

The RealCare Baby Program

Evidence of Efficacy

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A Realityworks White Paper



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Executive Summary

Facing cutbacks in local and state funding, a large and growing number of U.S. organizations are looking to federal grants to help underwrite a variety of program additions and enhancements.

One of the most successful educational investments – used by nearly 8,000 districts and 4,200 health and service organizations nationwide – is the RealCare® Program developed by Realityworks.

Evidence collected over the years indicates that the program offers a highly effective approach to preventing teenage pregnancies and teaching parenting skills. For decision-makers who are considering the RealCare Program, the obvious question is: Does it meet the stringent evidence-based requirements tied to federal funding? The answer is “yes,” and through detailed research study findings, the answer will be supported in this paper. For information regarding specific research studies, see the appendix at the end of this paper.

Based on the aggregate research findings, the author affirms that the RealCare Program can play a central role in helping schools and communities reduce teenage pregnancies while teaching valuable parenting skills for use later in life. Moreover, the research findings present a strong case for the program’s evidence-based foundation, paving the way for the successful procurement of federal grants and other funding sources.

The Program

A proven approach to preventing teen pregnancies and teaching parenting skills

Since it was introduced by Realityworks in 1995, the RealCare Program¹ has become a staple in teen pregnancy prevention and parenting programs around the world.

Nearly 8,000 U.S. school districts (approximately 60 percent) and 4,200 health and service organizations provide access to this computerized infant simulator. Moreover, the product's reach now extends to a total of 47 countries.

The popularity of the RealCare Program may be traced to the uniquely realistic, interactive learning experience it offers.²

The Baby's appearance and behaviors replicate those of a real infant. In fact, his or her care needs are based on the actual experiences of parents who kept a diary of the feeding, diapering, rocking, burping, and other care-giving provided to their children.

Participants become sole caretakers of RealCare Babies around the clock, typically over a span of several days. When Baby cries, it's the caregiver's responsibility to promptly determine the reason and then provide the appropriate response.

Certain incidents, such as neglect, inadequate head support, shaking, rough handling, or incorrect positioning, will trigger intense crying, just as with a real infant. This negative feedback increases the intensity of the experience and motivates caregivers to improve their infant care skills.

Throughout the duration of a simulation, an internal computer records essential data about student performance and summarizes the data in a simple assessment of care provided to the simulator. This assessment data is used by the instructor and participant alike to measure performance and can be used to reflect on the learning experience.

Most importantly, students acquire real-life awareness and skills, including:

- How to keep a baby content
- How to properly handle a young, fragile body
- The true demands of caring for an infant
- The need for persistence, patience, and good organizational skills

A complementary set of 3 curricula, developed with input from experts in parenting, health, and education from across the country, explore the physical, emotional, social, and financial consequences of becoming pregnant and dealing with parenthood.

¹ The original version of the RealCare Program was called "Baby Think It Over."

² More detailed information about the RealCare Program is available at www.realityworks.com/infantsimulations/realcarebaby.asp

Acceptance and success are not enough

The RealCare Program has clearly demonstrated an impressive track record of success in a variety of educational facilities. Its commercial success is showcased in the continued use of the program by thousands of institutions around the world. For more than 15 years, facilitators have offered consistent feedback about how they have used the program to affect behavior and attitudes about teen pregnancy, pregnancy prevention, and the skills needed to be an effective parent.

At the same time, an exemplary commercial track record, by itself, may not be sufficient for facilities that depend on federal grant programs for these types of investments – increasingly the situation, as districts and organizations face funding cuts.

Many federal grant programs require educational programs to be “evidence based”³. The question is, does the RealCare Program meet the threshold for evidence based? The primary intent of the author is to answer this question.

Specifically, this white paper will present:

- An overview of the RealCare Program – how it works, why it’s unique and the skills typically gained by participants
- An in-depth examination of evidence-based principles – what governmental sources expect in a grant request for proposal, augmented by guidelines from other relevant sources
- How the RealCare Program measures up – from 16 research studies – key findings that support, in sum total, the program’s evidence-based proposition

In compiling these studies, which comprise the majority of this paper, the author sought a broad range of characteristics related to study participants, geographic location, types of research, how the results were measured, and other important variables.

How does one determine whether a program is evidence based? The next section of this paper examines key questions and guidelines to help gauge compliance with evidence-based criteria.

