

Conclusions

Heat treatment of whole human milk by holder pasteurization, at temperatures commonly used by donor milk banks, slightly lowered human milk TGF α concentrations but not milk TGF β_2 , with little difference shown by varying the temperatures up to 71°C.

P5

SELF-PERCEPTION AND SELF-EFFICACY IN GRADUATES OF A LACTATION EDUCATOR COURSE SIX MONTHS TO THREE YEARS AFTER GRADUATION

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Background

The MCH Program, UPR School of Public Health, has offered a continued education, 60-hour course on lactation education for health professionals since 1999. We have graduated 268 students from this course so far.

Objective

To identify the levels of self-perception and self-efficacy in management of breastfeeding among graduates of our lactation education course from 1999 to 2002, as well as their interest in pursuing further formal training on breastfeeding at the graduate level.

Methods

A self-administered questionnaire was given to 103 graduates of our course (38.4% of the graduates) present in an alumni meeting. The questionnaire included items on knowledge and self-efficacy, as well as on computer literacy and interest in pursuing further graduate degrees on breastfeeding. Descriptive statistics were used for analysis.

Results

Physicians accounted for 8.7% of the studied group, 43.7% were nurses, 26.2% were dietitians and 21.4% were members of other health professions. Thirty-four percent are hospital-based, 19.6% work in a Health Department or other Public Health agency, 13.4% are in private practice, 6.2% are in an academic institution, with the remainder scattered among multiple lines of work. Knowledge self-perception six months to three years after completion of the course was rated as greater by 98.9% of the study group. Self-efficacy in the management of breastfeeding problems prior to taking the course was rated as very capable by 3.2%, fairly capable by 35.5%, not very capable by 53.8% and not capable at all by 7.5%. These percentages changed to very capable by 88.3% and fairly capable by 11.7% after taking the course. A graduate level academic program on breastfeeding is favored by 96.1% of questionnaire respondents, with 46.5% desiring a graduate certificate and 53.5% a masters level program.

Conclusions

The lactation educator course significantly increased self-perception and self-efficacy on knowledge and management of breastfeeding issues among its graduates. These changes have persisted over a maximum of three years and there is significant interest in the creation of a graduate level academic program in breastfeeding and human lactation.

P6

COMPREHENSIVE LACTATION EDUCATION AND SUPPORT PROGRAM INCREASES PATIENT SATISFACTION AND PROLONGS BREASTFEEDING DURATION

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Consistent ongoing support increases breastfeeding duration. Both patients and healthcare providers at a community hospital that has \approx 2400 births per year felt that breastfeeding support and education there was limited and inconsistent. To address these concerns a Comprehensive Lactation Education and Support Program was developed and implemented. The success of the program was measured with a patient satisfaction survey and by following reported breastfeeding rates at six months postpartum.

Method

The program first developed a handbook of breastfeeding information for patients. This handbook was used for all prenatal and postpartum patient education as well as education of the medical staff both in the hospital and the community. The Lactation Consultants involved in this program helped to educate the medical staff, taught prenatal classes, saw every mother in the hospital postpartum and led support groups for breastfeeding mothers after discharge. Patient surveys were distributed to consecutive inpatients postpartum during three time periods: pre-program (A), and 18 months (B) and 36 months (C) after the program was initiated. Surveys were distributed during each time period until 207 were returned. Surveys used a scale of 1 to 5 to measure satisfaction (5=highest). Respondents who included a telephone number on their survey were called at 6 months postpartum to determine whether they were still breastfeeding.

Results

Delivery and in-hospital breastfeeding initiation rates (\approx 97%) remained constant in all three time periods. Satisfaction with hospital staff as an information resource and consistency in education and support rose significantly from period A to B to C (average score: 3.8 vs. 4.3 vs. 4.5 respectively, all $p < 0.003$, Mann-Whitney U, % of respondents giving a "5" was 25 vs. 53 vs. 67). Telephone follow-up for each time period was 53% (A), 50% (B) and 29% (C, data still being collected). The percentage of women contacted in each group that were still breastfeeding six months postpartum was 26% (A) vs. 59% (B) vs. 74% (C) ($p < 0.0001$, Chi square, A vs. B and A vs. C).

