Evaluation of Positive Potential Middle School Program in Rural Northwest Indiana Communities

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Intervention Name
Positive Potential

Intervention Description
The Positive Potential Middle School Program (Positive Potential) intervention is a stand-alone, longitudinal, and developmental whole-child program for adolescents. Positive Potential was developed primarily for middle school youth in predominantly white, rural communities. The curriculum focuses on positive youth development, with emphasis on a child's possible and future self, goal orientation, positive school performance, and risk-reduction and risk-elimination behaviors with sexual behavior and other adolescent risk behaviors (such as alcohol, tobacco, drugs, violence, pornography, and bullying). Students are encouraged with risk-avoidance and developmental health-promotion strategies.

Positive Potential is a new program developed by the nonprofit organization A Positive Approach to Teen Health (PATH). It is a supplemental program provided to students in addition to the health/physical education curricula they already receive as part of their regular school education. The program can replace instruction occurring in other core academic or health/physical education classes. Students attend 45- to 50-minute sessions on five consecutive days in grades 6 ("Be the Exception"), 7 ("Push the Limits"), and 8 ("Unstoppable"). Students also attend a 45-minute assembly at the end of each grade and at the start of grade 9. Instruction is provided by a male–female facilitator team and features engaging and participatory interactions and multimedia presentations. The grade-specific assemblies, presented by program facilitators, are multimedia events reviewing content and reinforcing the instruction for that year in middle school curricula and over the three years at the beginning of grade 9.

Counterfactual
Business as usual

Counterfactual Description
The comparison school youth continue to participate in the standard health education instruction, after-school activities, or other community activities and instruction about risk behaviors and health. The school general health curriculum usually includes one lesson on each of the following: sexually transmitted infection/HIV prevention, use of condom and contraceptives, and practicing abstinence from sex and sexual intercourse. Comparison group students also attend assemblies at the same times as the intervention group students. However, the assemblies focus on topics not related to the Positive Potential instruction, such as general health and exercise. Nationally recognized speakers present to the assembly each year and avoid any content that is presented in the intervention groups. Both intervention and comparison schools continue with standard health education instruction. Therefore, the difference between the two groups is the offer of addition of Positive Potential to health education instruction.

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Primary Research Questions

(1) What is the impact of the Positive Potential intervention relative to business-as-usual health instruction on the occurrence of ever engaged in sexual intercourse as reported by 9th-grade students?
(2) What is the impact of the Positive Potential intervention relative to business-as-usual health instruction on the occurrence of sexual intercourse in the past 12 months one year after completion of grade 8 instruction as reported by 9th-grade students?
(3) What is the impact of the Positive Potential intervention relative to business-as-usual health instruction on the occurrence of sexual intercourse in past 3 months after grade 8 instruction as reported by 8th grade students?

Secondary Research Questions

A series of secondary research questions were asked. One research question focused on 8th grade students asking: What is the impact of the Positive Potential intervention relative to business-as-usual health instruction on ever having sexual intercourse?

Other secondary research questions focused on the 9th grade sample but included five additional sexual behavior outcomes: (1) sexual intercourse in the past 3 months; (2) sexual intercourse in the past 3 months without a condom; (3) sexual intercourse in the past 3 months without birth control, including condoms; (4) sexual intercourse with two or more people; and (5) oral sexual intercourse.

The outcomes were looked at for the full sample of students (all 8th graders or all 9th graders), by gender (9th grade boys and 9th grade girls). Exploratory analyses were performed on outcomes by race (9th grade white non-Hispanic or 9th Hispanic non-white youth), and by race and gender (9th grade white non-Hispanic boys, 9th grade Hispanic non-white boys, 9th grade white non-Hispanic girls, and 9th grade Hispanic non-white girls).

Sample

Elementary and middle schools were selected by local and demographic criteria (rural, low-income, and high risk based on adolescent birth rates and rates of sexual behavior) from five northwest Indiana counties. Schools with established relationships with PATH's sexual behavior prevention programs were contacted first, followed by additional schools that met the criteria. Meetings were held with school administrators to introduce and describe the project, discuss the feasibility of participating, gain their cooperation with a letter of invitation, and secure a Memorandum of Understanding. Two cohorts of 6th-grade students from 16 of 29 schools were recruited in two target time periods, 2011-12 and 2012-13. Non-selected schools were usually not able to comply with randomization, multiple survey administrations, and scheduling of sessions and assemblies over the 4-year period. Youth were eligible if they were in the 6th grade, able to read and comprehend English at least at a 5th-grade level, and provided parental consent and student assent. Two schools dropped out from the study, leaving a total of 1,776 youth enrolled in the study (970 intervention and 806 comparison) in 14 schools. The enrolled sample size in the first cohort was 827 youth (421 intervention and 406 comparison), and the enrolled sample size of the second cohort was 949 (549 intervention and 400 comparison). The analytic sample was 1,415 8th-grade youth and 1,374 9th-grade youth in cohorts 1 and 2.

