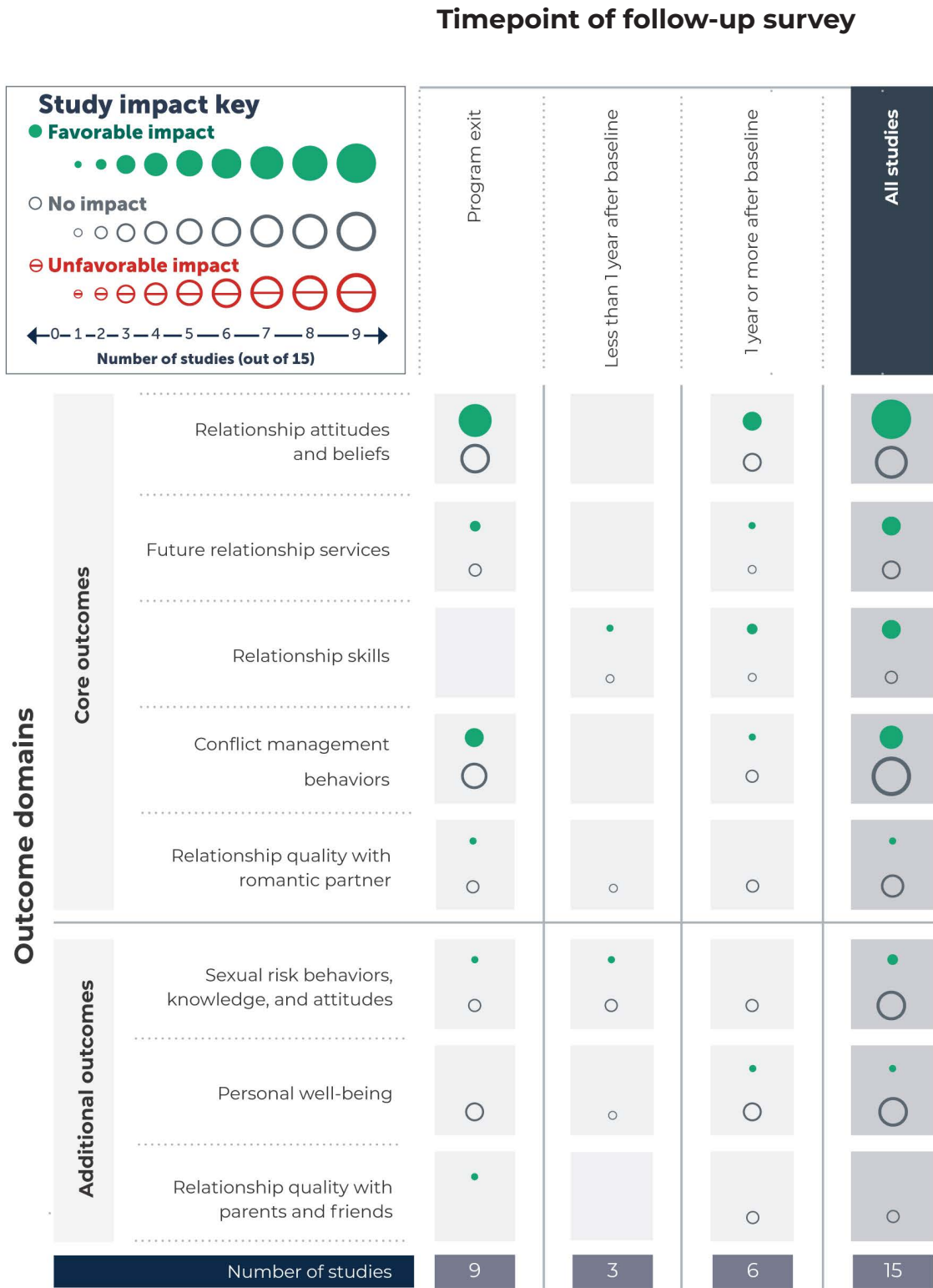
Note: The size of the circles corresponds to the number of studies that found a particular impact (favorable/null/unfavorable) on a particular outcome domain. Table A.3. in the appendix includes the count of studies in each category.

Key findings from the evidence and gaps map

In this section, we highlight five key findings from the evidence and gaps map on the impact of HMRE programs for youth. Before we review our findings, it is worth noting that in most outcome domains, studies found a mix of favorable impacts and no impacts. In several instances, the same study found favorable impacts on some outcomes within a domain and no impacts on other outcomes in the same domain. This is not unexpected, as many of the studies we reviewed examined multiple outcomes within the same domain and sometimes assessed outcomes at multiple follow-up periods. Likewise, studies of the same curriculum often uncovered a mix of favorable and no impacts on the same or similar outcomes. None of the curricula were clearly more or less effective than the others at improving particular outcomes. Despite these sometimes disparate findings, several patterns emerged in the literature on the effectiveness of HMRE programs for youth.

Several studies found favorable impacts immediately after the program on youths' relationship attitudes and beliefs and their willingness to use relationship services in the future. The existing research on youth HMRE programs suggests that these programs can improve youths' relationship attitudes and beliefs immediately after the program. Seven of the studies we reviewed found favorable impacts on outcomes in this core outcome domain at program exit (Adler-Baeder et al. 2007; Alamillo and Goesling 2021; Gardner 2001; Gardner et al. 2004; Gardner et al. 2016; Ma et al. 2014; Schramm and Gomez-Scott 2012). For example, studies found that youth who participated in HMRE programs were less likely to agree with unrealistic beliefs about marriage, such as the statement "Most long-term happy marriages never have conflict" (Adler-Baeder et al. 2007). Studies also found that youth who participated in HMRE programs were more likely to disapprove of unhealthy relationship behaviors (Alamillo and Goesling 2021), and they placed a higher value on partners' warmth and trustworthiness (Ma et al. 2014). In addition to outcomes related to youths' general relationship attitudes and beliefs, two studies found a favorable impact at program exit on their willingness to participate in future relationship education or couples counseling (Gardner et al. 2004; Gardner et al. 2016). However, two other studies found no impact at program exit on outcomes in this domain (Gardner 2001; Schramm and Gomez-Scott 2012).

