The Effect of Parenthood Education on Self-Efficacy and Parent Effectiveness in an Alternative High School Student Population

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Adolescents defined as at-risk typically lack healthy models of parenting and receive no parenthood education prior to assuming the parenting role. Unless a proactive approach is implemented, the cyclic pattern of dysfunctional parenting— including higher rates of teen pregnancy, increased childhood abuse, low educational attainment, intergenerational poverty, and lack of steady employment—will continue. Parenthood education seeks to remediate this recurring cycle with at-risk youth before they become parents. Eighty-two alternative school students, grades 7 through 12, were randomly assigned to either an experimental or control group. After the experimental group completed a 16-session parenthood education program, differences between the two groups were tested using two measures: the Self-Efficacy Scale and the Parent Effectiveness Measure. Two-way ANOVA analyses showed statistical significance between the primary caregivers in the experimental and control group on the social self-efficacy and parent effectiveness measures. Implications and suggestions for further research are discussed.

Keywords: parenthood education, pre-pregnancy prevention, at-risk youth, social self-efficacy, parental effectiveness

At-risk adolescents typically lack the resources and background to build a strong foundation for parenthood. Often these adolescents do not have appropriate models of parenting, which potentially account for higher rates of teen pregnancies, higher incidences of childhood abuse or neglect, lack of self-efficacy, and low socio-economic status (Bifulco et al., 2002; Coleman & Karraker, 1997; Donenberg, Wilson, Emerson, & Bryant, 2002; Herrenkohl, Herrenkohl, & Egolf, 2003; Griffin, 1998; Helge, 1991, 1990; Herrenkohl, Herrenkohl, Rupert, Egolf, & Lutz, 1995; Massey, 1998; National Campaign to Prevent Teen Pregnancy [NCPTP], 2002; Shumow & Lomax, 2002). Without some type of intervention, at-risk adolescents may be prone to developing the same unhealthy patterns they experienced in their own upbringing and continue the cycle of poor parenting. Minet (1985) suggests parental patterns are reproduced across generations. For example, studies have found that 40% of mothers who were abused or neglected as children maltreated their own children, another 30% provided borderline care (Cowen, 2001), and over 22% of adolescent females that were born to a teenage mother will become teen parents themselves (Terry & Manlove, 2000). In the absence of more effective options, cyclic dysfunction may ensue. Education programs may provide a catalyst to learn positive parenting techniques and skills from sources outside one's own upbringing (Reppucci, Britner, & Woolard, 1997) and to increase one's sense of self-efficacy (Bandura, Adams, Hardy, & Howells, 1980; Griffith, 2002; Leerkes & Crockenberg, 2002). A program that enhances student self-efficacy may lead to increased motivation and a transfer of efficacious beliefs to other domains in participants' lives (Bandura, 1982). This study examined the effect of a parenthood education program with at-risk alternative school adolescents on a measure of self-efficacy, parent effectiveness, and the parent-child relationship.

Cost to Society

Continuing the cycle of poor parenting comes with a great price tag to society. A host of societal problems—school failure, child abuse and neglect, substance abuse, assaultive behavior, intergenerational poverty, single mother births, welfare dependency, workforce underdevelopment, absent fathers and low self-efficacy—have all been shown to be closely associated with teen pregnancy (Herrenkohl et al., 2003; Massey, 1998; NCPTP, 2002). Financially, teen parenthood results in a considerable cost to local, state and national governments. The welfare costs for families started by a teen birth have been estimated at $25 billion in one year nationally (Herrenkohl, Herrenkohl, Egolf, & Russo, 1998),

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while almost 60% of the expenditures for another federal program, Aid to Families with Dependent Children (AFDC) go to single mothers who had their first child while a teenager (Dorrell, 1994). One cost benefit analysis suggests the government could increase spending on teen pregnancy prevention to eight times the current amount and still break even (Sawhill, 2001, 2007).

Although these figures are significant, the social-emotional burden is even more alarming. Without proper preparation to learn the skills needed for the challenges of childrearing, parents are highly likely to default to inappropriate coping mechanisms, such as violent behaviors. In the United States, 8,042 children are reported abused or neglected every day, more than 3.25 million annually; nearly four children die each day as a result of child abuse or neglect (Hopper, 2005; Massey, 1998). Education is an essential part of the foundation of our society; a violent or abusive environment undermines a student's ability to learn and the damage is not easily repaired (Prothrow-Stith & Quaday, 1995; Swick & Williams, 2006). Clearly, the ongoing, multifaceted cost to society is difficult to calculate.

Although decline in teen pregnancy and birth rates recently exists (Flanigan, 2001), the United States still has the highest rates of teen pregnancy, teen births, and teen abortion in the fully industrialized world. There are nearly half a million teen births annually; each hour nearly 100 teen girls become pregnant and 55 give birth (U.S. Department of Health & Human Services, 2002; Ventura, Mathews, & Hamilton, 2002). Four in ten young women become pregnant at least once before age 20 and nearly 40% of these are age 17 or younger (NCPTP, 2002). The NCPTP (2005) reports 35% of teen girls become pregnant at least once as a teen—850,000 annually. Moreover, more teens are sexually active earlier. In a recent study (see Pearson, Muller, & Frisco, 2006; Terry & Manlove, 2000), 8.3% of students report having sex before age 13, a 15% increase since 1997. There was a 3% increase in teen pregnancy rates between 2005 and 2006 (NCPTP, 2011). If current fertility rates remain constant, the number of pregnancies and births among teenagers will increase 26% by 2010 (NCPTP, 2002). Collectively, the effects of teenage parenting have become a national crisis. Research, as well as politicians and national, state, and local initiatives and campaigns have embraced some aspect of the teen pregnancy agenda. In his 1995 State of the Union address, former President Bill Clinton declared teen pregnancy the most serious social problem facing the country.

