Effects of breastfeeding on women's health

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Abstract

Research about the effects of breastfeeding on maternal health has concentrated primarily on breast cancer, bone loss, and maternal depletion. Breastfeeding may provide some protection against breast cancer, Adequate maternal nutrition, a prolonged period of weaning, and adequate child spacing are expected to alleviate any potential bone loss or maternal depletion caused by breastfeeding. Regardless of no, an, chooses to weigh the relative benefits and risks of breastfeeding to the mother, it seems clear that the programmatic tasks are to see that breastfeeding women are adequately fed and enabled to so... their pregnancies,

Keywords: Breastfeeding; Maternal health; Nutrition

1. Introduction
Numerous consequences of breastfeeding have implications for the health of the mother, but research about the effects of breastfeeding on maternal health has been concentrated on a few areas, namely breast cancer, bone loss, and maternal depletion. However, it is important to place the health consequences of breastfeeding into a more broad and valid health context. A discussion of women's health is incomplete if it selectively ignores women, psychosocial and economic wellbeing. Psyche and poverty can have important effects on women's bodies, and on their health. Take an example concerning the mother's psychosocial health: breastfeeding is thought to enhance maternal attachment - to create a psychological bond between most mothers and their infants. Studies in the U.S. have found that women of poor economic means who breastfeed have more confidence in their parenting skills and in their ability to meet the needs of their children -and this effect on the woman has been seen to endure far beyond the duration of lactation. It is generalized into the woman's identity as a mother or parent. This is one way in which breastfeeding is thought to be an empowering experience [1]. This potential benefit of breastfeeding may be increasingly important in the future, because as societies develop, and the support of the extended family is diminished, any improvement in the ability of parents to cope or in psychological wellness could affect the well-being of at least a generation of women and their families during socioeconomic transition, as family functioning takes on new norms in many cultures.

The importance of maternal psychosocial health has been de-emphasized, perhaps due to the difficulty of measuring these consumers -attachment, empowerment, confidence - and even determining what would comprise a positive maternal identity. Pursuing this area also suggest
negative attributes of women who do not breastfeed relative to women who do, and we are loathe to make judgments or implications about women who choose not to breastfeed. It is too difficult or uncomfortable or deemed unimportant to pursue this area when there are so many other aspects of women's health also in need of serious attention.

Economic well-being is strongly related to health status, and the health of women in poor households is at risk. For example, when there is little food or money, the intrahousehold allocation of food generally favors the adult males, then male children, and then female children and women [2,3]. Also, increasingly, women work for pay to ensure the economic well-being of their families. The relationship of breastfeeding to women's employment is not straightforward, as is explored at length in a companion paper (see O'Gara, p. S33). Work for pay by women helps to determine economic well-being which in turn is a common determinant of other aspects of women's physical health [4,5], which will be obvious in the discussion of bone loss and maternal depletion.

Accordingly, it should be understood that maternal health issues related to breastfeeding are not limited to breast cancer, bone loss, and maternal depletion. Although each of these issues is important, women's health is a function of a wider array of factors than will be discussed here.

2. Breast cancer

Breast cancer incidence varies by region with urban areas consistently reporting 50% higher incidence than rural areas. Rates also vary by ethnic, religious, and socioeconomic category. Accordingly, it is assumed that breast cancer has an etiology, with the environment encompassing dietary, social, and cultural factors. Well over a half a million new cases are diagnosed annually [6]. Because breast cancer is so common, even small protective effects found in epidemiologic studies could translate into a large number of cases of breast cancer averted.

There is rather convincing evidence that young age at first birth is protective against breast cancer. Some studies find an additional protective effect of high parity. A hormonal hypothesis is most frequently put forth to explain the reproductive risk factors for breast cancer. In theory, the more ovulatory cycles a woman experiences, the greater the risk of breast cancer, so that a woman who is frequently pregnant will have fewer cycles than a woman who has no pregnancies. This hormonal theory would also explain the association that is sometimes seen between early menarche and/or late menopause and breast cancer. Two small studies suggest that the protective effect of high parity and young age at first birth is limited to protection against estrogen receptor positive tumors. It has been suggested that pregnancy may decrease breast cancer risk by reducing the number of estrogen receptor positive cells, leaving the breast less sensitive to the tumor-promoting influence of estrogen [7].

Prior to 1985, there were 17 published epidstudies of breast cancer that included breastfeeding as a possible risk factor. About 2/3 of the studies showed a protective effect of ever having breastfed, but about 1/3 found no effect of breastfeeding [8]. (It is commonly accepted that breastfeeding does not constitute a risk for breast cancer. Studies are mounted to explore the potential for protection from cancer.) After 1985, most studies measured and adjusted better for other protective factors such as parity and age at first full-term pregnancy. They also sought a doseresponse relationship between lactation and breast cancer, and distinguished between incident cases before and after menopause. Despite methodological refinements, studies continue to draw somewhat conflicting conclusions. Relevant fin from the most widely referenced papers from 1985 to 1990 are reviewed here, as well as a few of the most recent papers available at the time of writing this paper (see Table 1).

In 1986, McTiernan and Thomas reported results for premenopausal women in Washington State, adjusting for age, number of full-term pregnancies, add age at first full-term, pregnancy [9]. As the total lifetime duration of breastfeeding increased, the risk of breast cancer decreased. However, there was no protective effect for postmenopausal women. In 1989, results from the U.S. CASH (contraceptive and steroid hormone) study [10] confirmed the dose-response for pre- and postmenopausal women combined.

In the same year, Siskind reported findings from Australia [11]. No dose-response was seen, but the odds ratios suggest a protective effect for all duration of breastfeeding. Although the 95% confi-
Table 1
Selected studies of breastfeeding duration and risk of breast cancer

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| UK National Case-Control Study Group, 1993 | Britain       | chi square for trend (1 df) = 5.3; \( P < 0.05 \)  
|                              |                    | 1–3          | 0.83 |                  |
|                              |                    | 4–9          | 0.77 |                  |
|                              |                    | 10–15        | 0.53 |                  |
|                              |                    | 16–21        | 0.68 |                  |
|                              |                    | 22+          | 0.63 |                  |
|                              |                    | RR/3 mo.     | 0.94 | (0.89–0.99)      |
| Thomas et al., 1993          | 10 Countries       | chi square for trend (1 df) = 4.9; \( P < 0.05 \)  
|                              |                    | 4–6          | 1.10 | (0.93–1.31)      |
|                              |                    | 7–12         | 0.99 | (0.84–1.16)      |
|                              |                    | 13–36        | 0.92 | (0.78–1.08)      |
|                              |                    | 37–72        | 0.84 | (0.68–1.03)      |
|                              |                    | 73–107       | 0.72 | (0.53–0.96)      |
|                              |                    | 108+         | 0.99 | (0.70–1.42)      |
| Newcomb et al., 1994b        | W/LMA,ME,NH        | chi square for trend \( P = 0.001 \)  
|                              |                    | <3           | 0.85 |                  |
|                              |                    | 4–12         | 0.78 | (0.63–0.97)      |
|                              |                    | 13–24        | 0.66 | (0.50–0.87)      |
|                              |                    | >24          | 0.72 | (0.51–0.99)      |
|                              |                    | ever         | 0.78 | (0.66–0.91)      |

*aAdjusted for age, number of full-term pregnancies or parity, and age at first full-term pregnancy. 
bPremenopausal women only.
dence intervals included 1.0 - meaning no effect, protective or risk - the authors concluded that the effect was protective. In 1990, London and colleagues reported on a prospective study with results similar to Siskind, and concluded that breastfeeding provides no protection from breast cancer [112].

In 1988, a study in Shanghai reported extremely low relative risks (0.35-0.37) for women who breastfed for 6 years or more [131].

A study in Sweden and Norway adjusted for parity, age at first birth, and other reproductive and social factors and found no association between lactation and breast cancer in women under age 45 [141].

It Japan, an independent protective effect of breastfeeding was reported as a significant dose-response, after adjusting for parity, menopausal status, and age at first full-term pregnancy. However, the 95% confidence interval generally included 1.0, suggesting no effect or a marginal protective effect [15].

A study of women in Britain also reported a significant dose-response in an analysis that controlled for the same reproductive risk factors as above, although the confidence intervals were not reported. These researchers also concluded that breastfeeding is protective [161].

The WHO Collaborative Study of Neoplasia and Contraceptives has just reported significant protective effects of prolonged breastfeeding (greater than 12 lifetime months of breastfeeding) but after adjusting for age at first birth and parity, there was no longer any protective effect of breastfeeding [17].

The U.S. National Academy of Sciences concluded that: "Most recent epidemiologic evaluations suggest that breastfeeding may be protective against breast cancer, but there is conflicting evidence [18]."

A recent population-based case-control study identified breast cancer patients identified from 4 state-wide tumor registries, and health controls from among licensed drivers and Medicare participants. The results were that, after adjustment for parity, age at first delivery, and other risk factors, breastfeeding was associated with a significantly lower incidence of premenopausal breast cancer. This effect increased with total duration of breastfeeding. However, no association was found with postmenopausal breast cancers [18a].

Why is it that some studies find a protective effect and others do not? It appears that most of the epidemiologic studies were not explicitly designed to address the role of breastfeeding in breast cancer. Although recent studies are superior to earlier ones, they still suffer from problems of selection and measurement. For example, measures of breastfeeding exposure still vary meaningfully. Although researchers no longer limit their measures of breastfeeding to 'ever/never,' some studies measured the average duration of breastfeeding per breastfed child, and others measured the total duration of breastfeeding in the woman's lifetime. The maximum durations of breastfeeding varied from study to study, as exposure to breastfeeding varies widely from setting to setting. Ascertaining a dose-response is generally preferred, and trend analyses are being reported more often, since it is more convincing evidence of causality. However, data analysis approaches have not been consistent. Differing methods of selecting controls also make it difficult to compare studies. Studies using hospital controls tended to find no protective effect, but hospital controls are far less desirable than community controls when diet and smoking are possible risk factors, since these factors may be related to hospitalization [151]. It is possible that nonreproductive risk factors, which we not always controlled in analysis, may overpower any real protective effects of breastfeeding, especially given the limited ways we have to measure breastfeeding.

In addition to methodology, it is also useful to think about the ways in which lactation actually works to protect the breast from cancer. Returning to the hormonal theory: like pregnancy, lactation sets to reduce the woman's exposure to menstrual cycles. Lactation prolongs anovulation for a period that is generally associated with the duration of lactation, which is consistent with the dose-response findings.

Alternatively, some underlying hormonal abnormality could both prevent successful breastfeeding and predispose a woman to breast cancer.
Successful lactation may simply be a marker for a normally functioning endocrine system.

Breast cancer is probably a disease of multiple etiologies. While breastfeeding may exert an independent protective effect, this protection may be weaker than other causal factors, such as environmental exposure to carcinogens. Also, the hormonal theory alone cannot explain all the contexts in which breast cancer has been observed, such as the predominance of left-sided breast cancer among Tanka Chinese women who breastfeed only from the right breast because of traditional dress (191).

At least two theories have been put forth to explain an independent protective effect of lactation against breast cancer: the first suggests that when epithelial cells are in an alkaline environment, hyperplasia cell atypia, and increased mitotic activity occur, and these are all precursors to neoplasia [20]. During normal lactation, the breastmilk is not alkaline, but slightly acidic, with a pH of about 6.88-7.15. A small study of the milk from the unsuckled breast showed that milk in a woman who has not breastfed has a slightly higher pH. Therefore, unsuckled milk may enhance neoplastic precursor activity in the breast.

Another hypothesis, which does not preclude the first, is that suckling removes carcinogenic agents from the breast. Apocrine secretions and exogenous chemicals can remain in the alveolar ductal system of the breast when not lactating. This would increase the chance of epithelial damage and malignant transformation [20,21].

At this time there is little evidence to support these theories, and basic research is needed to explore the ideas more fully.

Additional retrospective epidemiologic research is unlikely to clarify our current understanding. New prospective epidemiologic studies should not be mounted until there is a better basic biological understanding of mammary gland development and the mammary functions involved in regulating breast cancer risk. For example, cohort studies which can distinguish estrogen receptor positive tumors in detected cases might be able to identify more specific risk factors associated with subtypes of breast cancer. Breastfeeding may be protective against certain subtypes of breast cancer. The hormonal theory may fully account for certain other subtypes of breast cancer.

3. Bone loss

Bone mass is lost with aging, and this phenomenon is more pronounced in women than in men. Osteoporosis is the condition where fractures occur because bone loss is so profound. As life expectancy increases, the incidence and prevalence of osteoporosis also are likely to increase. Bone mass peaks in women in the third decade of life and then declines, with the rate of decline accelerating in the immediate postmenopausal period. Diet, smoking, physical exercise, and other factors are thought to affect the rate of decline in bone mass. The reduction in ovarian function after menopause is thought to cause postmenopausal bone loss, and both estrogen and progesterin replacement after menopause have been shown to prevent bone loss [22].

Dow lactation affects bone mass is not clear, but the suppression of ovarian activity that characterizes breastfeeding is readily likened to the immediate postmenopausal period. Accordingly, an accelerated decline in bone mass during lactation should be expected as well.

Bone mineralization during the reproductive cycle has received serious attention during the last 5 years, and several studies have focused on the relationship between breastfeeding and bone loss. Several retrospective studies of older women were published in 1992 and 1993 which report equivocal results. A study of 300 women in Rochester, Minnesota, adjusted for age and body mass index, and found no general association of breastfeeding duration with bone density. However, breastfeeding for more than 8 months was associated with greater bone density at some of the bone sites measured [23]. A study of more than 700 white middle class women over 60 years of age as conducted in southern California. Before adjustment, breastfeeding was associated with increased bone mass at several sites, but the effect disappeared after adjusting for age and body mass [24]. A study of 352 white women in North Carolina aged 40-54 found that a history of breastfeeding was associated with significantly greater lumbar spine density.
compared with women who had no history of breastfeeding and controlling for parity, body mass, physical activity, and menopausal status. No increase was seen at the mid or distal radius [125]. Finally, an Australian study of lesion women found a dose-response relationship between the average duration of breastfeeding per child and the risk of hip fracture in later age [126]. Injury as a result of osteoporosis can be considered to be the true outcome of interest, although by the time women are studied in advanced age, they may have become exposed to many unmeasurable or undetectable risks which could mask the true nature of the relationship between breastfeeding and osteoporosis.

