

BREASTFEEDING RESEARCH

Attitudes Toward Breastfeeding Working Mothers

ELSA B. CARDALDA, PhD; SUSANA E. MIRANDA; MELANIE PÉREZ; ELIZABETH M. SIERRA

This investigation assesses attitudes towards breastfeeding working mothers, employees' knowledge of their legal rights and employees' views of the new amendment of Law 427 in Puerto Rico. The sample consists of 36 men and 64 women (N= 101) employed in different institutions of the San Juan metropolitan area. Participants completed the Attitude Scale toward working breastfeeding mothers. The scale's consistency is substantiated by an item-total reliability coefficient

yielding $r(92) = .70, p < .05$. Results show that employed Puerto Ricans may support breastfeeding working mothers. However, many individuals are not aware of the laws that protect a breastfeeding working mother and how extracting milk may help productivity instead of impairing it.

Key words: Key words: Breastfeeding, Mothers health, Labor laws

Breastfeeding is the act to feed an infant from the mother's breast rather than from a bottle (1). New guidelines on breastfeeding issued by the American Academy of Pediatrics (AAP) on December 1, 1997 recommend mothers to breastfeed for at least the first twelve months of the baby's life and as long after as it is mutually desired (2). Exclusive breastfeeding is the ideal nutrition and is sufficient to support optimal growth and development for approximately the first 6 months of the baby's life (3). "This guideline affirms the value of allowing babies to breastfeed beyond infancy, weaning gradually without an outside time frame and thereby providing a more satisfying breastfeeding experience for both mother and child," says Betty Crase, Director of the Center for Breastfeeding Information at *La Leche* League International headquarters (4). Some of the other guidelines adopted by the AAP include that no supplements (e.g., water, glucose water, formula, and so forth) should be given to breastfeeding newborns unless a medical necessity exists.

Extensive research, especially in recent years, documents diverse and compelling advantages from breastfeeding and the use of human milk for infant feeding to: infants, mothers, families, and society (2,5). These include health, nutritional, immunological, developmental, psychological, social, economic, and environmental benefits. Research in the United States, Canada, Europe, and other developed countries, among predominantly

middle-class populations, provides strong evidence that human milk feeding decreases the incidence and/or severity of diarrhea, lower respiratory infection, otitis media, bacterial meningitis, botulism, and urinary tract infections (2). Several studies show a possible protective effect of human milk feeding against sudden infant death syndrome, insulin-dependent diabetes mellitus, Crohn's disease, ulcerative colitis, lymphoma, allergic diseases, and other chronic digestive diseases (2). Breastfeeding has also been related to possible enhancement of cognitive development (6).

History of Breastfeeding

After the industrial revolution, there were major differences between how rural and urban women fed their babies (7). Women in rural areas continued to breastfeed their children just as their mothers had done and for a similar amount of time. Women in manufacturing towns were more likely to supplement with other foods sooner than other mothers, given their obligation to work. The baby formula industry grew large and strong during the post-World War II baby boom and when the birth rate in the industrialized countries dropped in the 1960s (8); when women were heading to the workplace in order to provide for their families.

Big companies began marketing their products in countries in which there was little industry, competition, or wealth and where plenty of young mouths had to be fed (8). Within a few years, companies such as: Abbott Laboratories, American Home Products, Bristol-Myers (i.e., through its Mead Johnson Division), Nestle, Borden, and Carnation were opening factories and sales centers

From the Carlos Albizu University, San Juan Campus, San Juan, Puerto Rico

Address correspondence to: Elsa Cardalda, PhD, PO Box 9023711, San Juan, PR 00902-3711. Tel. (787) 725-6500 ext. 124, Email: cardalda@albizu.edu

throughout the world. The number of mothers breastfeeding their babies in these countries began to decline dramatically during the 1960s, in part because of the drastic social changes taking place in the developing urban areas and the high pressure exerted by the sophisticated advertising and promotional strategies of the infant formula companies (8).

