

10-8-2010

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Diane J. Abatemarco, PhD, MSW

Thomas Jefferson University, diane.abatemarco@jefferson.edu

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Abatemarco, PhD, MSW, Diane J., "Prevention, Intervention and Evaluation of Maternal Child Health Programs and Practices" (2010). *College of Population Health Lectures, Presentations, Workshops*. Paper 9.<http://jdc.jefferson.edu/hplectures/9>

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Prevention, Intervention and Evaluation of Maternal Child Health Programs and Practices

Diane J. Abatemarco, PhD, MSW
School of Population Health
Thomas Jefferson University
Family Medicine
October 8, 2010



Maternal Health

- Triangulation of chart review data, electronic birth registry & HIV surveillance data to describe zidovudine receipt among HIV-infected pregnant women in New Jersey (Abatemarco, PI)
 - Conclusions: Only 50% of HIV infected Pregnant women receive ZDV in pregnancy, labor and delivery. Women more likely to receive ZDV if symptomatic w/AIDS. Prenatal care essential to treatment.
 - **Abatemarco DJ, Catov J, Delnevo CD, Costa S & Hausman AJ. Factors related to zidovudine receipt among HIV (Journal of Healthcare for the Poor & Underserved, 8/08)**



Maternal Health

- Prevalence of tobacco use among pregnant women in New Jersey (Abatemarco, PI)
 - Baseline for evaluation of tobacco control
 - Unique use of PRAMS methodology
 - Conclusions: Approximately 11% of women reported tobacco use during pregnancy, consistent with EBC, smoking in pregnancy was a risk factor for IPV
- Estimation of rates of tobacco dependence treatment among ob/gyns & midwives to pregnant women (Abatemarco, PI)
 - Conclusions: Environmental supports within the office increase rates of tobacco treatment
 - **Abatemarco DJ, Steinberg M, Delnevo C. Midwives tobacco counseling practices. *Journal of Midwifery and Women's Health*, 2007; 52 (5):451-457.**



Adolescent Health

- Project Northland in Split, Croatia (Co-PI, Abatemarco and West) (Funded by AIHA)
 - Comprehensive needs assessment - CBPR
 - Youth Risk Behavior Survey, in depth interviews with key stakeholders, meetings with teachers, principals, and parents
 - 3 year intervention study to prevent early onset of alcohol use among adolescents in country's 2nd largest city
 - Experimental design to determine the efficacy of intervention
 - Community engagement of gov't, schools, NGOs, & medical orgs

Abatemarco DJ and West B. Project Northland In Croatia: A community-based alcohol prevention intervention. Journal of Drug Education 2004; 34(2): 167-178.

Adolescent Health

- Comprehensive Evaluation of Project Northland (Abatemarco, PI) (Funded by the UMDNJ Foundation)
 - Pre/Post test & focus groups: teachers, parents & students
 - Conclusions: Awareness raised throughout community, 6 & 7 grades delayed onset, girls delayed more than boys, by 8th grade the students were more sophisticated & curricula was not relevant.
 - *West, B. **Abatemarco, DJ.** Results of an International Public Health Partnership Focusing on Adolescent Alcohol Prevention in Split, Croatia. (Journal of Drug Education, 8/08.)*



Infant & Child Health

- *Practicing Safety*

- Pediatric intervention to prevent abuse & neglect of 0-3 year olds (Co-PI, Abatemarco & Kairys)
 - *YouTube - Toddler Abuse In Car Wash Caught On Tape*
 - <http://www.aap.org/sections/scan/practicingsafety/team.htm>
 - <http://www.innovations.ahrq.gov/searchResult.aspx?type=&term=abatemarco&groupID=1>
- 5 year study to determine if complexity science principles influences pediatric practice change to enhance anticipatory guidance on: maternal depression, crying, discipline, & toilet training.
- *Comprehensive Evaluation: quantitative & qualitative ethnographic methods (patient pathway, genogram, observation, in depth interviews, surveys, chart review)*
- *Diffusion and sustainability? 2 year post follow-up (focus groups, physician interviews, chart reviews)*



Practicing Safety - continued

- Conclusions:
 - All practices report increased awareness of abuse and neglect
 - 4 of 5 practices adopted maternal depression screening & referral
 - All practices adopted crying, all either discipline or toileting tools

