



PLENARY 5A

PREVENTING ALCOHOL-EXPOSED PREGNANCIES

Moderators:

Yuriy Korzhynskyy - Ukraine

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PREVENTING FAS/FASD IN RUSSIAN CHILDREN

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Children exposed to alcohol in utero can suffer Fetal Alcohol Spectrum Disorders (FASD), a wide array of disorders, from subtle changes in intelligence and behavior to profound mental retardation and malformations in major organ systems. Fetal Alcohol Syndrome (FAS) is one of the most severe outcomes of alcohol use during pregnancy. Russia is a country with very high levels of alcohol consumption and increasingly hazardous drinking in women. Although the rates of FAS and FASD in the general population in Russia are not precisely known, recent studies found extremely high rates of FAS in Russian orphanages.

FASD are completely preventable by avoiding alcohol use during pregnancy. Our prior study findings indicted limited knowledge and misconceptions about alcohol use during pregnancy in both women and health professionals, and a lack of materials and print resources in Russia. The data demonstrated that alcohol exposed pregnancies (AEP) are a major public health concern and suggest that interventions by physicians may be particularly salient and influential for women in Russia.

The presentation will describe a line of research projects aimed to preventing FASD in Russia. *Phase I:* Preventing FAS/ARND in Russian Children study funded by NIH/Fogarty International Center, 2003-2007. *Phase II:* Development of Education Materials for Prevention of FAS in Russia, AUCD/CDC, 2005-2007. *Phase III:* Preventing FAS/ARND in Russian Children study, NIAAA/Fogarty 2007-2012. A consortium between the University of Oklahoma Health Sciences Center and St. Petersburg State University was established to foster collaboration in prevention research and Nizhniy Novgorod State Pedagogical University has joined the collaboration recently.

Data from *Phases I and II* will be presented. Training materials for Russian health professionals and FASD education materials for women will be demonstrated. The highlights of the development and evaluation of materials will be presented. The application of these findings to developing FASD prevention in Russia (*Phase III*) will be discussed.

*Prevent FAS in Russia Research Group key faculty: Balachova, Bonner, Chaffin, Isurina, Tsvetkova, Volkova, Palchick, Shapkaiz. Consultants: Beckman, Bertrand, Erishev, Fleming, Mulvihill, Riley, Reinicke, Sobell. The studies supported by Brain Disorders in the Developing World: Research Across the Lifespan NIH/FIC Grant R21TW006745-01; AUCD/CDC Grants RTOI 2005-999-01 and 2007-999-02; and NIAAA/FIC 1R01AA016234-01A1.



CHANGING PHYSICIANS' KNOWLEDGE AND ATTITUDES TO PREVENT FAS/FASD IN RUSSIA

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FAS/FASD are completely preventable by avoiding alcohol use during pregnancy. Russia is a country with very high rates of alcohol use (WHO, 2005). Our prior studies demonstrated that physicians in Russia had minimal information about FAS and FAS/FASD were not addressed either in the curriculum at medical schools or in the curriculum for required Continuing Education (CE). *The main objective* of this project was to develop and evaluate FAS training curriculum for health professionals.

Methods: Timeframe, learning needs, core competencies, and the structure of the course to be incorporated into the existing medical CE system were identified and materials were developed and tested in randomized trials in a pre-post test design to determine the effectiveness of the training in changing physicians' knowledge about FAS, skills, and attitudes toward drinking during pregnancy.

Sample: OBGs (N=60) and pediatricians (N=66) were recruited to participate in the study through CE programs at the St. Petersburg Pediatric Medical Academy representing different Russian regions. The physicians were trained in groups by specialty. The groups were randomly assigned to either experimental (FAS training) or control condition (no FAS training). A total of 14 groups were conducted in October 2006-February 2008. Participants in the control groups received a regular CE course. Participants in the training groups received 3 hours FAS training as a part of the CE course.

Measures: Participants' pre-post change in FAS knowledge, attitudes, and skills were assessed using questionnaires and videotaped role plays for OBGs.

Data analysis and results: The data were compared through a mixed model analysis that accounted for the nesting of individuals in different cohorts and the repeated nature of the responses. Compared to the control group, pediatricians who participated in training on FAS demonstrated a significant increase in knowledge, competence, and intention to address FASD/prevention in their practice and less acceptance of any alcohol use during pregnancy. OBGs' data are being analyzed currently and will be presented.

Conclusions: Alcohol abuse during pregnancy has been recognized as a major public health concern. Dissemination of the study results and developed materials are important to improve prevention of alcohol-related birth defects in children.

The study is conducted by the Prevent FAS in Russia research group and funded by the Centers for Disease Control and Prevention (CDC), National Center on Birth Defects and Developmental Disabilities (NCBDDD) through a cooperative agreement with the Association of University Centers on Disabilities (AUUCD, Grant No. AUUCD RTOI 2005-999-01). We wish to acknowledge the project consultants Rd Riley, John Mulvihill, Linda Sobell, Oleg Erishev, and Mark Chaffin and the contributions of Maria Pechenezskaya, Alla Ioffe, Alexandra Regentova, and Maxim Gusev.



**EARLY IDENTIFICATION AND PREVENTION OF FETAL ALCOHOL
SPECTRUM DISORDERS: THE NIAAA INTERNATIONAL COLLABORATIVE
INITIATIVE ON FASD IN EASTERN EUROPE**

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Although Fetal Alcohol Spectrum Disorders (FASD) are among the most common developmental disabilities worldwide, prevention, intervention and early identification of affected children remain challenging. As part of an international effort to address these issues, Eastern European collaborators are participating in an international Collaborative Initiative on Fetal Alcohol Spectrum Disorders. These longitudinal studies will help to standardize diagnostic criteria and methods of assessing the full spectrum of FASD, as well as enhance understanding of the infant neurobehavioral phenotype of FASD. These studies also aim to improve early case identification through prenatal ultrasound, standardized infant examinations, and 3D imaging, and will evaluate the contribution of maternal nutritional status as a potentially modifiable influence on susceptibility to FASD in infants of alcohol drinking mothers. Results from study collaborators in Ukraine have identified predictors of risky drinking in women of reproductive age, and have demonstrated that detailed information about risky drinking before and during pregnancy can be obtained in prenatal care settings. In addition, researchers in Ukraine have demonstrated that selected prenatal ultrasound markers obtained through routine 2-D scans are significantly correlated with both maternal alcohol consumption and physical features of FASD in the offspring. These promising results and continuing work can help to contribute to prevention and intervention for FASD in Eastern Europe and other parts of the world.