Until recently, the results have been confusing. Some studies found bone deterioration, wine found no effect of breastfeeding on bone mass, and one study reported an increase in lumbar spine density by 1.5% per breastfed child [127]. The conflicting nature of these reports is probably due to small samples, huge differences in measurement technique, including the particular bone sites which are measured, but especially the time relative to weaning at which the bone measurements were taken. Several prospective studies have con to a significant improvement in our understanding of the otherwise contradictory nature of the retrospective findings of earlier years. The weight of the best evidence at this time suggests that acute bone loss does occur (during lactation. In Fig. 1 [128], the bone mineral content of the lumbar spine is shown at 2 days postpartum versus 6 months postpartum. The top panel shows the decrease in 12 breastfeeding women while the bottom panel shows no change in 7 bottle feeding mothers. However, several recent studies suggest that remineralization occurs during weaning and in the post lactation period. A retrospective study was mentioned earlier which saw an increase in lumbar spine density per breastfed child. A further study in 1990 showed an increase in trabecular bone mass 6 months after weaning [29]. A study conducted at the Georgetown Institute for Reproductive Health found that the mineral regulating hormone responses do not return to normal for some period after lactation [30]. It appears that as ovulation returns, during and after weaning, recurrent, cyclic estrogen surges may be associated with protection against bone resorption, the same as is observed during estrogen replacement therapy in postmenopausal women. Bone metabolism during and after weaning is not yet understood, but it is clear that studies which do not measure bone mineralization during and after weaning are inadequate.

Perhaps the most definitive study to date was published in the Journal of the America, Medical Association [31]. This study included a sufficiently large number of women (98) to detect an effect of duration of lactation, and was able to control (somewhat) for dietary calcium intake, exercise, and body mass index. Most importantly, this was a prospective study which followed women from a baseline at 2 weeks postpartum into the weaning and post weaning periods, to 1 year postpartum.
Bone loss during more than 5 months of lactation was observed, as well as bone remineralization during and after weaning. In Fig. 2 the lower line represents women who breastfed for more than 5 months. The upper lines are essentially no breastfeeding and shorter-term breastfeeding. In the longer-term breastfeeding groups, lumbar spine density decreased more than 5% by 6 months, but by 12 months this bone density had nearly returned to baseline. What is not pictured is that among those who weaned between 6 and 9 months, bone mineral density had fully returned to normal by 12 months, while those continuing to breastfeed were still 2% below baseline at 12 months, that is, they had not yet fully remineralized.

In sum measurable bone loss occurs during lactation, and this loss is apparently regained during and after weaning. Bone mass may be even greater in women with a history of breastfeeding. The return to menstrual levels of circulating estrogen for some period of time between pregnancies appears to be important for bone restoration. Accordingly, the most expeditious way to restore bone mass lost during lactation is through adequate child spacing.

**Fig. 2.** Change in lumbar spine bone mineral density (g/cm²) observed across, 12 month, with measurements at baseline (within 2 weeks following delivery) and 6 months and 12 months following delivery according to duration of lactation. Fours represent SEs. Source Sowers in al [31].

### 4. Maternal depletion

In its original meaning, the maternal depletion syndrome was a term that described a state of physical depletion, characterized by disease, anemia, dietary deficiencies, and premature aging that resulted from a number of interrelated factors, such as early marriage, heavy physical labor (especially during pregnancy and lactation), harm- dietary restrictions, inadequate dietary intake, and uninterrupted cycles of pregnancy and lactation [32]. In the last 15 years, the social and nutritional context of the syndrome have been deemphasized, and investigations of 'reproductive stress across consecutive pregnancies' appeared. For the most part, any mal effects of pregnancy and lactation on women's nutritional status can be explained by a lifetime of poverty [33]. Therefore, there is a need to separate the effects of malnutrition from the effects of reproductive cycling per se. In 1992, nutritionists at Cornell University proposed a new definition of maternal depletion as a condition which:

1. should be evaluated over one reproductive cycle at a time;
2. is characterized by a negative change in maternal nutritional status during that cycle (and the change is worse the longer the period of depletion and the shorter the period of repletion); and
3. occurs among marginally malnourished women [34].

In their conceptual framework, a reproductive cycle can be characterized by non-depletion or full repletion in the case of well-nourished women, incomplete repletion in marginally nourished women who become pregnant again before they have had the chance to fully recuperate nutritionally, and non-repletion in extremely undernourished women who have little hope for improvement in their food intake. The incomplete repleted woman may be responsive to specific, feasible interventions. However, the so-called non- women require extraordinary assistance in order to improve their nutrition and indeed their entrenchment in poverty, if a woman's living
conditions are so destitute that it is not possible to improve her consumption of food, then she is not likely to be able to afford contraception and infant formula. In that environment, her baby is likely to die from the consequences of using breastmilk sub- and she will soon become pregnant again. Therefore, there exists a rationale for breastfeeding even by the non-repletable woman.

Whether breastfeeding comprises a net detriment to the mother depends on her food intake and the duration of both full and partial lactation. Full breastfeeding is acknowledged to be a period of depletion, even among well-nourished women, as they lose weight during this time [35]. However, during partial breastfeeding even women with chronic energy deficiency have been observed to maintain their weight, which supports the notion that repletion is possible during more than just the non-pregnant, non-lactating interval [35]. Indeed, there is experimental evidence of enhanced metabolic efficiency during lactation, such that energy intake need not necessarily be increased to pay for the energy cost of lactation [36].

Thus, in order to facilitate full repletion, one would minimize the periods of depletion (i.e., pregnancy and full breastfeeding and maximize the periods of repletion (i.e., partial breastfeeding and the non-pregnant, non-lactating interval). Three of these factors can be accomplished through contraceptive use, but minimizing full breastfeeding is a strategy that will backfire since this will also minimize the total duration of breastfeeding including the repletion interval of partial breastfeeding, and will hasten the next pregnancy. A far better strategy to minimize depletion during full breastfeeding would be to supplement the mother's diet. Indeed, researchers in the Philippines have found that increasing dietary intake, even modestly (by 200 kcal/day), decreased the probability of maternal depletion [37].

A prospective study has observed that when extra food is available, women will spontaneously increase their intake during full breastfeeding and when breastfeeding while pregnant. Rural Guatemalan women have been studied over several reproductive cycles in the context of a community nutrition supplementation trial. The women were divided into two groups - those whose lactation overlapped with the next pregnancy (the overlap group), and those who experienced a non

Fig. 3 Mean maternal supplement intake across pregnancy and early postpartum for each subgroup Means are adjusted for supplement type and study month
pregnant, non-lactating interval between pregnancies (the recuperation group). Each group was broken down further into two subgroups, those with long versus short overlaps of pregnancy during lactation and those with long versus short periods of recuperation. As seen in Fig. 3, those who were at greatest risk of incomplete repletion, i.e., those within the overlap groups, spontaneously consumed the greatest amount of supplement at the beginning of the next pregnancy. By 3 months, i.e., during full breastfeeding when depletion occurs even among well nourished women, all women were consenting equal, relatively high, amounts of supplement. The women had responded to the energy stresses of overlap and short recuperation as well as of full breastfeeding by increasing their intake in a setting where it was freely available [38]. There was no difference in birth weight among the groups, suggesting that increases in intake during pregnancy helped to return partially repleted women to their baseline level of nutrition.

5. Recommendation

In summary, maternal depletion is a potential risk of breastfeeding for which a solution does exist, i.e., adequate maternal nutrition, prolonged weaning, and child spacing. Bone loss does appear to occur during lactation, but bone is remineralized during and after weaning, again arguing for a long weaning period and adequate child spacing. If there is an effect of breastfeeding on the risk of breast cancer it is a protective effect, most likely associated with longer lifetime durations of breastfeeding. Not all the mammal health consequences of breastfeeding have been covered here, but regardless of how we choose to weigh these risks and benefits, it seems clear that two very important public health objectives are to see that women are adequately fed, especially during lactation, and able to space their pregnancies.

Acknowledgment

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Audiend discussion
Discussion began by validating the role of breastfeeding on the medical agenda for cancer, osteoporosis, family planning, and other preventive health. Although the link of breastfeeding with cancers such as breast cancer has not been established conclusively, there is a growing body of evidence that points to breastfeeding being one factor that could reduce the incidence of breast cancer, given certain behavioral parameters. As is the case with bone loss, it appears that there may be an increased risk among premenopausal women who breastfed for short periods of time with precipitous weaning.

As Ms. Kennedy noted, studies on this topic continue to be problematic due to issues of measurement and selection. Despite the existence of published, consistent definitions of breastfeeding ranging from exclusive, fully or nearly fully, to token, measures in many studies vary widely. In addition, some studies measured the average duration of breastfeeding per breastfed child while others measured the total duration of breastfeeding in the woman's lifetime. The studies on both cancer risk and bone loss, although not definitive, emphasize the need for supporting and empowering women to breastfeed for longer periods of time and to wean slowly and appropriately over time. The issue of maternal depletion is a topic that...
Breastfeeding is a major contributor to child spacing and reproductive health, and, as such, is a vital women's issue. Further, if breastfeeding levels were to decline, the increase in family planning services that would be required to replace the lost fertility impact would be prohibitive, both in terms of cost and difficulty. This concern places breastfeeding centrally as a family planning policy issue as well. This paper discusses how breastfeeding contribute, to child spacing and reduced fertility; the appropriate and timely introduction of complementary family planning methods during breastfeeding issues and controversies in the support of breastfeeding as a family planning issue in the context of women's concerns, including the concept of exclusive breastfeeding for 6 months, the encouragement and support to maintain breastfeeding after 6 months, and the use of the Lactational Amenorrhea Method (LAM) and other gaudy planning methods in the early postpartum period; and the role of family planning programs in supporting much’s informed reproductive, health choices.

Keywords: Breastfeeding; Family planning; Women's issues; Lactatumal Amenorrhea Method

1. Introduction

In addition to the numerous health benefits of breastfeeding for women, breastfeeding plays a major role in reducing fertility levels in developing countries. As estimated by Thapa or al. [1], more birth spacing is attributed to breastfeeding in Africa and in many parts of Asia than contraception. Breastfeeding allows women a means of controlling their own fertility, especially in areas where they have limited access to other means. Breastfeeding also allows women greater control over their infants' health and chances for sure lead. By breastfeeding their infants, women provide them with protection against illness due to diarrhea and acute respiratory infection, the two principal killers of infants in developing countries, which, combined, account for half of all young child deaths in such countries [1-7]. Numerous other infant health benefits have been well documented in both developed and developing countries [8]. Breastfeeding also is associated with lowered child mortality by increasing birth intervals as shown in Fig. 1. Children born either at the start or at the end of a short interval are, on average, 50-1. more likely to die at ages 1-4, than are other children [9]. This may be due to the fact that women may have more time to care for their infants prior to the arrival of another child and to the reduced associated demands on the their time and health.
has received a great deal of attention. Participants stressed that whenever we talk about empowering women to breastfeed we must think about the reproductive and nutritional costs to the mother. The Institute for Reproductive Health mentioned the results of a panel published as a supplement to the Journal of Tropical Pediatrics in October 1991, which highlighted the issue of breastfeeding and borderline malnutrition in women. Based on the outcome of this panel and other research, the Institute and others have emphasized empowering women to breastfeed with a focus on supplementing the mother, increasing her energy intake, as opposed to supplementing the infant during the first 6 months; and have encouraged the woman to decrease her energy expenditures as much as possible during late pregnancy and early lactation.

This approach argues strongly for the integration of breastfeeding messages across sectors, focusing on the synergistic relationship between nutrition, maternal and child health, women in development, and family planning. Education must be provided to men and women alike, particularly to those who are making the major decisions on food distribution and consumption. These decision makers could be men/husbands, health professionals, mothers-in-law, or others. Women must be encouraged not only to feed themselves, but to adequately nourish their children, particularly the girl children; and to adequately space their children to allow for a recuperative period when they are neither breastfeeding nor pregnant. Therefore, family planning counseling is a natural adjunct to promote longer reproductive intervals which positively affect child spacing while reducing the risk of maternal depletion and infant mortality.
2. How does breastfeeding reduce fertility?

In the absence of contraception, breastfeeding gives a woman a means to exercise some control over her fertility by extending the interval between births (birth spacing). Fig. 2 illustrates components of birth intervals and shows how the amenorrhea associated with breastfeeding is related to increases in the average birth interval. During a reproductive span of 23 years (from 17 to 40), for example, a woman who does not breastfeeding on average, would have over 15 births, compared to 6-8 if she breastfed an average of 3 years with each child. The duration of postpartum amenorrhea is clearly associated with the pattern of breastfeeding but in most countries, amenorrhea does not extend to the high level of 18 months or more as seen in Nepal or Bangladesh.

The low fecundity associated with the amenorrhea of breastfeeding varies from an average of 2 months for non-lactating women to several months or more, depending on the pattern of breastfeeding. Since such patterns can vary within the individual woman's own reproductive experience and since pregnancy does occur during the longer durations of amenorrhea, breastfeeding per se is not a reliable means of child spacing. However, during the first 6 months postpartum, full breastfeeding in association with lactational amenorrhea is highly effective in preventing pregnancy. The Lactational Amenorrhea Method (LAM) (101 (Fig. 3) is the result of two consensus meetings and much previously published research. The first meeting, held in Bellagio, Italy, in 1988, brought together scientists to decide upon a set of parameters defining the aspects of breastfeeding that are reliably associated with suppressed fertility [11]. The second meeting brought together family planning program leadership to discuss guidance for implementation of these parameters as a method of family planning [12].

Three parameters were defined as the outline for a period of time during which the risk of pregnancy...
is 2% or less: full or nearly full breastfeeding, amenorrhea, and before 6 months post. These three parameters were subsequently organized as a method of family planning (Fig. 3) with the caveat that a complementary method must be introduced whenever any of the three parameters changes, or sooner if the user so chooses. A prospective clinical case-control intervention study was carried out in Santiago, Chile, to test the efficacy of this model (13). The control cohort was ascertained prior to the development of an organized breastfeeding support program at the Pernificia Universidad Catolica do Chile. The included prenatal education, immediate postpartum breastfeeding rooming-in, decreased in-hospital use of formula, the establishment of a follow-up clinic, and the offer of LAM as an introductory family planning method.

LAM proved highly efficacious, with 0.46% pregnancy rate estimated by 6-month life table analysis. Fig. 4 shows the importance for family planning programs, since the percent of women not using any form of contraception at 6 months was significantly lower in the intervention group. Family planning coverage increased from 78 to 91% with the inclusion of LAM in the ‘cafeteria’ of methods available. After the program ended, pregnancy rates remained lower for the intervention group for more than a year.