Adolescent pregnancy continues to be a cycle of dependency and poverty. According to the U.S. Department of Commerce children of unmarried teenage mothers experience long-term abject poverty four times as often as children from other families (U.S. Department of Commerce, 1990) and two-thirds of families begun by young unmarried mothers are poor (NCPTP, 2002). Recent research found that unmarried teen mothers had a 43% lower income-to-need ratio, were 2.8 times more likely to be poor and 1.4 times more likely to receive government welfare benefits than were non-teen mothers or married teen mothers (Bissell, 2000). The NCPTP (2005) reports that 52% of all mothers on welfare had their first child as a teenager, and teen mothers are twice as likely to become dependent on welfare than their counterparts—nearly 80% of unmarried teen mothers are on welfare (Dorrell,1994).

Unremitting poverty is not the only issue of teenage parenthood; education and employment are affected as well. Less than 4 of 10 teen mothers who have a child before age 18 ever complete high school (Hotz, McElroy, & Sanders, 1997, 2005), with school dropouts six times more likely to become unmarried parents than their graduated counterparts (Dorrell, 1994). Moreover, about one-fourth of teenage mothers have a second child within 24 months of the first birth, which can further impede their ability to finish school, obtain or maintain a job, or escape poverty (Kalmuss & Namerow, 1994; Raneri & Wiemann, 2007). Without a high school diploma, the economic outlook is bleak: according to the 2003 U.S. Census Bureau, the median income for college graduates increased 13% in the past 25 years, while median income for high school dropouts decreased 30%. Teen mothers are more likely to work at low-paying jobs, experience longer periods of unemployment, receive welfare benefits, experience single parenthood, and live in high poverty compared to mothers who do not have a child in their teen years (Bissell, 2000). Even if a teen parent finishes high school, earnings are nearly 20% less annually than that of those completing some college courses, and at least 75% less annually than those who complete a bachelor's degree—almost $1 million less in lifetime earnings (U.S. Census Bureau, 2003).

The Cycle Continues

If more children were born to parents who are ready and able to care for them, there would be a significant reduction in the social problems afflicting children—from school failure and crime to child abuse, neglect and poverty (NCPTP, 2002). The outcome for many children of teen parents is grim: children of teen mothers are 50% more likely to repeat a grade,

less likely to complete high school, and perform lower on standardized tests than children born to older parents (NCPTP, 2002). One in five children in the U.S. lives with a mother who has not completed high school; the chances of that child dropping out of school are two to three times higher than those of a child whose mother has graduated (Dorrell, 1994). The sons of teen mothers are 13% more likely to end up in prison and the daughters of teen mothers are 22% more likely to become teen mothers themselves (Terry & Manlove, 2000). An adolescent single parent is the best single predictor that a child will live in poverty (Griffin, 1998).

A 2002 study by Johnson, Cohen, Kasen, Smailes, and Brook found maladaptive or adverse parental behavior (classified as hostile, abusive, or neglectful) significantly associated with subsequent disorders experienced by offspring, including anxiety, depression, substance abuse, and disruptive disorders. Abused or neglected children tend to perform poorly in school, lack the social skills that lead to inclusion in conventional peer groups, exhibit low self-esteem and experience increased levels of depression (Smith, 1996). According to a study sponsored by the National Institute of Justice (NIJ), abuse or neglect in childhood increases the likelihood of arrest as a juvenile by 53% (by 77% for females) and violent crime by 38% ("April is Child Abuse Prevention Month," 2005). Another study found that disruptive behavior disorders in children are linked to negative parenting (Frick, Christian, & Wootton, 1999). As Prevatt (2003) concludes, these studies have consistently confirmed a direct correlation between parenting practices and developmental outcomes. The cycle is relentlessly repetitive.

When examining the childhood of teen parents, Herrenkohl et al. (1998) found that 96% of teen mothers and 97% of teen fathers had been abused or neglected as children, and a statistically significant number of teen parents were rated as lacking in self-confidence by their elementary school teacher. These adolescents exhibit a passive acceptance of their future and seem to believe nothing will change, despite their best efforts to the contrary (Griffin, 1998). This recurring cycle creates an overwhelming sense of hopelessness that can appear insurmountable to at-risk adolescents lacking in healthy supports and skills. Instead of reacting to the interminable products of this complex social problem, a proactive, preventive approach to intervention, which is both logical and cost-effective, may provide an enduring solution.

Parenthood Education Programs

Program rationale. In order to decrease the likelihood of teen pregnancy, increase self-efficacy, stop the cycle of childhood abuse, increase high school retention, improve the outlook of long-term employment, and increase parent effectiveness, a creative prevention program is necessary. One such approach is to integrate a proactive parenthood education program into the school curriculum to provide adolescents with focused educational intervention before they become parents. The public school systems are natural catchment areas, bringing together the majority of children and adolescents residing in a given community in a learning environment where didactic teaching is expected (Herz, Goldberg, & Reis, 1984). There is support for integrating programs that prepare "the next generation of parents" and recommendations from prior research have included adapting programs for inclusion in the school curriculum (Bissell, 2000; Cutting & Tammi, 1999; Dorrell, 1994; Griffith, 2002; Helge, 1989, 1991; Herz, Goldberg, & Reis, 1984; Jacobson, 2001; Rutgers, The State University, 1979; Stanberry & Stanberry, 1994; Stirtzinger et al., 2002).