Throughout the world, women were changing from the age-old practice of breastfeeding to the modern creation of instant baby formula. Contributing to this change, increasing numbers of mothers in the non-industrialized countries were giving birth in urban hospitals, separated from their families and the traditional midwives who had once served them and who might have passed on to them a more time-proven way of feeding babies.

More mothers in the United States are working today more than ever before. In 1993, 58% of mothers with children under the age of six and nearly 75% of those with children between the ages of six and eighteen were part of the paid labor force (9). The rapid entry of women into the labor force that began in the 1970s was marked by the confidence of many women in their ability to successfully maintain both a career and a family. Throughout the 1970s and 1980s, the dominant image of the working mother was the *Super mom* that is: juggling meetings, reports, and presentations with birthday parties, science projects, and soccer games (10). More women face work and home life pressures, these women should be accommodated in the workplace in order for them to maintain a healthy home life and work life. Therefore, it has been a major shift in policies regarding women in the workplace (i.e., recognized as mothers and breadwinners of their family). Even though company policy may change, in part through regulation of Federal and state law, the attitudes toward working mothers and breastfeeding (i.e., use of human milk for infant feeding) may not change as a result of policies.

In 1960, just 13% of married women with preschool age children were employed (11). Today the number has risen to 63% and new mothers are the fastest-growing segment of the labor force. Combining these statistics with the fact that the United States has one of the lowest breastfeeding rates in the world, one can see the importance of the workplace in the breast vs. formula debate.

The Puerto Rican Situation

In Puerto Rico, studies have indicated that only 38% of mothers breastfed neonates during their hospital stay and only 4% consistently breastfed their infant two months after birth (12). The goal for Puerto Rico in 2002 was to reach 75% of mothers who breastfeed their infants since birth and that at least 50% of them continue breastfeeding

their infant for the next three to six months. The Health Department of the Commonwealth of Puerto Rico adopted on February 21, 1995, a public policy, which promoted infant breastfeeding as the ideal method for adequate infant nutrition (13). There has been an ongoing campaign to raise awareness about breastfeeding and its benefits, giving mothers a new perspective on child nurturance.

Government policies demand the payment to mothers who are in maternity leave as well as support breastfeeding mothers. Some organizations have gone the extra mile for their employees providing daycare centers and flexible schedules in which mothers have an opportunity to extract milk or feed their child. These types of work environments can be extremely productive and will yield more profit to organizations that foster these policies. Companies like CIGNA have documented savings of \$240,000 a year in health-care expenses for breastfeeding mothers and their children, while saving \$60,000 on absenteeism. The goodwill of a company will pay off because a happy mother will be more productive and breastfed children will be healthier (14).

There has been some effort to extend laws giving fathers the right to care for their newborn children, however this vision has not been widely accepted because of sexist views that automatically perceive women as the only and primary caretaker. Although the father is usually absent from work, he is not given a formal leave from work to attend his newborn infant. The proposal of giving a father a right to care for their newborn child stems from the idea that the mother may not necessarily need to feed the child and that the father may feed the child equally as well. The acceptance of this concept will relieve working mothers from their perceived duty as primary caretakers. The father would assume an equal role to the mother in terms of childrearing responsibilities (15).

The Commonwealth of Puerto Rico law 427 of December 6, 2000, called Law for the Regulation of the Lactating Period or Extraction of mother's milk at work, serves the purpose of regulating the time and the rights of lactating mothers in the workforce whether in the public or private sector of Puerto Rico. The law indicates that all lactating mothers at the workplace must notify their supervisor they will be taking half an hour of work time to extract milk. It stipulates that one year is the legal age for breastfeeding a child and companies do not have to pay taxes on the half hour of work in which the mother extracted milk. In the case that a supervisor or the company policy may prohibit a lactating mother to breastfeed their child, the mother is entitled to three times her wage for everyday that she was denied the right to extract milk.