Field trials of LAM have been conducted in several other developing countries. LAM was introduced into 4 free-standing CEMOPLAF family planning delivery sites in Eamaclor [14]. Preliminary results confirm the acceptability and efficacy of this method. Of perhaps greater interest to family planning service providers, each user was credited with 0.25 Couple Years of Protection (CYP). Furthermore, the introduction of IUDs during breastfeeding began earlier than among other postpartum women. The result was an increase in total acceptors (Fig. 5). As a side effect of LAM use, these family planning programs are now fully supportive of optimal breastfeeding patterns. This program has since been extended to 20 additional clinics.

In Honduras, Rivera et al. [15] have shown that promotion of LAM is associated with an increased duration of exclusive breastfeeding (from 4.3 weeks to 9.6 weeks). In the Philippines and Pakistan (through support from Family Health International and USAID), and in Recife, Brazil, hospital-based programs are assessing acceptable client understanding, and in-use efficacy of the approach. A 10-site multicenter study funded by the Institute for Reproductive Health with co-funding from WHO and Rockefeller, is exploring these issues further. The method is now being used in many countries and by many individuals who have self-selected its use. The flexibility of LAM is being tested in several ongoing studies examining in-use experience and modifications of the method. One such modification in Rwanda, herein referred to as LAM-9, allows use of lactational amenorrhea up to 9 months under certain conditions. This method requires that infants breastfeed fully to 6 months, and subsequently they receive complementary foods but with breastfeeding preceding each complementary feed.
The method maybe then used until menses return or up to 9 months.

3. Introduction of family planning during breastfeeding

Whether a breastfeeding woman uses LAM or not, consideration must be given by family planning program to the provision of method that

In a Family Planning Program in Equador, LAM:
- is acceptable (5% of all new clients 31% of those less than 6 months postpartum)
- attracts first time family planning users (73%)
- is used correctly (77%), with two visits (90%)
- creates satisfied clients (75%)
- allows for IUD insertion prior to menses return
- serves as a tie to other health programs

Fig. 5 Results of LAM use in a free-standing clinic. Source: Wade et al [14].

virtually all child spacing as well as permanent methods of family planning should be considered and introduced while women are breastfeeding. It is important to identify those methods that do not interfere with breastfeeding nor with milk quantity or quality. It is well known that estrogenic methods can have a negative effect on lactation. In general, barrier methods, male sterilization, in- devices (IUDs), and natural family planning (NFP) are good options and fit the criteria. While NFP use during lactation may demand special retraining for users, IUD insertion is actually associated with less pain on insertion among breastfeeding women [16]. With female sterilization, precautions must be taken to ensure milk supply during the separation of the mother.
Progestational agents (such as progestin only pills, Norplant, or Depo-Provera) initiated after 8-12 weeks postpartum have not been associated with negative effects on lactation. However, there has been little study of the different progestin methods initiated immediately postpartum or within the first 6-8 weeks among fully lactating women. Those few studies identified, which include fully lactating women in the early weeks, have shown a nonsignificant but negative effect on infant growth, duration of full lactation, or milk volume [17]. In addition, some of the progestational agents used in oral and injectable preparation can be metabolized, in vivo, into metabolites with estrogenic activity. Therefore, further study is appropriate before widespread progestational contraceptives are introduced immediately postpartum or at anytime up to 8-12 weeks among women who intend to fully lactate.

4. Areas of controversy for women using breastfeeding as a family planning method

Several areas mentioned above in relation to the use of the Lactational Amenorrhea Method may be associated with conflicts for women. These include: (1) the concept of exclusive breastfeeding for 6 months; (2) the encouragement to maintain breastfeeding after 6 months; (3) the use of LAM and other family planning methods; and (4) the role of family planning programs in supporting women's informed choices.

4.1. Exclusive breastfeeding for 6 months

Optimal breastfeeding practices for the health of the infant recommend exclusive breastfeeding for 6 months [18]. This behavior clearly enhances child health and child spacing but also creates a demand on the mother's time and energy reserves. Additionally, few women practice exclusive breastfeeding for this duration.

How can women best decide about their own and their families' welfare in light of the recommendation for exclusive breastfeeding or the LAM recommendation of 'full or nearly full' breastfeeding? The area of work, whether in remunerated situations or household maintenance, becomes a significant aspect of this discussion. What about the costs and benefits for employers to support this recommendation among their employees? How important is it for government policies to recommend exclusive breastfeeding for 6 months in relation to the social good? Given these issues, how can the woman be supported to exclusively breastfeed without experiencing negative consequences?

The woman's choice. The woman must balance the time and energy demands of exclusive breastfeeding against the decrease in illness, as well as the decreased time and costs of caring for a sick child. The time spent breastfeeding could be saved by another bottle feeding caretaker, but the potential opportunity for maternal-infant bonding may be diminished. The time the woman spends seek-contraceptive services, the cost of supplies, and the access to or lack of control she may have over these decisions must be balanced against the woman's sole control over and dedication to optimal breastfeeding behaviors that demand more time between her and her infant.

Costs and benefits for employers. Employers who support women in their decision to exclusively breastfeed face costs, including provision of maternity leave (paid or unpaid), provision of time off for nursing breaks during the day to allow mothers to breastfeed (or to express and store breastmilk), provision of part-time employment and part-time leave (to enable mothers to leave work for short periods of time), and child care at the worksite. These costs can be balanced against the benefits in terms of reduced absenteeism and lateness, reduced turnover of staff and associated training costs for new staff, reduced recruitment needs to replace staff losses, and increased productivity associated with higher job satisfaction. The positive impacts on industry have been shown in the U.S., where absenteeism and turnover of employees were reduced following the implementation of a program to support breastfeeding at the Los Angeles Department of Water and Power (Cohen, R, pers. commun.). The implementation of LAM for working women is being studied currently in Chile. Instructions for women to express milk at least every 4 h
while at work, along with advice to continue night feeding no more than 6 h apart, and breastfeeding at least 8 times per day.

Government policies. There are often conflicting policies within different branches of government. While hypothetically the Department of Health may encourage women to exclusively breastfeed through health education messages, the Department of Commerce might allow infant food companies to encourage earlier consumption of supplementary foods in its advertising. The Division of Family Planning may include LAM as a method, and the Nutrition Division encourages exclusive breastfeeding while the Social Security System might provide free infant formula to new mothers. There may be legislation that requires maternity leave, but it may not be enforced. Such conflicting policies do little to support women to exclusively breastfeed.

Another conflicting area can arise within the same health division. One such conflict that has taken up much time by program managers is the decision about recommended tinting of complementary feeding. Some health professionals still advise that breastfed infants should consume additional complementary foods between 4 and 6 months in order to ensure optimal caloric intake, while others now encourage that they be delayed until the infant is 6 months old. Preliminary results from a study in Honduras show that when infants aged 4-6 months were fed supplements in addition to breastmilk their mothers had shorter durations of postpartum amenorrhea than those who were exclusively breastfed for 6 months, with no benefit to the child's caloric intake [191]. Thus, promoting earlier complementary feeding may result in higher fertility of the woman with no benefits for the child. Because of the increased risk of diarrhea and acute respiratory infections associated with early complementary feeding, it may even be detrimental to the child's health.

Sin' mixed messages make following advice difficult for women, these conflicts need to be addressed. Family planning, health, and nutrition researchers, policy makers, and program managers need to work together more closely to help avoid these conflicts.

4.2. Maintaining breastfeeding after 6 months

Once infants reach 6 months, they need to be fed foods in addition to breastmilk. For optimal impact on fertility and on breastmilk intake, some nutritionists and family planners advise women to maintain their milk supply by continuing frequent breastfeeding and to breastfeed the infant just before each complementary feeding. Among those infants who are fussy eaters, the difficulty in getting them to consume foods other than breastmilk may lead to the advice to feed a hungry child complementary food before the usual breastmilk feeding to which she is already accustomed and that she is anxious to consume. Therefore, some nutritionists argue that the importance of the added additional calories overrides the need to maintain intensive breastfeeding. One experimental study assessed this by comparing the milk intake of infants 17-43 weeks (4-7 months) receiving complementary foods before or after each feed. Complementary feeds given before breastfeeding were associated with reductions in suckling time and milk intake at that feed. Suckling time, however, was increased at other times during the day so there was no significant difference in total suckling time, although breastmilk intake was slightly less. Complementary feeding was associated with increased energy intake [201]. Mothers were also able to let their infants freely suckle throughout the day, which often my not be possible for some women.

UNICEF has recently written a discussion paper on this topic, and suggests that in general, in the absence of conclusive studies, for infants less than 12 months breastfeeding should take place prior to complementary feeding. However, mothers should also receive information and support on how to continue breastfeeding and to successfully encourage their infants to eat complementary foods after 6 months of age [21].

A similar issue arises in relation to the recommended duration of breastfeeding. Concern has been raised about the potential negative impact that breastfeeding beyond 12 months may have on the child's nutritional status. Recent studies in Peru and Guatemala suggest that children being breastfed may consume fewer calories because of over-reliance on breastmilk and less appetite for
other foods [22]. Encouraging the termination of breastfeeding at this time could theoretically result in improved caloric intakes. However, the detriment to the child's health could be substantial because of increased rates of diarrhea, reduced consumption of high quality protein and micromammals (that are higher in breastfeeding than in traditional supplementary foods), and reduced birth spacing associated with shorter durations of breastfeeding.

A better solution is to encourage appropriate complementary feeding at 6 months, along with continued breastfeeding. This would benefit both health and family planning objectives, but too often the negative aspects of breastfeeding are considered. The woman's time constraints thought to be associated with sustained breastfeeding are seldom balanced against the benefits for her own health and that of her children.

This type of conflicting advice can create barriers between health, nutrition, and family planning sectors and send mixed messages to women who are attempting to make the best choices for themselves and their families. Such areas of potential, list conflict must be identified, studied, and addressed before conflicts and mixed messages arise.

4.3. The use of LAM and the use of other family planning methods

Unfortunately, some family planning groups feel that the use of LAM conflicts with the use of other longer-term methods [23]. This perceived conflict is an illustration of the possible mixed messages that may arise from lack of intersectoral dialogue. LAM is an option that does not displace other family planning, but rather adds to the 'cafeteria' of method choices. It also can bring in new users, since it may be more culturally acceptable than other methods. It has a major side benefit to its family planning efficacy by supporting optimal breastfeeding and, thus, has more health benefits than any other contraceptive method except perhaps condoms.

Some women may choose to be doubly protect reeled from pregnancy by using another method in addition to LAM. Many family planning advocates encourage this even though LAM is efficacious in its own right. When contraceptive services and commodities are in short supply, double coverage represents a waste in limited resources. While this issue arises primarily in less developed areas, even in situations of 'Free' or 'Ready' access, there are travel, personal, and financial costs involved with use of other methods. LAM gives a woman choices that she can control and use herself. It allows her additional time during the busy postpartum period in which to choose a longer-term method or to save up the funds necessary for surgical procedures if they are desired.

4.4. The role of family planning programs in supporting women's informed choices

In this paper, we have not dwelt on the issues of quality of care, informed choice, nor medical barriers to contraceptive use. These issues are well addressed in the family planning literature. Rarely, however, have they included sufficient attention to the many other aspects of the fertile-aged woman's reproductive role in addition to fertility reduction. Women will make the best choices based on the information available, including their cultural context. Family planning programs which have been established in principle to support women have often neglected a woman's role as the nurturer of her family.

Quality of care addresses the manner in which a woman is received and the completeness and competence of services. Clearly this thinking might include support of the completeness of her concerns, including her child's health. High quality of care will include care for her own health and emotional needs which include concern for her infant's health and well-being.

'Informed choice' implies that each woman receives complete information in a manner that is communicated successfully to her, that her concerns are addressed, and that she then feels free to select the best option for herself. It is important that external bases do not preclude her free and informed advice whenever possible.

'Medical barriers to contraceptive use' begins to address the misunderstandings concerning the medical attention needed for provision of the
different methods, which often can create barriers to family planning access. The misunderstandings about breastfeeding and its fertility impact have led both to the denial of family planning to breastfeeding women and the denial of the contribution of breastfeeding to fertility reduction. The lack of knowledge about methods appropriate for breastfeeding women has been an additional medical barrier that often has meant women had to choose between breastfeeding (and optimal infant health), and their desire for modern contraception.

With appropriate training and supervision, the promotion of breastfeeding can be supported by either encouragement of LAM or the encouragement of breastfeeding in conjunction with other suitable contraception. The benefits of LAM over other methods include that it demands no resupply, no medical exam, and it provides an efficacious approach with a built-in incentive to swept another method in a timely manner. Recent evidence suggests that the promotion of LAM also is associated more with longer durations of exclusive breastfeeding, with the side benefits for infant health, than when breastfeeding alone is encouraged, but other family planning methods are employed.

Finally, it could be asked, why should family planning programs bother to include yet another method, and one that requires counseling time? when there are perfectly good methods already available? It as thin argument, used by the FDA, that contributed to denying Depo-Provera to American women for 3 decades. Each additional option meets the needs of a new group of women.

5. Conclusion

Breastfeeding today contributes significantly to worldwide fertility reduction. If breastfeeding rates were to decline, the family planning prevalence: needed to replace the lost fertility impact would be prohibitively costly and difficult to achieve. In addition, we now know how a woman might best handle the interface of breastfeeding and timely complementary family planning. The four areas of controversy raised in this paper deserve careful consideration by family planning service providers, donor organizations, and the women who primarily must be the instruments of decision and change for the betterment of their own lives and the lives of their families.

References


**Atulence discussion**

Much of the discussion of this paper focused on LAM. There are a variety of programs that effectively integrate breastfeeding promotion into projects aimed at reducing fertility. Several participants shared their experiences with LAM in countries such as Chile, Ecuador, Guatemala, Honduras, Mexico, Pakistan, and Rwanda, where approaches such as breastfeeding promotion in the context of fertility services, combined approaches to maternal and child health service delivery, and integration of LAM into hospital and family planning settings, have been used effectively and accepted widely. In many of these settings, programs have found that LAM attracts new family planning users.

Several important questions were raised about LAM: in family planning programs, should LAM be a part of informed choice and quality of care? Should family planning programs support breastfeeding only for its health benefits? And why should family planning programs ‘bother’ to provide an additional method that requires additional counseling in its services when other methods are available?