Program description. A parenthood education program is comprised of a pre-service intervention through which adolescents are provided fundamental information regarding the role of "parent"—the skills, responsibilities, and time commitment required of a healthy functioning parent, appropriate parenting models, and positive, strength-focused parenting strategies. An effective parenthood education program repairs and reconstructs the lens through which at-risk adolescents see the parenting role, one that has typically been adversely impacted by their dysfunctional models. The adolescent is enabled to prepare more realistically for eventual parenting responsibilities and build a more effective relationship with their current parent/caregiver (Cutting & Tammi, 1999). Parenthood education aims to equip students with the skills necessary to make informed choices and a greater awareness of the responsibilities and implications of becoming a parent.

Prior programs. Relatively scant empirical literature exists on proactive parenthood education programs. A thorough review of the literature produced studies with three different types of programs. One study involving 7th and 8th grade students (ages 11–15) in two inner-city Chicago schools observed positive changes from pretest to posttest in the experimental group. The study measured the impact of a family life education program, for which the goals were twofold: reducing the risk of pregnancy by helping young teens develop a positive self-image, and promoting responsible sexual

and contraceptive decision making. Program participants exhibited "(a) improved knowledge about contraception, reproductive physiology, and adolescent pregnancy outcomes; (b) increased awareness of the existence of specific birth control methods; (c) among seventh graders, more conservative attitudes toward circumstances under which sexual intercourse was viewed as personally acceptable, and among eighth graders, a shift toward more liberal attitudes; and (d) a greater tendency to acknowledge mutual responsibility for contraception" (Herz, Goldberg, & Reis, 1984, p. 309).

A second parenthood education program was developed as part of *Save the Children*, Scotland's 3-year Positive Parenting Project in Angus, a rural school in North East Scotland. The participants were ages 13–14, labeled Year 2 level in Scotland. Goals were: increase the quality of life for the next generation of families; improve the way young people handle life within their own families; help develop young people's communication skills in all their relationships; and establish good parenting as the foundation for other aspects of personal and social education (i.e., drug awareness, environmental education, and community involvement). Although not an experimental study, the conclusion was that the program had a positive impact on students by helping them think more objectively about the parenting role and concurrent responsibilities of parenthood (Cutting & Tammi, 1999).

A third study examined the longitudinal effects of an Adolescent Development Program on participants in Trinidad, Spain, 10 years after participation. The 3-month program was designed to develop the social and academic skills of adolescents ages 16 to 19, and focused on self-understanding, parenting skills, overcoming everyday problems, and increasing motivation to better equip themselves with marketable skills. Qualitative findings, gathered through follow-up surveys, indicated participants benefited from the program in several ways: they became better parents, improved communication with their own parents, developed higher levels of self-esteem, and female participants postponed childbearing (Griffith, 2002). While these studies have been important in showing that parenthood education programs can be influential with adolescents, there is a gap in experimental research with the at-risk high school population in the U.S.

An alternative school population. This study was designed to expand the body of knowledge and address the identified gap in current literature by quantifying the results of a parenthood education program with one of the more needy populations—pre-pregnancy, pre-parenting alternative school students. Research is plentiful on parenting education programs geared toward teen parents, a necessary, albeit reactionary course of action. Alternately, this study implemented a parenthood education program with alternative school students prior to parenthood. Alternative school adolescents are plagued with countless obstacles—low self-efficacy, substance abuse, poverty, child abuse, school failure, employment barriers, teen pregnancy—as a result of recurring intergenerational cycles (Barr & Parrett, 2003; Payne, 2003). Without proactive intervention, the cycle is bound to continue indefinitely and outlook for improvement is dim. These challenges were addressed in this study by exploring the following research questions: Would a parenthood education program integrated into an alternative school curriculum produce student participants who (a) demonstrate higher self-efficacy, (b) believe they are more prepared to be effective parents, and (c) evidence increased empathy for their current parent/caregiver, thereby improving the student's appreciation for the parent-child relationship?

Methodology

Participants

The participants for this study were 82 students, grades 7th through 12th ($M = 9.93$, $SD = 1.44$), from an alternative school located in a rural community of a northwest state. Participants included 37 females and 45 males ranging from 13 to 20 years of age ($M = 15.73$, $SD = 1.66$). Sixty-five of the participants (79%) came from a home with a female primary caregiver, while 17 (21%) were from a family with a male primary caregiver. Additionally, 50 (61%) had a one-parent family, 27 (33%) had a two-parent family, and five (6%) were not living with a parent. The breakdown of the demographic characteristics by experimental and control group are displayed below.