- **Abatemarco DJ, Kairys S, Gubernick R, Kairys J.** *Expanding the Pediatrician's Black Bag: A Psychosocial Care Improvement Model. The Joint Commission Journal on Quality and Patient Safety 2008; 34 (2):106-115.*



<http://www.aap.org/topics.html>



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Practicing Safety Team



American Academy of Pediatrics

Tammy Piazza Hurley
Project Director

Charlette Nunnery, MS
Project Manager

COPING WITH CRYING

PARENTING

SAFETY IN OTHER'S CARE

FAMILY ENVIRONMENT

EFFECTIVE DISCIPLINE

SLEEPING & EATING

TOILET TRAINING

Central Evaluation Team

Diane J. Abatemarco, PhD, MSW
Co-Principal Investigator, CET
Chairperson

Karen Benjamin, MPH, CHES
Health Program Analyst

Ruth S. Gubernick, MPH
CET Facilitator/Practice Systems

Steven W. Kairys, MD, MPH, FAAP
Principal Investigator

Project Advisory Committee

Randy Alexander, MD, PhD
Consultant

Joseph F. Hagan, Jr, MD, FAAP
Bright Futures Representative

Pamela High, MD, MS, FAAP
Committee on Early Childhood,
Adoption & Dependent Care
Representative

Robert Cook, MD, PhD, FAAP

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P Innovation Profile:

Multifaceted Program That Screens for Maternal Depression, Infant Crying, and Toilet Training Enhances Ability of Pediatricians to Identify and Address Cases of Potential Child Abuse

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SECTIONS: [Snapshot](#) | [What They Did](#) | [Did It Work?](#) | [How They Did It](#) | [Adoption Considerations](#)

Snapshot

Summary

Pediatric primary care practices implemented a multifaceted child abuse identification and prevention program that includes screening new mothers for maternal depression, asking parents about chronic crying and toilet training, and posting educational materials related to abuse prevention prominently in waiting and exam rooms. Qualitative reports suggest that the program has increased pediatricians' awareness of abuse, enhanced their skills in discussing young children's psychosocial issues and behaviors with parents, and increased their ability to identify depressed mothers and at-risk children and families in need of additional assistance.

Developing Organizations

What They Did

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Problem Addressed

Pediatricians are in a prime position to identify and prevent child abuse and neglect. However, attempts to implement psychosocial interventions that target child abuse and neglect in pediatric practices have been disappointingly slow, marginally effective, and/or have involved increased practice costs.¹

- **Young children at risk of abuse:** An estimated 10 million children are exposed to domestic violence each year²; children age 3 years and younger account for nearly 30 percent of victims of physical, emotional, and sexual abuse.³ Children of battered women are more likely to be abused.³
- **Failure to screen among pediatricians:** Active screening, including having mothers fill out a questionnaire asking about their exposure to domestic violence, increases the odds of identifying families experiencing domestic violence, but this is rarely done in pediatric practices.⁴ A national survey of more than 1,600 pediatricians revealed that, although 85 percent of pediatricians agree on the importance of addressing abuse, neglect, and other psychosocial issues, fewer than 60 percent reported having consistent discussions with parents about developmental concerns.⁵ Part of the problem is that pediatricians feel inadequately equipped to handle the complexity of abuse and psychosocial problems in their clinical practice; most practices have insufficient communication systems, capacity, and financial resources to introduce new programs, methods, or processes into their established routines.⁴
- **Ineffectiveness of traditional interventions:** Continuing medical education, performance review and feedback, practice guidelines, enhanced financial incentives, continuous quality improvement, and physician profiling do not make pediatricians more

Fitwits, MD

Implementation Strategy

- Feasibility Study
 - yes we can
- Complex Adaptive Systems
 - Understanding the practice culture
- Physician leadership
 - Active participation
- Office Champions
- Continuous evaluation feedback
 - Mid-course corrections



Evaluation Design

- Mixed Method
 - Pre/post
 - Quantitative
 - Surveys:
Physician & parent
 - Qualitative:
 - Physician comment cards immediately after visit
 - Child comment cards
 - In dept Interviews
 - w/ physician
 - w/ parents
 - Phone interviews w/ parents
- Response rates
- Enrolled 50% & 95% physicians
 - 70% parents