Participants strongly endorsed the addition of LAM to family planning programs worldwide, for a number of reasons. First, women already are using breastfeeding for child spacing. LAM builds on that existing practice and belief and provides the parameters for its efficacious use. LAM lets the individual women know when it is time to seek complementary family planning, and it gives them the time they need either to choose complementary methods or arrange to obtain more permanent methods (such as sterilization). It is therefore an option that meets the needs of individual women.

Participants agreed generally that LAM will help family planning programs be more supportive of breastfeeding, which has not been the case in many programs worldwide. Although demographers have long recognized that breastfeeding is a major biological determinant of fertility and therefore a principal factor influencing birth intervals, we also must recognize that complementary family planning must be introduced in a timely manner to ensure that women are enabled to breastfeed into the second year of the infant’s life. Appropriate introduction of contraception after the initial period of protection offered by LAM helps ensure birth intervals of 3-4 years or longer, and to allow for mammal recovery, as discussed by Kathy Kennedy.

LAM contributes to an integrated and therefore complete approach to health services. In addition, participants noted that LAM simply expands the options that are available to women and couples worldwide in terms of child spacing choices. LAM is clearly a part of quality of care and informed choice. Participants noted that efforts must be made to inform policy and health care decision makers of the consequences of a decrease in
Abstract

Working and breastfeeding can be very complicated because of the kinds of work women are doing; the settings in which they are working; recent changes which have made breastfeeding and work less compatible; trade-offs that working mothers must make; the importance of breastfeeding for the working woman; and the range of feeding option, for working mothers. To adequately address these and other issues, overall initiatives are needed: (1) additional research on breast pumping and breastmilk storage, and the social and emotional benefits of breastfeeding for working mothers and their infants; (2) protective legislation and strategies for implementation and monitoring; (3) information and support for breastfeeding mothers and families, policy makers, and the general public; and (4) an alliance between breastfeeding advocates and feminist, to promote this intrinsically female issue.

Keywords: Breastfeeding; Working mothers; Information

1. 'Every mother is a working mother'
This is a t-shirt slogan, but a good reminder of reality. For millennia, women have been working and breastfeeding. This presentation proposes that we change the focus of discussion about breastfeeding and work. We do not need to ask, "Can it be done?" We need to ask, "How do mothers do it?" Our questions become: "What kinds of work are women doing? In what settings are they work Have there been changes in recent years which

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To highlight these key issues, the two primary elements of this theme, breastfeeding and women's work, must be defined. When the critical features of these are clear, the issues are also quite clear.

2. What is breastfeeding?
A woman feeds a baby by suckling at her breast. Every breastfeeding history is unique. Each has an initiation, its own characteristic style or quality, and an end, which we measure as duration.

Initiation of breastfeeding is seldom affected by
the work a mother does, particularly if we conceptualize initiation as the moment when a baby is first put to breast. On the other hand, if we expand the definition of initiation to include full establishment of lactation and a reliable comfortable pat- of nurturing and suckling between mother and baby, then a mother's work indeed can interfere.

In Honduras, a study found that women who had to return to remunerative work less than 10 days following the birth of their children typically experienced lactation failure (especially with first babies) or ended breastfeeding very early in the first months. By contrast, no woman who took 40 days or longer off from work experienced lactation failure [1].

Unfortunately, while clinicians, lactation con- and researchers we confident that there is a critical minimum period required for establishing lactation, there is no clear scientific evidence of what the process is or how long it takes. Best estimates are between 1 and 2 months. Many traditions mandate a period of 40 days rest for new mothers, often with a special diet. This traditional wisdom appears to have effectively ensured successful lactation in those societies. Modern maternity leaves are not explicitly based on a calculus of the time required for lactation to be successful.

The quality of breastfeeding is often described as exclusivity, frequency, and intensity of suckling. The quality of breastfeeding is greatly affected by a mother's work.

If women supplement young infants, what are the preferred weaning foods or non-human milks? Frequency is closely linked to exclusivity, but has some puzzles of its own.

Again, however, we lack really good scientific information about the critical parameters of quality breastfeeding. How exclusive does exclusivity have to be? For example:

• Are minimal other fluids acceptable (the 'predominant' pattern)?
• If other fluids are acceptable, by what criteria -minimizing infant risks, ensuring limited fertility?
• How many hours per day and days per week can women be away from their infant and expect to maintain exclusivity? What are the strategies which work
  • If women are expressing their breastmilk how long can they store milk under different climatic, hygienic. and material conditions?

• How well do night feeds compensate for daytime expressing?
• Is cup and spoon feeding efficient and satisfying?
• Does daytime bottle feeding of breastmilk confuse babies?
• How do mothers overcome breastfed infant resistance to bottles or cups and spoons?
• How much individual variation in infant re- or personal production should mothers expect? How much of the variation is manage-
• Can frequency be programmed? How valuable is frequency without responsiveness and interaction?
• What is appropriate or minimal frequency for infants between 4 and 6 months?

Linked to the last frequency issue is intensity:

• Is breastfeeding on a rigid working schedule likely to be successful, even with a very young baby?
• How can women manage nursing breaks with sleepy or tense babies and hurried mothers? How satisfying for mother and baby is nursing in a work setting?.
• Do babies fed with bottles or cups all day, 5 or 6 days a week, maintain intense sucking habits?

Research is needed to address these questions, which are rooted in the realities faced by working women.

Duration describes the total number of days, weeks, months, or years until a baby takes her/his final suckle at the breast [1]. Data from Honduras she, that once mothers and babies passed the critical 40-day mark, the only differences in duration, related to work patterns favored working women. Working women, defined as women earning income, breastfed longer and expressed more
satisfaction with the experience than did unemployed women.

Data from other countries look similar [2,31. In general it appears that once lactation is fully established, patterns of work do not determine overall length of time that an infant is breastfed This is clear evidence that women know how to combine work and breastfeeding although ethnography evidence also shows that it is more difficult for some than for edicts. The evenness of the duration data may not mean that working women are not having problems: it may mean that, when we define and value work in ways which reflect women's realities, the conflicts are spread across many kinds of work. The reasons for these conflicts are explored in the section below on women's work.

Early weaning, the introduction of foods or liquid other than breastmilk in the first 4 months after birth, occurs among women who work for pay and women who work to maintain their households. Again, the data from Honduras are revealing. The women who reported the most discomfort, conflict, and stress about breastfeeding young infants were those who were maintaining a household alone without support. These women complained that the constant unscheduled de- and interruptions of their breastfeeding babies prevented them from getting their work done.

In sum, it is certain characteristics of breastfeeding which tend to be problematic in light of work demands on women. It is the quality of breastfeeding rather than initiation or duration which is most affected by women's work. We know what the typical trade-offs imposed by suboptimal breastfeeding are for infant health and nutrition, household economies, and birth spacing, and they are all negative. We do not know, however, what the relative trade-offs are for working mothers and their babies along the spectrum of exclusive to predominant to supplemented breastfeeding.

3. What is women's work?

Webster tells us that work is 'Exertion directed to produce or accomplish something'; Soledad Diaz further describes this 'something' by defining work as 'energy invested in survival, growth and development.' Use of these terms recognizes the value of women's work, including breastfeeding. In this paper we will look at how breastfeeding fits in as one element of the pattern of women's work. Women's work is so integral to their existence, in almost every society we know of, that it is impossible to further specify out definition without doing an injustice to women's productivity and ac- There are virtually endless varieties of work that women do: their work is structured - economically, temporally, spatially, and culturally - in a myriad of patterns which are interpretable only in their specific context. A branching model of the discriminating features of different work configurations (in-home/out-of-formal sector/no-formal sector, dub economy/barter/cooperative, salary/ wage/piece work/entrepreneur, etc.) becomes so complex by the fourth level that it is useless as a model.

How can we make systematic statements about work and breastfeeding. At a recent meeting hosted by Wellstart EPB and Family Health International [4], a group came up with three interlocking features of the work setting which typically must be configured in specific ways for breastfeeding to be successful:

♦ time
♦ space
♦ support

Time is an absolute. Babies must be put to the breast or women must express their milk regularly and it must be fed manually to the baby. Without one of these behaviors milk production will cease. Thus, women need fine while they work to nurse their babies. Some mothers can continue working while the baby suckles. If not, mothers need breaks in their work to either nurse their babies or express their milk.

Two characteristics of time impact directly on the compatibility of work and breastfeeding absolute quantity and flexibility. There are many tasks which will accommodate a young nursing baby. But typically nursing while working or on breaks is feasible only if the work time is not completely
rigid and if then is some tolerance for brief inter- or slowdowns in work.

Other work is characterized by a fixed equation which does not allow a woman to pause long enough to breastfeed comfortably. These are jobs in which time equals money or survival. Piece workers, even when they work in their homes with their infants at their sides, describe feeling unable to stop work in order to breastfeed. The opportunity costs are just too high. Agricultural workers, be they subsistence farmers or wage earning tea pickers, report the same constraints. Around the world a rising proportion of households are headed by women alone; some who are 'only' running a small household but who depend on others for cash, water, food, and clothing, and have no logistic support say it is hard to breastfeed and be responsive to the demands placed on them. More and more women in recent decades have begun to work in settings outside of and often distant from their homes. Their time during work is typically inflexible and demanding. Individual capacities and stress points vary, but women in a variety of circumstances are constrained by time as they juggle multiple roles and increased responsibilities. ‘Modernization’ has brought increased, not diminished, demands on women's time [5].

4. Space translates into proximity, or, in the absence of proximity, a place with tools

Time is one requirement for successful breastfeeding. Space is another. Either mother and infant must share space, i.e. be in proximity with one another, or the mother must have a space - a physical place - to express and store breastmilk.

First of all, the space must be safe, not just the nursing or pumping/expressing space, but the workplace itself. Exposure to commitments should be minimized, especially fat-soluble contaminants which concentrate in breastmilk. This is especially a concern in countries where toxic chemicals, some of which are now limited or banned in the United States, remain in use. Examples include industrial chemicals, such as polychlorinated biphenyl (PCBs), and agricultural pesticides [6].

Current opinion is that the benefits of breastfeeding outweigh the risks in long-term environmental contaminants [7,8]. The most immediate menace is severe accidental contamination. For example, Lederman reviewed the literature on breastmilk contamination for a conference in the Central Asian Republics. She found that where there were documented effects of contamination they were not from incremental environmental contamination, but from specific massive closes [9]. Such incidents can arise in the workplace, and workplace exposure can also compound the risk posed by other exposure.

Besides safety, the workplace must offer a location where a mother can express milk if she cannot breastfeed in or near the workplace. For many women privacy is a requisite for successful milk expression. Workplaces with quiet rooms where several women can take nursing breaks together seem to be especially pleasing. The tools are, at minimum, a place to store containers, wash hands, and express and store milk in containers without a lot of dirt or other contamination. Other useful tools are refrigerators, ice boxes, running water, sterilizers, electric or manual pumps, thermos holders, carrying cases for milk containers, labels or marking pens, and information or training on milk expression.

Time and space interact, though we are not aware of studies documenting or explicitly analyzing such interaction and it is certainly not consistent across all mother-infant dyads or over all infant ages. We need additional empirical information on the interaction of time and environmental conditions on both expression and storage of milk.

5. All breastfeeding mothers need support, but breastfeeding workers especially need material support and social/cultural support [10]

Material support provides a structure, which promotes and protects breastfeeding by working mothers. It includes laws that provide maternity and family leave, enforcement of those laws, breaks to breastfeed, and the right to breastfeed in public without harassment. It includes physical and human resources such as private places to express milk, access to pumps, refrigeration, and crèches. Examples in the U.S. include the Family
Material support can be organized by institutions, groups, or individuals. Traditionally, material support was provided to working mothers by members of their household, community and extended family. Many cultures mandate a 40-day postpartum leave. There is an urgent need for research on which to base guidance for mothers and their support systems about the minimal requirements for successful establishment of milk supply, but the traditional 40 days appears to be a functional estimate. In Central America, for example, in most traditional Latin households pregnant women work until they give birth. But after they give birth other women take over all the new mother's household duties. Special foods are mile for them. They enjoy a status and services unique to this period in their adult lives. Modern research is just beginning to explore and document the wisdom of these traditional periods of rest and intensive support for successful establishment of lactation [11].

Other examples of material support range in complexity from UNICEF's Baby Friendly Hospital Initiative to workplace policies that allow flexible work hours, to the caretaker who brings the baby to the mother during working breaks, to the father who fixes a refreshing drink and cares for other children while his wife breastfeeds. Support groups and information systems function around the world, e.g., La Leche League CALMA, ARUGAAN, YASIA, and ILCA. There are increasing numbers of information sources, lactation consultants, and trained health practitioners to teach and support breastfeeding mothers. Material and logistic support can be simple or complicated, but without it few mothers can work and breastfeed without undue stress.

To the extent that knowledge supporting breastfeeding is embedded in a culture, the culture is likely to be 'friendly' to the breastfeeding mother. People, everyday people, as well as policy makers, need to know about the benefits breastfeeding provides for the mother and the baby. If breastfeeding's value is recognized and understood, then it is clear that every mother has the right to choose to breastfeed. Breastfeeding is, as a social good for babies, mothers, and families, as basic as clean water.

New mothers - whether breastfeeding and/or artificially feeding - are often uncertain of how to embark on child rearing. Almost universally they want to do what is best for their child, for the child's physical, mental, emotional, and social well being. At a minimum, women need information, acceptance, and tolerance of breastfeeding from their family and work communities. A social or work environment which tells a mother that breastfeeding is not necessary, not valued, or socially unacceptable will, for most mothers, restrict their ability to make a free, informed choice to breastfeed.

There is extensive anecdotal and ethnographic literature which documents women's needs for social and emotional support to breastfeed. The increasing numbers of women of reproductive age who gather now in formal and non-formal sector workplaces constitute a real opportunity to mobilize support for breastfeeding. Rather than regarding work and multiple roles as obstacles, they are potential opportunities for improving support for mothers; mother-to-mother support as well as institutional, material, and social support.

6. Issues and recommendation

♦ Transform the changes in women's roles into opportunities to change the culture of breastfeeding. Provide good information. Organize women to support one another to ensure family leave, nursing breaks, and good child care. Align with other women's interest groups to campaign for these issues with labor unions and employers.

♦ New mothers need information and support. Breastfeeding LAM, contraception, and child care are a natural postpartum package. Do not shortchange women. The more they understand about fear of healthier children, Breastfeeding and birth spacing, the more likely they are to be successful at all of them.