Table 1

Demographic characteristics of student participants

Characteristic	Experimental Group *n* = 39	Control Group *n* = 43	Total *n* = 82
Gender			
Female	21	16	37
Male	18	27	45
Grade Level			
Seventh	0	3	3
Eighth	6	8	14
Ninth	7	6	13
Tenth	12	10	22
Eleventh	7	9	16
Twelfth	7	7	14
Primary Caregiver			
Mother (female)	30	35	65
Father (male)	9	8	17
Family Status			
Living with two parents	11	16	27
Living with one parent	26	24	50
Living with neither parent	2	3	5

Because the school is small (currently 100 students), the entire student population, except for pregnant or parenting teens, was utilized as a census sample. Therefore, no sampling procedures were enacted through the process. Four participants from the experimental group dropped out of the study. One male, grade 9, age 17, dropped out of school to get his GED; another male, grade 12, age 18, and the two female participants, both grade 12 and age 18, dropped out of school to seek full-time employment.

Instruments/Materials

Self-Efficacy Scale. The instrument used to measure self-efficacy was the Self-Efficacy Scale (Sherer et al., 1982). According to Bandura (1997), expectations of self-efficacy are the most powerful determinants of behavioral change because self-efficacy expectancies determine the initial decision to perform a behavior, the effort expended, and persistence in the face of adversity. According to Sherer, the primary author of the instrument, the goal in developing this instrument was to create a measure of self-efficacy that would not be tied to a specific situation or behavior. The purpose of this study was discussed with Sherer (personal communication, August 10, 2004), who agreed this instrument would be appropriate to measure a growth factor in the self-efficacy domain for this student population. The Self-Efficacy Scale is a 30-item measure assessing two self-efficacy constructs: general self-efficacy and social self-efficacy. The total scores for each subscale were utilized.

Parent Effectiveness Measure. Parent effectiveness, the second variable, was assessed with an adapted version of the Parenting Self-Agency Measure (Dumka et al., 1996). The 10-item instrument was measured on the same scale, but the items were modified to account for the fact that the student participants are not yet parents. The wording of items was changed to future tense to validate the change of context (e.g., "I feel sure of myself as a mother/father" was modified to

"I will feel sure of myself as a mother/father"). Dumka (personal communication, October 6, 2004), the primary author of this measure, agreed that the instrument would be equally valid when adapted as a prospective parenting assessment, even though it was originally developed for use with parents of young teens. Dumka et al. noted that hypothetically, increased parenting self-agency should be one outcome of any preventive or therapeutic parenting intervention.

Procedure

Student participants were randomly assigned to either the experimental or the control group, initially 43 in each group. In order to study the effect of parenthood education with only non-pregnant, non-parenting alternative school students, this study was delimited to participants who fit this criteria—students who were either pregnant or already a parent were not included in the initial randomization of students to experimental or control groups. The experimental group attended the parenthood education program two mornings each week, for eight weeks. The control group was offered the opportunity to attend the same parenthood education course after the post data collection. A survey of parent education research revealed a range in curricula length, with the mean program at 10.5 weeks of instruction (Bamba, 2001; Cline & Fay, 1990; Cutting & Tammi, 1999; Doetsch, 1990; Fay, Cline, & Fay, 2000; Herz, 1984; Stirtzinger et al., 2002).

The parenthood education program was designed as a pre-pregnancy prevention strategy to teach pro-social parenting skills, a realistic picture of child raising (including financial, time, and emotional demands), child development, goal setting, proactive family planning strategies, and included learning opportunities for the development of self-efficacy and empathy (with current parent/caregiver roles and responsibilities). The program is partially a derivative of an established parenting program, which was read and approved by Dr. Foster Cline, a renowned child psychiatrist and parenting educator/author (personal communication, November 2004). Based upon extensive experience and certification, the first author was selected as the instructor for the program. The teaching method consisted of lectures, small and large group discussions, daily journaling, instructional videos, role-playing, practical and relevant information dissemination, and question and answer periods.

Results

The program impact for the results of the two instruments described above was assessed using a between-subjects posttest design. The experimental group concluded the last program session by completing the four instruments while the control group participants simultaneously finished the instruments in their advisory classes. The classroom teachers adhered to the posttest protocol discussed by the first author prior to testing (test environment, order of instruments, student question guidelines, timeline, data collection). It should be noted that the experimental group was much larger (n=39) and the testing environment was considerably louder and less focused than control group settings, where the participants in each room ranged from only two to six students and the rooms were observed to be quiet and composed. The experimental group was reported to be "in a hurry to finish" and "distracted," with "excessive talking and chitchat" present in the room. It was expected that these factors might negatively influence the validity of the instrument results.

Table 2 summarizes the descriptive data—means and standard deviations of the scores—for each dependent variable with both the experimental and control group. The alpha level was set at .05 throughout the study, unless otherwise indicated.

Table 2

Means and Standard Deviations for Experimental and Control group on each measure

	Experimental group		Control group	
Dependent Measures	*M*	*SD*	*M*	*SD*
General Self-Efficacy (GSE)	62.97	7.65	58.86	13.14
Social Self-Efficacy (SSE)	22.44	4.82	20.91	5.83
Parent Effectiveness (PE)	5.16	1.10	5.5	.85

General Self-Efficacy (GSE). Two-way ANOVA analyses were conducted to evaluate the effects of a participant's group (experimental or control) and identified attributes (grade, age, gender, gender of primary caregiver and number of parents in the household) on general self-efficacy. Statistical significance was shown in the difference between the experimental and control group when averaged across the primary caregiver levels (male or female), F (1, 78) = 5.51, $p < .05$, partial $\eta^2 = .07$. No other main effect or any interaction effects were found to be significant on the GSE measure (see Table 3).

