

Alcanza Program for Pregnant and Parenting Adolescents: Evaluation Results at 12 months

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Introduction

Alcanza is testing the effectiveness of a clinical case management approach compared to a case management only approach in the provision of reproductive health education, social support, assistance with housing, education, health care, parenting, income maintenance, and therapeutic services to engage teen mothers and fathers. This model is based on the effectiveness demonstrated by a nurse home visitation model (Olds, Henderson, Cole, Eckenrode, et al., 1998). The project goal is that high-risk teen mothers and fathers will experience healthy and positive outcomes for themselves and their children. The evaluation determines if the clinically enhanced program helps participants meet objectives including 1) avoiding STIs and repeat pregnancy, 2) improving parenting skills, 3) maintaining consistent participation in school, education or employment, and 4) attending pediatric visits, and ensuring that their children meet appropriate immunization and weight gain expectations with more frequency than clients receiving traditional, less clinical and smaller dosage services.

Method

The evaluation uses an experimental time series design with random assignment to a treatment or control group using systematic random sampling with a 2:1 ratio for girls and a 1:1 ratio for boys. A baseline measure of each instrument is taken and then repeated over time at six months, 12 months, at completion of program (18-24 months) and 12 month follow-up. Our research hypothesis was that clinical social work intervention and use of an evidence based parenting approach combined with case management would increase the positive outcomes of the teen parent in terms of statistically significant lower rates of STIs and repeat pregnancies, higher rates of positive parenting attitudes, school completion, and positive health outcomes of the child when compared to case management services only. The Adult/Adolescent Parenting Inventory (AAPI) (Bavolek & Keene, 2001) was used to measure parenting attitudes while a periodical interval assessment tool and the OAPP Core Instrument captured data on STIs, subsequent pregnancy, and school or employment activities. A focus group with nine treatment participants was also held to collect qualitative data on program outcomes. Temple University Institutional Review Board has approved the study protocol every year since the program inception.

Results.

We enrolled 137 clients between January, 2006 and June, 2008. These clients were randomly assigned as follows: 75 treatment females and 37 control group females; 13 treatment males and 12 males in the control group. Ages of clients range from 13 to 20 with a mean age of 17. Seventy-six percent (n=104) of sample have been in program a full year. However, 38% (n= 52) have dropped out.

Avoiding STIs and Repeat Pregnancies. Almost 14% of treatment females (13.5%, 5 of 37) and 18.2% (4 of 22) of control females did not avoid STIs at six months while 12.5% (2 of 16) of the treatment group and 9.1% (1 of 11) of control group females had contracted STIs at the 12 month interval measure. This rate was greater than the rate of Chlamydia (10.2%) in a similar sample of female adolescents across the state (Center for Disease Control, 2007). No differences in rates exist between treatment and control group on STIS, but there was a trend on subsequent pregnancy. Fifteen percent (4 of 27) in treatment group and 19% (4 of 21) in control group girls did not avoid second pregnancy at six months. At 12 months, 6% (1/7) of treatment and 30% (3/10) of control group of females reported repeat pregnancies (Cramer's $V = .33$, $p < .10$). At six months, 25% (2 of 8) in both treatment and control group males had not avoided STIs. At 12 months 100% of participating males (6 of 6 in both treatment and control) reported not contracting an STI in the past six month period. In this period, 100% (7 of 7) in treatment; (6 of 6) in control group avoided subsequent pregnancy of their partner.

Improving Parenting Skills. A general linear model repeated measures analysis shows no difference across time (baseline, six and 12 months) by group (treatment $n = 7$; control $n = 5$) for female participants on

the AAPI constructs “appropriate developmental expectations” and “values alternatives to corporal punishment”. The treatment mean on appropriate parental expectations moved from a pretest *mean* of 5.5 to 6.0 and control group from a pretest *mean* of 4.7 to 5.8 by 12 months (both in the direction of improved parenting attitudes). In addition, the aspect of the program most often mentioned as helpful in the focus group was its parenting education. Male sample size precluded aggregate analysis. *Education or Employment Gains*. Although, sample size was small for those whom we had data, the rate of attendance at school was lower in treatment than control group at 12 months. A lower percent of treatment female adolescents 12% (2 out of 17) of treatment group and 45% (5 out of 11) of control group were attending school at 12 months ($\Phi = -3.8, n = 28, p < .05$). There was no difference in percent of participants who had graduated high school or were participating in some employment training at 12 months. Male sample size was too small for aggregate analysis.

Attending pediatric visits, appropriate immunization and weight gain expectations. Seventy-three percent of female treatment group (8 out of 11) and 67% of control group (2 out of 3) were up to date with pediatric visits and immunizations at 12 months. Of the three relevant pediatric reports for male parents received at six months, 100% reflected an appropriate regimen of care. At 12 months, 100% of the children of female (10 out of 10) and male treatment groups (2 out of 2) and 67% of female (2 out of 3) and 50% (1 of 2) of male control groups experienced appropriate weight gain.

Discussion

There were few statistically significant differences between treatment and control groups on outcome measures. However, the treatment group reported lower pregnancy rates for females. Conversely, control group females were attending high school at a higher rate than treatment group females. There were no differences between groups in improvement of parenting skills, graduation rate, employment activities or immunizations. Data suggested a trend toward higher rates of infants experiencing appropriate weight gain in the treatment group. The two most severe limitations in the program evaluation are the small sample size at 12 months and the sporadic participation and attrition of many clients. Despite an experimental design and constant efforts by program staff, treatment fidelity of an enhanced clinical model may not have been truly implemented and mortality is a serious threat to internal validity.

Implications

Future research on program retention of pregnant and parenting adolescents is recommended. The difficulty with program fidelity suggests that a different program design is necessary for realistic implementation. On the other hand, the absence of difference between the traditional and enhanced approach on outcomes may reflect that the more intensive, clinical approach is no more effective than the traditional case management approach.

References

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