♦ Research on breastmilk expression and breastmilk storage is urgently needed. Current research implicitly assumes an 8-h working day and refrigeration. Additional research
must be undertaken to provide guidance to the majority of women who are away from their infants for more than 8 h and do not have access to refrigeration or sterile containers.

♦ Research on LAM for working women must be a priority. Night feeding, schedules, and ex-techniques are a few of the issues which should be examined.

♦ Family and maternity legislation must be carefully monitored and studied. We need to understand more clearly what the direct and indirect impacts of these regulations are and which enforcement strategies are effective.

♦ Strategies to help families and employers calculate direct, indirect, and opportunity costs of breastfeeding and alternatives must be developed and used.

♦ Little research has been done on the social and emotional benefits of breastfeeding for infants and working mothers. Anecdotal and ethnographic information suggest that they are significant. Cognitive benefits for infants may also be significant. These issues merit exploration, but to our knowledge virtually no funding is directed to them at this time.

♦ Continued campaigns to educate policy makers and the general public about the known benefits of breastfeeding and the costs of its decline are very important. Breastfeeding is a socially significant activity. All mothers need 'mother-friendly workplaces [12].'

♦ Breastfeeding is undervalued because it is intrinsically female. This is why an alliance between breastfeeding advocates and feminists is both natural and urgent.

References;


Audience discussion

Participants noted that we should not view the workplace as an obstacle to optimal breastfeeding but also as a place of support for the woman who chooses to breastfeed. Examples were discussed of workplaces where women had shared breast pumps or where areas equipped for breastfeeding or breast expression were provided. It was suggested that programs may be dwelling excessively on the obstacles to working women breastfeeding rather than focusing consistent messages on how employed women benefit from breastfeeding. Other participants pointed to cases where colleagues made breastfeeding women feel guilty in the workplace and were unsupportive of their attempts to continue breastfeeding while working. Education therefore is a critical factor for this issue, as well as the practical factors such as the need for better child care services at or near the workplace. Participants suggested that more research be conducted on the actual situation of employed women, whether working in the formal or the non-formal sector, particularly to examine which specific constraints - such as lack of
knowledge or awareness, logistical constraints, or lack of breastfeeding skills - are the major obstacles to breastfeeding in the workplace.

Resolving the issue of breastfeeding for the working woman requires attention to a range of issues relating to time, space, and support. Are these issues that can be addressed only through legislation? And, if they are addressed through legislation, what is the benefit if the individual employer does not comply with legislated changes? Finally, how do we translate advances made in the formal work sector into benefits for women who work in the non-formal sector?

Part of the support needed for working women, or women who are separated from their infants for periods of time, is research on breastmilk expression and storage. As Dr. O'Gara noted in her presentation, these practical considerations must have resolution in practical guidance for women based on the reality of their lives - often away from their infants for more than 8 h, for the most part in unsterile conditions, without access to refrigeration. Clear advice is needed, backed by scientific proof, that focuses on simple, practical technologies, such as storing expressed breastmilk in closed containers packed with ice.

Participants were interested particularly in the use of the Lactational Amenorrhea Method (LAM) for working women. The issues that were raised included the importance of night time feeding for working women, and what the costs and benefits of this behavior would be; the efficacy of different types of breastmilk expression (hand, manual pump, electric pump); and how often a woman would need to express her breastmilk while away from her infant to maximize the fertility impact.

The role of labor unions was raised, particularly the question of whether labor unions had engaged in any official activity in support of breastfeeding. Although the conference was sponsored by the Coalition of Labor Union Women (CLUW) and representatives from the International Labor Organization (ILO) and CLUW were scheduled to attend, there were no respondents to the group's queries about what labor unions have been doing to support and promote breastfeeding in the workplace. The ILO Maternity Protection Conventions established from 1919 onwards provide for 12 weeks of maternity leave, medical care, nursing breaks, and prescribed work hours, but have not been universally ratified. The efficacy of such measures is uncertain largely due to random or non-existent monitoring or enforcement of such conventions at the local or national level. Participants suggested that those of us who conduct meetings at this level make even stronger attempts to involve the labor groups, as well as the women supportive organizations such as UNFPA and IPPF, particularly to discuss strategies for revising labor conventions or providing incentives for more countries to ratify and implement them.

Most importantly, this discussion raised the issue that we tend to undervalue all of women's work, and that breastfeeding is women's work, with real, tangible costs - although not necessarily financial - to the woman. The recognition of this fact is rightly a feminist call to action.
Abstract

Breastfeeding empowers women and contributes to gender equality; therefore, it is an important feminist, human rights, and women's issue. Although seldom addressed as a feminist issue, breastfeeding is paradigmatically one because it requires rethinking basic issues such as the sexual division of labor, the fit between women's productive and reproductive lives, and the role of physiological processes in defining gender ideology. The conceptual problems which emerge in the fit between breastfeeding promotion and feminist theory include the place of motherhood; technology versus liberation; fear of biological deterioration; breasts and sexuality; locating guilt personal choice; romanticizing breastfeeding and conceptualizing women's work. Feminist theorists who take up breastfeeding as an issue and medical researchers who address question raised by feminist theory have the occasion to produce a non-dualistic feminist problematic that would draw together a wide range of theories and practices that go beyond breastfeeding and mothering. The failure to develop this analysis could have serious consequences.

Keywords: Breastfeeding; Feminism; Choice

Introduction

Breastfeeding is an important women's, human rights, and feminist issue, since breastfeeding empowers women and contributes to gender equality. Women who wish to breastfeed their babies but cannot - because of inadequate support from family or health workers, constraints in the workplace, or misinformation from the infant food industry - are oppressed and exploited. Groups and individuals interested in fighting for women's rights and human rights should take action to change this situation and recognize breastfeeding as a woman's right. Conditions supportive to successful nurturing, including breast feeding, are conditions which generally reduce gender subordination. Women's groups and feminist groups should put breastfeeding on their agendas and commit their valuable time and resources to breastfeeding campaigns and programs for the following reasons:

♦ Breastfeeding requires structural changes in society to improve the position and condition of women.
♦ Breastfeeding confirms a woman's power to control her own body, and challenges medical hegemony.
♦ Breastfeeding challenges the predominant model of woman as consumer.

*This ruination. builds on previous discussions of breastfeeding and feminism, 'Thank You, Breasts: Breastfeeding as a Global Feminist Issue' to be published in a manor on feminist anthropology, and Learning From Lives,' the opening address for a conference on Making Breastfeeding the Nome, hold in Toronto June 1993, in addition to materials prepared for WABA for World Breastfeeding Week.

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Breastfeeding challenges views of the breast as primarily a sex object.

Breastfeeding requires a new definition of women's work - one that more realistically integrates women's productive and reproductive activities.

Breastfeeding encourages solidarity and cooperation among women at the household, community, national, and international level [1].

Although breastfeeding is recognized as a women's issue, it is seldom formed as a feminist issue. In fact, it is most often ignored by feminist theorists. This paper argues that breastfeeding is a paradigmatic feminist issue because it requires rethinking basic issues such as the sexual division of labor, the fit between women's productive and reproductive lives, and the role of physiological processes in defining gender ideology. It reviews what feminists have said (or left unsaid) about breastfeeding suggests some conceptual problems that breastfeeding raises for contemporary feminist theory, and makes recommendations for including feminist approaches to breastfeeding in discussions of women's rights.

Breastfeeding is a holistic act and is intimately connected to all domains of life - sexuality, eating, emotion, appearance, sleeping, parental relationships. But most lessons about breastfeeding are packaged by disciplines into medical lessons, feminist lessons, psychology lessons, anthropology lessons and so have little that can be generalized beyond disciplinary borders. This paper attempts to cross disciplinary borders to bridge some gaps between feminist, anthropological, and medical thinking about breastfeeding.

2. Defining feminism

The meaning of the term feminism is continually contested and changing. In fact, there is no one 'feminism' but a number of feminism. Never-there are definitions that are used in international contexts to underscore the common agendas of different women's movements around the world. One general definition uses feminism to refer to theories that explain the causes of women's oppression and actions that seek the eradication of gender subordination and of other forms of social and economic oppression based on nation, class, or ethnicity [2]. "A number of Asian activists and academics agreed upon the following definition of feminism: "An awareness of women's oppression and exploitation in society, at work and within the family, and conscious action by women and men to change this situation [3]." Many of the problems underlying discussions of feminism may be simple differences in definitions and understandings of what feminism is, rather than conceptual clashes or opposed agendas. These problems result in discourses that could begin, "I'm not a feminist, but..." or "I'm a feminist, but...". Because this author writes in English, and will be referring to social science literature in English, she will use the term feminism but she is aware of contexts where using the term would not be strategic. This is not one of those contexts. In keeping with feminist methodology, the author's biases must be made explicit here. She identifies herself as a feminist and as a breastfeeding advocate, and finds feminist theory and practice useful in discussing breastfeeding. What she finds frightening and threatening is not the wide diversity of feminism being produced around the world, but the backlash against feminism, and the growth of what she calls "politically correct" feminism.

3. Feminist theory and breastfeeding I'm a feminist, but...

It is not by chance that breastfeeding is absent from many influential feminist works. But the absence of discussions of breasts and breastfeeding in the following works is surprising. Does The Woman in the Body [4] not have breasts? In Shorter's The History of Women's Bodies, are we to conclude that breasts have no history [5]? Surprisingly, lactation forms no part of O'Brien's brilliant analysis of the moments of reproduction which belong or could belong solely to women in The Politics of Reproduction (1981) [6]. Gyn/Ecology by Mary Daly, for example, has no index entry on breasts or breastfeeding but focuses attention instead on breast surgery. She links breast surgery to "the breast fetishism of the entire culture,"[7] and attacks the excesses associated with mastectomies and cosmetic breast surgery to alter the shape of breasts. Silicone breasts receive more attention than lactating breasts.
Feminist theorists have ignored lactation and breastfeeding and focused attention on other reproductive processes because breastfeeding raises conceptual problems and reveals the many inherent contradictions that feminist theory is still grappling with. In their efforts to be inclusive, feminists have avoided privileging mothers over other women, or breastfeeding mothers over other mothers. In research on women's health, menstruation and menopause have been privileged over lactation, for example. Perhaps this is because women cannot easily choose not to go through the former processes, but can choose to suppress lactation. What conceptual problems emerge in the fit between breastfeeding promotion and feminist theory?

3. 1. The place of motherhood in feminist theory

Rothman writes:

Feminists are caught in an awkward position facing these new definitions of motherhood. The old duration, were in bad We fought them for so long, ad now the honor, no, are worse We have not yet claimed a language of our own for motherhood, a woman centered way of looking at it [8].

In her review of Rossiter's book, From Private to Public (1988), Lundberg reveals her conflicting feelings towards her dual roles as feminist and mother:

We are or comfortable about feeling proud to be mother about giving it priority Even non-feminists have difficulty resolving the conflicts between personhood and womanhood under capitalist patriarchy [9].

Feminism is dominated by seemingly contradictory approaches to motherhood. Some feminists ignore it; others critique the institution, finding within it the source of women's oppression; others celebrate and glorify it. De Beauvoir [10] stressed how reproduction alienates women from their bodies biologically and socially, and generally devalues reproductive work. Liberal feminists fought for increased opportunities for women in order for them to ‘catch up’ with men and participate more fully in the mainstream of modern society. They are concerned with ensuring that women have full access to the benefits of industrial society, and they approach this objective primarily through the passage of new laws and regulations. Liberal feminist arguments inform policy initiative that remove conditions discriminating against lactating mothers such as the lack of facilities for nursing couples to feed in comfort and privacy in the workplace or other public locations, or inadequate paid entitlement entitlements. Breastfeeding - particularly breastfeeding and women's work - brings these unresolved issues to the surface.

3.2. Technology as liberation

The idea that technology can liberate women from reproductive problems is an ongoing debate within women's health movements. Lazaro argues that "technology provides a partial solution to female natural alienation," although it "opens unsuspected doors which are potentially - although in fact not necessarily - liberating 111].' This approach to technology as liberation partially explains the feminist silence around breastfeeding and the source of the idea of bottle feeding as liberation, a point that the infant rood industry has been quick to exploit in their advertising.

Rothman explores ideology and technology in patriarchal society in he, book Recreating Motherhood [81. In it, she critiques capitalist, technology approaches to pregnancy, birth, abortion, adoption, and infertility from a feminist perspective. She explores midwifery as feminist Trusts, and surrogate motherhood, and concludes with suggestions for a feminist social policy. Although she makes anecdotal reference to breastfeeding it fact, it would have made a fine focus for her argument that capitalist technology is commodifying process into product and treating people like commodities [12]. Jagger carries this idea of biological reformulation even further:

This transformation light even include the capacities for insemination, for lactation and for gestation so that, for in stance, one women could inseminate another so that men and non-parturitive women could transplanted into or even man's body [131.

Ursula Franklin reminds us that technology reorders and restructures relations between social group, between nation and individuals, between all of us and our environment[14].
Her elegant and essentially feminist argument contrasts holistic technology where individuals control their own work from start to finish, with prescriptive technologies where the task of doing something is broken down into clearly identifiable steps that could be carried out by separate workers. While the latter become designs for compliance, the former are tasks that cannot be easily planned, coordinated, and controlled: "Any tasks that require immediate feedback and adjustment are best done holistically [15]."

Breastfeeding is a good example of a holistic growth model dependent on context and thus not entirely predictable or controllable. Some breastfeeding promotion programs and lactation management courses ran the danger of becoming prescriptive when they provide rules and techniques from authority figures, and lose sight of the goal of empowering women to breastfeed. Bottle feeding is an excellent example of a prescriptive technology, where every effort is made to follow a sequence of steps under controlled conditions determined by others and to eliminate the need for decision making and judgment on the part of the user. Everything appears controllable and predictable a comforting (but utterly false) assumption for new mothers.

3.3. Fear of biological determinism

"The starting point of feminist interest in biology was, and is, a critique of biological determinism [16]." Birke also argues that since feminists want to change society, biological arguments cannot serve feminist causes [17]. Women's biology is either ignored by feminists or assumed as given, by others But, as Lazaro points out:

A feminist analysis which wants to escape biologistism must amount for the fact that the data of biology are differently valued in different societies. These is nothing inherently good or bad in the capacity to bear children; rather society assigns a value to it and different societies assign different values [18].

