

How can a systematic review of interventions to improve pregnant and parenting adolescents' educational outcomes influence policy?

Becoming an adolescent parent can disrupt traditional life course development. Adolescent births both reflect, and perpetuate, socio-economic deprivation and educational failure (Boden, Fergusson & Horwood, 2007; Hodgkinson, Beers, Southammakosane & Lewin, 2014). Only half of adolescent mothers receive a high school diploma by age 22 compared with nearly 90 percent of women who have not given birth during adolescence (Perper, Peterson, & Manlove, 2010). This may have consequences for the children born to adolescent parents because maternal education is a strong predictor of children's academic outcomes (Harding, 2015; Magnuson, 2007). Although U.S. teen birth rates have decreased substantially, understanding how programs, such as those funded under the U.S. Department of Health and Human Services' (HHS) Pregnancy Assistance Fund, can support adolescents who do become parents is essential to combating the challenges they and their children face.

Systematic evidence reviews are increasingly used by researchers and policymakers to summarize the research evidence and support the implementation of effective programs. Within education, the What Works Clearinghouse serves as an important source of information about effective policies, programs, and practice. Other evidence reviews sponsored by federal departments and agencies are used to make funding decisions; for example, only programs rated as having evidence of effectiveness by the Teen Pregnancy Prevention Evidence Review and the Home Visiting Evidence of Effectiveness review can receive grant funding through certain funding streams (Paulsell, Thomas, Monahan & Seftor, 2016). Through systematic reviews, stakeholders can understand more about what programs impact target outcomes in order to guide policy decisions. In this evidence review, we examine whether programs designed to support adolescent parents impact key life course outcomes, including adolescent parents' educational outcomes.

We conducted an extensive literature search and identified 5476 potential published and unpublished documents for inclusion in the review. After screening, we found 82 articles representing 70 unique studies that met the following inclusion criteria: 1) examines a program that supports adolescent parents; 2) was conducted in the U.S. and released after 1996; 3) uses a matched comparison group or randomized controlled trial design; 4) includes a sample in which the majority is younger than 21; and 5) examines at least one measure of repeat pregnancy/birth, contraceptive use, or education.

To rate the quality of these studies and categorize our confidence in their results, we use similar criteria to the Teen Pregnancy Prevention Evidence Review and the What Works Clearinghouse. Ratings are based on set standards for confounding factors, study design, attrition, and baseline equivalence of the analytic sample on demographic characteristics and baseline outcome measures. High quality ratings are reserved for randomized controlled trials (RCTs) with low attrition. Moderate quality ratings are reserved for quasi-experimental design studies or RCTs with high attrition that establish equivalence on demographics and baseline outcomes, and that control for baseline outcomes. Less than half the studies reviewed met these rigorous standards.

For this presentation, we focus on the 36 studies that assess adolescent parents' educational outcomes. We use a relatively generous criteria to define a study as having a

favorable effect on adolescent education if there is at least one favorable outcome and no unfavorable outcomes at any follow-up point. As shown in Table 1, nearly 80 percent of all reviewed studies demonstrate favorable effects on adolescent education, but only a few studies demonstrate unfavorable effects. However, low quality studies were more likely to find favorable effects—95 percent of studies rated low quality found favorable effects, whereas 47 percent of studies rated high or moderate quality found favorable effects—illustrating the importance of carefully assessing study quality in evaluating the evidence in support of interventions. Moreover, close examination of the 15 high or moderate quality studies shows that studies were more likely to improve educational progress outcomes (such as attendance or college enrollment) than educational attainment outcomes (such as GED completion or high school diploma receipt). Forty percent of the studies that examined educational progress improved these outcomes (6 out of 15 studies; not shown), whereas 18 percent of studies that examined educational attainment improved these outcomes (2 out of 11 studies; not shown).

We also examine the key program features, such as setting, delivery method, and population, for studies rated high or moderate quality. For example, Table 2 shows that interventions aimed at improving adolescent education use a variety of program models, with the most common being home-visiting and providing education or employment services.

This review finds that there are programs that favorably impact adolescent parents' educational progress, although fewer programs favorably impact adolescent parents' educational attainment. In our presentation, we will synthesize information on which programs were effective and their key features. We will also discuss the role of systematic reviews in informing policy and practice at the national level by drawing on examples of policy areas that have been responsive to evidence, including the Teen Pregnancy Prevention Evidence Review and Home Visiting Evidence of Effectiveness Review. We will conclude with discussion of how this evidence review might guide future research and policymaking to support adolescents and their children.

Table 1

Percentage of unique studies with effects on adolescent education, by quality rating

Quality rating	Favorable effects^a	No effects	Unfavorable effects^b	Total with each quality rating
	n (percent)	n (percent)	n (percent)	n (percent)
High quality	6 (17%)	4 (11%)	2 (6%)	12 (33%)
Moderate quality	1 (3%)	2 (6%)	0 (0%)	3 (8%)
Low quality	19 (53%)	1 (3%)	0 (0%)	21 (58%) ^f
Total with effects	26 (72%)	7 (19%)	2 (6%)	36 (100%)

Note: Percentages may not sum to 100 due to rounding.

^a Favorable effects are defined as at least one favorable effect on education at any follow-up point, with no unfavorable effects.

^b Unfavorable effects are defined as at least one unfavorable effect on education at any follow-up point.

^c High quality ratings are reserved for randomized controlled trials (RCTs) with low attrition.

^d Moderate quality ratings are reserved for quasi-experimental design studies or RCTs with high attrition that establish equivalence on demographics and baseline outcomes, and that control for baseline outcomes.

^e Low quality ratings are for studies with confounds and studies that do not show comparison groups are equivalent.^f One study was rated low quality, but did not present actual effects (they only presented a graph) so we were unable to determine the nature of the effects.

Table 2

Percentage of high or moderate quality studies with effects on adolescent education, by primary program model

Primary program model	Favorable effects^a	No effects	Unfavorable effects^b	Total with each program type
	n (percent)	n (percent)	n (percent)	n (percent)
Home visiting	2 (13%)	4 (27%)	0 (0%)	6 (40%)
Educational or employment services	2 (13%)	1 (7%)	2 (13%)	5 (33%)
Parent training	2 (13%)	0 (0%)	0 (0%)	2 (13%)
Case-management	1 (7%)	1 (7%)	0 (0%)	2 (13%)
Total with effects	7 (47%)	6 (40%)	2 (13%)	15 (100%)

Note: Percentages may not sum to 100 due to rounding.

^a Favorable effects are defined as at least one favorable effect on education at any follow-up point, with no unfavorable effects.

^b Unfavorable effects are defined as at least one unfavorable effect on education at any follow-up point.

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