Several studies also examined youths' relationship attitudes and beliefs and willingness to participate in future relationship services a year or more after the program (Alamillo and Goesling 2021; Gardner and Boellaard 2007; Hutson et al. 2021; Kerpelman et al. 2009; Kerpelman et al. 2010). Some of these studies found similar patterns to studies that examined these outcomes at program exit. However, many of the studies with longer follow-up periods had important limitations, which we discuss in more detail below.

The evidence of impacts on youths' relationship skills and conflict management behaviors is mixed, with some studies finding favorable impacts and others finding no impacts. An important goal of HMRE programs for youth is to improve young people's relationship skills and behaviors. Although several studies examined these core outcome domains, the evidence for impacts is mixed. Five of the studies we reviewed examined outcomes related to youths' self-assessed relationship skills, including their general relationship skills (Alamillo and Goesling 2021; Halpern-Meekin 2011; Rhoades et al. 2021) and their conflict management skills (Alamillo and Goesling 2021; Kerpelman et al. 2009; Kerpelman et al. 2010). Three studies found favorable impacts on these outcomes (Halpern-Meekin 2011; Kerpelman et al. 2009; Kerpelman et al. 2010), and two did not (Alamillo and Goesling 2021; Rhoades et al. 2021). Seven studies measured youths' conflict management behaviors in a particular romantic relationship or friendship using the Conflict Tactics Scale (Adler-Baeder et al. 2007; Gardner 2001; Gardner et al. 2004; Gardner et al. 2016; Gardner and Boellard 2007; Kerpelman et al. 2009; Schramm and Gomez-Scott 2012).

Three of these studies found a favorable impact on this outcome (indicating lower use of aggressive conflict management behaviors and higher use of constructive conflict management behaviors) at the end of the program (Adler-Baeder et al. 2007; Gardner et al. 2004; Schramm and Gomez-Scott 2012), and one study found a favorable impact four years after the end of the program (Gardner and Boellaard 2007).

Few studies examined impacts on the quality of youths' relationships with a current or former romantic partner. Another important goal of HMRE programs for youth is to enhance the quality of their romantic relationships in both adolescence and adulthood. Only four of the studies we reviewed examined outcomes in this core domain. In general, these studies found no impact of HMRE programs on outcomes related to the quality of youths' romantic relationships, including the degree of conflict in youths' dating relationships (Hutson et al. 2021; Rhoades et al. 2021), whether youth were in an unhealthy relationship (Alamillo and Goesling 2021), and general relationship quality (Leip et al. 2021). Only one study found a favorable impact on a measure of relationship quality; in their study of a program for pregnant and parenting youth, Hutson et al. (2021) found a reduction in coparenting conflict with a current or former romantic partner among youth who were assigned to receive the full HMRE program compared to youth who were assigned to receive only part of the program.

Examining the impacts of HMRE programs for youth on relationship quality can be challenging, because often many youth in these studies are not in romantic relationships. Therefore, typical relationship quality measures are not defined for them. To measure effects on these outcomes, studies often limit the sample to a subset of youth who were in a romantic relationship at the time of the follow-up survey. This kind of analysis can lead to misleading results. If the HMRE program changed the likelihood that youth enter a romantic relationship, the mix of youth in the treatment and comparison groups will no longer be the same, potentially biasing the results. Two of the studies described above (Alamillo and Goesling 2021; Hutson et al. 2021) examined at least one measure of relationship quality that was defined for the full sample (whether youth were in an unhealthy relationship and coparenting conflict among a sample of pregnant and parenting youth), which increases our confidence in the validity of the impact estimates.

There is limited evidence that programs affected attitudes and behaviors in additional, related outcome domains. Some studies examined outcomes related to topics that are not covered in all HMRE programs but might still be important for youths' later relationship experiences. For example, seven studies examined outcomes related to youths' sexual risk behaviors, knowledge, and attitudes (Alamillo and Goesling 2021; Barbee et al. 2016; Gardner et al. 2004; Gardner et al. 2016; Gardner and Boellaard 2007; Rhoades et al. 2021; Schramm and Gomez-Scott 2012). Of these studies, two found favorable impacts in this additional outcome domain. Schramm and Gomez-Scott (2012) found a favorable impact on youths' refusal skills at program exit, and Barbee et al. (2016) found a decrease in youths' number of sexual partners and an increase in youths' use of birth control other than condoms six months after the program.

Some studies also examined outcomes in the domains of youths' personal well-being and relationship quality with parents and friends. Two studies explored the impact of HMRE programs on youth's self-esteem (Gardner et al. 2004; Gardner et al. 2016), and one examined youth's likelihood of getting into trouble at home or school (Gardner 2001). Two studies examined depressive and anxious symptoms (Hutson et al. 2021; Rhoades et al. 2021) and one examined several employment-related outcomes (Leip 2021). None of these studies found that HMRE programming had an impact on these outcomes. Three studies examined the quality of youths' relationships with parents or friends (Alamillo and Goesling 2021; Gardner et al. 2004; Gardner and Boellard 2007), with one finding a favorable impact on this outcome (Gardner et al. 2004).

Studies with higher response rates found limited evidence of long-term program impacts. Of the 15 studies we reviewed, 6 measured impacts a year or more after the start of the program (Alamillo and Goesling 2021; Gardner and Boellard 2007; Hutson et al. 2021; Kerpelman et al. 2009; Kerpelman et al. 2010; Leip 2021). Three of the studies (Gardner and Boellard 2007; Kerpelman et al. 2009; Kerpelman et al. 2010) had response rates of less than 25 percent on the follow-up surveys. Although all three of these studies found favorable impacts on outcomes such as youths' relationship attitudes and beliefs, willingness to participate in future relationship services, relationship skills, and conflict management behaviors, the low response rates raise the possibility that the kinds of youth who respond might not be the same in the treatment and comparison groups. Therefore, the results might not be an accurate estimate of overall program impacts. The other three studies had higher response rates of 75 to 85 percent. These higher response rates increase confidence in the findings. One of the three studies (Alamillo and Goesling 2021) found a favorable impact on one out of ten measures of relationship attitudes and beliefs. The other two studies (Hutson et al. 2021; Leip 2021) found no longer-term impacts. Overall, even though some studies have found evidence of longer-term impacts of HMRE programs on youths' relationship attitudes, skills, and behaviors, studies with higher response rates have generally not supported these findings.

