

Mary Marden Velasquez  
Karen S. Ingersoll  
Mark B. Sobell  
Linda Carter Sobell

Advances in Psychotherapy –  
Evidence-Based Practice

# Women and Drinking: Preventing Alcohol- Exposed Pregnancies



## Women and Drinking

## About the Authors

**Dr. Mary Velasquez** is Centennial Professor in Leadership for Community, Corporate, and Professional Excellence and director of the Health Behavior Research and Training Program at the University of Texas at Austin. Her research focuses on the development and testing of behavioral interventions in healthcare settings, screening and brief interventions, group treatment for substance use, and preventing fetal alcohol spectrum disorder.

**Dr. Karen Ingersoll** is associate professor of Psychiatry and Neurobehavioral Sciences at the University of Virginia School of Medicine, Charlottesville, VA. Dr. Ingersoll's focus is the intersection of addiction and health. She has developed and tested motivational interventions that target health behaviors and addictive behaviors together for two decades, including multiple studies of interventions to reduce the risk of alcohol-exposed pregnancy.

**Drs. Linda and Mark Sobell** are both professors at Nova Southeastern University, Ft. Lauderdale, FL, and have had a clinical research career spanning four decades. They are nationally and internationally known for their research in the addictions field, including the development of the Timeline Followback and Guided Self-Change model of treatment. They both have received several awards including the Jellinek Memorial Award for outstanding contributions to knowledge in the field of alcohol studies.

## Advances in Psychotherapy – Evidence-Based Practice

### Series Editor

**Danny Wedding**, PhD, MPH, School of Medicine, American University of Antigua, St. Georges, Antigua

### Associate Editors

**Larry Beutler**, PhD, Professor, Palo Alto University / Pacific Graduate School of Psychology, Palo Alto, CA

**Kenneth E. Freedland**, PhD, Professor of Psychiatry and Psychology, Washington University School of Medicine, St. Louis, MO

**Linda C. Sobell**, PhD, ABPP, Professor, Center for Psychological Studies, Nova Southeastern University, Ft. Lauderdale, FL

**David A. Wolfe**, PhD, RBC Chair in Children's Mental Health, Centre for Addiction and Mental Health, University of Toronto, ON

The basic objective of this series is to provide therapists with practical, evidence-based treatment guidance for the most common disorders seen in clinical practice – and to do so in a reader-friendly manner. Each book in the series is both a compact “how-to” reference on a particular disorder for use by professional clinicians in their daily work and an ideal educational resource for students as well as for practice-oriented continuing education.

The most important feature of the books is that they are practical and easy to use: All are structured similarly and all provide a compact and easy-to-follow guide to all aspects that are relevant in real-life practice. Tables, boxed clinical “pearls,” marginal notes, and summary boxes assist orientation, while checklists provide tools for use in daily practice.

# **Women and Drinking**

## **Preventing Alcohol- Exposed Pregnancies**

**Mary Marden Velasquez**

Health Behavior Research and Training Institute, University of Texas  
at Austin, TX

**Karen S. Ingersoll**

University of Virginia School of Medicine, Charlottesville, VA

**Mark B. Sobell and Linda Carter Sobell**

Center for Psychological Studies, Nova Southeastern University,  
Fort Lauderdale, FL



**Library of Congress Cataloging in Publication** information for the print version of this book is available via the Library of Congress Marc Database under the LC Control Number 2015930446

### **Library and Archives Canada Cataloging in Publication**

Velasquez, Mary Marden, author

Women and drinking : preventing alcohol-exposed pregnancies / Mary Marden Velasquez (Health Behavior Research and Training Institute, University of Texas at Austin, TX), Karen S. Ingersoll (University of Virginia School of Medicine, Charlottesville, VA), Mark B. Sobell and Linda Carter Sobell (Center for Psychological Studies, Nova Southeastern University, Fort Lauderdale, FL).

(Advances in psychotherapy--evidence-based practice ; v. 34)

Includes bibliographical references.