Evidence-Based Criteria

Using evidence-based principles to evaluate potential investments

Faced with a multitude of options, but constrained by funding limitations, organizations must make difficult decisions as to which activities, curricula, programs, and services to offer their clients and students.

This dilemma is magnified when the desired funding is a federal grant. In these instances, the potential investment should not only own a proven track record for effecting positive change, but it must exemplify evidence-based principles supported by research findings.

For example, one source, The United States Department of Education Grant Request for Proposal form, suggests the following four self-assessment questions to ask when developing evidence-based objectives to include in a grant proposal and plan:

³ Alternately known as “scientifically based,” “science based,” or “research based.”

1. Is the activity, program, or service based on a well-defined theory or model?
2. Is there sound research (quality and appropriateness of design, data collection, and analysis) to show evidence that the activity, curriculum, program, or service contributed to a desired outcome?
3. Given the community's risk and protective factors, can the activity, curriculum, program, or service be replicated with fidelity?
4. Is the program age, gender, and culturally appropriate for the selected population?

Another source, the Substance Abuse and Mental Health Services Administration (SAMHSA), further recommends that the application narrative contain sufficient information and data to support the effectiveness of the program or intervention. Citations may include, but are not limited to, statistical analyses or professional publications.

Lastly, the nonprofit research center, Child Trends, as well as other health-related agencies, offers this guideline for evaluating evidence-based programs: that they be reported in peer-reviewed journals or documented by other reliable sources. Besides showing positive effects on the primary targeted group, the consensus of informed experts should satisfy all of these requirements for an intervention:

- That it is based on a theory of change which is documented in a clearly logical or conceptual model
- That it is similar in content to interventions appearing in registries and/or peer-reviewed literature
- That its effective implementation is supported by documentation, multiple times, in a manner showing a consistent pattern of credible and positive effects
- That it is reviewed and deemed appropriate by a panel of informed experts, including:
 - Well-qualified researchers who are experienced in evaluating prevention interventions similar to those under review
 - Local prevention practitioners
 - Key community leaders, as appropriate (for example, officials from law enforcement, educators, or elders from indigenous cultures)

The Research:

Validating the effectiveness and evidence-based attributes of the RealCare Program

Over a span of several years a variety of experimental and quasi-experimental design studies have been conducted concerning the RealCare Program, including a pretest/posttest/follow-up survey for two criterion measures evaluating the attitudes and cognitive performance of the treatment and comparison groups to determine change towards teen pregnancy and parenting. Treatment group and control group statistical analysis and comparisons were also conducted. A majority of these research results were published in peer-reviewed professional journals.

The studies cited in this white paper evaluated a number of elements related to teen pregnancy, the onset of sexual activity, parenting, and other topics. Some of the studies encompassed the use of contraceptives, attitudinal and behavioral changes in adolescents, sexually-transmitted diseases, and abstinence education.

As the research findings on the following pages will show, the RealCare Program, in combination with a structured curriculum for teenage pregnancy prevention, has repeatedly proved its effectiveness and, over a period of years, has established strong evidence-based attributes.

Research characteristics

In aggregate, the research studies cited here exhibit the following characteristics, which help to justify evidence-based conclusions:

- Written by informed experts in the field
- Published in peer-reviewed professional journals, as a master's thesis or as a doctoral dissertation
- Covered both female and male adolescents from a variety of racial groups including Caucasian, African-American, Hispanic, American Indian, and Asian
- Included low-income, non-English speaking, and disabled participants
- Encompassed a variety of urban and rural regions and both public and private schools
- Included longitudinal evaluations, cross-sectional studies, and focus groups
- Included data collected from structured and unstructured surveys
- Included responses from participants, their parents, and facilitators
- Used control and treatment groups, with random assignments to each group
- Used a variety of sample treatment group sizes (less than 100, more than 100, and more than 250)
- Included statistical analysis and pre- and post-test comparisons of data
- Included statistical significance testing and conclusions
- Measured positive changes in attitudes and behavior
- Measured results over time

Conclusions

For more and more organizations, federal grants and other funding sources are becoming an important ingredient in the purchase of investments such as the RealCare Program from Realityworks.

Before proceeding down the grant procurement pathway, however, decision makers must ascertain:

- 1) whether the program is effective and will equip them to achieve their intended objectives; and
- 2) whether the program is evidence based, one of the key eligibility requirements for a federal grant.