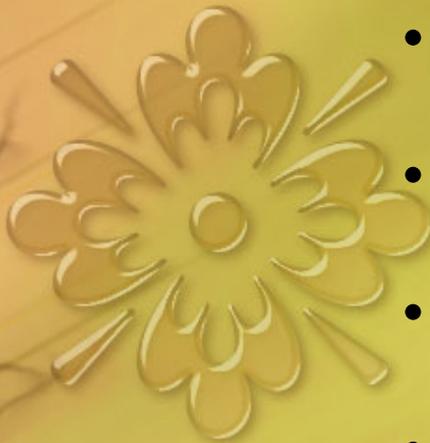
Results - Physicians

- Increased time on obesity prevention in visit to 7 mins.
- Tool provided easy way to address obesity, decreasing perceived parent barriers id'd from baseline.
- Physicians became more empathic to families - they came to understand financial problems that parents face as a barrier to providing healthier food.
- Over 40% of physicians used Fitwits MD for more than 50% of visits.
- Over 95% of physicians who used Fitwits MD said it increased their comfort & improved their competency with the subject.
- 3/4 of physicians who used Fitwits MD reported - greatly reduced barriers identified at baseline



Results - Parents

- **96%** remembered office visit Fitwits discussion
- **93%** talked about Fitwits at home after office visit — topics rank ordered by frequency of response were: healthy eating/healthy choices, portion control
- **80%** said their child played Fitwits games at home;
- **73%** of parents said having the games helped increase discussions at home about obesity prevention, nutrition, exercise & portions
- **24%** reported used some Fitwits recipes;
- **57%** noted a family member increased physical activity since Fitwits office visit;
- **50%** noted a change in types of foods prepared at home
- **53%** a change in fast food meals served at home
- **57%** a change in beverages served at home.



Other Research...

National Children's Study (NICHD) (Co-investigator Abatemarco)

- Co-I - community engagement, recruitment & retention
- Adjunct studies: parenting - maternal depression, parenting styles, social networking,

PEPP Study (NICHD) (Co-PI Abatemarco)

- Co-I - examination of anxiety, optimism, stress & neighborhood factors on prenatal outcomes
- Low anxiety = longer gestational age
- *Catov JM, **Abatemarco DJ**, Markovic N, Roberts, J. Anxiety, Optimism and Smoking Related to Gestational Age and Infant Birth Weight. (Sept 2010, MCHJ).*



YASHCN Transition from Peds to Adult Care

- Co-I, PI R. Meek, MD Dupont
- R18 AHRQ
- Submitted....yesterday....
- Use of the Chronic Care Model, enhancing HIT, activation of sub specialists, parents and YASHCN



Current & Future Research

- *Practicing Safety* - dissemination through health care orgs and American Academy of Pediatrics state chapters
 - 50-100 practices, paired down modules, train-the-trainer, use of existing health care systems (example: VCHIP)
 - Duke Foundation
- R18 - 2011 randomized control trial of *Practicing Safety*





R18 AHRQ w/PRN 2011



Biomedical Study ?



Seeking Safety/AAP
2011



Pilot of new modules
2009-10

Evaluation & Research
2007-2008



Practicing Safety Study
2002-2006



Conclusions

- Each of these studies points to:
 - Theoretical foundations of Social Cognitive Theory, the Social Ecological Framework & Complexity Science/Complex Adaptive Systems>
 - Small changes made reflectively and mindfully will have large impact & more likely to sustain & defuse.
 - Abuse & neglect are associated with many health outcomes yet little has been done to intervene and increase parenting skills, style & capacity.
- Possible to intervene further upstream during pregnancy...



AHRQ

- **PORTFOLIO**
 - **Comparative Effectiveness**
 - **Prevention and Care Management**
 - **Value**
 - **Health Information Technology**
 - **Patient Safety**
 - **Innovations/Emerging Issues**



Mechanisms & why AHRQ

- R01 vs. R18
- Dissertation
- Post doctoral
- Conference grants
- R03 vs. R01

- Multilevel interventions, health systems research, RTC, demonstrations...