SUMMARY AND IMPLICATIONS FOR FUTURE RESEARCH ON HMRE PROGRAMS FOR YOUTH

HMRE programs for youth have several objectives. In the short run, they aim to improve young people's understanding of healthy relationships and teach important relationship skills like communication and conflict management. In the longer run, they aim to help youth avoid dating violence and other negative relationship outcomes and improve their chances of having high quality romantic relationships in adolescence and adulthood. By summarizing the literature on the effectiveness of these programs, this brief seeks to address whether HMRE programs for youth are achieving these objectives. We identified and reviewed 15 impact studies of HMRE programs serving youth younger than 18. The findings highlight what we know and do not yet know about the effectiveness of these programs and point to important topics for future research.

We found evidence that HMRE programs for youth have favorable impacts on youths' relationship attitudes and beliefs around the time the program ends. Seven of the 15 studies we reviewed found favorable impacts at program exit on outcomes in this domain, including youths' attitudes toward marriage and their beliefs about important qualities in a romantic partner. A few studies also found favorable impacts of HMRE programs on youths' self-reported willingness to participate in relationship education and counseling in the future. This might have positive implications for the quality of youths' future romantic relationships, as couples counseling has been shown to reduce relationship distress and improve relationship satisfaction among adults (Knutson and Olson 2003).

The evidence for impacts on youths' relationship behaviors and experiences is more limited. A few studies found favorable impacts on youths' use of constructive conflict management behaviors in their romantic relationships and friendships, both at program exit and a year or more after the program. One study found favorable impacts on youths' sexual risk behaviors six months after the program ended. However, there is still much we do not know about the effects of HMRE programs on the quality of youths' romantic relationships. Although four of the studies we reviewed examined outcomes related to romantic relationship quality, such as the degree of conflict in youths' romantic or coparenting relationships and whether youth were currently in an unhealthy relationship, most youth in these studies were not in romantic relationships. This limits the programs' ability to influence these outcomes and studies' ability to assess these outcomes. To better understand the impact of HMRE programs on the quality of youths' relationships, it may be

necessary to assess these outcomes when youth are older and have had more experience with dating relationships. In addition, study authors should consider assessing a broader array of outcomes related to relationship quality. For instance, none of the studies we reviewed looked at whether participating in HMRE programs made youth less likely to experience or perpetrate dating violence or sexual harassment, even though this is an important goal for these programs. More research is needed to understand the impacts of youth HMRE programs on these important outcomes.

In addition, there is limited evidence to suggest that HMRE programs have impacts on youths' outcomes much beyond the end of programming. Six of the studies we reviewed examined youth outcomes a year or more after the program. Some of these studies found evidence of favorable impacts on outcomes including youths' relationship attitudes and beliefs, willingness to participate in future relationship education, relationship skills, conflict management behaviors, and personal well-being. However, the studies that found favorable impacts had very low response rates on the follow-up surveys. This raises the risk that the youth in the treatment and comparison groups might not be similar to each other, and therefore the findings might not represent an accurate estimate of program impacts. The studies that had higher response rates generally found no impacts on these outcomes. To increase the likelihood of sustained impacts after a program ends, program providers may need to consider certain adaptations, such as offering more than 12 to 18 hours of content or delivering the program over a longer period. Formative research could be useful for helping program providers and developers identify new delivery models that strengthen long-term impacts.

It is also important to note a few limitations of the impact literature that we reviewed. First, there have been few impact studies on the effectiveness of youth HMRE programs offered outside of schools. Such programs often serve youth who are less likely to be enrolled in school because they are pregnant, parenting, or involved in the child welfare system, which may place them at greater risk for negative relationship outcomes (Public Strategies 2020). Only three of the studies we identified delivered programming in an out-of-school setting or to high-risk populations of youth (Barbee et al. 2016; Hutson et al. 2021; Leip et al. 2021). Therefore, the pattern of results summarized in this brief may not be generalizable to youth who may be more at risk of negative relationship outcomes. The lack of impact studies of HMRE programs delivered outside of schools may reflect the fact that such programs often do not have the infrastructure or capacity—including the staff, resources, number of participants, or participation rates—to support a high-quality impact study. In addition, because this review focused only on impact studies, it does not include descriptive studies or formative research that could be useful for understanding how HMRE programs can support high-risk youth. A second limitation is that the studies we identified largely did not explore whether HMRE programming may be more beneficial for certain subgroups of youth, such as youth who identify as LGBTQ+. More research is needed to explore this question. A third limitation is that even though the current grant funding from OFA includes HMRE programs that serve young people up to age 24, there are very few impact studies about the effectiveness of the programs for young adults. Most studies on the effects of relationship education for youth ages 18 to 24 have focused on for-credit courses for college students (Simpson et al. 2018). These programs serve a different population than federally funded HMRE programs, which often serve disadvantaged young adults who might face additional barriers to program engagement. In sum, the impact studies we identified largely speak to the effectiveness HMRE programs delivered in high schools to a general population of youth. More work is needed to understand HMRE programs for youth and young adults offered outside of high schools and for specific subgroups of youth.

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APPENDIX

Table A.1 summarizes the 11 studies included in our review. It presents a description of each program, an overview of the study design, and details on the outcome measures that each study assessed. Table A.2 indicates the citations for the studies in each category that find a favorable impact, no impact, or an unfavorable impact. Table A.3 indicates the number of studies in each category that find a favorable impact, no impact, or an unfavorable impact.