Reviewing the previously discussed research studies in their entirety, one can conclude that the RealCare Program meets both criteria.

This conclusion is supported by specific key findings replicated through several of the research studies. Specifically, participants were more likely than non-participants to:

- Postpone sexual relations and parenthood
- Use birth control or other means to prevent pregnancy
- Appreciate the demands, time commitment, and costs associated with having a child
- Understand that raising a child affects quality of life and makes it difficult to continue an education
- Communicate with their parents about parenting and sexuality issues

Overall, researchers have concluded that the use of the Realityworks infant simulator with a comprehensive curriculum has an immediate and lasting impact on aspirations of participants to become a parent, the effects of teen pregnancy, the onset of sexual relations, attitudes towards contraceptive usage and postponing pregnancy, and has opened discussions with parents about sex and becoming a parent.

The survey results are very supportive, with adolescents recognizing the difficulty of caring for an infant and understanding the importance of delaying parenthood.

Both the results of the data analyses and the adolescents' own evaluation confirm the effectiveness of the RealCare Program intervention in changing perceptions regarding the time and effort involved in caring for an infant, and in recognizing the significant effect having a baby has on all major aspects of one's life.

Statistically significant gains were found on the total score and the impact of having a baby on academics, social life, and other family members; emotional risks; understanding and handling an infant's crying; and apprehension of the amount of responsibility involved in infant care.

Validation beyond the research

An evaluation of the RealCare Program would not be complete without considering other supporting evidence.

The sheer number of educators – more than 35,000 – who are active RealCare users speaks volumes about the effectiveness of the program. In addition, more than 134,000 RealCare Babies are currently used in over 8,000 U.S. school districts and over 4,200 health and service organizations; 34,000 additional Babies are used in 46 other countries. From customer organizations, Realityworks has received a wealth of anecdotal testimony to support the program.

This successful program has caught the attention of several venerable institutions, including the HORIZON Solutions Site (www.solutions-site.org), a collaboration of the United Nations Environment Program, the United Nations Development Program, the United Nations Population Fund, the United Nations Children's Fund (UNICEF), HORIZON's colleagues at Harvard University and Yale University, and the International Development Research Centre (IDRC) of Canada. The RealCare Program is listed in the site's best practices documentation.

Lastly, the RealCare Program, the company and its founders have received extensive editorial coverage as well as numerous prestigious awards, including:

- Fortune Magazine “Product of the Year,” 1994
- Parenting Magazine “Parenting Achievement Award,” 1995
- What’s New in Home Economics “Healthy Living Award,” 1995
- “Freedom Foundation Award,” 1996
- What’s New in Home Economics, Family & Consumer Sciences “Healthy Living Award,” 1996-97
- What’s New Magazine “Awards Portfolio,” 2000
- Media & Methods Magazine “Awards Portfolio,” 2000 and 2002
- Product Design and Development Magazine “Product Design and Development Engineering Awards,” (Sixth Place) 2001
- Ernst and Young “Entrepreneur Of The Year” finalist, 2000-02
- “Entrepreneurial Leader Of The Year,” 2001
- 2001 “Small Business Person Of The Year,” City of Eau Claire
- “Wisconsin Entrepreneurial Woman Of The Year,” 2001
- “Wisconsin Manufacturer Of The Year Social Impact Award,” 2001
- “Northwestern Wisconsin American Business Ethics Award” finalist, 2001-02
- “Wisconsin Small Business Person of the Year,” 2002
- “National Small Business Person of the Year,” 2002
- State of Wisconsin “Governor’s Export Achievement Award,” 2002
- Communicator Awards “Print Media Award of Distinction,” 2003

The RealCare Program has also been approved by the following organizations for adoption or endorsement as educational resources by:

- Teenwise (formerly known as the Minnesota Organization on Adolescent Pregnancy, Prevention and Parenting) has reviewed and chosen the Healthy Choices curriculum (from the RealCare Program) as a ‘recommended resource’
- Idaho State Department of Education (8/1/09 – 12/31/15)
- Alabama Department of Education (6/1/10 – 5/31/16)
- Utah State Office of Education (7/1/09 – 6/30/14)

About the Author

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About Realityworks

Realityworks, Inc. is the leader in experiential learning technology and creator of the world's first computerized infant care simulators, used around the world to teach life skills and prevent adolescent pregnancy. The company was founded in 1994 with a goal of providing students with realistic learning experiences. Realityworks' technology and programs are used by educators in career and technical education, family and consumer science, and health in public and private school settings, as well as in healthcare, social services, corrections, and other instructional settings worldwide. Realityworks products combine technology with hands-on simulations to create unforgettable learning experiences for educators and students alike.

