Statewide Breastfeeding Hotline Use Among Tennessee WIC Participants

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ABSTRACT

Objective: To examine the use of the Tennessee Breastfeeding Hotline (TBH), a 24 h/d, 7-d/wk telephonic lactation support program, based on *Special Supplemental Nutrition Program for Women, Infants, and Children* (WIC) participation.

Methods: Self-reported quantitative data were collected during the initial call. Data collected included caller type, maternal and infant characteristics, breastfeeding (BF) status, and primary reason for contacting the TBH.

Results: A total of 366 participants in WIC and 1,354 participants not enrolled in WIC received services through the TBH. Significant differences existed for maternal age, race, ethnicity, infant age, preterm delivery, caller type, and exclusive BF ($P < .05$). Among participants in WIC, lactation professionals primarily addressed concerns related to lactation and milk expression.

Conclusions and Implications: The TBH is a resource to address BF concerns, particularly among women who may face barriers to seeking professional lactation advice. *Special Supplemental Nutrition Program for Women, Infants, and Children* agencies might consider implementing initiatives outside their standard scope of clinic practice to address participants' needs for BF support.

Key Words: WIC, breastfeeding, telephone hotline, lactation support (*J Nutr Educ Behav*. 2017;49: S192-S196.)

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INTRODUCTION

The advantages of breastfeeding (BF) are well documented; it offers numerous nutritional and health benefits for mothers and children.[1] According to the 2015 National Immunization Survey, 74.1% of women receiving services from the *Special Supplemental Nutrition Program for Women, Infants, and Children* (WIC) initiated BF, compared with 82% of eligible women not enrolled in WIC and 91.1% of women ineligible for WIC. At 6 months, 39.1% of participants in WIC were BF, compared with 60.9% and 68.6% of eligible women not enrolled in WIC and women ineligible for WIC, respectively.[2] Despite various BF promotion efforts within WIC, disparities persist between program participants and the general population. BF rates among women enrolled in WIC continue to fall below general population estimates and the Healthy People 2020 target.[3]

Tennessee BF rates are historically lower than national rates. In 2013, 71.1% of Tennessee infants had ever been breastfed.[2] Similar to national patterns, BF rates were lower among the state's participants in WIC. The WIC Participant and Program Characteristics 2014 Report estimated that 50.2% of Tennessee infants and children had ever been breastfed; nearly a quarter (24.8%) had breastfed for ≥6 months.[4]

A meta-analysis examining BF among the population enrolled in WIC found that barriers included lack of support and education during the perinatal period, returning to work, breast and lactation concerns, formula promotion, and social or cultural barriers.[5] Also, limited knowledge about BF and environmental support were found to shorten BF duration among participants in WIC. Another study examining infant feeding decisions among low-income families enrolled in the WIC program identified the decreased availability of help after hospital discharge as a major barrier to continuing BF.[6] Factors associated with continuing BF included maternal age, education, beliefs about BF, public BF, having been breastfed as child, provider influence, strong social networks, and employment status.[6,7]

There have been both federal and state initiatives to promote BF. In

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1997, the US Department of Agriculture's Food and Nutrition Service implemented the *Loving Support Campaign* within each WIC state agency to promote BF and peer counselor use, which was shown to increase BF initiation and duration. Tennessee used the *Loving Support* curriculum to train staff and peer counselors; it influenced the development of the BF support program. This model served as an evidence-based guide for best practices in peer counselor programs and provided a framework for policy development and BF training statewide.

Tennessee has implemented multiple local-level initiatives to improve BF promotion and support. Recent efforts included media campaigns targeting counties with lower initiation rates, recognition of BF-friendly businesses, lactation education for health professionals, baby-friendly hospital initiatives, and the assignment of a designated BF expert within all 115 regional and local health departments. In particular, the launch of the Tennessee Breastfeeding Hotline (TBH) provided all families with extra BF support and aimed to create equitable access to lactation advice, particularly for rural communities.