Summary: "This book is written to help psychologists and other health care providers identify and make referrals for women who might be at risk of an alcohol-exposed pregnancy (AEP), and to describe evidence-based interventions that are designed to prevent AEPs."--Preface.

Issued in print and electronic formats.

ISBN 978-0-88937-401-0 (paperback).--ISBN 978-1-61676-401-2 (pdf).--

ISBN 978-1-61334-401-9 (html)

1. Fetal alcohol syndrome--Prevention. 2. Women--Alcohol use--Prevention. 3. Pregnant women--Alcohol use--Prevention. I. Sobell, Linda C., author II. Sobell, Mark B., author III. Ingersoll, Karen S., author IV. Title. V. Series: Advances in psychotherapy--evidence-based practice ; v. 34

RG629.F45V44 2015 618.3'26861 C2015-901468-9

C2015-901469-7

Cover image © dardespot – istockphoto.com

© 2016 by Hogrefe Publishing

<http://www.hogrefe.com>

### **PUBLISHING OFFICES**

USA: Hogrefe Publishing Corporation, 38 Chauncy Street, Suite 1002, Boston, MA 02111  
Phone (866) 823-4726, Fax (617) 354-6875; E-mail [customerservice@hogrefe.com](mailto:customerservice@hogrefe.com)

EUROPE: Hogrefe Publishing GmbH, Merkelstr. 3, 37085 Göttingen, Germany  
Phone +49 551 99950-0, Fax +49 551 99950-111; E-mail [publishing@hogrefe.com](mailto:publishing@hogrefe.com)

### **SALES & DISTRIBUTION**

USA: Hogrefe Publishing, Customer Services Department, 30 Amberwood Parkway, Ashland, OH 44805  
Phone (800) 228-3749, Fax (419) 281-6883; E-mail [customerservice@hogrefe.com](mailto:customerservice@hogrefe.com)

UK: Hogrefe Publishing, c/o Marston Book Services Ltd., 160 Eastern Ave.,  
Milton Park, Abingdon, OX14 4SB, UK  
Phone +44 1235 465577, Fax +44 1235 465556; E-mail [direct.orders@marston.co.uk](mailto:direct.orders@marston.co.uk)

EUROPE: Hogrefe Publishing, Merkelstr. 3, 37085 Göttingen, Germany  
Phone +49 551 99950-0, Fax +49 551 99950-111; E-mail [publishing@hogrefe.com](mailto:publishing@hogrefe.com)

### **OTHER OFFICES**

CANADA: Hogrefe Publishing, 660 Eglinton Ave. East, Suite 119-514, Toronto, Ontario, M4G 2K2

SWITZERLAND: Hogrefe Publishing, Länggass-Strasse 76, CH-3000 Bern 9

### **Copyright Information**

The e-book, including all its individual chapters, is protected under international copyright law. The unauthorized use or distribution of copyrighted or proprietary content is illegal and could subject the purchaser to substantial damages. The user agrees to recognize and uphold the copyright.

### **License Agreement**

The purchaser is granted a single, nontransferable license for the personal use of the e-book and all related files.

Making copies or printouts and storing a backup copy of the e-book on another device is permitted for private, personal use only.

Other than as stated in this License Agreement, you may not copy, print, modify, remove, delete, augment, add to, publish, transmit, sell, resell, create derivative works from, or in any way exploit any of the e-book's content, in whole or in part, and you may not aid or permit others to do so. You shall not: (1) rent, assign, timeshare, distribute, or transfer all or part of the e-book or any rights granted by this License Agreement to any other person; (2) duplicate the e-book, except for reasonable backup copies; (3) remove any proprietary or copyright notices, digital watermarks, labels, or other marks from the e-book or its contents; (4) transfer or sublicense title to the e-book to any other party.

These conditions are also applicable to any audio or other files belonging to the e-book. Should the print edition of this book include electronic supplementary material then all this material (e.g., audio, video, pdf files) is also available in the e-book-edition.