A new amendment arose in 2001 extending the time allotted for breastfeeding to a full hour. In addition, the

mother must deliver three permits, one every two months, to confirm that the pediatrician is aware and fosters the mother to continue extracting milk. Moreover, all companies, in the private and public sectors, are required to provide a private room with an electric outlet and comfortable seating where a mother may extract milk for her infant. Furthermore, all public establishments must provide an appropriate space for lactating mothers who may need to breastfeed or extract milk for their infant.

The working mother by law has a right to breastfeed her baby. However, only a small number of mothers choose to continue breastfeeding after their maternity leave. Lactating mothers may confront much inconvenience regarding the extraction of milk or may lack the resources to buy appropriate milk extraction machines, while trying to continue working as usual. The lack of information, time, energy, and support may contribute to the belief that breastfeeding and the workforce are not compatible. In addition, the aggressive marketing campaigns from the formula industry and the belief that their child may lack sustenance because they are not present to breastfeed has kept many mothers from exercising their right to breastfeed while in the workforce (16). The attitude of supervisors and fellow employees may aggravate the working mother's disposition to extract milk during work hours, even though the law protects them. Based on the resurgence of breastfeeding benefits for the working mother and the infant, this investigation will examine the attitudes towards breastfeeding working mothers.

Attitudes can change through learning and conduct modification. Nevertheless, attitudes are predispositions that may be changed or modified by simply adjusting general schemas that people possess in relation to something or someone (17). For example, an individual's negative attitude toward himself/herself may improve (i.e., can be modified) if the person refers to himself/herself positively. However, it is necessary to know what events and types of behavior have led that individual, or in some instances a group, to think negatively about them. Not only can attitudes affect a person's everyday life, but also their daily interaction can have a profound impact on their attitude toward a type of behavior or person. It is the interest of the present research to assess attitudes towards breastfeeding working mothers. In order to measure this construct a scale was developed.

Law 427 will be amended regarding the time allotted for breastfeeding and the extraction of milk. There will be new financial liabilities and fines for companies that do not follow the breastfeeding laws. Many public and private sectors are unaware of the regulations and articles of the law. The resurgence of pro-breastfeeding campaigns competing with the strong formula campaigns has created

mixed attitudes towards breastfeeding. These attitudes may or may not agree with the law. It is in our interest to be acquainted with the workforce's stance on working mothers breastfeeding or extracting milk while at work. The last decade has confronted a widespread controversy regarding Law 427. Many studies have shown that there is a positive impact on the health of the mother who breastfeeds and her child. The attitudes working mothers confront from their working environments could explain the necessity to establish such law. Moreover, it could be the beginning of new research regarding the needs and attitudes towards working mothers. The objectives of this study are: explore the knowledge of working individuals regarding the laws and rights of a breastfeeding working mother as stipulated in Law 427, explore the view of working individuals regarding the new amendment to be approved, and explore the labor force's attitudes towards breastfeeding working mothers.

Method

The sample consisted of 36 men and 64 women ($N = 101$) in the workforce from different institutions and/or companies in the metropolitan area of Puerto Rico. The population was conceived from a convenience sample. The average age of the population was 37.86 ($SD = 11.81$) and the majority resided in an urban sector (urban = 71 and rural = 27). The average income was \$20,000 to \$29,000 ($M = 3.38$; $SD = 1.44$). The majority of the participants were married (53%) and the average number of children in household was 2 ($M = 1.41$; $SD = 1.14$). The majority of the participants had at least a Bachelors Degree ($M = 3.64$; $SD = 1.45$ and ninety seven percent of the participants knew a lactating mother (Table 1).

This investigation was interested in studying the attitudes of working people toward breastfeeding mothers in the workforce in Puerto Rico. The data was obtained via the use of The Attitude Scale toward Working Breastfeeding Mothers, which was written in Spanish the participants' native language. The socio-demographic questionnaire consisted of 8 questions: sex, age, marital status, annual income, educational level, area of residency, number of children and if they knew a lactating mother.