Table 3

Two-Way Analysis of Variance for General Self-Efficacy by Primary Caregiver Gender

Source	df	*F*	η	*p*
Group (G)	1	5.51*	.07	.02
Primary caregiver gender (PC)	1	3.24	.04	.08
G*PC	1	2.14	.03	.15
Error	78	(113.86)		

Note. Values enclosed in parentheses represent mean square errors. *$p < .05$.

Social Self-Efficacy (SSE). The results for the two-way ANOVA on social self-efficacy indicated two statistically significant main effects. The primary caregiver factor, averaged across the grouping factor (experimental or control) was found to be significant at the alpha level .001, F (1, 78) = 11.24, $p < .001$, partial $\eta^2 = .13$ (see Table 4). The second main effect showing significance was the number of parents in the household (1, 2, or none), F (2, 76) = 3.51, $p < .05$, partial $\eta^2 = .08$ (see Table 5).

Table 4

Two-Way Analysis of Variance for Social Self-Efficacy by Primary Caregiver Gender

Source	df	*F*	η	*p*
Group (G)	1	2.47	.03	.12
Primary caregiver gender (PC)	1	11.24**	.13	.001
G*PC	1	.30	.004	.58
Error	78	(25.84)		

Note. Values enclosed in parentheses represent mean square errors. **$p < .001$.

Table 5

Two-Way Analysis of Variance for Social Self-Efficacy by Number of Parents in Household

Source	df	*F*	η	*p*
Group (G)	1	2.36	.03	.13
# Parents in Household (#P)	2	3.51*	.08	.04
G*#PC	2	1.11	.03	.34
Error	76	(27.05)		

Note. Values enclosed in parentheses represent mean square errors. *$p < .05$.

Parent Effectiveness (PE). The two-way ANOVA analyses were again conducted to evaluate the effects of a participant's group and attributes (grade, age, gender, gender of primary caregiver, and number of parents in the household) on a dependent measure, parent effectiveness. Statistically significant results were indicated in the grouping main effect (experimental or control), F (1, 78) = 5.03, $p < .05$, partial $\eta^2 = .06$, although in the opposite direction than originally hypothesized. The other main effect, parent effectiveness, and the interaction effect did not produce statistically significant results (see Table 6).

Table 6

Two-Way Analysis of Variance Parent Effectiveness by Primary Caregiver Gender

Source	df	*F*	η	*p*
Group (G)	1	5.03*	.06	.03
Primary caregiver gender (PC)	1	.41	.005	.53
G*PC	1	2.79	.04	.10
Error	78	(.94)		

Note. Values enclosed in parentheses represent mean square errors. *$p < .05$.

Discussion and Implications

The purpose of this study was to examine the effect of parenthood education on self-efficacy and parent effectiveness. Review of research studies corroborates that at-risk students are confronted with discouraging cyclic patterns including school failure, child abuse and neglect, substance abuse, poverty, out-of-wedlock births, welfare dependency, workforce underdevelopment, fatherless children and low self-efficacy (Herrenkohl et al., 2003; Massey, 1998; NCPTP, 2002). These intergenerational cycles of unconstructive parenting patterns will continue, absent new knowledge and more effective options. The current inquiry offered a proactive approach to teaching fundamental information through an integrated parenthood education program.

Using a two-way ANOVA, statistically significant results were obtained from four main effect analyses: (1) General Self-Efficacy measure (group by gender of primary caregiver); (2) Social Self-Efficacy measure (gender of primary caregiver); (3) Social Self-efficacy measure (group by number of parents in the household); and (4) Parent Effectiveness (group). Interestingly, the Parent Effectiveness measure actually produced results counter to the purported outcome.

The seemingly contradictory results from a comparison of overall means obtained on the Parent Effectiveness measure (the control group mean calculated higher than the experimental group) are a logical outcome when considering one of the goals of the parenthood education program—to increase student awareness of the financial, social-emotional and time demands of actual parenting. Once the experimental group became cognizant of the realistic depiction of parenting, it is probable they were evaluating themselves more accurately in the parental role, unlike the control group who idealistically, albeit erroneously, rated themselves as more "effective" parents based upon a limited, narrow definition of parenthood. These naïvely confident students, as Hess, Teti, and Hussey-Gardner (2004) contend, may feel highly secure at parenting tasks and believe they are a competent parent, but when they are working from a faulty knowledge base of what is developmentally appropriate, the self-analysis of parenting skills will not be a genuine reflection of ability. Hence, the experimental group's authentic assessment was lower because it was filtered through the newfound knowledge of what it actually takes to be a healthy functioning parent. Cutting and Tammi (1999) documented a significant impact on participants' perceptions of parenting after the parenthood education program in their Scotland study; students rated "Made me a lot more aware about what being a parent involves" higher than other survey choices. Similar to Griffith's 2002 study, which found that the intervention enhanced the participants' future parenting skills, these study results suggest a new awareness level of participants. Although contrary to the intention of this research, the outcome may be considered

positive because there is a possibility students are now more prepared for parenthood and may be more cautious and introspective about pregnancy and family planning. Consistent with the Trinidad Spain study's long-term follow up (Griffith), future studies should include subsequent analysis of pregnancy rates at various time intervals after program intervention to determine the program's childbearing effects and capacity to deter teen pregnancy.

