Integrating Fetal Alcohol Spectrum Disorders (FASD) Evidence-Based Practices into Existing Service Delivery Organizations

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- The SAMHSA FASD Center for Excellence (CFE) is a Federal initiative devoted to decreasing incidences of Alcohol-Exposed Pregnancy (AEP) and FASD, and improving the quality of life among individuals and families impacted by FASD.
- The CFE is mandated to develop innovative techniques for preventing alcohol use by women in child-bearing years, and train health professionals and community leaders on preventing AEP and reducing incidence of FASDs.
- The evidence-based prevention approaches and the prevention interventions addressed in this presentation were all designed with these goals in mind.

Evidence-Based Prevention Approaches in FASD

Parent-Child Assistance Program (PCAP)

Description: Long-term (36 month) paraprofessional home visitation model targeted to high-risk women with a history of substance abuse. The goal is to prevent future births of children prenatally exposed to alcohol and is targeted towards pregnant and postpartum women (6 months postpartum). The intervention involves a comprehensive assessment of alcohol consumption, contraception use, and use of community services followed by case management. Women are re-evaluated to determine their clinical goals.

Outcomes: Intervention findings from three sites, one original demonstration and two replication sites: Compared to the original demonstration, outcomes at replication sites were either improved (treatment, abstinence, subsequent clean delivery, employment, child custody stability) or maintained (birth control, # of subsequent deliveries). At 36 months, Inpatient or Outpatient Treatment (completed or in-progress) was 89%, reporting clean and sober at > 6 months at exit was 42%, and reporting clean and sober at > 1yr during program was 58%.

Project CHOICES

Description: Focuses on alcohol-use reduction and effective contraception for women at high risk of having an AEP. The goal is to prevent alcohol-exposed pregnancies by reducing drinking and using effective contraception, and is targeted to women of child-bearing age. The intervention involves a baseline assessment to assess drinking, sexual activity, contraceptive use, and demographic information. The intervention consists of four counseling sessions plus a contraception counseling session. At 6 months and 9 months follow-up, women are assessed on alcohol consumption and contraceptive use using the same core assessment tool used at baseline.

Outcomes: The odds of being at reduced risk for AEP were more than double in the group that received the intervention compared to the control group. Binge drinking was substantially reduced by intervention participants from 30 episodes in the past 3 months at baseline to 7 episodes in the past 3 months at the 9-month follow-up. At 9-months follow-up, 57.9% of the intervention group reported no binge drinking, versus 46.8% in the control group. At 9 months follow-up, 56.3% of the intervention group was using effective contraception as compared with 38.7% of the control group.

Alcohol Screening and Brief Intervention (SBI)

Description: Designed to provide brief intervention to pregnant women who are drinking or at risk of drinking during pregnancy. The goal is abstinence from alcohol during pregnancy and the target audience involves pregnant women. At baseline, a screening tool is administered to pregnant women to assess risk of drinking. Women are provided a brief intervention addressing the consequences of drinking. At the 36th week of pregnancy, the client is asked for permission to place her record from this program into her infant's medical record (upon delivery), and quantity and frequency of drinking will be assessed.

Outcomes: Women in the brief intervention condition were 5 times more likely to report abstinence after intervention compared with women in the assessment-only condition. Newborns whose mothers received brief intervention had higher birth weights and birth lengths, and fetal mortality rates were 3 times lower (0.9%) compared with newborns in the assessment-only (2.9%) condition.

FASD Prevention Interventions Utilizing Evidence-Based Approaches

The evidence-based approaches discussed above have been implemented in various settings, with differences in the components of the intervention, alcohol use severity level, age of the client, and other inclusion criteria. In spite of the differing methodologies, the general conclusion is that women benefit from brief intervention.

In a detailed review of eight FASD interventions from 2000-2007 involving one of the above-mentioned approaches (or an adapted version), favorable outcomes were evident. These eight interventions were identified through a literature search and reviewed based on the following criteria:

- Addresses FASD directly or indirectly;
- Involves changes in behavior in the target population;
- Demonstrates one or more significant behavioral change outcomes;
- Includes outcomes that are objective and measurable and reflect intervention goals;
- Includes an evaluation; and
- Has been published in or accepted for publication by a peer-reviewed journal.