Tennessee Breastfeeding Hotline Operations

In November 2013, the Tennessee Department of Health implemented the TBH, a free telephonic BF support program available to nursing mothers and partners, their families, expectant mothers, and health care providers. Promoted by numerous maternal and child health stakeholders, the TBH is a statewide resource offering accurate information for common BF issues. Callers speak with a Certified Lactation Counselor or an International Board Certified Lactation Consultant, who offers individualized advice and encouragement and refers callers to local resources when appropriate. If the caller's concern is beyond the scope of the lactation professional's expertise, staff notify the hotline's medical consultant, and subsequent referrals are made if needed. To ensure consistency, all lactation professionals use the *American Academy of Pediatrics Breastfeeding Telephone Triage and Advice*[8] as their primary resource.

The TBH is jointly funded by WIC and the Title V Maternal and Child Health Services Block Grant and operates via contract from Le Bonheur Children's Hospital, Memphis, TN. The hotline is available 24 h/d, 7 d/wk and has access to interpretive services for >200 languages. To ensure timely receipt of service, the TBH strives to answer all calls immediately or returns calls within 30 minutes if staff is busy with other callers. Its structure is unique in operations, staffing, and methods of follow-up. With consent, staff contacts callers monthly for 3 months after the initial call to offer additional assistance, assess BF status, encourage BF continuation, and determine satisfaction of the services provided. To the best of the authors' knowledge, the TBH is the only state-level BF hotline that conducts this type of follow-up with callers.

Through collaborative efforts, Tennessee WIC allocated its funding differently to develop an innovative program for optimal BF practices. Telephonic support provides an inexpensive and replicable way for mothers to access lactation services; yet its effectiveness for participants in WIC is not well documented in the literature. One study concluded that BF duration among participants in WIC increased with the use of a telephone peer counseling program compared with standard WIC support for BF.[9] No studies examined BF hotlines staffed by lactation professionals, but 1 systematic review suggested that interventions involving lactation consultants and counselors could improve postpartum BF rates.[10] The objectives of this study were to describe callers to the TBH, determine whether there were differences in the characteristics of callers from TBH who were enrolled or not in WIC, and compare the needs for postpartum BF support between participants who were enrolled in WIC and those who were not.

METHODS

Initial calls to the hotline were routed through OneBox (j2 Global Inc., Los Angeles, CA), an automated phone routing system. A prerecorded greeting in both English and Spanish queued callers for an available lactation professional or callers left a voice mail. All data were entered into iCarol (CharityLogic Corporation, Fairfax, CA), a secure helpline software system that allowed TBH staff to submit call reports, conduct follow-up calls or texts, and maintain a BF resource directory. During the initial call, the lactation professionals gathered data including call characteristics, caller and infant demographics, primary reason for calling, referral source, referrals made to the caller, and immediate outcomes. The Tennessee Department of Health Institutional Review Board determined this project to be exempt from review based on the use of existing data to evaluate a public benefit or service program.

Study analyses included data since October 2015, when a question was added to capture use of the TBH for participants who were enrolled in WIC. Characteristics of individuals who answered yes to the question *Are you currently receiving WIC services?* were compared with calls that answered no to the question. Analyses were restricted to mothers who resided in Tennessee with documented participation in WIC. The TBH collected no other form of information on income (eg, amount of income earned, participation in the *Supplemental Nutrition Assistance Program*, Medicaid recipient) besides receiving WIC services. The researchers used descriptive statistics to examine caller demographics and characteristics, overall and by WIC participation. Chi-square test of homogeneity was used to compare proportions between the 2 subgroups. All analyses were conducted using SAS (version 9.4, SAS Institute, Cary, NC, 2013). Statistical significance was set at $P < .05$.

RESULTS

Between October 2015 and September 2016, the TBH received 5,907 calls. Calls from out-of-state residents ($n = 875$) and those from individuals other than the mother ($n = 412$) were excluded. Calls with missing WIC status ($n = 2,900$) were also excluded. This resulted in 1,720 calls with documented WIC status for inclusion in the final analyses: 366 who participated in WIC and 1,354 who did not. Table 1 lists characteristics of those mothers. Compared with calls from mothers who were not enrolled in