These findings are consistent with Bandura's 1982 theory that a program which aims to enhance self-efficacy will lead to increased motivation and a transfer of efficacious beliefs to other domains in participants' lives. The intervention program provided a mechanism for student participants to gain new knowledge and attitudes from a source outside their own family construct and to increase their own sense of self-efficacy (Hess et al., 2004; Leerkes & Crockenberg, 2002; Reppucci, Britner, & Woolard, 1997). A supposition can be made that knowledge and new insight from the intervention program led to an increase of general self-efficacy for student participants, which subsequently translated into enhanced scores on the post-test measures. This would support Bandura's theory of efficacy transference. Integrating parenthood education into an alternative school curriculum affords at-risk students the opportunity for exposure to healthy parenting and family planning information that they would not otherwise receive. By participating in a parenthood education program designed as a pre-pregnancy prevention strategy, alternative school students receive instruction and guidance in prosocial parenting skills, realistic child raising (including financial, time, and emotional demands), child development, proactive family planning, goal setting, and the development of self-efficacy and empathy (with parent/caregiver's roles and responsibilities).

Limitations

The major limitation of this study was using the program with the entire experimental group (39 students) placed in one large instructional setting. Although logistically necessary for the school's academic and scheduling requirements, this arrangement was not theoretically sound from an alternative school educational pedagogy (Barr & Parrett, 2003). A group of 39 students is too many to monitor, focus toward lesson goals and objectives, and authentically involve in discussions and activities. It is likely that sustainability of program content for student participants was weak or even lost due to the size of the group. A smaller group would naturally prompt an increase in instructor-student interaction, group discussion participation, and greater retention of the information by student participants. Future programs or follow-up studies are recommended to be not more than 8–12 students per class session, which is consistent with group theory and at-risk curriculum recommendations (Corey, 1990; Becvar, Canfield, & Becvar, 1997).

The duration of the program—eight weeks, two times per week—can be a limitation. Although the length of the parenthood education program is consistent with best practices and the average for parent education programs (Bamba, 2001; Cline & Fay, 1990; Cutting & Tammi, 1999; Doetsch, 1990; Fay, Cline, & Fay, 2000; Herz, 1984; Stirtzinger et al., 2002), extending the program would allow for reiteration of material, increased process and reflection time, and retention of curriculum. Because the program content is unfamiliar to this population, a longer time span for program intervention would assist in assimilation and application for the students.

Generalizability of the study findings beyond this population is limited. Because the population consisted of only one alternative school in Northern Idaho, caution is advised in generalizing the results to other settings. In order to extend generalizability, future research should replicate the current study parameters in similar populations.

Recommendations for future studies include: (1) increased integration of the program across a full semester scheduled to meet at least one hour per week; (2) implementation of the program with group sizes which are theoretically sound for the at-risk adolescent population (between 8–12 students per group); (3) administration of posttests in at least two sessions versus all assessments completed in only one session; (4) the addition of a qualitative component to the posttest measures which would enhance understanding of the at-risk adolescent; and, (5) inclusion of a follow-up measure that would help analyze pregnancy rates at various time intervals after program intervention to determine the effect of the program in deterring teen pregnancy over time. These recommendations would serve to alleviate the current study's limitations, expound on its strengths, and produce a robust, credible parenthood education program effective with our at-risk alternative school adolescents.

References

April is Child Abuse Prevention Month. (2005, March). *Bonner County Daily Bee*, *4,* 13.

Bamba, M. L. (2001). Evaluating the impact of parent education for parents of young children (Doctoral dissertation, University of Oregon, 2001). *Dissertation Abstracts International*, 61 (7-A), 2586.

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist,* 37, 122–147.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: W. H. Freeman.

Bandura, A., Adams, N., Hardy, A., & Howells, G. (1980). Tests of the generality of self- efficacy theory. *Cognitive Therapy and Research*, 3, 39–66.

Barr, R. D., & Parrett, W. H. (2003). *Saving our students, saving our schools: 50 proven strategies for revitalizing at-risk students and low-performing schools.* Glenview, IL: Pearson Skylight.

Becvar, R. J., Canfield, B. S., & Becvar, D. S. (1997). *Group work: Cybernetic, constructivist, and social constructionist perspectives.* Denver, CO: Love Publishing.

Bifulco, A., Moran, P. M., Ball, C., Jacobs, C., Baines, R., & Bunn, A., & Cavagin J (2002). Childhood adversity, parental vulnerability and disorder: Examining inter-generational transmission of risk. *Journal of Child Psychology and Psychiatry, 43,* 1075–1086.

Bissell, M. (2000). Socio-economic outcomes of teen pregnancy and parenthood: A review of the literature. *Canadian Journal of Human Sexuality, 9*, 191–204.

Cline, F., & Fay, J. (1990). *Parenting with love and logic: Teaching children responsibility.* Colorado Springs: Pinon Press.

Coleman, P. K., & Karraker, K. H. (1997). Self-efficacy and parenting quality: Findings and future applications. *Developmental Review, 18*, 47–85.

Cowen, P. S. (2001). Effectiveness of a parent education intervention for at-risk families. *Journal of the Society of Pediatric Nurses, 6,* 73–82.

Cutting, E., & Tammi, L. (1999). *Understanding parents, understanding parenthood: An education for parenthood course piloted at Monifeith High School, Angus* (Report No. PS028153). United Kingdom, Scotland: Save the Children Scotland, Edinburgh. (ERIC Document Reproduction Service No. ED 437 181).

