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Abstract Title: *RESIDENT EDUCATION IN BREASTFEEDING USING A FIELD TRIP CASED-BASED MODEL RESULTS IN INCREASED KNOWLEDGE, ATTITUDES AND EXPERIENCE*

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The 1997 American Academy of Pediatrics Policy Statement on breastfeeding recommended that pediatricians actively promote and help manage breastfeeding. Most physicians do not receive any formal breastfeeding training during medical school or residency and they rely on personal or spousal experiences. Our objective was to develop and evaluate a breastfeeding curriculum for pediatric residents.

The curriculum was piloted at Children's Hospital Oakland to pediatric residents from 1999 - 2001. Using the 'field trip model,' 40 residents have participated in four half day teaching sessions including a visit to a La Leche League meeting, a Kaiser lactation consultant clinic, hospital-based lactation rounds and a children's hospital-based referral clinic. Residents were given reading material and videos as optional didactic information.

The effectiveness of the curriculum was evaluated through pre- and post-tests using a modified version of a previously published questionnaire assessing knowledge about (70 items), attitudes towards (6 items) and experience with breastfeeding (11 items). Matched-pairs-t-tests on scaled scores (ranging from 0 to 100) indicated that there were significant pre-posttest increases in experience (37.1 to 77.3, $p < .0001$), knowledge (60.5 to 75.4, $p < .0001$) and attitudes (76.7 to 83.3, $p < .001$). On a 5-point scale from 1 (lowest) to 5 (highest), 81% of the residents rated the curriculum "5" and 19% rated it "4".

Based on improved test scores, this curriculum model is an effective approach to teaching breastfeeding to pediatric residents. At Children's Hospital Oakland this curriculum has become a permanent component of our ambulatory rotation in the residency program.

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Abstract Title: *PROMISING MULTISECTOR COLLABORATION & TOOLS TO HELP WORKING MOTHERS BREASTFEED*

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Background: Lack of workplace support for lactation limits breastfeeding duration. Therefore, the Surgeon General and others recommend that companies adopt specific practices to help employed mothers breastfeed, such as by providing locations for women to pump and store milk. Case reports suggest that by supporting lactation, employers can benefit from decreased health care costs as well as increased productivity, retention, recruitment, and morale. Methods are needed to inform employers about the need for and mutual benefits of providing lactation support, as well as to help employers improve practices. Mothers also express a need for guidance in how to successfully combine breastfeeding and work.

Purpose: To share lessons and materials from efforts in Washington (WA) State to help both mothers and employers know why and how to maintain breastfeeding after return to work postpartum.

Methods & Results: Three intersecting developments in WA provide an opportunity to advance workplace support for lactation, including both lessons and materials that can be used elsewhere. First, a large statewide private-public coalition to promote breastfeeding has produced a packet of materials to help mothers & employers know why and how to integrate breastfeeding and work. Over 1500 copies of the packet have been requested, spurring a second English printing and translation of the materials for the largest non-English speaking communities in the state. Until recently, only mothers and health care professionals have directly requested the materials. The second development is a new law to increase employer support for breastfeeding. The third development is new collaboration between business leaders and breastfeeding advocates. This collaboration was nurtured to be able to pass the above law. Previous relations between business leaders and breastfeeding advocates tended to be distant, adversarial, and unproductive. Business leaders are now providing useful insights and opportunities to contact employers, as well as to motivate and help them adopt the practices recommended by the Surgeon General. The information sheets for mothers and employers will be displayed. They can also be found at www.hmh-bwa.org.

