In-home visits reduce drug use, depression in pregnant teens

October 10 2014

Intensive parenting and health education provided in homes of pregnant American Indian teens reduced the mothers' illegal drug use, depression and behavior problems, and set their young children on track to meet behavioral and emotional milestones they may have otherwise missed.

The Johns Hopkins Bloomberg School of Public Health-led research also suggests that employing local community health educators instead of more formally educated nurses to counsel young at-risk mothers could be cost effective and provide badly needed jobs to high school graduates from the same impoverished communities. While the study was conducted in four American Indian communities in the Southwest, the researchers note that its success could likely be replicated in other low-income populations around the United States.

A report on the findings is published online Oct. 10 in the American Journal of Psychiatry.

"For years in public health we have been working on immunizations and other medical interventions to set the course for the health of disadvantaged children, and we have turned the tide," says the study's lead author Allison Barlow, MPH, PhD, associate director of the Center for American Indian Health at the Johns Hopkins Bloomberg School of Public Health. "Now the burden is in multi-generational behavioral health problems, the substance abuse, depression and domestic violence that are transferred from parents to children. This intervention can help us break that cycle of despair."
American Indian adolescents have the highest rates of teen pregnancy, substance use, suicide and dropping out of high school of any racial or ethnic group in the country.

For the study, 322 expectant American Indian teens were randomly assigned to receive optimized standard care – transportation to prenatal and well-baby clinic visits, pamphlets about childcare and other resources and referrals to local services – or optimized standard care plus a program of 63 in-home education sessions, known as Family Spirit. In the Family Spirit intervention, visits occurred weekly through the last trimester of pregnancy, biweekly until four months after the baby's birth, monthly from months four through twelve and then bimonthly until the child turned three.

The lessons covered everything from the benefits of breastfeeding and reading to your child to creating sleep and feeding schedules, as well as life skills such as budgeting, conflict resolution and preventing substance use.

Prior to beginning the study, the teens had high rates of substance use in their lifetime (more than 84 percent), depressive symptoms (more than 32 percent), high school dropout (more than 57 percent) and residential instability (51 percent moved more than twice in a year).

The researchers found that mothers in the Family Spirit group were less likely to use illegal drugs, be depressed or experience behavior problems than those in the control group. They also found that the children in the Family Spirit group were less likely to show early behaviors known to signal future conduct problems, anxiety and depression. The children were easier to soothe, had better sleeping and eating patterns and were more likely to meet emotional and behavioral milestones than those in the control group. The study followed the mothers and children until the children were three years old.
"We found a consistent pattern of success across a number of different outcome measures," says the study's principal investigator John Walkup, MD, an adjunct professor at Johns Hopkins Bloomberg School of Public Health and a faculty member within the Center for American Indian Health. "These early years are critical ones for children. We teach these mothers not only how to be competent parents, but how to cope with stressors and other risk factors that could impede positive parenting skills."

Barlow adds: "A key to the program's success is utilizing workers from the local community. We can grow the workforce in some of the poorest communities in the nation, where good jobs can be hard to come by. With focused training, people with little formal education but important life experiences and a passion to serve their communities can become change agents to overcome these very tough problems."

The Affordable Care Act set aside $1.5 billion in funding for states to implement evidence-based home-visiting programs to support the health and development of at-risk children, with three percent earmarked for tribal communities. Barlow says many existing programs have not been evaluated in low-resource populations such as American Indians, new immigrants and military families and that other programs have not shown reduction in both maternal drug use and mental health problems.

Family Spirit was recently approved by the U.S. Department of Health and Human Services as an evidence-based program, now eligible for the federal dollars, Barlow says.