For more information about the company or the RealCare Program, visit www.realityworks.com. Inquiries may be directed to 800.830.1416 or information@realityworks.com.

Appendix

Barnett, J.E. et al. (2004). “Do Adolescents Take ‘Baby Think It Over’ Seriously?” *Adolescence*, 39(153), 65-76

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| Intervention | Infant simulator/sexual education program. Simulators were used for a 48-hour period during the school week for eighth graders. For tenth graders, simulators were used for a 72-hour period. |
| Design/Sample | A survey was conducted at the end of the program on all participants (277 eighth graders, f=148, m=129; 102 tenth graders, f=71, m=31). |
| Key Outcome Measure | Attitudes toward the infant simulator, parenting, and sex. |
| Key Findings | Chi square goodness of fit test showed that students were supportive of the infant simulator, recognized the difficulty of caring for an infant, and understood the importance of delaying parenthood, as indicated by each of the eight simulator survey items, $ps < .01$. The highlights of the findings were: a) 76 percent reported the simulator helped them decide to wait to have children; b) 65 percent reported that the simulator made them more likely to postpone having sex; c) 84 percent disagreed that the simulator made them want to become a teenage parent; and d) 87 percent disagreed that the simulator made them realize they are ready to become a parent. |

de Anda, D. (2006). “Baby Think It Over: Evaluation of an Infant Simulation Intervention for Adolescent Pregnancy Prevention” *Health & Social Work*, 31(1), 26-35

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| Intervention | To measure the impact the infant care simulator intervention had on students’ academic and social life, and postponing parenting. |
| Design/Sample | Experimental design with repeated measures pre-test and post-test on 353 ninth-grade Latino students. |
| Key Outcome Measure | Perceptions and intentions about the time involved and consequences of having a child, pregnancy prevention, and postponement of having a child. |
| Key Findings | Statistically significant gains ($ps < .001$) were found from pretest to posttest on all but one of the paired t test analyses including: a greater recognition of the impact of caring for a baby on academic and social life; a greater recognition of the effect of adolescent parenthood on other family members; and a greater recognition of the emotional risks accompanying adolescent parenthood. Even for statistically non-significant results, the trend was a greater recognition of cultural and family values on adolescent parenthood. |

The findings also found a significant increase in the length of time that adolescents planned to postpone parenthood, $p < .001$, and a significant increase on factors related to postponing pregnancy to achieve academic and career goals.

Regarding the perceptions and behaviors as a result of carrying the simulated infant, students reported that it delayed the age at which they desired to have a child, from a mean of 23 to 25 years, $p < .001$; more than half of the respondents (55.6%) reported affirmatively that the simulator changed their perceptions of what having a baby would be like, $p < .001$; nearly two-thirds (58.3%) reported that the simulator helped change their minds about using birth control or protection to prevent unwanted pregnancies, $p < .001$. Reported use of birth control or protection increased from 22.2 percent to 28.7 percent, $p < .001$. In conclusion, the students appeared to have made a strong connection between unprotected sexual intercourse and what they now evaluate as a negative outcome, having to care for a demanding infant and the subsequent social, emotional, and academic costs.

Didion, J., et al. (2004). “The Baby Think It Over Experience to Prevent Teen Pregnancy: A Postintervention Evaluation”
Public Health Nursing, 21(4), 331-337

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| Intervention | A community-level adolescent pregnancy prevention intervention called the “In Your Care” curriculum (a three-day program) was carried out with the infant care simulators. |
| Design/Sample | Longitudinal study to conduct an outcome evaluation of pregnancy prevention program that used infant care simulators for 200 eleventh graders who participated in the study as an eighth or ninth grader and were followed up over two to three years. |
| Key Outcome Measure | Attitudes, actual and intended sexual practices and feelings. |
| Key Findings | <p>Chi square and t test results showed that overall, the survey results and focus group data indicate that students in this sample believed the consequences of pregnancy and teen parenthood to be negative, $p < .01$.</p> <p>Forty-eight percent of adolescents reported having postponed intercourse to prevent pregnancy, $p < .01$. In addition, those students who reported having made a decision not to have intercourse had significantly lower risks of smoking, alcohol use, driving after drinking, physical fighting, etc. than those having made a decision to have intercourse, $p < .01$.</p> <p>The findings suggest that simulated experiences can be a powerful strategy for effective learning about complex decisions regarding the risks of sexual activity and the realities of parenting.</p> |