A Likert Scale ranging from one to five (1= strongly disagree; 5= strongly agree). This instrument was developed in the population's first language, Spanish. Fifty items were generated relating to attitudes a person may have toward a lactating mother. Ten judges, considered as experts in the field, evaluated the items. They screened the scale on content validity, sentence structure, and a general coherence of the items to be included in the final attitude scale (18). After utilizing the

Table 1. Descriptive Statistics of the Population

Demographic profile	Frequency
Marital status	
Single	30
Married	53*
Divorced	12
Separated	1
Living with someone	5
Income	
0-\$10,000	13
\$10,000-\$19,999	18
\$20,000-\$29,999	20
\$30,000-\$39,999	14
\$40,000-over	34*
Level of education	
Less than High-school	1
High-school	6
Some College	9
Bachelors Degree	39*
Associates	4
Masters Degree	28
Graduate School	7
Post-Graduate	1
Number of children	
0	38*
1	17
2	19
3	18
4	5
5	1
6	1

Note. Most frequencies fluctuated within 99 to 100 participants.
(*) indicates the highest frequency for any given value within a category.

Lawshe method, the initial Attitude scale was abridged to 20 items. The Cronbach alpha reliability coefficient for the Attitude Scale was $r(92) = .70, p < .05$. This coefficient meets the minimum coefficient requirement of 0.70 (19). Therefore, it can be stated that this survey has consistency and homogeneity of the items within the scale.

The researchers contacted working individuals from various fields. Upon obtaining consent by each participant in order to comply with the ethical standards of our

profession, the subjects were administered the scale. Participants were indicated to answer the Attitude Scale, which had a Likert scale ranging from one to five (1= strongly disagree; 5= strongly agree). Participants circled the number of preference below each item. If the participant felt uncomfortable answering any of the questions he/she was indicate to leave it blank. It took approximately five minutes to fill in the questionnaire. The questionnaire could be administered in a group setting or individually. There was no interaction between researcher and participant while the survey was being answered.

Results

The scale was administered to 101 participants. It was determined which items would discriminate best in order to see which attitudes are consistent toward lactating mothers by using an item-total correlation. Using reliability analysis, one can determine the extent to which the items in the questionnaire are related to each other. An overall index of the repeatability or internal consistency of the scale as a whole can be calculated, and one can identify problem items that should be excluded from the scale. The reliability method used for this survey was the Internal consistency method. Internal consistency methods estimate the reliability of a test based solely on the number of items in the test and the average inter correlation among test items.

The total score of the scale was calculated by adding the final 18 items. Some items were negatively stated. In order to maintain consistent scoring, scores were reversed; then added into the total sum for each participant. The maximum score a person could obtain is 100, which would indicate a positive attitude toward breastfeeding mothers in the workforce. The highest score obtained was 92 and the lowest score was 29. The total scores for each

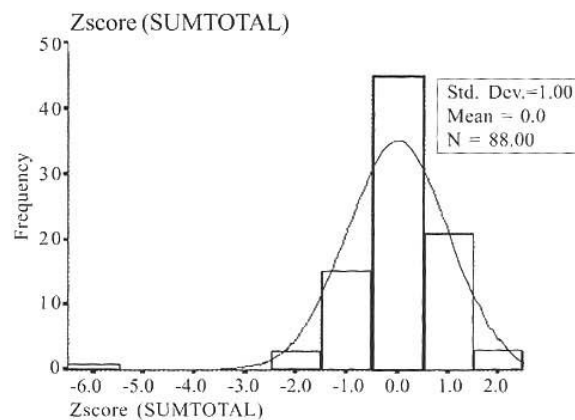


Figure 1. Standard deviation graph

participant were converted into Z-scores. Most participants (98 %) fell within two standard deviations of the normal curve.