Format: PDF

ISBN 978-0-88937-401-0 (print) • ISBN 978-1-61676-401-2 (PDF) • ISBN 978-1-61334-401-9 (EPUB)

<http://doi.org/10.1027/00401-000>

# Preface

This book is written to help psychologists and other health care providers identify and make referrals for women who might be at risk of an alcohol-exposed pregnancy (AEP), and to describe evidence-based interventions that are designed to prevent AEPs.

The harmful effects of a women's drinking on her unborn child are not a new concern. Historically, while concerns about maternal drinking date back to biblical times, scientific investigations into fetal alcohol exposure were largely nonexistent through the early 1970s. In 1996, an Institute of Medicine (IOM) committee was charged with improving the understanding of available research knowledge and experience on approaches for diagnosing fetal alcohol syndrome (FAS) and related disorders as well as the prevalence of FAS and related disorders in the general population (Institute of Medicine, 1996). It was not until the IOM published its pivotal paper discussing issues related to the prevalence, diagnosis, treatment, and prevention of FAS, that we started to learn the extent of the full spectrum of fetal alcohol spectrum disorder (FASD). For example, we learned that fetal alcohol exposure was the leading known cause of intellectual disability in the Western world and, importantly, that FASD is a 100% preventable disability.

We also learned that drinking during pregnancy can cause birth defects; mild to severe intellectual disabilities; mental health problems; and emotional, learning, and behavioral problems called FASD (O'Connor & Paley, 2009; Streissguth et al., 2004). The most severe of these disorders, FAS, is associated with a combination of abnormal facial features, neurodevelopmental disorders, growth deficits, and overall poor outcomes. FASDs, including FAS, are a significant challenge for the scientific community and the health care system (Bertrand et al., 2004). Alcohol consumption among pregnant women is a significant public health concern, and preventing AEPs has been identified as a health care priority by several major and influential groups. Recommendations against drinking during pregnancy have been published by the IOM (Stratton, Howe, & Battaglia, 1996), the US Surgeon General's Office (Office of the Surgeon General, 2005), and the US Department of Health and Human Services, Office of Disease Prevention and Health Promotion (2011).

Although the best time to prevent AEPs is prior to conception, women – including those who intend to become pregnant – may not be aware that they have conceived until several weeks or months into their pregnancy. Consequently, during this key phase of fetal development, many women continue to drink. Further, half of all women of childbearing age drink alcohol, and nearly half of all pregnancies are unplanned. What we know today, and what is the focus of this book, is that a variety of brief motivational behavioral interventions developed for nonpregnant women of childbearing age can effectively prevent AEPs (Cannon et al., 2014). Health care practitioners from multiple disciplines (e.g., psychologists, physicians, social workers) are well suited to deliver these interventions because they are trained to target specific

behavioral change, and because women of childbearing age present to a wide variety of practitioners in different health care settings. The multiple evidence-based Changing High-Risk Alcohol Use and Improving Contraception Effectiveness Study (CHOICES) and CHOICES-like interventions, which are described in Chapter 3, all have been shown to reduce the risk of AEP across multiple practice settings, ranging from those where risk is high (e.g., jails, mental health and substance abuse treatment centers), to more “opportunistic” settings that serve significant numbers of women of childbearing age (e.g., primary care clinics, universities and colleges), to brochures that can be provided at no cost in the community (e.g., health care settings, pharmacies, physicians’ offices).

The work described in this book is based on clinical trials from several FASD prevention studies that were funded by the US Centers for Disease Control and Prevention (CDC) to reduce the incidence of AEP. These multisite research and dissemination efforts started with a program of research known as Project CHOICES, which had several objectives. The first was to identify community settings where women would be at a high risk for an AEP (Project CHOICES Research Group, 2002). The second objective was to develop, test, and refine a comprehensive behavioral program to reach women who were at risk of an AEP (Project CHOICES Intervention Research Group, 2003). An initial multisite randomized controlled trial (RCT), conducted from 2002 to 2005, demonstrated that the CHOICES intervention could reduce risks for an AEP, preventing the harmful effects of FAS and FASD (Floyd et al., 2007). The CHOICES efficacy study was awarded the 2008 Charles C. Shepard Science Award at the CDC for excellence in prevention and control.