Conclusion

Development and implementation of a comprehensive lactation education and support program increased patient satisfaction. The percentage of women who reported they were still breastfeeding at six months postpartum also increased significantly after the program was implemented.

P7

VIOLATIONS TO THE WHO CODE'S ARTICLE 9 ON INFANT FORMULA LABELING

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Background

Marketing practices of formula companies are oriented at promoting, among health care providers and the general public, the wrong concept that infant feeding with artificial baby milk is equivalent to breastfeeding. The WHO Code on Marketing of Breastmilk Substitutes is intended to be adopted as a minimum requirement by all governments and aims to protect infant health by preventing inappropriate marketing of breastmilk substitutes. Labels need to have correct and clear dispositions since they frequently are the only source of vital information for consumers regarding the content of the product and its uses.

Objective

The purpose of this study was to determine the violations to the dispositions of the International Code's article 9 regarding infant formula labeling in Puerto Rico.

Methods

A quantitative and qualitative evaluation of 34 labels of infant formula was done using a non experimental cross-sectional descriptive design. Instrument 4-A of the IBFAN Monitoring Project (IMPIII) and the Standard IBFAN Monitoring (SIM) was utilized. This instrument included 14 criteria that identified violations to the International Code of Breastmilk Substitutes on labeling. Descriptive analysis was used for all variables. The 34 labels evaluated represent 77.3% of infant formula labels of the four companies which market them in the island.

Results

All the labels (100%) evaluated violate the Code in one or more of its dispositions. Most striking violations include: a statement that breastfeeding is best is lacking in 73.5%, as well as a statement that the product should be used only on the advice of a health worker. None of the labels are written in Spanish, the local language. Text which may idealize the use of infant for-

mula or discourage breastfeeding is present in 97.1% of the samples, and the same percentage has a photo or picture idealizing the use of infant formula.

Conclusions

It is vital to produce legislation that implants the WHO Code in Puerto Rico in order to regulate these indiscriminate marketing practices and their subsequent ill effects on children's health and breastfeeding practices.

P8

SUSTAINED BREASTFEEDING INITIATION RATES AT US BABY-FRIENDLY HOSPITAL

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Background

Boston Medical Center (BMC) became the 22nd US Baby-Friendly Hospital in 1999. Previous research found that breastfeeding initiation rates at this inner-city hospital increased significantly from 58% in 1995 to 87% in 1999 ($p < .001$). Infants receiving more breast milk than formula rose from 30% (1995) to 73% (1999) and exclusive breastfeeding rates also improved from 6% in 1995 to 34% in 1999 ($p < .001$).

Objective

To compare breastfeeding initiation rates at BMC during the first three years of Baby-Friendly designation (1999, 2000 and 2001).

Methods

200 complete medical records of full-term, healthy infants born at BMC in 2000 and 2001 were reviewed using the same criteria as the study conducted for 1999. Records were selected randomly by a computer-generated list. Records were excluded for: missing feeding data, HIV positive parent, NICU admission, maternal substance abuse during pregnancy, plans for adoption, incarceration of mother, or maternal medications contra indicated for breastfeeding. All infant feedings during the hospital post-partum stay were tallied and each infant was categorized into one of the four groups: 1) exclusive breastmilk 2) mostly breastmilk 3) mostly formula 4) exclusive formula.

Results

Maternal and infant demographics for all three years were comparable. The breastfeeding initiation rates, defined as an infant receiving any amount of breast milk while in the hospital after birth, remained at high levels: 87% (1999), 82% (2000), 87% (2001), $p = 0.23$. Infants receiving more breast milk than formula also was sustained: 73% (1999), 67% (2000), and 67% (2001), $p = 0.35$. Infants exclusively breastfed across the three years were similar: 34% (1999), 26% (2000), 25% (2001), $p = 0.10$.

