

Evaluation Abstract: The Evaluation of Multimedia Circle of Life in North and South Dakota

Grantee

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Intervention Name

Multimedia Circle of Life

Intervention Description

Multimedia Circle of Life (mCOL) is a sexual risk-reduction program designed for American Indian youth ages 10-12 years. Originally developed more than 10 years ago, the program was recently adapted to a multimedia format and the content was expanded to include new topics, such as pregnancy prevention and hepatitis B and C.

mCOL contains seven chapters. To complete each chapter, youth go through the online lesson independently and then complete a supplemental live activity session (class). Online chapters contain stories, games, and videos and take about 20-25 minutes each to complete. Classes are interactive and include discussions, instruction, demonstrations, games, and crafts. Classes are taught by local program staff; health professionals and/or community members may also assist with portions of the material. Each of the seven online chapters has a corresponding 1-hour class that can either be taught in one session or across two sessions. Either component of the intervention can be presented alone, but combining online lessons with classes enables youth to ask questions, discuss the online content, and reinforce curriculum concepts.

mCOL's theoretical model is based on the Medicine Wheel, a Native American cultural symbol, and undergirded by behavioral theories including Social Cognitive Theory, Theory of Reasoned Action, and Theory of Planned Behavior. The Medicine Wheel is divided into four equal parts, representing the mental, physical, emotional, and spiritual aspects of well-being. Youth learn that all people have volition, the power to make their own decisions. Youth can stay healthy by using their volition to strengthen and balance their own Medicine Wheel. This strength helps them to empower themselves and honor their families and communities. mCOL teaches skills such as goal setting, decision making, and standing up to peer pressure. Prevention topics include how diseases are spread; the health effects of HIV, AIDS, and sexually transmitted infections; and ways in which youth can protect themselves from these diseases.

Counterfactual

After-School Science Plus

Counterfactual Description

After-School Science Plus (AS+) is a copyrighted science program published by Educational Equity Center at FHI 360. It is designed to be taught in after-school settings to youth ages 8 to 14 years. To match the control condition, AS+ was shortened from 11 to 7 lessons. Local program staff deliver AS+ lessons in group sessions. Each lesson consists of hands-on activities and takes approximately one hour to complete. Altogether, it took 7 hours to complete all of the lessons.

Lessons teach youth about physical science topics, such as bubbles, liquids and solids, gravity, and so on. The program aims to (1) teach basic principles and vocabulary of physical science, (2) promote interest in science, and (3) dispel stereotypes about who can do science so that all interested youth consider a career in science.

Primary Research Question(s)

What is mCOL's impact, relative to AS+, on the proportion of youth ever having had sex at 9 months after the intervention?

Sample

Six Native Boys and Girls Clubs (NBGCs) in North and South Dakota were invited and agreed to participate in the study. Most clubs had multiple sites called units. The project was implemented in 15 units. The study recruited youth ages 10-12 years who attended the participating NBGCs. Total enrollment was 167 youth.

Setting

The study was conducted in partnership with six NBGCs located on separate Indian reservations in North and South Dakota. These NBGCs were located in some of the nation's poorest areas. Most had 3 times the national poverty rate for children and half the national median household income.

Research Design

The study used a group randomized control design. Random assignment was conducted by the principal investigator using the random number generator in Microsoft Excel. At the time of randomization, there were 16 units. The units were grouped into strata according to state (8 for South Dakota and 8 for North Dakota) and size (2 large and 14 small). Random assignment of units was conducted before enrollment of youth (June 2012), but the information was not shared with club program staff until after recruitment of youth. One AS+ unit closed prior to recruitment.

Method

The consent process for all treatment and control units followed the same protocol. There were no differences in process or materials between treatment and control. Timing differed somewhat due to club delays or temporary closures. Enrollment and consenting began in September 2012 and continued on a rolling basis. Each unit conducted enrollment until most eligible youth had been contacted.

Clubs were asked to identify age-eligible youth from their records. Club program staff invited youth and their parents/guardians to attend an informational meeting to learn about the project and potentially complete enrollment materials. Enrollment materials were also distributed to youth and families who were unable to attend the meeting. After parental consent was obtained, youth were asked to provide their assent and were given the baseline survey.

There were three data collection points: baseline, immediate post-test, and 9-month post-test. Surveys were administered online with audio assistance.

Impact Findings

At immediate post-test and 9-month post-test, only 5 youth had reported ever having had sex. Using linear probability modeling techniques, no difference between groups in the proportion of youth who reported ever having sex was found at either the 9-month post-test (primary research question) or immediate post-test (secondary research questions). Additional sensitivity analyses projecting prior reports of ever having had sex to missing data in later surveys also found no differences. The lack of statistically significant differences between groups may reflect small sample sizes rather than an ineffective program.

Implementation Findings

Four of 8 mCOL units implemented 100% of online chapters and 100% of class activities. Across all mCOL units, 71% of possible activities were completed. At the individual level, only 30% of youth in the mCOL arm at baseline completed 70% of the program, mainly due to high attrition. Qualitative data from mCOL unit program staff and youth suggest the program was highly regarded. In the AS+ units, 100% of the lessons were delivered, but dosage was similarly compromised, also due to high attrition.

Schedule/Timeline

Enrollment and baseline surveys ended in July 2014. Immediate post-test surveys ended in August 2014; and 9-month post-test surveys ended in March 2015.