Others see this as a challenge to feminism. The understanding that biological particularly need not he antithetical to historical agency is crucial to the transformation of feminism [19].

This, in part, accounts for the ambivalence in the way feminists approach motherhood. Lactation as a process smacks of essentialism and biological determinism because the capacity to suckle their young is characteristic of all female mammals. For radical feminists who locate women's oppression in their bodies and their reproductive capacities, lactation could hardly be explored as empowerment. A more gynocentric view, is represented by the work of O'Brien [20,21], whose arguments also are problematic. Her attempt to recover motherhood for feminism offers a deep challenge for feminists [22]. Lazaro claims that O'Brien's mishandling of biology,

... leads her into the view of reproduction which she criticizes, barrels, one which opposes nature to history and which suggests against her own views, that women must overcome their natural condition a, child bearers in order to become feminists [23].

3.4. Breasts and sexuality

"Breasts are a scandal for patriarchy because they disrupt the border between motherhood and sexuality [24]." The male gaze has forced women to deny any sexual pleasure associated with breastfeeding because one cannot be maternal (madonna) and sexual (whore) at the same time. In this discourse, women cannot be nurturer and seducer simultaneously: one precludes the other. Thus, in western society, the sensual pleasure of breastfeeding has been repressed, leaving breastfeeding as simply a part of "... this tamed, pleasureless, domesticated world of maternal duties [25]." Breasts as sex objects evoke complex arguments that take an analyst into the poorly charted waters of sexual identity.

As Oakley points out, feminists have been interested in breasts, but not in breastfeeding

...the natural feeding of children rises an incurable dilemma for those asserting the autonomy or woman, their right to exist, full member of society. To be social lines. to repudiate, the natural world, where life is governed by animality…[26].

Breasts come in an extraordinary range of sin and shapes, almost all ideally suited to breastfeeding. It is our culture which defines a small range of breast sizes and shapes as being acceptable-
what the author calls the 'official breast.' We all know what those breasts look like, what they are used to sell, and how few of us possess them. Any practices that minimize the exploitation of the official breast will help breastfeeding. The sex industry and beauty industry have succeeded in objectifying women's breasts through media and advertising, making it difficult for some women to breastfeed in public. When feeding bottles are used in public for fear of public exposure of breasts, or when women's reasons for choosing bottle feeding include fears that breastfeeding will alter the shape of their breasts, then women are being treated as sex objects. Women's fears about exposing their breasts are more than confirmed when North American women we arrested or asked to leave public places for breastfeeding openly. Thanks to the efforts of women activists, breastfeeding women are reclaiming their breasts as valued parts of their bodies and refusing to be treated as sex objects.

3.5. Locating guilt

Feminists object to breastfeeding promotion that makes women feel guilty for not breastfeeding. Using this misplaced feminist argument, some policy makers argue that breastfeeding should not be promoted no, its advantages stressed lest women be made to feel guilty for not breastfeeding or for breastfeeding failure, and blame themselves. Letting women know of the health risks involved in choosing not to initiate breastfeeding and using infant formula should be a normal part of informed consent. Patients are told of the risks of heart surgery to inform them, not to make them feel guilty for not choosing that option. Why should artificial feeding not be treated in the same way? This is not to say that overzealous or insensitive service providers or health promoters may not occasionally make women feel guilty for not breastfeeding. In fact, this will be a serious problem if women feel they are being made to breastfeed 'for the sake of the baby.'

This issue calls for care to avoid contributing to politically correct breastfeeding - the idea that there is only one correct way to breastfeed. This idea leads to the danger of breastfeeding being interpreted as part of women's oppression instead of women's liberation. Those who conceptualize breastfeeding as exploitation see women as passive objects being drained by their children. Those who see breastfeeding as a positive act of self assertion view women as active agents in control of their lives.

3.6. Personal choice

The theme that individual women make a 'personal' decision regarding infant feeding based on what is best for them over-stresses the individualism so characteristic of western liberal feminism. This is not a concept that explains women's choices in much of the developing world. Talk of personal decisions by individuals stresses notions of women's 'right to choose,' again a strong western notion. Choice, of course, only exists when options are fully available including, information regarding possible consequences of different methods of infant feeding. Yet the 'risk' of bottle feeding may be very difficult to communicate, particularly in contexts where bottle fed infants seldom die as a direct result of feeding practices, as in Canadian cities and among the elite in developing countries.

The demands of the women's movement include the right to self determination. But as Mies points out, the utopia of an independent, isolated, autonomous, individual woman is not attractive to all women [27]. In the case of infant feeding decisions, women appear to be practicing self determination when they have the freedom to choose between different brands of infant formula. "For people trained to choose between packaged formulas, mother's breast appears as just one more option [28]." Is this the feminist utopia envisioned by the woman's movement?

3.7. Romanticizing breastfeeding

Ecofeminism, like gynocentric radical feminism, sees women's bodies as sources of spirituality and power, rather than as sites of oppression. In its manifestation as female spirituality and Goddess worship, ecofeminism may over-romanticize maternal principles and breastfeeding without consideration of the material conditions of breastfeeding women. Although ecofeminism keeps breastfeeding on the feminist agenda, it takes us back to the circular problem of essentializing...
women and glorifying their 'natural' attributes, and may completely alienate both socialist feminists whose work may be particularly valuable for understanding the relationship between women's productive and reproductive work, and policy makers in gender and development.

The physiological process of lactation must be considered in any analysis of the relation between production and reproduction. This is not biological determinism but common sense. The biological facts of pregnancy, birth, and lactation are not readily compatible with capitalist production unless profits are expended on maternity leaves, breastfeeding facilities, and childcare. Thus, when mothers enter the work force, they are forced to seek more marginal, lower paying kinds of work. "Women's skills are less 'valued' not because of an ideological devaluation of women, but because women are less likely to be unionized, less mobile in making job searches, more constrained in general by their domestic duties [29]." This is why the World Alliance for Breastfeeding Action's (WABA) decision to focus World Breastfeeding Week 1993 on breastfeeding and women's work, possibly the most complex and least researched area in breastfeeding research, was responding to a strategic need rather than a practical need. In many parts of the world even asking for maternity entitlements might be an excuse to fire a woman.

3.8 Conceptualizing women's work
In our awareness of women's double and triple burden, arguments that present breastfeeding as yet another burden or obligation that women must bear, are often presented as 'pro-woman.' Thus, artificial feeding is supposed to lighten women's burden, not add to it. Spurious appeals to women and co-opted feminist arguments, make no reference to the burdens of purchasing and preparing breastmilk substitutes, or the burden of a sick or dying infant. The arguments about convenience pick up on the language of 'scientific motherhood' common at the turn of the century - breastfeeding as moral obligation, a burden mothers must endure. Advancements in technology are presented as if they relieve women of time consuming duties. A higher priority on many feminist agendas is co-parenting and the need for more male involvement in the nurturing process. Much confusion exists because of the conceptual problems around defining work and including breastfeeding in considerations of women's work.

4. Common challenges: I'm not a feminist, but...
Over 10 years ago, Kelly argued that "feminist social thought is just beginning to overcome the dualisms it inherited to account satisfactorily for sex, class, and race oppositions within a unified social theory [30]. Breastfeeding requires negotiating a number of socially constructed dualisms that have dominated western thinking. These discursive categories that have shaped and continue to shape the way we experience and understand the world include oppositions such as:

- production vs. reproduction;
- public vs. private;
- nature vs. culture;
- mind vs. body;
- work vs. leisure;
- self vs. other;
- maternal vs. sexual.

Breastfeeding in theory and practice bridges many of these oppositions and dissolves others. For example, Marxist analysis forced the pro- split and privileged production over consumption. Marxist feminists still struggle with the production (public), reproduction (private) split, But Mies argues that women's bodies were the first means of production -of children and food. Women consciously appropriated their own bodily nature to give birth and produce milk, forming not only units of consumption, but of production as well [31]. The production-reproduction opposition parallels the division between the public and private or domestic spheres. What is consigned to the private sphere should be done in private. But in what sense is breastfeeding a private act? Public-private oppositions underlie controversies surrounding breastfeeding in public, often leading to analogies between breastfeeding and excretion. Gaskin writes, "It is strange indeed that countries which so pride themselves on their fastidiousness should
make social rates which often force their most vulnerable members to cat in places designed for the excretory needs of the other members of society [32]."

Breastfeeding is solidly body based. It is therefore consigned to the nature half of the nature-culture divide - an example of the immanence of women as opposed to the transcendence of men, in de Beauvoir's terms. But breastfeeding as a process is strongly affected by emotional and cognitive states, and thus is very sensitive to social context.

Even the work/leisure opposition breaks down when applied to breastfeeding as it does for much of the work of mothering - work that is always a burden and a pleasure at the same time [33]. The author has argued that lactation should be redefined as productive work 134]; but there is still an regarding its relation to leisure. In many work contexts, breastfeeding is either accomplished while doing other things (joint production), or is a truly pleasant and restful respite from other tasks. Because of its potentially sensual nature, breastfeeding is qualitatively different from child care, which is often calculated by economists as a leisure activity.

Finally, the subject/object opposition cannot be usefully applied to intersubjective activities such as breastfeeding [35]. The experience of breastfeeding blurs body boundaries, as women experience continuity with their infants. It is this continuity this experience of 'other-as-self' - that makes breastfeeding both a powerful transforming experience for some women, and a terrifying loss of personal autonomy for others (or both at the same time).

Another challenge concerns linking breastfeeding to the environmental movement. Eco- feminist theory could be most useful for thinking through environmental hazards in the home and workplace. Environmentalists publicize radioactivity and dioxins in breastmilk without considering the effect this knowledge will have on breastfeeding mothers. While it is true that breastmilk is a concentrator of what is in the environment of the mother, without a feminist critique of the wider problem including the existence of dioxins in water and food, the 'answer' may be presented as a shift to the use of infant formula, which could contain the same environmental contaminants.

without an examination of the con- of those products or the water used to dilute them. Concerns about contamination should lead to struggles against chemical companies, not from a consideration of coe feminist theory but from the practice of mothering. Breastfeeding is an example of the politicization of the personal. There is no way to transform a bottle feeding culture into a breastfeeding culture without engaging in politics. One definition of politics is the practice of prudent, shrewd, and judicious policy. We can learn from feminist work in this case. The personal is political. A woman who fails to breastfeed as well or as much as she wants to is not an isolated individual who has not got it right. She is the product of social, economic, and political structures that can change if there is sufficient political will to tackle the underlying causes. Tackling these issues, exposed often by feminist analysis, is not something that breastfeeding advocates are ready or equipped to do; hence, the critical importance of developing allies. There is room for optimism in the work to protect breastfeeding even if the balance of power always appears to swing toward wealthier and more powerful individuals, institutions, and nations. Power can be redistributed throughout the world system, permitting subtle shifts in the orientation of key institutions and empowering new groups. In the seventies, new groups gained influence in supranational arenas. Of particular importance to breastfeeding has been the strengthening of women's organizations, and coalitions representing consumer interests. International non-governmental organizations had a substantial impact on breastfeeding policy both in developing and developed countries, Women who have taken a, various causes such as the breast-bottle controversy have come to see their own place in the world in a different way. Quimby writes that "... struggling against specific sites of power not only weakens the juncture of power's networks, but also empowers those who do the struggling [36]. " Environmentalists have not seriously addressed the breast-bottle controversy from an ecological perspective 1371. The report of the World Commission on the Environment and Development titled 'Our Common Future' [381 made no mention of lactation or breastfeeding Such omissions would
be unthinkable from an ecofeminist perspective. Their silence on the subject is all the more surprising since they are sensitive to the way women's bodies reflect environmental stress. Using our children as canaries to test pollution levels is a key theme in ecofeminist writing, although it is miscarriages and not mothers milk which are usually cited:

…because of women's unique role in the biological regeneration of the species, our bodies are important markers of the sites upon which local, regional, or even planetary stress is often played out [39].

5. Repositioning breastfeeding

If feminist theorists took up breastfeeding as an issue and medical researchers addressed questions raised by feminist theory, together they might produce a non-dualistic feminist problematic that would draw together a wide range of theories and practices that go beyond breastfeeding and mothering. These include practices related to care and nurturing. But if we continue to avoid the dialectic necessary to further conceptual work on this issue, we miss an opportunity to grapple with some of the most important debates of our time. The failure to develop a feminist analysis of breastfeeding whether for theoretical or practical reasons, can have serious consequences. Those who promote breastfeeding do not always have women's groups and feminist organizations supporting their initiatives and policies. In India, after 7 years' work to pass a national code for regulating the marketing of breastmilk substitutes women's groups referred to the bill as 'draconian,' arguing that it would do untold damage to women's careers, and force them back to the kitchen. To discuss breastfeeding as a chain, tying women to traditional roles, reveals a lack of understanding or the context of infant feeding choices in developing countries, and insupportable biases about breastfeeding as a 'traditional' act. Yet more subtle messages continue to reinforce an inappropriate association between bottle feeding and modernity as if it is more modern for women to desire to escape from the responsibilities of child nurturing. Not all women want to be freed from those responsibilities, particularly in countries here children are a source of women's power and status in the community. Failure to engage the women's movement in breastfeeding promotion can result in feminist discourse being co-opted to produce so-called 'woman centered views' that are not in the least woman centered.

Feminists have criticized breastfeeding advocates, arguing that they want to tie women down, and keep them at home to feed babies and change nappy diapers. This is not the case. Women's groups must make sure that their efforts on behalf of breastfeeding are not used by traditionalists and conservative policy makers against women's interests. How can this be done?

♦ Request that policy makers consult with women's groups before breastfeeding legislation is drafted.
♦ Recognize that breastfeeding is an emotional issue for many women and develop strategies for framing the issue in non-judgmental ways.
♦ Plan how to counter possible negative effects such as employers threatening to fire women rather than provide maternity entitlements.
♦ Ensure that breastfeeding campaigns stress the welfare of both the mother and child.

Below are some additional recommendations that might take us closer to the creation of a feminist breastfeeding praxis.

6. Recommendations

Local women's groups can carry out various activities supportive of breastfeeding For example:

1. Campaign for politicians who support policies that help breastfeeding mothers.
2. Lobby national commissions on women and status of women groups to include breastfeeding in their action plans.
3. Boycott products whose advertising on TV and in magazines uses women's breasts as promotional tools.
4. Ascertain which organizations fund infant feeding research and then ask who benefits from the result of this research and who loses: the loser is never the infant food industry.
5. Ensure that female babies are breastfed and given appropriate complementary foods as often as male babies.
6. Encourage artists to present paintings, photographs, poems, and plays celebrating the power of maternity and breastfeeding and the beauty of breasts.