Hillman, C.B. (2000). “The Effectiveness of an Infant Simulator as a Deterrent to Teen Pregnancy Among Middle School Students”
Doctoral Dissertation, University of North Texas

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| Intervention | Longitudinal studies to determine the effectiveness of a computerized infant care simulator as a deterrent to adolescent pregnancy. |
| Design/Sample | A total of 221 eighth-grade females participated in the longitudinal study. |
| Key Outcome Measure | Postponing the onset of pregnancies for those students who participated in the parenting simulation. |
| Key Findings | Ordinary linear regression and survival analysis were conducted on the data. The mean survival time for the treatment group was 7.4 times (or 11.5 months) longer than the mean survival time for the control group, $p < .05$. The survival results provided strong evidence that the computerized infant care simulator was highly effective in postponing the onset of pregnancies for those students who participated in the parenting simulation. |

McCowan, R.J., et al. (2009). "Using Infant Simulation to Reduce Pregnancy Among High School Students"
The Health Educator, 41(1), 35-42

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| Intervention | The effect of using infant care simulators on sexuality, child care attitudes, and knowledge. |
| Design/Sample | A quasi-experimental design with control and treatment groups and longitudinal follow-up with 309 ninth to twelfth grade students, including Caucasians, Hispanics, African Americans, and Asians. |
| Key Outcome Measure | Impact on student attitudes toward sexuality and pregnancy, knowledge, and competence regarding child care. A hands-on, practical experience. |
| Key Findings | <p>Chi square tests and analysis of variance (ANOVA) were used to compare the results. Results indicated that the treatment group surpassed significantly ($p < .05$) the comparison group on attitudes and cognitive achievement on the post-test, and these differences were maintained on the follow-up, specifically in the following:</p> <ul style="list-style-type: none"> • Using the infant care simulator improved attitudes toward sexuality and pregnancy, as well as knowledge and competence regarding child care immediately following the course, and that these attitudes continued to improve over time, $p < .05$. • Using an infant care simulator was effective in promoting more responsible behavior (e.g., "I would be upset if I [or my girlfriend] was pregnant," "Teenagers should abstain from sexual behaviors"), and use showed a significant change in a positive direction, $p < .05$. • Using an infant care simulator can improve the ability of adolescents to deal with the realities of pregnancy and child care, $p < .05$. |

Moody, Laura Beth (1999). "The Effects of Role-play and Simulation as Pregnancy Prevention Strategies on Knowledge and Attitude of African-American Adolescents in an Urban Community"
 Master's Thesis, Grand Valley State University

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| Intervention | Using the infant care simulator and curriculum programs to determine attitudes toward having a baby and the risk factors associated with pre-marital sex. |
| Design/Sample | A quasi-experimental design was adopted with pre- and posttests for 30 African-American students. |
| Key Outcome Measure | Knowledge and attitudes toward teen pregnancy. |
| Key Findings | The t test showed that the experimental group was significantly more realistic in post-test attitudes toward teen pregnancy than the control group, $p < .05$. |

Out, J.W., et al. (2001). “Baby Think It Over: Using Role-Play to Prevent Teen Pregnancy”
Adolescence, 36(143), 571-582

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| Intervention | Using infant care simulator role play to prevent susceptibility to an unplanned teen pregnancy. |
| Design/Sample | Experimental study: comparison and intervention groups, pre- and post-test on 114 eleventh-grade students. |
| Key Outcome Measure | Assessing attitudes, behaviors, and knowledge related to contraception and fertility. |
| Key Findings | A multivariate analysis of variance (MANOVA) of data indicated that compared to the control groups, adolescents in the intervention group were more likely to accurately assess their personal risks for an unplanned pregnancy and more likely to acknowledge that failure to use contraceptives during intercourse increases one’s personal risks for becoming involved in an unplanned pregnancy, $p < .01$. |