Table A.1. Impact studies of HMRE programs for youth

Program description	Study design	Outcomes	Key findings
Studies of programs using Relationship Smarts or Relationship Smarts PLUS			
Adler-Baeder et al. 2007			
• Adapted version of *Relationship Smarts* called *Love U2: Increasing Your Relationship Smarts* • Lessons covered the following topics: maturity, personal values, and understanding infatuation versus love; dating "smart" and recognizing signs of healthy and unhealthy relationships; dating abuse and how to end relationships; and healthy relationship skills, including communication and conflict management. • Program was delivered in high schools in Alabama • Youth were offered 12 lessons over two months, with each lesson lasting 60−90 minutes	• **QED** • **Study sample:** 465 youth in nine public high schools in Alabama • **Procedure:** Teachers selected one class to receive the curriculum and another class to serve as a control. • **Follow-up:** Program exit • **Response rate:** Not reported	• **Relationship attitudes and beliefs:** Beliefs about relationship aggression (for example, "In today's society, slapping a spouse or dating partner is understandable in some circumstances"); faulty relationship beliefs (for example, "Most long-term, happy marriages never have conflict"); and realistic relationship beliefs (for example, "Your communication style is affected by your family members' style of communication") • **Conflict management behaviors:** Use of conflict behaviors with a boyfriend/girlfriend or friend were measured using a revised form of the Conflict Tactics Scale (Straus et al. 1996). Three subscales assessed use of physical aggression, verbal aggression, and reasoning.	• Youth in the program had more realistic beliefs about relationships than youth in the control group. • Youth in the program reported less use of verbal aggression in relationships than youth in the control group.
Alamillo and Goesling 2021			
• Lessons covered the following topics: personal identity and values, principles of healthy relationships, wise decision making, breaking up and dating abuse, communication, sexual decision making and pregnancy, and technology and social media. • Participants were youth in high schools in Georgia. • Youth were offered 12, 90-minute lessons once or twice per week over the course of a semester.	• **RCT** • **Study sample:** 1,862 youth in 61 health classes • **Procedure:** Health classes were randomly assigned to receive the program or a control curriculum that focused on job skills. (Note: 1/3 of health classes delivered a shortened version of the curriculum that only included eight lessons. Impacts of the full versus shortened curricula are not included in this brief). • **Follow-up:** Program exit and one year after baseline • **Response rate:** 84 percent at program exit; 85 percent at one year	• **Relationship attitudes and beliefs:** Attitudes about marriage were measured with three items (for example, "In the end, feelings of love should be enough to sustain a happy marriage"); disapproval of teen dating violence was measured with a subset of items from the Acceptance of Couple Violence Scale (Dahlberg et al. 2005); disapproval of unhealthy relationship behaviors was measured with a four-item scale (for example, "In a healthy relationship, how important is it that couples do not cheat on each other?"); beliefs about relationship communication were measured with a three-item scale (for example, "Even in a good relationship, couples will occasionally have trouble talking about their feelings"); relationship expectations were measured with two items (for example, "What are the chances you will get married in the future?").	• At program exit, youth in the program group reported more favorable relationship beliefs on one item ("If you are happily married, you don't need to work on your relationship" [reverse coded]) and greater disapproval of unhealthy relationship behaviors.

Program description	Study design	Outcomes	Key findings
Continued: Alamillo and Goesling 2021			
		• **Relationship skills:** General relationship skills were measured with a six-item scale derived from the Relationship Deciding Scale (Vennum and Fincham 2011); conflict management skills were measured with a five-item scale derived from the Interpersonal Competence Scale (Buhrmester et al. 1998). • **Relationship quality with romantic partner:** Whether youth were in an unhealthy relationship at the time of the survey • **Sexual risk behaviors, knowledge, and attitudes:** Whether youth ever had sex; knowledge of pregnancy and STIs and desire to avoid teen pregnancy were measured using a subset of items from the Evaluation of Adolescence Pregnancy Prevention Approaches (Smith et al. 2012). • **Relationship quality with parents and friends:** Relationship quality with parents and relationship quality with friends were each measured with a three-item scale (for example, "In the past month, how often did you feel like you could talk with your [parents/friends] about things that really matter?").	• At the one year follow-up, youth in the program group reported more favorable relationship beliefs on one item ("In the end, feelings of love should be enough to sustain a happy marriage" [*reverse coded*]).
Kerpelman et al. 2009			
• Lessons covered the following topics: personal identity and values; attraction versus love; principles of healthy relationships; wise decision making; breaking up and dating abuse; communication skills; and marriage and planning for the future. • Program was delivered in family and consumer science classes in high schools in Alabama. • Youth were offered 13 lessons twice a week for six or seven weeks.	• **RCT** • **Study sample:** More than 1,800 youth in 61 public high schools in Alabama • **Procedure:** Schools were randomly assigned to the program or control group. • **Follow-up:** Program exit, one year, and two years after the baseline survey • **Response rate:** 87 percent at immediate post, 24 percent at one year, and 13 percent at two years	• **Relationship attitudes and beliefs:** The study measured three categories of faulty relationship beliefs: "One and Only" (for example, "There is only one true love out there who is right for me to marry"), "Love Is Enough" (for example, "In the end, our feelings of love should be enough to sustain a happy marriage"), and "Beliefs about Cohabitation" (for example, "Living together before marriage will improve our chances of remaining happily married"); evaluators measured standards for romantic partners and relationships using the Partner/Relationship Ideal Standard Scale (Fletcher et al. 1999). • **Future relationship services:** Willingness to participate in future premarital or marital counseling was measured using five items (for example, "I will go to premarital counseling with my fiancé before I get married"). • **Relationship skills:** Conflict management skills were measured using the Conflict Management subscale of the Interpersonal Competence scale (Buhrmester et al. 1988). Youth rated how good or poor they are with five statements (for example, "Being able to take a close companion's perspective in a fight and really understand his or her point"). • **Conflict management behaviors:** Use of conflict behaviors with a boyfriend/girlfriend or friend were measured using the verbal aggression subscale of Conflict Tactics Scale (Straus et al. 1996).	• Youth in the program had fewer unrealistic relationship beliefs, were more open to future relationship education, had better conflict management skills, and had higher standards for romantic partners than youth in the control group. • Effects were strongest at the end of the program and attenuated over time.