Doetsch, P. (1990). *Reducing the risk for child abuse by developing and implementing a parenting program for teenage mothers* (Report No. CG-022-668). Nova University, FL: Counseling and Student Services Clearinghouse. (ERIC Document Reproduction Service No. ED321218).

Donenberg, G. R., Wilson, H. W., Emerson, E., & Bryant, F. B. (2002). Holding the line with a watchful eye: The impact of perceived parental permissiveness and parental monitoring on risky sexual behavior among adolescents in psychiatric care. *AIDS Education and Prevention, 14*, 138–157.

Dorrell, L. D. (1994). A future at risk: Children having children. *Clearing House, 67,* 224–227.

Dumka, L. E., Stoerzinger, H. D., Jackson, K. M., & Roosaa, M. W. (1996). Examination of the cross-cultural and cross-language equivalence of the Parenting Self-Agency Measure. *Family Relations, 45*, 216–222.

Fay, J., Cline, F. W., & Fay, C. (2000). *Becoming a love and logic parent: Parent handbook.* Golden, CO: The Love and Logic Press.

Flanigan, C. (2001). *What's behind the good news: The decline of teen pregnancy rates during the 1990s.* Washington, DC: National Campaign to Prevent Teen Pregnancy.

Frick, P. J., Christian, R. E., & Wootton, J. M. (1999). Age trends in the association between parenting practices and conduct problems. *Behavior Modification, 23,* 106–128.

Griffin, N. C. (1998). Cultivating self-efficacy in adolescent mothers: A collaborative approach. *Professional School Counseling, 1*, 53–59.

Griffith, J. (2002). *To handle life's challenges: A tracer study of Servol's adolescent development programme in Trinidad. Early childhood development: Practice and reflections. Following footsteps* (Report No. 16). The Hague, Netherlands: Bernard van Leer Foundation. (ERIC Document Reproduction Service No. ED 463 857).

Helge, D. (1989a). *Preventing teenage pregnancies in rural America* (Report No. CG-022-212). Bellingham, WA: National Rural and Small Schools Consortium. (ERIC Document Reproduction Service No. ED314677).

Helge, D. (1989b). *Report of pilot project regarding strategies for enhancing self-esteem of at- risk students* (Report No. CG-022-213). Bellingham, WA: Counseling and Student Services Clearinghouse. (ERIC Document Reproduction Service No. ED 314678).

Helge, D. (1989c). *Rural "at-risk" students: Directions for policy and intervention* (Report No. RC-017-663). Bellingham, WA: Rural Education and Small Schools Clearinghouse. (ERIC Document Reproduction Service No. ED 323046).

Helge, D. (1990). *A national study regarding at-risk students* (Report No. RC-017-778). Bellingham, WA: Rural Education and Small Schools Clearinghouse. (ERIC Document Reproduction Service No. ED 324178).

Helge, D. (1991). At-risk students—a national view of problems and service delivery strategies. *Rural Special Education Quarterly, 10*, 42–52.

Herrenkohl, E. C., Herrenkohl, R. C., & Egolf, B. P. (2003). The psychosocial consequences of living environment instability on maltreated children. *American Journal of Orthopsychiatry, 73*, 367–380.

Herrenkohl, E. C., Herrenkohl, R. C., Egolf, B. P., & Russo, M. J. (1998). The relationship between early maltreatment and teenage parenthood. *Journal of Adolescence, 21*, 291–303.

Herrenkohl, E. C., Herrenkohl, R. C., Rupert, L. J., Egolf, B. P., & Lutz, J. G. (1995). Risk factors for behavioral dysfunction: The relative impact of maltreatment, SES, physical health problems, cognitive ability, and quality of parent-child interaction. *Child Abuse and Neglect, 19,* 191–203.

Herz, E. J., Goldberg, W. A., & Reis, J. S. (1984). Family life education for young adolescents: A quasi-experiment. *Journal of Youth and Adolescence, 13*, 309–327.

Hess, C. R., Teti, D. M., & Hussey-Gardner, B. (2004). Self-efficacy and parenting of high-risk infants: The moderating role of parent knowledge of infant development. *Applied Developmental Psychology, 25*, 423–437.

Hopper, J. (2005). *Child abuse: Statistics, research, and resources.* Retrieved April 1, 2005, from http://www.jimhopper.com

Hotz,V. J., McElroy, S.W., & Sanders, S. G. (1997). The impacts of teenage childbearing on the mothers and the consequences of those impacts for government. In R. A. Maynard (Ed.). *Kids having kids* (pp. 55–94). Washington, DC: Urban Institute.

Hotz,V. J., McElroy, S. W., & Sanders, S. G. (2005). Teenage childbearing and its life cycle consequences: Exploiting a natural experiment. *The Journal of Human Resources, 40*(3), 683–715.

Jacobson, L. (2001). Program builds young students' parenting skills. *Education Week, 20* (39), 1–3.

Johnson, J. G., Cohen, P., Smailes, E. M., Kasen, S., & Brook, J. S. (2002). Television viewing and aggressive behavior during adolescence and adulthood [Electronic version]. *Science, 295*, 2468–2471.

Kalmuss, D. S., & Namerow, P. B. (1994). Subsequent childbearing among teenage mothers: The determinants of a closely spaced second birth. *Family Planning Perspectives, 26*, 149–159.

Leerkes, E. M., & Crockenberg, S. C. (2002). The development of maternal self-efficacy and its impact on maternal behavior. *Infancy, 3*, 227–247.