Price, J. et al. (2000). “Rural Parents’ Perceptions of the Baby Think It Over Program – A Pilot Study”
American Journal of Health Studies, 16(1), 34-40

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| Intervention | A one-week teen pregnancy prevention program using the infant care simulator was implemented in rural junior high schools. |
| Design/Sample | A total of 220 students participated in the study. The parents of students who made the most gain and the least gain were surveyed after the program was conducted. |
| Key Outcome Measure | Attitudes towards the infant simulator and the program. Behavior changes in communication and care of infants. |
| Key Findings | A series of chi square analyses found that parents (65%) perceived communication between them and their children on parenting and sexuality issues was improved by the intervention, $p < .05$. The majority of the parents (about 90%) perceived that the infant care simulator program had very positive effects on their child (e.g. increased awareness that a baby is a lot of responsibility, is time-consuming, and could keep them from reaching their goals in life), and they said they would recommend the program to a friend. |

Roberts, S.W. et al (2004). “The Effectiveness of Infant Simulators”
Adolescence, 39(155), 476-487

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| Intervention | The effect of using infant care simulators with a five-week structured, competency-based curriculum. |
| Design/Sample | Experimental study with intervention and control groups, and pre/posttests with a total of 236 students aged 14 to 18 from New York State. |
| Key Outcome Measure | Attitudes toward sexuality and parenting issues. |
| Key Findings | <p>A multivariate analysis of variance (MANOVA) and chi square analyses of data found the experimental group was more likely to agree ($p < .05$) than the control group with statements like “It is very important to be married before having children;” “Children of teenagers are not as well cared for as children of older parents;” “I would be very upset if I became pregnant (or my girlfriend was pregnant).”</p> <p>Overall, the findings indicate that the infant care simulator was an effective tool for teaching child care skills. When combined with a well-designed curriculum, it enhances the likelihood that student attitudes toward sexuality/parenting issues can be significantly modified. The simulator used with a comprehensive curriculum reinforced these key concepts:</p> <ul style="list-style-type: none"> • Parenting is a skill that takes time and patience to learn. • Teenagers cannot afford to raise a baby. • Raising a child and continuing an education are difficult. • Teenagers should abstain from sexual behaviors. |

Somers, C.L., and Fahlman, M.M. (2001). “Effectiveness of the ‘Baby Think It Over’ Teen Pregnancy Prevention Program”
Journal of School Health, 71(5), 188-195

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| Intervention | To determine if the infant care simulator changes teens’ attitudes toward parenting, as well as sexual and contraceptive behaviors linked to teen pregnancy. |
| Design/Sample | A quasi-experimental design, with a control group (N=62) and an experimental group (N=151) and pre/posttests. |
| Key Outcome Measure | Attitudinal and sexual behavior measures. |
| Key Findings | <p>This study was interested in how students responded to open-ended questions. To the question, “How has the infant care simulator specifically influenced your attitudes about becoming pregnant at this point in your life?” the responses were: 34 percent indicated “I am a little more concerned about becoming pregnant as a teenager,” and 29 percent indicated “It has made me totally afraid of having a child right now.” To the question, “How has the infant care simulator specifically influenced your attitudes and feelings about pregnancy?” the responses were: 38 percent indicated “I don’t want to be pregnant.”</p> |

Somers, C.L., Gleason, J.H., et al. (2001). “Adolescents’ and Teachers’ Perceptions of a Teen Pregnancy Prevention Program”
American Secondary Education, 29(3), 51-66

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| Intervention | To evaluate the effectiveness of a computerized infant care simulator used as a teen pregnancy prevention program. |
| Design/Sample | A total of 147 school students from the Midwest and Mideast, ninth through twelfth graders, participated in the pilot that included experimental and control groups. Pre- and posttest, quasi-experimental methodology. |
| Key Outcome Measure | Sex knowledge and attitudes test for adolescents and teachers were measured. Attitudes and actual sexual and contraceptive behaviors. |
| Key Findings | A multivariate analysis of variance (MANOVA) of pre/posttest data found students in the experimental group agreed more with “It is important to use birth control to avoid pregnancy,” ($p < .01$), and “The quality of life would be affected as a teen parent,” ($p < .05$). Overall, these results, together with the posttest narratives, provide hope that the simulated child-rearing experience can offer some contribution to the deterrence of teen pregnancy. |