Kerpelman et al. 2010

• Lessons covered the following topics: personal identity and values, attraction versus love, principles of healthy relationships, wise decision making, breaking up and dating abuse, communication skills, and marriage and planning for the future. • Program was delivered in health classes in high schools in Alabama. • Youth were offered 12 lessons twice a week for six or seven weeks.	• **RCT** • **Study sample:** 2,427 youth in 39 schools • **Procedure:** Teachers were randomly assigned to the program or control group • **Follow-up:** Program exit and one year after the baseline survey • **Response rate:** 58 percent at program exit and 12 percent at one year	• **Relationship attitudes and beliefs:** Faulty relationship beliefs were measured using a four-item measure (for example, "In the end, our feelings of love should be enough to sustain a happy marriage"). • **Relationship skills:** Conflict management skills were measured using the Conflict Management subscale of the Interpersonal Competence scale (Buhrmester et al. 1988). Youth rated how good or poor their skills were with five statements (for example, "Being able to take a close companion's perspective in a fight and really understand his or her point").	• Youth in the program had higher standards for romantic partners and relationships than youth in the control group.

Ma et al. 2014

• Lessons covered the following topics: personal identity and values, attraction versus love, principles of healthy relationships, wise decision making, breaking up and dating abuse, communication skills, and marriage and planning for the future. • Program was delivered in high schools in Alabama. • Youth were offered 13 lessons twice a week for six or seven weeks.	• **RCT** • **Study sample:** 2,066 youth in 106 classes • **Procedure:** Teachers were randomly assigned to deliver the program or not. • **Follow-up:** Program exit • **Response rate:** 88 percent	• **Relationship attitudes and beliefs:** Standards for romantic partners and relationships were measured using the Partner/Relationship Ideal Standard Scale (Fletcher et al. 1999).	• Youth in the program had higher standards for romantic partners and relationships than youth in the control group.

Schramm and Gomez-Scott 2012

• Lessons covered the following topics: personal identity and values, attraction versus love, principles of healthy relationships, wise decision making, breaking up and dating abuse, communication skills, marriage and planning for the future, and an additional module on preventing child abuse and neglect. • Program was delivered to youth in grades 8–12. • The length of the program varied depending on the teachers; some programs lasted a week, and others lasted the full semester.	• **QED** • **Study sample:** 803 youth in 22 schools • **Procedure:** Teachers selected one class to receive the curriculum and another class as a control. • **Follow-up:** Program exit • **Response rate:** Not reported	• **Relationship attitudes and beliefs:** Attitudes about romance, mate selection, marriage, and sex were measured using items such as "There is only one true love out there who is right for me to marry" and "It is risky for teens to have sex." • **Future relationship services:** Four items assessed willingness to participate in future relationship counseling. • **Conflict management behaviors:** Use of conflict behaviors with a boyfriend/girlfriend or friend were measured using the verbal and physical aggression subscales of Conflict Tactics Scale (Straus et al. 1996). • **Sexual risk behaviors, knowledge, and attitudes:** Refusal skills were measured using four items (for example, "I intend to say 'no' to sex even if my friends are pressuring me to say 'yes'").	• Youth in the program group had fewer unrealistic beliefs about relationships, were more confident in their ability to resist sexual pressure, and had more negative beliefs about the appropriateness of harsh caregiving and spanking than youth in the control group. • Youth in the program group reported lower use of verbal aggression in their current dating relationship than youth in the control group.

Program description	Study design	Outcomes	Key findings
Studies of programs using Connections: Relationships and Marriage			
Gardner 2001			
• Lessons covered the following topics: personality, self-esteem, healthy dating relationships and values, effective communication and conflict management skills, and the skills needed to build a successful marriage. • Participants included youth from rural Midwest high schools. • Youth were offered 15, one-hour lessons delivered over four weeks.	• **QED** • **Study sample:** 375 youth in 22 schools in the Midwest • **Procedure:** Teachers selected one class to receive the program and another class to serve as the cowntrol group. • **Follow-up:** Program exit • **Response rate:** Not reported	• **Relationship attitudes and beliefs:** Attitudes toward divorce were measured using eight items (for example, "It's OK for a couple WITH NO children to divorce if one spouse cheats on the other"). • **Future relationship services:** Willingness to participate in future premarital or marital counseling was measured using four items (for example, "I will go to premarital counseling with my fiancé before I get married"). • **Personal well-being:** Getting into trouble at home or school was measured using a frequency over the past four months.	• Youth in the program had more negative attitudes toward divorce than youth in the control group.
Gardner et al. 2004			
• Lessons covered the following topics: personality, self-esteem, healthy dating relationships and values, effective communication and conflict management skills, and the skills needed to build a successful marriage. • Participants included youth in California public high schools. • Youth were offered 15, one-hour lessons delivered over three months.	• **QED** • **Study sample:** 562 youth in six public high schools in California • **Procedure:** Teachers selected one class to receive the curriculum and another class as a control. • **Follow-up:** Program exit • **Response rate:** Not reported	• **Relationship attitudes and beliefs:** Relationship knowledge was measured using 30 true or false items (for example, "Most long-term marriages have never had a crisis"); attitudes toward marriage and divorce were measured using 10 items (for example, "I will likely get married some day" and "It's OK for a couple who fights all the time to divorce if they have children"). • **Future relationship services:** Willingness to participate in future premarital or marital counseling was measured using four items (for example, "I will go to premarital counseling with my fiancé before I get married"). • **Conflict management behaviors:** Use of conflict behaviors with a boyfriend/girlfriend or friend were measured using a revised form of the Conflict Tactics Scale (Straus et al. 1996). Three subscales assessed use of physical aggression, verbal aggression, and reasoning. • **Sexual risk behaviors, knowledge, and attitudes:** Intention to wait to have sex was measured using six items (for example, "I intend to finish high school before having sex"); refusal skills were measured using five items (for example, "I intend to say 'no' to sex even if my friends are pressuring me to say 'yes'"). • **Personal well-being:** Self-esteem was measured using the Rosenberg (1989) Self-Esteem Scale. • **Communication with parents:** Communication with parents was reported using three items (for example, "Do you personally talk to your parent or guardian when something is bothering you?").	• Youth in the program group had more positive attitudes toward marriage and were more open to future premarital or marital counseling than youth in the control group. • Youth in the program group reported lower use of violence in relationships and better communication with parents than youth in the control group.