Massey, M. S. (1998). *Early childhood violence prevention* (Report No. EDO-PS-98-9). Champaign, IL: ERIC Clearinghouse on Elementary and Early Childhood Education. (ERIC Document Reproduction Service No. D424032).

Minet, S. B. (1985). *An infant/toddler program for high risk parents and their children* (Report No. PS-015-403). CA: Elementary and Early Childhood Education Clearinghouse. (ERIC Document Reproduction Service No. ED 261806).

National Campaign to Prevent Teen Pregnancy [NCPTP]. (2011). Teen birth rate increase 2006 Retrieved January 12, 2011, from http://www.thenationalcampaign.org/resources/pdf/TBRincrease_2006.pdf

National Campaign to Prevent Teen Pregnancy [NCPTP]. (2002). *Not just another single issue: Teen pregnancy prevention's link to other critical social issues* (Report No. UD-034-831). Washington, DC: Author. (ERIC Document Reproduction Service No. ED462522).

National Campaign to Prevent Teen Pregnancy [NCPTP]. (2005). Retrieved March 12, 2005, from http://www.teenpregnancy.org/Default.asp?bhcp=1

National Clearinghouse on Child Abuse and Neglect Information. (2004). *What is child abuse and neglect?* Retrieved March 12, 2005, from http://nccanch.acf.hhs.gov/pubs/factsheets/whatiscan.cfm

National Institute of Justice (NIJ). (2005). Retrieved April 4, 2005, from http://www.ojp.usdoj.gov/nij/

Payne, R. K. (2003). *A Framework for understanding poverty* (3rd Rev. ed.). Highlands, TX: aha! Process, Inc.

Pearson, J., Muller, C., & Frisco, M. L. (2006). Parental involvement, family structure, and adolescent sexual decision making. *Sociological Perspectives, 49,* 67–90.

Prevatt, F. F. (2003). The contribution of parenting practices in a risk and resiliency model of children's adjustment [Electronic version]. *British Journal of Developmental Psychology, 21*, 469–480.

Prothrow-Stith, D., & Quaday, S. (1995). Hidden casualties: The relationship between violence and learning. Washington, DC: National Health & Education Consortium and National Consortium for African American Children, Inc. ED 390 552.

Raneri, L.G., & Wiemann, C.M. (2007). Social ecological predictors of repeat adolescent pregnancy. *Perspectives on Sexual and Reproductive Health, 39*(1) 39–47.

Reppucci, N. D., Britner, P. A., & Woolard, J. L. (1997). *Preventing child abuse and neglect through parent education.*

Baltimore: Paul H. Brooks.

Rutgers, The State University. (1979). *Education for Parenthood* (Vocational-Technical Curriculum Lab Report No. CE047008). Abstract retrieved August 2, 2004, from Adult, Career, and Vocational Education Clearinghouse. (ERIC Document Reproduction Service No. ED 281048).

Sawhill, I.V. (2001). What can be done to reduce teen pregnancy and out-of-wedlock births? Center on Children and Families Briefs. Retrieved online on December 14, 2009 from http://www.brookings.edu/papers/2001/10childrenfamilies_sawhill.aspx

Sawhill, I.V. (2007) Attacking poverty and inequality: Reinvigorate the fight for greater opportunity. Center on Children and Families Briefs. Retrieved online on December 14, 2009 from http://www.brookings.edu/papers/2007/0228poverty_haskins_Opp08.aspx

Sherer, M., Maddux, J. E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The self-efficacy scale: Construction and validation. *Psychological Reports, 51*, 663–671.

Shumow, L., & Lomax, R. (2002). Parental efficacy: Predictor of parenting behavior and adolescent outcomes. *Parenting: Science and Practice, 2,* 127–150.

Smith, C. (1996). The link between childhood maltreatment and teenage pregnancy. *Social Work Research, 20*, 131–141.

Stanberry, J. P., & Stanberry, A. M. (1994). *Confidence in parenting: Is parent education working?* (Report No. PS-023-082). Mississippi: Elementary and Early Childhood Education Clearinghouse. (ERIC Document Reproduction Service No. ED382324).

Stirtzinger, R., McDermid, S., Grusec, J., Bernardini, S., Quinlan, K., & Marshall, M. (2002). Interrupting the intergenerational cycle in high-risk adolescent pregnancy. *The Journal of Primary Prevention, 23,* 7–22.

Swick, K. J., & Williams, R. D. (2006). An analysis of Bronfenbrenner's bio-ecological perspective for early childhood educators: Implications for working with families experiencing stress. *Early Childhood Education Journa*l, 33(5) 371–378.

Terry, E., & Manlove, J. (2000). *Trends in sexual activity and contraceptive use among Teens*. Washington, DC: National Campaign to Prevent Teen Pregnancy.

United States Census Bureau. (2003). *Current population survey, 2003 annual social and economic supplement*. Retrieved March 31, 2005, from http://www.census.gov/hhes/www/income.html

U.S. Department of Commerce, Bureau of Census. 1990. *Current population reports: Money income and poverty status in the United States*. Washington, D.C.: U.S. Government Printing Office.

United States Department of Health & Human Services. (2002). *Teen births*. Retrieved from http://www.cdc.gov/nchs/fastats/teenbrth.htm

Ventura, S. J, Mathews, T. J., & Hamilton, B. E. (2002). Teenage births in the United States: State trends, 1991–2000, an update. National vital statistics reports: *From the Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System*, 50(9), 1–4.