7. Welcome breastfeeding mothers at women's meetings and seminars, and provide child care facilities.

8. Ask key women in public office to endorse World Breastfeeding Week and to include breastfeeding messages in their speeches.

Feminists also can concentrate their efforts on demonstrating how breastfeeding supports rather than breaks down co-parenting strategies, by increasing the interdependence between parents. They can increase advocacy work in the Rican of popular culture - magazines, TV, and movies. What exists around us in everyday life has more impact than media campaigns.

Women's groups are in a strong position to demonstrate how breastfeeding fits with other women's issues such as reproductive health, education, and violence against women. (Pregnant and lactating women are particularly vulnerable to abuse. Obstacles to breastfeeding such as inappropriate hospital practices and promotion of infant formula are also examples of violence against women.)

Finally, women's groups can be instrumental in developing a strategy for integrating breastfeeding into the human rights agenda. By enabling women to breastfeed we address women's rights since the improvement of women's social and economic status is necessary for supporting breastfeeding. Any violation of women's right to breastfeed is a violation of women's human rights.

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Audience Discussion
Discussion began by reiterating Dr. Van Esterik's point that breastfeeding is consistent with feminist goals of empowerment and gender equality, although feminism is dominated by contradictory approaches to motherhood should motherhood be ignored? Criticized as an institution and a source of oppression? Glorified? As Dr. Van Esterik noted, "choice only exists when options are fully available." Groups seeking to advance women's rights logically should take up the support for breastfeeding because breastfeeding is a woman's right - and because these groups usually are dedicated to making a range of choices available to women.

How, then, is breastfeeding empowering? Women who breastfeed can gain a strong sense of self esteem and self-reliance from their unique ability to nurture their babies. Participants cited examples such as breastfeeding gives each woman the experience of successfully providing the best in nutrition, preventive health care, and nurturing, while saving the family's disposable income for the relatively in expensive foods for older children and adults. Such empowerment, or self-efficacy, supports women in other self-help activities, such as the use of family planning and the attainment of education. Women who breastfeed also are less dependent upon medical professionals and commercial products, thus refuting the notion that formula is 'liberation in a con.' Participants also noted that use of family planning methods, such as the Lactational Amenorrhea Method, contributes to this self-empowerment.

Dr. Van Esterik's point that "conditions supportive to successful nurturing, including breastfeeding are conditions which reduce gender subordination generally" was endorsed by the group. Generally speaking, successful breastfeeding may be linked to conditions of gender equity and to human rights, such as the equal distribution of food in the household and the right to breastfeed in public, respectively. In fact, breastfeeding can help break the traditional gender-based division of labor in the household by encouraging the redistribution of household tasks to other family members. Women's groups can Work to ensure this more equitable division of labor, including child care.

There is a natural alliance between groups who should be supporting and empowering women to breastfeed and, building on Dr. O'Gara's paper, supporting and empowering women to breastfeed and work as well. These groups can be gender-based, development-based, environment-based, family planning-based - but of primary importance is getting these groups to recognize that their interests and concerns are in fact similar to the issues being promoted by breastfeeding advocates. Our challenge is to integrate these breastfeeding empowerment and rights issues into programs which currently may be, if not openly hostile, at least indifferent to these concerns. Breastfeeding advocates must work with feminist groups in particular, who have traditionally avoided the topic of breastfeeding because it can be intertwined so easily with arguments about biological determinism.

Participants agreed that breastfeeding is a process related to all concerns and actions of women worldwide. It is therefore necessary to integrate this topic with all topics concerning women. This integration will require a re-education of women's
organizations, development groups, and others, to help them recognize that breastfeeding concerns contribute to their own policy and program issues.

Summary

Breastfeeding, women's health, and family planning
(Randa Saadeh)

There is enough scientific evidence to show the contribution of breastfeeding to child spacing and birth intervals. Numerous studies indicate that breastfeeding lengthens the interval between pregnancies, and these decreases significantly enhance infant survival and reduce maternal mortality and morbidity, especially in developing countries. The optimal birth interval of at least 2 years, however, is rarely achieved. The direct effect of breastfeeding on child spacing has been known for the last decade, but very little has been achieved in terms of using this knowledge to prolong birth intervals. This lack of action is due primarily to the fact that family planning programs generally are targeted to women while most nutrition programs are targeted to infants. Breastfeeding provides the vital link between nutrition and family planning with benefits to both mother and child.

The health and nutritional status of mothers, particularly adolescents, are of primary importance and greatly affect a woman's nutritional resources, reproductive and productive roles, and family planning needs. Long birth intervals allow mothers time to replenish stores and minimize the risk of maternal nutritional depletion. An increased interval will improve the mother's ability to care for her child, ensuring adequate feeding and general care. For the above reasons, there is a need to integrate family planning and nutritional services. The current situation shows that breastfeeding programs actually include the family planning message but not the reverse. This can be seen clearly in breastfeeding training courses.

When formulating breastfeeding policy and planning programs we need to keep four objectives in mind:

1. To provide consistent messages and reconcile programmatic priorities of agencies when integrating breastfeeding and family planning.
2. To set common goals and proceed with appropriate training, counseling mothers and health workers; fathers also play an important role and need training/education.
3. To provide technical advice, assistance, and scientific evidence behind the theory. For the last few years we have been advocating optimal breastfeeding practices, i.e. exclusive breastfeeding for 4-6 months postpartum, but neglecting to support aspects in achieving this ideal, such as maternity leaves, legislation, clear guidelines for the mother on how to express and store breastmilk and so on. Some guidelines are drawn easily from existing knowledge and studies while others need further research.
4. To tackle beliefs, obstacles, and public cultures in infant feeding and family planning, we must provide information, education, and communication, including mass media, to promote breastfeeding and ensure its complementary role to contraception.

In summary, in order to achieve our objectives we need a strong integration of nutrition and family planning programs, to give common messages, and finally, to identify the parties involved, including women's groups and religious leaders, and to carefully analyze the situation and move into action.

Breastfeeding and work
(Ted Greiner, PhD)

Many efforts have been made, particularly since the late 1970s, to better support working women who are breastfeeding although these efforts have sometimes been at cross-purposes. Cost-benefit measures have looked at availability of low-cost child care in the home, the high cost of transportation for taking a baby to work, the difficulty of providing safe, clean, creches in the workplace, and other issues. These studies, often based on what working women say they want, often lead toward solutions that do not prioritize breastfeeding - such as inexpensive child care near the home rather than near the workplace. This outcome may be one reason why this issue
has been neglected in breastfeeding promotion programs and by initiatives targeted to working women.

During the conference, we noted that this is an era in which we strive toward equality in the workplace but not in reproduction. Stressing a rescinding theme, Dr. O'Gara discussed that women work constantly and that breastfeeding is work. Promotion of a formal breastfeeding friendly workplace initiative may not affect women who work outside the formal economic sector. Several important research and information priorities have been identified:

- How long does it take to establish 'robust' breastfeeding (particularly for primiparas)? Women make many complex choices. What is the information they need on how to breastfeed (as opposed to information on the benefits of breastfeeding)?
- Many women must leave their children to be fed by care givers in less than optimal conditions. What are the optimal conditions for milk storage? What recommendations can we make safely to women?
- Is cup feeding more or less efficient than cup and spoon feeding?
- Should national breastfeeding strategies include practical considerations, such as expression of breastmilk?

Most countries need both short and long-term strategies. We should guard against short-term solutions that ought work against long-term goals (6 months paid maternity leave and other support for all women as an expression of the value society puts on exclusive breastfeeding). For example, if we succeed in convincing a few major employers to establish 'mother-friendly workplaces,' would politicians then feel that this change relieves them of the duty of enabling exclusive breastfeeding for all other women?

We need to be careful not to confuse a clinical decision with a national strategy; good clinical decisions do not translate automatically into good national strategies.

Before recommending that all women be taught to express milk, studies should be done on a smaller scale to determine what impact this change might have on perceptions of breastfeeding, among the majority who may never need to express breast milk. There is a concern that, if we turn breastfeeding into something scientific, medicalized, or complicated, we may increase the number of women who start having 'breastfeeding problems.' Though we can applaud the strides made in 'lactation management' during recent decades, we must also be cautious about the possible complications that this new profession may create new 'customers.'

- Does use of a cup rather than a bottle make a significant difference in infant health, in breastmilk production, and in the avoidance of problems such as 'nipple confusion?
- What strategies can be used to ease women's concerns about breastfeeding? Are flexible breastfeeding patterns and an easy-going attitude (for example, sleeping with the infant, allowing free access to the breast during weekends) keys to optimal breastfeeding for working women?

Given the lessons of the past, it is possible that people working in the breastfeeding field have not positioned breastfeeding correctly: promotion of exclusive breastfeeding through 6 months is best positioned as a human rights issue. Regarding the duration of breastfeeding most studies do not show that formal employment has much impact on breastfeeding. Where working women do breastfeed for shorter duration, then either there are cultural, health service delivery, or commercial factors involved.

If we support and promote breastfeeding as a human right, breastfeeding advocates might better be able to support appropriate legislation and avoid disincentives. Economic constraints continue to prevent society from paying the seemingly high costs involved in making women's work compatible with breastfeeding. Anthropologists have found in traditional societies that the work done
by lactating women tends to be repetitive, easily interrupted, near the home, and safe for young children to be around: how do we translate this experience into practical guidance in less traditional societies? One strategy may be to show that the relatively high cost of providing 6 months of maternity leave or safe transport to a quality creche at the workplace is economically rational.

In some social and political decision making, we ignore economics in favor of human rights. We do not accept slavery or child labor, although they might make economic sense. Should we not place work that prevents women from exclusively breastfeeding for 6 months into that same category? If society viewed exclusive breastfeeding for 6 months as important and valuable, then ways could be found to enable other women to do so in addition to those with formal employment.

Breastfeeding and Feminism
(Sally Tom, MS, MPA, CBN)

The profession of obstetrics and gynecology, particularly in developed countries, is based on the notion that reproductive health is very fragile, with the need to intervene frequently; while the profession of midwifery, particularly in developing countries, is based on the assumption that it is supporting normal, healthy processes - that is, breastfeeding works pretty well and does not require a great deal of intervention. It would be helpful if we could work to ensure that breastfeeding learning objectives are incorporated into residencies in both pediatrics and obstetrics and gynecology to better serve the idea currently promoted by most midwives.

One way that health services can better support breastfeeding is to give the message that women are special and should be supported as whole and healthy beings. Breastfeeding should not be treated as an illness. Again, this reflects the concept that women's bodies generally work very well, as opposed to the notion that we must develop in- to prevent disasters. This concept is a contribution that feminism can make to breastfeeding Feminism can also inform research priorities, since other women's experience is helpful to women.

Many participants in this conference raised the issue of integration of health services. This issue can be somewhat difficult, because frequently different areas of health care act, in essence, like 'gangs' who do not cross into each other's territories (i.e., nutrition specialists do not counsel on immunization, immunization specialists do not counsel on breastfeeding etc.).

Another difficult issue for supporting and promoting breastfeeding is the influence of the formula companies on the medical profession, which is sometimes referred to as 'formula blackmail.' It is very difficult for groups with limited resources, as most breastfeeding support groups are, to tackle such a pervasive influence.

Social changes can be conducive to change in the attitudes of many groups - including feminists - towards breastfeeding This type of change often is slow. What would result from continued work in this direction would be the concept of the value of women as whole beings. Women ought then use health services more proactively, which would result in better outcomes.

Breastfeeding and nutrition
(Frances Davidson, PhD)

I have been asked to comment on Kathy Kennedy's paper, "Effects of Breastfeeding on Women's Health." First, Dr. Kennedy is to be congratulated for pulling together in one paper the diffuse information that exists on this subject. So much of what is often reported on (his subject is anecdotal and unreferenced. In this paper the existing literature of all types is carefully and comprehensively detailed. The resulting picture is problematic. Much of the literature is contradictory. In one study, for example, it is stated that bone loss, a serious public health problem for women, occurs to a greater extent if women continue to breastfeed for long periods of time. The authors state the need to return to menstrual levels of circulating estrogen for some period of time in order to promote bone restoration. Another equally credible source recommends breastfeeding and 'fewer ovulations' for extended periods of time for its protective effect on breast cancer. There are a wealth of other examples such as these. What is a
woman to do? Clearly there is a need to have these issues properly researched and widely reported. I suggest that if we consider breastfeeding in the context of a mother-child dyad, we can properly examine the benefits and costs of nutritional activities to each partner. We have to agree that breastfeeding is indeed a nutritional intervention or activity. In many nutrition textbooks the benefits of mother’s milk to infant health is discussed with no attention paid to mother’s health and well being. This should be unacceptable in a world where 2.5 billion women live and half a million die each year of preventable causes related to childbirth, most of these causes having a nutrition aspect. The condition of the girl and woman is critical to the reproductive situation, both the actual birth but also the raising, nurturing of the child, including breastfeeding. Programs interested in reproductive health should have an interest in supporting the nutrition and well being of the child and adolescent who will eventually become the woman who becomes pregnant and breastfeeds. The earlier the intervention the more assured one can be that the results will be positive for both mother and child. For example, recent research has documented the relationship between the vitamin A content of mother’s milk and the vitamin A status of the woman. This is a clear indication that protecting the woman’s health and nutritional status has benefits for herself as well as her child. It has been shown clearly that women's social status and that of their health and nutrition are intricately intertwined. And it is evident that a woman's health and well being translate directly into the health and well being of her child, particularly at the critical early period after birth. Women's health and nutritional status are obviously affected by existing social, economic, and cultural systems. Increased access to productive resources affects food availability at the household level and this in turn is an outcome of many complex interrelated factors such as income, control over resources, and educational opportunities. Improved nutrition benefits women's issues. The consequences of malnutrition, both micronutrients and macronutrients, can be seen in poor birth outcomes and poor breastfeeding and other infant feeding practices. A women's success in performing functions—including child rearing, leads to increased self-confidence which is of great significance for tackling problems women face in the particularly difficult environment of low income countries. Better nutrition has been shown to lead to reductions in burdens of both an economic and financial nature for women.