Program description	Study design	Outcomes	Key findings
Gardner and Boellaard 2007			
• Lessons covered the following topics: personality, self-esteem, healthy dating relationships and values, effective communication and conflict management skills, and the skills needed to build a successful marriage. • Sample was drawn from the Gardner 2001 and Gardner et al. 2004 studies. Youth who completed the pre- and post-surveys in these studies were invited to participate in the present study. • Youth were offered 15, one-hour lessons delivered over four weeks or three months, depending on which study (Gardner 2001 or Gardner et al. 2004) they originally participated in.	• **QED** • **Study sample:** 743 youth in California and South Dakota • **Procedure:** Teachers selected one class to receive the curriculum and another class as a control. • **Follow-up:** One year and four years after baseline • **Response rate:** 10 percent at both follow-up surveys	• **Relationship attitudes and beliefs:** Attitudes toward marriage and divorce • **Future relationship services:** Willingness to participate in future premarital or marital counseling was measured using four items (for example, "I will go to premarital counseling with my fiancé before I get married"). • **Sexual risk behaviors, knowledge, and attitudes:** Had sex before marriage, lived with a partner outside of marriage, had a baby outside of marriage, had an affair, and sexual refusal skills • **Personal well-being:** Self-esteem was measured using the Rosenberg (1989) Self-Esteem Scale. • **Communication with parents:** Communication with parents was reported using three items (for example, "Do you personally talk to your parent or guardian when something is bothering you?").	• Youth in the program group reported better communication with parents and less violence at four-year follow-up than youth in the control group.
Halpern-Meekin 2011			
• Oklahoma schools used *Connections: Relationship and Marriage* whereas Florida schools could choose any relationship and marriage education curriculum. • Program delivered in a semester-long family and consumer sciences class.	• **QED** • **Study sample:** 222 youth in six schools (two schools with mandated participation in Florida; four schools with self-selected participation in Oklahoma) • **Procedure:** Youth in the control group were not enrolled in a family and consumer sciences class and volunteered to participate in the study. • **Follow-up:** Outcomes were assessed about one month after the end of the program. • **Response rate:** 83 percent	• **Relationship skills:** Interpersonal competencies were reported using the Relationship Questionnaire (Selman 1980), which includes five domains: perspective taking, interpersonal understanding, hypothetical negotiation, real-life negotiation, and personal meaning.	• Youth in the program group reported better relationship skills than youth in the control group.
Studies of programs using *Love Notes*			
Barbee et al. 2016			
• Lessons covered the following topics: setting life goals, forming healthy relationships and avoiding intimate partner violence, communication, problem-solving; and sexuality, pregnancy, and disease prevention. • Participants included high-risk youth ages 14–19 in Louisville. • Youth were offered 13 hours of content over two consecutive Saturdays.	• **RCT** • **Study sample:** 1,448 youth who were involved in an out-of-school program in Louisville • **Procedure:** Youth were randomly assigned to three groups: a group that received an HMRE curriculum (*Love Notes*), a group that received a teen pregnancy prevention curriculum (*Reducing the Risk*), or a control group.	• **Sexual risk behaviors, knowledge, and attitudes:** Ever had sex, use of birth control, condom use, and number of sexual partners	• Youth who received the *Love Notes* curriculum were more likely to use birth control and reported fewer sexual partners six months after the program than youth in the control group.

Program description	Study design	Outcomes	Key findings
Continued: Barbee et al. 2016			
	• **Follow-up:** Three and six months after the program • **Response rate:** 75 percent at three months and 68 percent at six months		
Hutson et al. 2021			
• *Love Notes* and a modified version of *Family Foundations* called *From Teen Parent to Team Parent* • Lessons covered the following topics: communication, knowledge about the benefits of marriage, stress and anger management, affection and intimacy, problem solving, parenting, and coparenting. • Participants were pregnant and parenting youth ages 14–20 attending high school in Central Texas. • Each curriculum was delivered weekly over the course of a semester.	• **QED** • **Study sample:** 352 youth • **Procedure:** Schools were assigned to receive full treatment (both curricula) or partial treatment (either the relationship or parenting curricula plus a control curriculum). • **Follow-up:** Mid-program (after one semester), program exit (after two semesters), and three months after the program • **Response rate:** 69–71 percent at program exit and 80–82 percent at follow-up	• **Relationship attitudes and beliefs:** Coparenting attitudes were measured using the Expectations to Coparent Scale (Markman et al 2007) • **Relationship quality with romantic partner:** The degree of conflict in youths' romantic relationship was measured using the Conflict in Adolescent Dating Relationships Inventory (CADRI) (Wolfe et al. 2001); the quality of youths' coparenting relationship was measured using the Coparental Communication Scale (Ahrons, 1981) • **Personal well-being:** Depressive symptoms were measured using the Center for Epidemiological Studies Depression Scale (CES-D) (Devins & Orme 1985; Radloff 1977); worry symptoms were measured using the Penn State Worry Questionnaire (PSWQ) (Beck et al. 1995).	• Youth in the full treatment group reported significantly less coparenting conflict at program exit than youth in the partial treatment group.
Leip 2021			
• Program covered the *Love Notes* curriculum and information on employment and financial literacy. Participants were also offered case management and mentoring. • Lessons covered the following topics: communication and relationship skills, avoiding intimate partner violence, relationship decision-making, financial planning, and employment goals. • Participants included youth ages 17–23 in Broward County, Florida who had been in foster care. • Youth were offered monthly group workshops for 7-13 months, individual sessions with a case manager, regular mentoring, and social events.	• **RCT** • **Study sample:** 326 youth in Broward County, Florida who had been in foster care • **Procedure:** Youth were randomly assigned to the program group or a control group that only received support services (e.g., screening and social events). • **Follow-up:** Program exit and seven to nine months after the program • **Response rate:** 86 percent at program exit and 78 percent at follow-up	• **Relationship attitudes and beliefs:** Healthy relationship attitudes were measured using two items about the importance of couples talking about key issues and feelings (for example, "In a healthy relationship, it is essential for couples to talk about things that are important to them"); attitudes about conflict management were measured using three items (e.g., "In a healthy relationship, how important is it for couples to not call each other names?"). • **Relationship quality with romantic partner:** Couple relationship quality was measured using three items (for example, "My partner and I talk about things that really matter"). • **Personal well-being:** Well-being was measured using the one-item Satisfaction with Life Scale (SLS) (Diener et al. 1985); financial stability was measured using four items about finance behavior (for example, "Do you currently have money saved for an emergency?"); job readiness was measured using four items (for example, "You feel confident in your interviewing skills"); employment challenges were measured using six items (e.g., not having reliable transportation, not having documentation for legal employment).	• There were no significant differences between those in the program group and those in the control group on any outcomes.