Setting

Public middle and elementary schools with 6th grade in five northwestern Indiana counties participated in the four-year longitudinal study. The setting represents predominantly rural farming and largely white communities.

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Research Design

The evaluation was a cluster randomized controlled trial with recruitment of students in 16 schools. Sixteen schools, pair-blocked by grade 6 size, were randomized into intervention or comparison groups. Either a classroom teacher or health educator distributed consent packets to 6th-grade youth to take home to obtain parental permission to participate in the study. After the collection of parental consent and student assent and the administration of a baseline questionnaire, students were notified of their school's assignment. Data collection occurred at seven points in time: pre-instruction and 3 months post-instruction follow-up each year (6th, 7th, and 8th grade), and a 12-month post-instruction follow-up in 9th grade. Youth completed self-report paper-and-pencil questionnaires. If a student was not present during the group administration of the questionnaire, arrangements were made to have the student complete the questionnaire using a computer, a paper-and-pencil questionnaire, or by telephone. Multi-method quantitative and qualitative data were also collected on program implementation to assess fidelity adherence and quality of youth–facilitator interactions for each of three curricula in grades 6, 7, and 8.

Impact Findings

No significant effects were found on the three primary outcome measures of risk avoidance of sexual intercourse, specifically, engaged in sexual intercourse in the past 12 months (9th grade), ever engaged in sexual intercourse (9th grade), and sexual intercourse in the last 3 months (8th grade). And, no significant findings were found: for ever sexual intercourse (8th grade) and for sexual intercourse in the past 3 months (9th grade); sexual intercourse in past 3 months without condom and sexual intercourse in past 3 months without birth control (8th and 9th grades); and, sexual intercourse with 2 or more people, or ever had oral sex (9th grade). While there were no significant outcomes on subgroup of girls, there were significant Positive Potential program impacts among subgroup of boys with lower occurrences for ever sexual intercourse, for sexual intercourse in the past 12 months and for sexual intercourse in the past 3 months.

Focusing on exploratory secondary analyses of race and gender by race subgroups, significant findings were found for: sexual intercourse in the past 12 months (9th grade wite non-Hispanic, 9th grade Hispanic non-white, 9th grade white non-Hispanic boys, 9th grade Hispanic non-white girls); ever had sexual intercourse (9th grade white non-Hispanic, 9th grade Hispanic non-white, 9th grade white non-Hispanic boys, 9th grade Hispanic non-white girls); sexual intercourse in the past 3 months (9th grade white non-Hispanic, 9th grade Hispanic non-white, 9th grade white non-Hispanic boys, 9th grade Hispanic non-white girls); sexual intercourse in past 3 months without a condom (9th grade Hispanic non-white, 9th grade white non-Hispanic boys); sexual intercourse with 2 or more people (9th grade white non-Hispanic, 9th grade Hispanic non-white, 9th grade white non-Hispanic boys); and ever had oral sex (9th grade Hispanic non-white and 9th grade Hispanic non-white girls).

Implementation Findings

Results indicated high fidelity for the intervention throughout the three grades and four assemblies and achieving almost all benchmark targets for adherence and quality. For example, over 92% of scheduled activities were completed as planned about 86% of students attended the four assemblies and 84% attended 80% or more of the 15 sessions (the full classroom intervention).

Among school classroom teachers who observed instruction, 88% rated it as excellent or very good. Participating students strongly agreed or agreed that instruction, methods, and paired educators were excellent or very good an average 79% of the time. Focus groups, teacher reports and student surveys indicated that the usual school health education curricula generally continued without change in both intervention and comparison schools. Student surveys provided information about modest group differences in non-planned health and education instruction about sexual behavior.

Schedule and Timeline

Sample enrollment ended May, 2011. The 12-month follow-up after grade 9 instruction ended for grade 9 students in December, 2015.

Footnote: The first of the three middle school programs, Grade 6 Be The Exception, has met the HHS Teen Pregnancy Prevention Evidence review criteria indicating evidence of effectiveness. (Lugo-Gil J, et al. Update findings from the HHS teen pregnancy prevention evidence review: July 2014 through August 2015. Mathematica Policy Research). The evaluation of the impact of Be The Exception program is reported in Piotrowski ZH, Hedeker D. Evaluation of the Be The Exception Grade 6 Program in Rural Communities to Delay the Onset of Sexual Behavior. Am J of Public Health, 2016.