Discussion

According to the results found in this study, the Puerto Rican workforce appears to be supportive of lactating working mothers. This implies a positive attitude toward lactating working mothers. There is a belief that a working lactating mother should be given consideration by providing time for her to breastfeed or extract milk; be provided with the properly equipped facilities to extract milk; and given the choice to breastfeed the infant for longer than a one year period. The participants were also in agreement with the modifications to the law where the extraction time is increased to periods of half an hour versus the original fifteen minutes. The benefits and rewards of having a mother breastfeed her child while in the workforce has been overwhelming in Puerto Rico, although this movement towards encouraging breastfeeding has been slow (5, 12).

There seems to be a relationship between a positive attitude towards breastfeeding with education and high socio-economic status, consistent with the findings of other investigations (2). However, this study gives a general overview of what types of attitudes a breastfeeding mother may encounter in the workforce. The outlook seems encouraging, but the mother may encounter more difficulties than just attitudes. Many companies are not aware of the laws that protect a breastfeeding mother and how extracting milk may help productivity instead of impairing it (14). The benefits of breastfeeding must be informed to the population; working mothers need to feel their employer's support because this may make a difference when deciding whether to continue breastfeeding. Although the law in Puerto Rico has helped to improve the situation, it has not been broadly publicized in order to create more consciousness among the workforce. A working mother may feel pressured to end breastfeeding as a result a lack of knowledge. In addition to the belief that breastfeeding is a liability or unnecessary in order to maintain a productive work environment. The mental well being as well as the physical well being of the mother will be affected, thus reiterating the need for this issue to be more salient for employers (11).

A limitation to this investigation may be found in the demographics of the sample. Although the mean income of the sample was in the \$20,000 to \$29,000 range, the mode of the sample's income was \$40,000 or above. This income is much greater when compared to Puerto Rico's general population (i.e., the average income in Puerto Rico

is slightly above the poverty threshold). In addition, the educational level of the population was mostly a Bachelors Degree, which is not typical for the Puerto Rican population. However, these demographics may imply that the sample was comprised of the upper management and their general view and attitude towards breastfeeding. These are not typical employees or in-line workers (i.e., the majority of the workforce), these are the supervisors and managers who have more education and knowledge regarding management issues and private as well as public policy (20).

Using a different population sample and/or comparing across workforce industries and managerial positions can be an extension of this study. Separating the sample into categories may give a better outlook of how employers and co-workers respond to a breastfeeding mother. According to Frone's model of interpersonal conflict at work, interpersonal conflict with co-workers may give rise to depression and low self-esteem, while interpersonal conflict with a supervisor may affect job satisfaction and organizational commitment (21). Further studying the attitudes of people who work in-line or at the same hierarchical level as breastfeeding mothers may give additional insight to the decline of breastfeeding mothers in the workforce. While interpersonal conflict with a supervisor may affect productivity and the affinity of the employee with the company, interpersonal conflict with a co-worker may have a deeper impact in the quality and overall attitude of an individual's life.

Resumen

Desarrollamos un estudio que investigó las actitudes hacia las madres lactantes empleadas. Construimos un instrumento para medir las actitudes y el conocimiento de los participantes con respecto a la ley 427 que trata sobre los derechos de las madres lactantes y las opiniones que manifiestan los encuestados sobre las madres lactantes empleadas. La muestra de participantes consistió de 36 hombres y 65 mujeres (N = 101) empleados/as en diferentes instituciones y compañías del área metropolitana de Puerto Rico. Para medir el constructo, los participantes completaron una Escala de Actitudes hacia las Madres Lactantes Empleadas. Los resultados arrojaron un coeficiente Alfa de Cronbach de $r(92) = .70, p < .05$. Los resultados de la investigación indican que los empleados/as aparentan apoyar significativamente la lactancia dentro del contexto laboral. Este resultado implica un posible cambio en actitudes favorables hacia la madre lactante empleada. Sin embargo, estos hallazgos no pueden ser generalizados a otros grupos, ya que la muestra obtenida fue de alta escolaridad e ingreso.

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