Program description	Study design	Outcomes	Key findings
Studies of programs using other curricula			
Gardner et al. 2016			
• *What's Real: Myths & Facts About Marriage* • Lessons covered the following topics: media influences on relationships, myths about marriage, benefits of marriage, characteristics of healthy relationships, pitfalls associated with cohabitation, benefits of premarital services, and what youth can do to prepare for marriage. • Participants were high school students in four states. • Youth were offered seven, one-hour lessons delivered during a school year.	• **QED** • **Study sample:** 206 youth in four high schools in Washington, Utah, Kentucky, and Indiana • **Procedure:** Teachers selected one class to receive the curriculum and another class as a control. • **Follow-up:** Program exit • **Response rate:** Not reported	• **Relationship attitudes and beliefs:** Relationship knowledge was measured using 30 true or false items (for example, "Married people are not as happy as those who are unmarried"); attitudes toward marriage and cohabitation were measured using three items (for example, "It's OK to live with a dating partner and not be married"). • **Future relationship services:** Willingness to participate in future premarital or marital counseling was measured using five items (for example, "I will go to premarital counseling with my fiancé before I get married"). • **Conflict management behaviors:** Use of conflict behaviors with a boyfriend/girlfriend or friend were measured using a revised form of the Conflict Tactics Scale (Straus et al. 1996). Three subscales assessed use of physical aggression, verbal aggression, and reasoning. • **Sexual risk behaviors, knowledge, and attitudes:** Intention to wait to have sex was measured using five items (for example, "I intend to finish high school before having sex"); refusal skills were measured using five items (for example, "I intend to say 'no' to sex even if my friends are pressuring me to say 'yes'"). • **Personal well-being:** Self-esteem was measured using the Rosenberg (1989) Self-Esteem Scale.	• Youth in the program group were more open to future premarital or marital counseling, scored higher on a relationship knowledge scale, and had more negative attitudes toward premarital cohabitation than youth in the control group.
Rhoades et al. 2021			
• *REAL Essentials Advance* • Lessons covered the following topics: self-discovery, goal-setting, communication, and choices regarding dating and sexual health. • Participants were youth attending one of eight high schools in Colorado. • Youth assigned in the program group were offered six hours of REAL Essentials Advance over the course of one to two weeks (three to five class periods).	• **RCT** • **Study sample:** 1,003 youth • **Procedure:** Schools were randomly assigned to program or control group using school-level matching. • **Follow-up:** Six months after baseline • **Response rate:** 62 percent	• **Relationship skills:** Confidence in relationship skills was measured using a single item, "How confident are you that you have the skills to have a healthy romantic relationship". • **Relationship quality with romantic partner:** Conflict management in a current dating relationship was measured using 4 items (for example, "how often do you yell or shout?") from Child Trends, the Supporting Heathy Marriage surveys, and the Toledo Adolescent Relationships Study (Giordano et al. 2001; Scott et al. 2015). • **Sexual risk behaviors, knowledge, and attitudes:** Whether youth had sex in the past three months. • **Personal well-being:** Depressive and anxious symptoms were measured using the 10-item Internalizing Symptoms Scale for Children (Merrell et al. 1996).	• There were no significant differences between the program and control groups on any outcomes at six month follow-up.

QED = quasi-experimental design; RCT = randomized controlled trial.

Table A.2. Evidence and gaps map (table view — study citations)