How can we improve the nutritional well-being of women? Empowerment and changes in attitudes of individuals, institutions, and legislation are needed. Women need to be able to demand the support necessary to properly nurture their children. They need to be recognized as valuable citizens whose lives are important to their communities. Institutions need to ensure that the work they do does not harm women's health nor that of their children. Legislation needs to be enacted and enforced that allows women time and resources to nurture their children. This includes support to continue breastfeeding and assurance that women will not be penalized economically for this behavior.

Interventions to improve household food security, nutrition, and health should be specifically directed to women. This will increase its effectiveness. Support needs to be given for women's productive work and their access to health services. Advocacy is needed to support better nutrition for women so that they are able to make choices about breastfeeding practices that are beneficial to both mother and child. Breastfeeding should be considered a valuable activity. In this connection, we should not permit the activity to be devalued by referring to breastmilk as ‘Tree.’ This is counterproductive to the need to promote and protect breastfeeding as a critical - and valuable - child survival activity.
Abstract

Twelve themes rose during the conference which, when presented to the group in a summary session, were greeted by general consensus and approval. The themes fall into four categories: women and health care; women and other life choices; women and men; and women and political action. Additional concerns that were not included in the 1-day conference are outlined, including a discussion of (1) respect for the productive roles of women, (2) the three 'I's', and other reproductive health issues; (2) a 7-stage approach to women's nutrition; (3) the supervisory role of the health care provider versus the creator of self-efficacy; (4) the cost of breastfeeding and (5) the impact on the environment. Conclusion and next actions are presented for consideration.

Keywords: Breastfeeding; Policy; Reproductive health; Healthcare; Costs; Environment

1. Introduction

The conference, Breastfeeding as a Women's Issue: Health, Family Planning, Work, and Feminism, was designed to provide maximum time for discussion and to serve as a catalyst for dialogue between sectors. The focus of this conference was to address issues of importance to those persons and organizations whose purpose is to represent the views of, or to provide services for, women. These organizations include family planning organizations, feminist groups, women's rights, women's health, and women's labor unions, both national and international. The forum, however, was not designed to be comprehensive in its coverage of all related issues. For example, the well accepted role of breastfeeding as a child health and nutrition issue was not specifically highlighted since this was a meeting on women's issues. There have been many excellent articles, books, and meetings held for health care providers and advocates on the child health-related breastfeeding issues [1]. This article (a) summarizes the issues covered, with statements that achieved general consensus; (b) presents complementary issues that may serve to round out conference discussion within the context of breastfeeding as a women's issue, and, perhaps, contribute a new perspective; and (c) comments on actions remaining to be taken.
2. Twelve major themes themes the dialogue

The presentations and discussion throughout the day were wide ranging. Twelve themes merged that either were provocative of major discussion or universally voiced. These themes were then summarized and presented to the group. Each of the 12 statements was greeted with general acclamation, and most with resounding approval. They are presented herein with commentary if necessary, however, several are self-explanatory. Four general groupings emerged: Women and Health Care, Women and Other Life Choices, Women and Men, and Women and Political Action.

Women and health care

1. Breastfeeding should be incorporated into major ongoing medical and preventive health agendas.

The prevention of cancer and osteoporosis as well as positive support for postpartum maternal recovery are clearly important medically, and as preventive health issues. The field of preventive medicine is receiving increased attention as the worldwide budget for health care is threatened. Nonetheless, breastfeeding is rarely a major topic in national and international preventive medicine nor clinical fora, and is considered a minor subject in most medical schools. Therefore, both preventive medicine and breastfeeding as a preventive health issue must be an increasing focus for targeted support.

2. LAM is a necessary adjunct to all family planning programs to help them overcome practices that work against breastfeeding.

Unfortunately, recent Population Council research shows that, in family planning counseling, one of the first issues to be omitted is the issue of breastfeeding [2]. This occurs in spite of the fact that breastfeeding has long been mentioned in all contraceptive technology books as a ‘special issue.’ How, then, do we enable family planning service providers to remember this counseling? An obvious answer is to make this part of what they feel is their job, i.e. the provision of family planning services. LAM, as both a method and as a counseling tool, integrates breastfeeding into family planning thinking by providing a combined intervention which is both a family planning product and a counseling support tool.

3. Messages about breastfeeding must be consistent across sectors.

One of the most consistent problems that women who attempt to breastfeed must address is conflicting messages. Whereas this is a problem in the health care sector, it is, often, compounded in social and cultural interpretations. The creation of consistent messages in the breastfeeding field has been recognized by the International Union of Nutritional Sciences (JUNS) Committee on Infant and Pre-school Nutrition in the development of an award for organizations that are making an effort to ensure multisectoral input into message development [3].

Women and other life choices

4. Women can only make fully informed choices about their own health, family planning, and work decisions when complete and accurate information is available to them.

5. All women are working women, and much of their work, both domestic - including child rearing - and in organized labor, is undervalued.

6. The workplace can support breastfeeding

Guidance is rapidly becoming available on how to support working women in breastfeeding under a variety of conditions. Clearly, 3 conditions - proximity, time, and space - are necessary for successful breastfeeding or breastmilk expression, but the existence of support is also vital [4]. Recent research confirms that it is more economical for a company or industry to support breastfeeding than to suffer the extra absences due to infants’ poor health. The worker who resigns in order to breastfeed is also very expensive for the employer who must then rehire and retrain [5].

Women and men

7. Women live in a different biological environment today than during the development of the human species.

Today, the life of a woman, as well as that of a man, includes all the effects of the changing environment of an industrialized world. However, women have a special difference, created by their internal biological environment. Today, women...
do not live in a cycle of continued pregnancy and lactation. The reduced exposure to estrogens of pregnancy and increased exposure to progesterones of cycling create a new hormonal milieu. Recognizing that estrogens are sometimes referred to as 'feet good' hormones and that progesterones have androgenic effects, are women in a new internal struggle to define themselves? It is teleologically evident that in primitive societies in order to best protect the continuation of the species, if a woman were not procreative, she would be called upon to do more of the things that men did. Are women more like men today, if for no other reason than hormonal psycho-pharmacology? These questions leave us with a new and important issue to consider in every aspect of the discussion of women and their roles in modern societies.

8. Men's responsibility must be adjusted to include support for both the mother and the child.

Worldwide this is not, as yet, the prevailing cultural nor culture norm. The 1995 progress n Women to be held in Beijing may explore and provide action planning for this issue.

Women and political action

9. The perception of time, and how productively it is spent, differs between men and women, and among cultures.

Deborah Tanner and others have examined how men and women view the world through different glasses. Edward T. Hall and others have explored cross-cultural differences in time perception [6]. This concept has not, as yet, been applied fully to the understanding of the role and priority of breastfeeding. Possibly, further exploration of this issue would improve understanding across gender and across cultures.

10. The roles of the breast in sex, nurturing, and breastfeeding must be brought into an integrated context, counteracting the conflict that may result in a negative impact on breastfeeding.

11. Motherhood and breastfeeding deserve to be well placed in feminist theory.

Therefore, policy or regulation without the will of those involved is in vain. (Leges sinae moribus vanae.) We may sit, discuss, and make decisions concerning 'what women want'; however, women, with proper information and support, must be enabled to speak for themselves, through support of grassroots activities.

3. Additional complementary issues

The four conference papers and the discussion that followed all include and defend viewpoints on vital issues that may be of consequence in the coverage of the theme of Breastfeeding as a Women's Issue. Areas that may deserve additional consideration include other reproductive health and nutrition concerns, health care workers as providers of supervision versus support, the costs of non-breastfeeding, and the environmental impact of infant feeding choice.

3.1. Other reproductive health concerns

Respect for all the reproductive roles of women.

In this year of the International Conference on Population and Development (ICPD 1994), it is becoming increasingly obvious that the respect for the role of the woman as the procreator and mother is losing its important place on the feminist agenda. Perhaps the clearest illustration of this is that, among many groups that purport to represent the interests of women worldwide, there is a lack of support for, or even attention to, the issue of empowering women to breastfeed. The commonality of support for the health and welfare of all women is often lost in the concern for entry into the economic sector. Nonetheless, the apparent inconsistency of these major themes can and will be overcome: in discussions at the Third ICED Preparatory Meeting (Prepcom III) in New York, women's groups joined with reproductive health groups in recognizing that breastfeeding for its family welfare effects and for its fertility impact, is a concern shared by all. The result was a cohesive and coordinated effort between groups self-labeled as representing women's issues and breastfeeding issues.

In this regard we offer the message of the three T's of enlightened self-interest for the productive
and reproductive concerns of women. The first is *Informed Choices* in family planning, in infant feeding, in education, and in entering and remaining in the workplace. The choice to pursue the rights declared in international conferences for women should emphasize the importance of full information in a culturally and socially available format, whether that be through educational institutions, the health sector, the media, or religious institutions. The second is *Individualization* in counseling and in services in all sectors that serve women. The assumptions that 'all women' want specific things is not predicated on the assumption of fully informed choices. Third, *Integration of* messages and access to services across sectors is vital. If those who support family planning, those who support reproductive health and breastfeeding those who support women in the workplace, and those who support the education of women fail to work in concert, with synergistic messages and mutual support, then, indeed, they all will fail.

These ideas, when presented in concert with the additional action *Ts of* early *Introduction* of women’s health and child spacing concepts, proper *Implementation of* reproductive health care Intervention and *Institutionalization* of the above, serve as guidance for a comprehensive approach to woman-centered reproductive health.

**3.2 Other nutritional concerns**

Previous work has defined the seven stages of woman in relation to breastfeeding and as periods when intervention is appropriate, well documented, and available in some settings [10]. These stages, and a brief description of the appropriate interventions, are:

1. **Infancy**: support for breastfeeding with complementary immunization and support for the female infant
2. **Childhood**: feeding and educating the girl child, assurance of full stature
3. **Adolescence**: assurance of full stature by feeding and delay of first pregnancy, establishment of nutrient stores, and establishment of productive potential through education
4. **Pregnancy**: meeting increased nutritional and other safe motherhood needs
5. **Lactation**: feeding the mother while breastfeeding the infant, delaying the next pregnancy until weaning is complete, and workplace enhancement to support the behaviors
6. **Recovery time**: sustained weaning and a nonlactating interval before the next pregnancy
7. **Post-fertile time**: maintenance of health and strength as nurturers, teachers, supporters, and producers.

The clear complementarily among nutrition and breastfeeding health, education, and family planning interventions underline the fact that each is

**3.3. Breastfeeding and the health care provider: supervision versus support for self-efficacy**

Breastfeeding is entirely under the control of the mother-baby dyad when practiced in its most physiological manner. Health care providers, by definition, are in the mode of 'providing.' With illness, the health care provider generally is called upon to intervene; with preventive health care, including breastfeeding support and counsel are the necessary activities. Breastfeeding, as Dr. Derrick Jelliffe often said, is a confidence game; the mother must believe she can succeed. Well meaning health care providers who wish to support breastfeeding must concentrate an helping women achieve self efficacy in this area and relinquish control of the behavior and their trained
3.4. Breastfeeding and costs
Breastfeeding is a money saver in say analysis. Factoring in the cost of the mother's time and the few extra calories she must consume, the health care savings more than compensate. In a recent presentation, Paula Donovan of UNICEF quoted figures on the significant savings to industry of helping a female worker breastfeed when returning to work, rather than training a new employee to replace her [11].
In the United States, the health care system would save at least 2-4 billion dollars annually if mothers were enabled to choose and to succeed in breastfeeding for as little as 12 weeks [12]. Each woman reserves to be able to make a fully informed choice, using her own family's cost benefit equation, when deciding how her work and breastfeeding priorities are best served. Women should not be denied full access to the workplace, but neither should they be forced to act against their own best interest.

3.5. Breastfeeding and the Environment
Breastfeeding is environmentally sound. As illustrated in Fig. 1, breastfeeding causes no increase in industries that pollute, does not demand are of scarce fossil fuel and firewood and causes a arcane in population growth rates. Use of substitutes, however, contributes to pollution through at least them industries: dairy, plastics, and pharmacoformulary industries. The use of substitutes also causes extra use of scarce fuels, and, importantly, contributes to increased population pressure by in

![Fig. 1. The effects of breastfeeding and of formula use on four factors that have negative effects on the environment. Breastfeeding reduces the production of industrial waste, the use of fossil fuels and firewood, and the rate of population growth, while formula use increases all four picture which negatively affect the environment. The result is that breastfeeding minimizes the negative effects while formula use increases negative effects on the environment. In addition, lack of breastfeeding contributes to the feedback loop of rapid population growth.](image-url)
creasing the risk of fertility, thereby increasing the incidence of short birth intervals [13,14]. U.S. Vice, President Albert Gore's trend setting treatise on the environment makes special reference to breastfeeding noting, among other things, that breastfeeding "simultaneously improves the health of children and suppresses fertility," thereby decreasing population pressure on the environment [15].

4. Conclusions and next actions

The call for action is clear: breastfeeding is a multifaceted women's issue. Health, child spacing, work, and relationships are all affected by choices related to breastfeeding.

The concluding speakers, called for actions, emphasizing a movement from isolation to political and social change, from marginalization (the 'special case' scenario) to the recognition of breastfeeding as a normative behavior and as an issue of human rights, from breastfeeding as a 'problem' to its acceptance as a vital aspect of a truly productive society.

Immediate action is necessary in support of the 12 areas of consensus. A first step will be the broad dissemination of the results of this bellwether conference. Clearly, this conference offered a mandate for those interested in health, social, gender, and feminist concerns. For the individual, development of grassroots outcry and community action is one approach. At the national level, policies and funding allocation can be targeted, with the practical catalyst of the size of their female constituency. Internationally, promotion of this issue with decision makers is needed, based on the science and research presented but also based on existing policy that has been accepted worldwide. It will be in the hands of those who attended the conference and those who consider the presentations and discussions to mobilize for change.

Part of this broad dissemination includes satellites on this issue planned with the leadership of involved organizations, including UNFPA and IPPF, to develop further action steps supporting this issue among their constituencies. The Institute for Reproductive Health staff will coordinate this initiative, as well as an effort to take this dialogue to national and international conferences such as the National Council for International Health INCIM, The Society for Nutrition Education (SNE), Breastfeeding Promotion through Hospitals in Latin America, and the American Public Health Association (APHA), and to propose summary articles and news releases for publication in journals of interest to women's and feminist groups.

As we enter the Year of the Woman, it becomes increasingly important to consider the realities of women's lives and the issues which affect their health, reproductive, and life choices. Breastfeeding is a complex issue in the life of women today: now is the time for those who speak in the time of women to carefully examine, support, and create a political will behind this vital women's issue.

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