The eight interventions examined:

- 1. The AR-CARES (Arkansas Center for Addictions Research, Education, and Services) Program, University of Arkansas at Little Rock, Center for Research on Teaching and Learning
- 2. *Brief Intervention (BI) for Alcohol Use in Pregnancy*, Brigham and Women's Hospital, Department of Psychiatry; Harvard Medical School, Department of Obstetrics and Gynecology
- 3. *Brief Intervention With Support Partner*, Brigham and Women's Hospital, Department of Psychiatry; Harvard Medical School, Departments of Psychiatry, Medicine (Biostatistics), and Obstetrics and Gynecology
- 4. Brief Intervention for Alcohol Use During Pregnancy, UCLA, David Geffen School of Medicine, Department of Psychiatry and Bio-Behavioral Sciences
- 5. Cognitive Behavioral Intervention, University of Alabama at Birmingham, Department of Health Behavior
- 6. Parent-Child Assistance Program (PCAP), University of Washington, Department of Psychiatry and Behavioral Sciences and Department of Epidemiology
- 7. *Project BALANCE* (Birth Control and Alcohol Awareness: Negotiating Choices Effectively), Virginia Commonwealth University, Department of Psychiatry, Division of Addiction Psychiatry

8. *Project TrEAT* (Trial for Early Alcohol Treatment), University of Wisconsin-Madison Medical School, Center for Addiction Research and Education

The different populations targeted by these interventions were: 1) Pregnant women at risk for an AEP; 2) pregnant women at risk for an AEP and their partners; 3) women of childbearing age at risk for an AEP; or 4) postpartum women at risk for an AEP. Reported outcomes for intervention participants as compared to those in the control groups revealed:

- Greater reductions in drinking rates than controls;
- Higher quit rates during pregnancy;
- Increased linkage to community services; and
- Better birth or developmental outcomes for infants.

Six of the interventions were effective in reducing the risk for AEP. Outcomes achieved by the interventions and their statistical significance:

- The BI was significantly linked to abstinence (p < .04); with the BI group five times more likely than the control group to be abstinent by the third trimester (BI for Alcohol Use During Pregnancy).
- Clients at the two PCAP replication sites did significantly better (p < .02) than those at the original demonstration site (adjusting for baseline) in completing alcohol and other drug treatment, remaining abstinent, and getting a job.
- Alcohol and other drug use decreased significantly more among the AR-CARES Program intervention women than among those in the control group (p = .02 for alcohol, and p = .0001 for drugs). The babies of intervention women also had significantly higher birth weight and a 2-week greater gestational age than those of the women who did not receive case management services.

Useful findings also were reported for the BI With Support Partner study. Researchers found that the intervention was associated with reduced subsequent drinking for women who were the heaviest drinkers at study enrollment (p < .01) and that its effects were significantly enhanced when the woman's partner was involved (p < .05).

In 2007, a separate review of a randomized trial of a brief motivational intervention (Project CHOICES) which involved follow-ups conducted in diverse community settings to women at high risk of AEP, revealed that at 3, 6, and 9 month post intervention the odds of reducing the risks for an AEP was two-fold higher in the intervention group compared to the control group.

Lessons Learned from the Review and Assessment of FASD Prevention Interventions

- Women should be screened for prenatal alcohol use to prevent AEPs.
- Brief interventions using motivational interviewing are low cost and effective in reducing the risk of AEPs.
- Pregnant women getting brief interventions may be less likely to drink if their partners are involved.
- The brief intervention study in the WIC centers suggests that nonmedical professionals serving pregnant, low-income, minority women could incorporate brief interventions with their other services.
- Primary care physicians have great potential to reduce drinking among childbearing women, as indicated by Project TrEAT.
- Comprehensive services involving case management can produce long-lasting benefits for low-income women and their children.

Tools Used in FASD Prevention Intervention Studies

- Alcohol Timeline Followback (ATFB)
- Alcohol Abstinence Self-Efficacy Scale (AASE)
- Addiction Severity Index (ASI)
- TWEAK
- TACE

- Health Interview for Women and MAX (maximum drinks per drinking occasion).
- CAGE
- AUDIT
- Penn Alcohol Craving Scale (PACS)

Science to Service: Integrating FASD Prevention Intervention Approaches in Service Delivery Organizations

- The SAMHSA FASD Center for Excellence recognizes the need to 1) provide access to appropriate alcohol treatment services for women of child bearing age and pregnant women, 2) promote use of evidence-based intervention strategies for use in populations of childbearing aged women and pregnant women at risk for an alcohol-exposed pregnancy, and 3) establish formal alcohol screening tools in promoting the use of evidence-based strategies for these population groups.
- In recognizing this need, the CFE's Project Coordination Center is tasked with integrating, documenting, and evaluating best FASD prevention interventions through its Subcontract Awardees.
- The CFE has funded 6 State and 9 local organizations and is overseeing the integration of these evidence-based prevention practices into their existing systems of care:
 - Parent-Child Assistance Program (PCAP): Integrated at 2 sites
 - Project CHOICES (Adapted): Integrated at 6 sites
 - Alcohol Screening and Brief Intervention (SBI): Integrated at 7 sites