Figure View

Timepoint of follow-up survey

Study Impact Key
- ● Favorable Impact
- ○ No Impact
- ⊖ Unfavorable Impact

Outcome Domains		Setting			All Studies
		Program exit	**Less than 1 year after baseline**	**1 year or more after baseline**	**All Studies**
Core outcomes	**Relationship attitudes and beliefs**	● **Favorable Impact** 1. Adler-Baeder et al. 2007 2. Alamillo & Goesling 2021 3. Gardner 2001 4. Gardner et al. 2004 5. Gardner et al. 2016 6. Ma et al. 2014 7. Schramm and Gomez-Scott 2012 ○ **No impact** 1. Adler-Baeder et al. 2007 2. Alamillo & Goesling 2021 3. Gardner et al. 2004 4. Gardner et al. 2016 5. Hutson et al. 2021 6. Leip 2021		● **Favorable Impact** 1. Alamillo & Goesling 2021 2. Kerpelman et al. 2009 3. Kerpelman et al. 2010 ○ **No impact** 1. Alamillo & Goesling 2021 2. Gardner & Boellaard 2007 3. Hutson et al. 2021	● **Favorable Impact** 1. Adler-Baeder et al. 2007 2. Alamillo & Goesling 2021 3. Gardner 2001 4. Gardner et al. 2004 5. Gardner et al. 2016 6. Kerpelman et al. 2009 7. Kerpelman et al. 2010 8. Ma et al. 2014 9. Schramm and Gomez-Scott 2012 ○ **No impact** 1. Adler-Baeder et al. 2007 2. Alamillo & Goesling 2021 3. Gardner & Boellaard 2007 4. Gardner et al. 2004 5. Gardner et al. 2016 6. Hutson et al. 2021 7. Leip 2021
	Openness to future relationship services	● **Favorable Impact** 1. Gardner et al. 2004 2. Gardner et al. 2016 ○ **No impact** 1. Gardner 2001 2. Schramm and Gomez-Scott 2012		● **Favorable Impact** 1. Kerpelman et al. 2009 ○ **No impact** 1. Gardner & Boellaard 2007	● **Favorable Impact** 1. Gardner et al. 2004 2. Gardner et al. 2016 3. Kerpelman et al. 2009 ○ **No impact** 1. Gardner 2001 2. Gardner & Boellaard 2007 3. Schramm and Gomez-Scott 2012
	Relationship skills		● **Favorable Impact** 1. Halpern-Meekin 2011 ○ **No impact** 1. Rhoades et al. 2021	● **Favorable Impact** 1. Kerpelman et al. 2009 2. Kerpelman et al. 2010 ○ **No impact** 1. Alamillo & Goesling 2021	● **Favorable Impact** 1. Halpern-Meekin 2011 2. Kerpelman et al. 2009 3. Kerpelman et al. 2010 ○ **No impact** 1. Alamillo & Goesling 2021 2. Rhoades et al. 2021
	Conflict management behaviors	● **Favorable Impact** 1. Adler-Baeder et al. 2007 2. Gardner et al. 2004 3. Schramm and Gomez-Scott 2012 ○ **No impact** 1. Adler-Baeder et al. 2007 2. Gardner 2001 3. Gardner et al. 2004 4. Gardner et al. 2016 5. Schramm and Gomez-Scott 2012		● **Favorable Impact** 1. Gardner & Boellaard 2007 ○ **No impact** 1. Gardner & Boellaard 2007 2. Kerpelman et al. 2009	● **Favorable Impact** 1. Adler-Baeder et al. 2007 2. Gardner & Boellaard 2007 3. Gardner et al. 2004 4. Schramm and Gomez-Scott 2012 ○ **No impact** 1. Adler-Baeder et al. 2007 2. Gardner 2001 3. Gardner & Boellaard 2007 4. Gardner et al. 2004 5. Gardner et al. 2016 6. Hutson et al. 2021 7. Kerpelman et al. 2009 8. Rhoades et al. 2021 9. Schramm and Gomez-Scott 2012
	Relationship quality with romantic partner	● **Favorable Impact** 1. Hutson et al. 2021 ○ **No impact** 1. Hutson et al. 2021 2. Leip 2021	○ **No impact** 1. Rhoades et al. 2021	○ **No impact** 1. Alamillo & Goesling 2021 2. Hutson et al. 2021	● **Favorable Impact** 1. Hutson et al. 2021 ○ **No impact** 1. Alamillo & Goesling 2021 2. Hutson et al. 2021 3. Leip 2021 4. Rhoades et al. 2021
Additional outcomes	**Sexual risk behaviors, knowledge, and attitudes**	● **Favorable Impact** 1. Schramm and Gomez-Scott 2012 ○ **No impact** 1. Gardner et al. 2004 2. Gardner et al. 2016	● **Favorable Impact** 1. Barbee et al. 2016 ○ **No impact** 1. Barbee et al. 2016 2. Rhoades et al. 2021	○ **No impact** 1. Alamillo & Goesling 2021 2. Gardner & Boellaard 2007	● **Favorable Impact** 1. Barbee et al. 2016 2. Schramm and Gomez-Scott 2012 ○ **No impact** 1. Alamillo & Goesling 2021 2. Barbee et al. 2016 3. Gardner & Boellaard 2007 4. Gardner et al. 2004 5. Gardner et al. 2016 6. Rhoades et al. 2021
	Personal well-being	○ **No impact** 1. Gardner et al. 2004 2. Gardner et al. 2016 3. Leip 2021	○ **No impact** 1. Rhoades et al. 2021	● **Favorable Impact** 1. Gardner & Boellaard 2007 ○ **No impact** 1. Gardner & Boellaard 2007 2. Hutson et al. 2021 3. Leip 2021	● **Favorable Impact** 1. Gardner & Boellaard 2007 ○ **No impact** 1. Gardner & Boellaard 2007 2. Gardner et al. 2004 3. Gardner et al. 2016 4. Hutson et al. 2021 5. Leip 2021 6. Rhoades et al. 2021
	Relationship quality with parents and friends	● **Favorable Impact** 1. Gardner et al. 2004		○ **No impact** 1. Alamillo & Goesling 2021 2. Gardner & Boellaard 2007	● **Favorable Impact** 1. Gardner & Boellaard 2007 ○ **No impact** 1. Alamillo & Goesling 2021 2. Gardner & Boellaard 2007
	Number of Studies	9	3	6	15

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Table A.3. Evidence and gaps map (table view — study counts)

Timepoint of follow-up survey

Study Impact Key
- Favorable Impact
- No Impact
- Unfavorable Impact

Outcome Domains			Setting			All Studies
			Program exit	Less than 1 year after baseline	1 year or more after baseline	
Core outcomes	Relationship attitudes and beliefs		● 7 ○ 6 ⊖ 0	● 0 ○ 0 ⊖ 0	● 3 ○ 3 ⊖ 0	● 9 ○ 7 ⊖ 0
	Openness to future relationship services		● 2 ○ 2 ⊖ 0	● 0 ○ 0 ⊖ 0	● 1 ○ 1 ⊖ 0	● 3 ○ 3 ⊖ 0
	Relationship skills		● 0 ○ 0 ⊖ 0	● 1 ○ 1 ⊖ 0	● 2 ○ 1 ⊖ 0	● 3 ○ 2 ⊖ 0
	Conflict management behaviors		● 3 ○ 5 ⊖ 0	● 0 ○ 0 ⊖ 0	● 1 ○ 2 ⊖ 0	● 4 ○ 9 ⊖ 0
	Relationship quality with romantic partner		● 1 ○ 2 ⊖ 0	● 0 ○ 1 ⊖ 0	● 0 ○ 2 ⊖ 0	● 1 ○ 4 ⊖ 0
Additional outcomes	Sexual risk behaviors, knowledge, and attitudes		● 1 ○ 2 ⊖ 0	● 1 ○ 2 ⊖ 0	● 0 ○ 2 ⊖ 0	● 2 ○ 6 ⊖ 0
	Personal well-being		● 0 ○ 3 ⊖ 0	● 0 ○ 1 ⊖ 0	● 1 ○ 3 ⊖ 0	● 1 ○ 6 ⊖ 0
	Relationship quality with parents and friends		● 1 ○ 0 ⊖ 0	● 0 ○ 0 ⊖ 0	● 0 ○ 2 ⊖ 0	● 1 ○ 2 ⊖ 0
Number of Studies			9	3	6	15