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Abstract Title: *KNOWLEDGE ABOUT THE BENEFITS OF BREASTFEEDING IN MOTHERS WITH INFANTS 0-2 MONTHS OF AGE WITH GASTROESOPHAGEAL REFLUX DISEASE*

Authors: *Ana M Parrilla-Rodriguez MD, MPH, Maria E Gonzalez RT, MPH; Rene Davila-Torres MS.*

Infants with gastroesophageal reflux disease (GERD) who are breastfed have significantly shorter clinical episodes of the condition than artificially fed infants. The purpose of this study was to identify the knowledge about the benefits of breastfeeding in mothers with babies 0-2 months of age with gastroesophageal reflux. A non-probabilistic sample was taken of patients from various private radiological centers. Sixty mothers completed a self-administered questionnaire, with a median age of 26 years and an educational level of 14 years. Seventy one percent breastfed their last baby, but only 18.6% practiced exclusive breastfeeding. The pediatrician suggested formula to 53.3% of the mothers, and 64% of the mothers were told to combine breast milk with vegetables as treatment for the GERD. Inadequate knowledge about the benefits of breastfeeding was exhibited by 27% of the mothers. Mothers of infants with GERD need education on the importance of breastfeeding. Further research is necessary on the factors that impact the duration of breastfeeding in this population.

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Abstract Title: *BARRIERS TO INITIATION OF BREASTFEEDING IN MOTHERS OF INFANTS WITH SPINA BIFIDA*

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Babies born with neural tube defects need neonatal intensive care and prolonged hospital stays. The physiological and psychological benefits of breastfeeding for these babies and their mothers merit priority attention from the health care team. With the purpose of identifying the barriers perceived by mothers of infants with spina bifida for the initiation of breastfeeding, a non-probabilistic sample was chosen in two institutions for services to children with developmental disabilities in San Juan. A self-administered questionnaire was given to 26 participating mothers. The median age was 30.5 years and the educational level was 13 years. 59.1% stated they had breastfed their child with spina bifida at some point while 40.9% had not. 61.5% indicated they had not received support from the NICU staff to breastfeed their babies and 80% said they had never received information on NICU routines and schedules in order for them to breastfeed their babies. 75% stated the distance between the NICU and their room did not allow them to breastfeed their babies. Mothers of infants with spina bifida face a large number of barriers that hinder the initiation of breastfeeding. Hospital and NICU routines must be evaluated in order to promote breastfeeding effectively among the infant population.

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Abstract Title: *PROFILE OF CALLS TO A BREASTFEEDING CLINIC TELEPHONE WARM LINE*

Authors: *Ana M Parrilla-Rodriguez, MD, MPH, Rene Davila-Torres, MS, Jose J Gorrrin-Peeralla, MD, MPH*

Breastfeeding mothers need orientation and help in order to succeed with breastfeeding. Lack of support from health professionals and societal barriers result in a median duration of breastfeeding in Puerto Rico of only 3 weeks. A telephone warm line at our breastfeeding clinic tries to provide some much-needed support and orientation. The purpose of this study was to determine the principal reasons for calls to the warm line and the action taken by the counselor. Five hundred and thirty three calls were received in a 4 month period. They were handled by certified lactation educators who gathered demographic and feeding information from the mother and registered the action taken. Descriptive analysis was used with crosstabs tables and multi-response analysis, chi-square test was used to establish the association between the variables. 78.7% of callers were breastfeeding exclusively, while 21.3% were breastfeeding partially or formula feeding, 62.8% of the babies were 2 months old or less. 68.8% of the calls originated in the metropolitan San Juan area. The source of the referral was family/friend in 64.2% of calls, while only 9.8% of the callers were referred by a physician, 3.0% by hospital personnel and 2.0% by other health care providers. Significant differences between exclusive breastfeeding and partial or artificial feeders were found in calls related to position ($p=0.01$), engorgement ($p=0.04$), breast refusal ($p=0.001$), product information ($p=0.02$), medications ($p=0.009$), breastmilk management and storage ($p=0.001$), and relactation ($p=0.02$). Actions taken by the counselor included orientation, referral to breastfeeding specialist physician and referral to breastfeeding support group or classes. Results indicate that more active promotion of referral to breastfeeding support group or classes is warranted since this action was taken in only 14.5% of exclusively breastfeeding mothers and 12.6% of partial breastfeeding or formula users. Promotion of the warm line among physicians, hospitals and other health care professionals is also needed.