The multisite CHOICES team consisted of several principal investigators including the four authors of this book along with Drs. R. Louise Floyd, Patricia Dolan Mullen, Mary Nettleman, Kirk von Sternberg, and Kenneth Johnson. Following the initial studies, and over the course of 15 years, several of the investigators have conducted a series of additional RCTs, with each successive study informing the next. These studies and their results are described in Chapter 3. The successful outcomes for the six CHOICES and the CHOICES-like studies are shown individually in the first six tables in Chapter 3. To better reflect the overall impact of the success of the six CHOICES and CHOICES like studies, a final table in Chapter 3 lists the percentage of women in the six studies who met criteria for an overall reduced risk of an AEP at 6 months postintervention for the CHOICES (experimental group) compared with a Standard FASD intervention group (control). Remembering that *all* women in this table, control or experimental, were at risk when they entered the studies, the percentages for reduced risk for a postintervention AEP even for the control groups are impressive. However, the percentage of change is higher in the CHOICES or CHOICES-like studies. These research studies were all conducted in very different settings (e.g., primary care, university-hospital based obstetrical/gynecology practices, urban jails, substance abuse treatment settings, Native American tribal settings, primary care medical settings, media-recruited samples), and they included both college students and nonstudent groups.

We “Four Musketeers” (as we have come to call ourselves over the years) encourage you to use the information and intervention strategies presented

in this book in ways that best suit your practice and setting. Whether or not this intervention fits within your particular program or treatment context, we urge you to increase your knowledge about AEP prevention and to share this knowledge with your colleagues who may be unaware of the effects of alcohol on pregnancy. The impact of preventing just one pregnancy affected by alcohol is significant – preventing just one child from the effects of FAS could mean saving more than US \$2 million across a person’s lifetime, as well as avoiding the challenges that the children and their families face when dealing with FASD and the impact on the quality of their lives. We hope this book will be a valuable guide in helping you reduce the risk of AEP in the women you serve and in the communities in which you work.

# Acknowledgments

We are indebted to our research teams and our families who supported us as we conducted the many years of research and writing that are reflected in this work. We want to thank Danny Wedding for his guidance (and patience) as we worked our way through a project that turned out to be much bigger and to take much longer than we originally anticipated.

The development of the CHOICES intervention was made possible by the invaluable contributions of the other Principal Investigators, Drs. Mary Nettleman, Pat Mullen, and Kenneth Johnson. We also greatly appreciate the assistance of Dr. Kirk von Sternberg, Dr. Nanette Stephens, Dr. Beth Pomeroy, Shannon Johnson, Kyle Pitzer, and Sophia Sarantakos who helped in the completion of this book. We thank Janet Sharkis and Leah Davies from the Texas Office for the Prevention of Developmental Disabilities for their unwavering support and advocacy in FASD prevention. Likewise, we appreciate the assistance of the staff members at the US Centers for Disease Control and Prevention (CDC) who provided us valuable assistance in the preparation of the book.

Finally, we offer our sincere thanks to our colleagues at the CDC's National Center on Birth Defects and Developmental Disabilities who guided many of the FASD prevention research and dissemination studies described in this book. Special thanks to R. Louise Floyd (to whom this book is dedicated) who captained the CHOICES program of research at the CDC, and to Colleen Boyle who oversaw and supported those efforts. These two individuals have believed in us, trusted us, advocated for us, and supported us – both scientifically and personally – through the challenges and successes of 20 plus years of collaboration in preventing alcohol-exposed pregnancies.

Finally, as we were in the final stages of finishing this book, we learned that the CDC, on September 12, 2014, announced that since being released in July of 2011, approximately 8,000 sets of the CHOICES curriculum package have been requested and distributed throughout the United States and other countries. This is a huge testament to the utility of the CHOICES intervention.