Somers, C.L. (2006). “Teenage Pregnancy Prevention and Adolescents’ Sexual Outcomes: an Experiential Approach”
American Secondary Education, 34(2), 4-24

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| Intervention | Evaluates the effectiveness of an experiential approach to teen pregnancy prevention called “Baby Think It Over.” |
| Design/Sample | A total of 150 eleventh and twelfth grade students participated in this quasi-experimental study with experimental and control groups. |
| Key Outcome Measure | Adolescents’ attitudes and behaviors regarding teen pregnancy and sexuality; and actual sexual and contraceptive behaviors. |
| Key Findings | In open-ended narrative questions, students were asked to describe what the infant care simulator program taught them. A very large number of students identified that being a parent is time-consuming, a lot of responsibility, and expensive, and that being a teen parent will keep them from meeting future goals. When directly asked about how the program specifically influenced their attitudes about becoming parents at this time in their lives, 88 percent reported becoming either a little more or definitely concerned about becoming pregnant as a teenager. |

Somers, C.L. et al. (2002). “A Measure for Evaluating the Effectiveness of Teen Pregnancy Prevention Programs”

Psychology in the Schools, 39(3), 337-342

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| Intervention | To measure teens’ attitudes and intentions regarding teenage pregnancy, using the 16-item Teen Attitude Pregnancy Scale (TAPS). |
| Design/Sample | A total of 47 high school students participated in this evaluation study. |
| Key Outcome Measure | Assess the psychometrics of the survey instrument for the “Baby Think It Over” teen pregnancy prevention program. |
| Key Findings | This study presented an instrument designed to permit researchers to evaluate the infant care simulator program’s effectiveness. Psychometric data indicated that the instrument has strong evidence of internal consistency (alpha coefficient=.73). Test-retest reliability was adequate for the four subscales ranging from .68 to .82. Though this study did not investigate the effect of the simulator program on teenage pregnancy prevention, it contains empirical results regarding instrument reliability and thus provides the support of findings using program surveys. |

Strachan, W. et al. (1997). “Infant Simulator Lifespace Intervention: Pilot Investigation of an Adolescent Pregnancy Prevention Program”

Child and Adolescent Social Work Journal, 14(3), 171-180

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| Intervention | Evaluation of the infant care simulator program and another pregnancy prevention program. |
| Design/Sample | A quasi-experimental study: multiple interventions and control group; designed (N=48) for two public schools. |
| Key Outcome Measure | Intervention on adolescents attitudes and beliefs about parenting. |
| Key Findings | After the intervention, the Parental Attitude Scale scores for the intervention group were substantially higher than the comparison group (4.91 vs. 4.19), though it was not statistically significant due to the small statistical power. The prevalence of scoring in the high attitude range at post-test was more than two-fold greater within the infant care simulator group (83%) versus the comparison group (40%). |

Tingle, L. R. (2002). "Evaluation of the North Carolina 'Baby Think It Over' Project"
Journal of School Health, 72(5), 178-183

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| Intervention | North Carolina evaluation project for students, parents, and teachers. |
| Design/Sample | Evaluation. Comparison groups throughout the state selected with 431 students, 299 parents, and 22 teachers. |
| Key Outcome Measure | Measured attitudes, beliefs, and perceptions of teenage parenthood, increased family communications using student, parent and teacher surveys. Included a total of 431 students (average age=15.5) from North Carolina. |
| Key Findings | <p>From the student survey, paired t tests on the constructs across data collection time periods revealed that beliefs were significantly improved, $p < .01$. The nonparametric Wilcoxin statistic revealed positive changes on "being a teen parent would reduce my social life," $p < .01$, and "by having a baby as a teenager, I could start my own home," $p < .05$.</p> <p>From the parent survey, when asked if the program increased communication on sexuality and parenting issues between the parent and child, 71 percent said "yes." Most parents felt that the program had an effect on their child's perceptions of parenting as time-consuming (96%), expensive (91%), and a lot of responsibility (98%).</p> <p>From the teacher survey, when asked to assess perceptions of effectiveness of the program at preventing pregnancies, 23 percent indicated "very effective," and 59 percent indicated "somewhat effective." When asked if they believed the program changed the attitudes of high-risk teens, 27 percent responded "very effective," and 59 percent responded "somewhat effective."</p> |