Conclusions

Full implementation and continued application of the "Ten Steps to Successful Breastfeeding", the framework of the Baby-Friendly Hospital Initiative, has an extended positive impact on breastfeeding rates in an inner-city hospital setting.

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P9

TOWARD A BREASTFEEDING FRIENDLY WORKPLACE IN CONNECTICUT: A SUCCESS STORY

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Background/Aims

In our practices, members of the CT American Academy of Pediatrics Breastfeeding Medicine Committee had a significant number of mothers who encountered difficulty expressing milk at work, never initiated lactation, or weaned before return because of anticipated workplace obstacles. In exploring ways to help individual mothers, it became clear that to truly support breastfeeding in CT, we had to deal with this issue in a more global manner. The purpose of this report is to share our experience and to encourage others to move forward legislatively.

Methods

Existing CT breastfeeding law, laws passed or under consideration in other states, and the number of CT women potentially affected by such law were researched. After endorsement by the CT AAP, we partnered with CCMC, whose expertise in advocacy was vital to our success. "Wish list" legislation was drafted, including protecting the right to breastfeed or express milk in the workplace in a sanitary location; use of break or meal time; employer tax incentives; breastfeeding rooms in all public buildings; and delaying jury duty for nursing mothers. The support of Representative James Amann, who had proposed the enacted CT Breastfeeding in Public Law, was enlisted, as were businesses with existing breastfeeding support programs, other lactation professionals, and mothers who had encountered difficulties.

Results

Advised that success was unlikely, we began with a Breastfeeding Legislative Round Table in Nov. 2000 hosted by Rep. Amann. We learned early that education and sound data were imperative to success. Expert advice and assistance from CCMC and CT AAP led us to reluctantly pare down the draft legislation as we faced the reality of potential failure during passage through sub-committees required by the numerous clauses, which would stop the entire bill. We met tough opposition from some legislators and the business sector. With intensive education, perseverance and an active, ongoing presence an Act Concerning Breastfeeding in the Workplace, protecting the right to breastfeed or express milk at work, in a sanitary place, during meal or break time, without fear of discrimination, unanimously passed the House one day and the Senate hours before the close of the 2001 session. It was signed into law July 6, 2001.

Conclusions

Physicians are powerful legislative advocates. With expert assistance to guide them through the intricacies of the legislative process, willingness to compromise when needed, and using the principles of education, persistence and presence, they can make a difference for breastfeeding families.

P10

BREASTFEEDING: CHANGING THE CULTURE OF A NEONATAL INTENSIVE CARE UNIT

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Background/Aims

Historically, most NICU's in the United States have had lower rates of initiation and decreased duration of breastfeeding than comparable well-newborn populations. This study reports the evolution from a non-breastfeeding to a breastfeeding culture in a Level III NICU over a 13-year period.

Methods

Data on initiation of breastmilk expression/breastfeeding in the NICU, feeding method on discharge, use of formula supplements, as well as pertinent demographic data was collected yearly 1989-2001 from the CCMC Neonatal Database. In 2000, data was expanded to include method of feeding (e.g. breastfeeding, alternative methods, use of SNS). Changes in lactation support services over that time period included formation of a NICU Lactation Committee, hiring a part-time LC, formation of a formal NICU Lactation Support Service (consisting of an attending neonatologist, LC, and developmental specialist), writing our own NICU-specific breastfeeding manual, initiation of a mother's support group, opening a rental depot, and educational endeavors for staff and patients.

Results

Initiation of breastmilk expression/breastfeeding increased in the entire NICU population from 20% in 1989 ($n = 519$) to 68% in 2001 ($n = 469$). The in-hospital initiation rate in the equivalent well-baby population in 1999 was 62%. Improvements in initiation rates were seen in both clinic and private populations, with a proportionately larger increase in the clinic population (7-fold increase vs. 2.6-fold). Mothers providing breastmilk at NICU discharge rose from 6% in 1989 to 53% in 2001 (29% of those initiating in 1989 compared to 78% of those initiating in 2001), with 77% of those on