

AN EDUCATIONAL APPROACH TO IMPROVE STUDENT NURSES' BREASTFEEDING KNOWLEDGE, LEVEL OF CONFIDENCE, AND ROLE MODELING

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Purpose

The purpose of this pilot study was to describe the effects of an evidence-based breastfeeding education program on the breastfeeding knowledge, level of confidence, and role modeling of undergraduate nursing students at a major metropolitan university.

Significance & Background

Breastfeeding is the method of infant feeding recommended by many professional maternal-child health organizations (American Academy of Family Physicians [AAFP], 2012; American Academy of Pediatrics [AAP], 2012; American College of Nurse-Midwives [ACNM], 2011; Association of Women's Health, Obstetric and Neonatal Nurses [AWHONN], 2021; American College of Obstetricians and Gynecologists [ACOG], 2013). Additionally, Healthy People 2030 breastfeeding objectives include increasing the proportion of infants who are breastfed at one year to a target rate of 54.1% from a baseline of 35.9% and increasing the proportion of infants who are breastfed exclusively through six months to a target rate of 42.4% from a baseline of 24.9% (USDHHS, 2021). Recommending exclusive breastfeeding for the first six months of life and continued breastfeeding for at least the first year is recognized as a national health priority. There are many contributing factors leading to low breastfeeding rates such as maternal employment and hospital policies; however, a key factor is the lack of adequate breastfeeding professional training in nursing education. Studies have shown that nursing graduates entering the workforce are not adequately prepared to assist and support breastfeeding mothers due to ineffective breastfeeding education. Nurses' breastfeeding knowledge is inadequate largely due to ineffective breastfeeding training in their undergraduate, prelicensure nursing education programs (Ahmed & Guindy, 2011; Bozette & Posner, 2013). These deficits may result in major obstacles to promoting breastfeeding and achieving national breastfeeding target goals. This suggests that there is a clear need for a standardized, evidence-based breastfeeding education program in the undergraduate nursing curriculum. Because breastfeeding is a health promotion activity that has public health implications, it should be included as a standard part of nursing education (Lawrence & Lawrence, 2011; AWHONN, 2021).

Methods

Study Design: This pilot study utilized a same group pretest and posttest design. A comprehensive, evidence-based breastfeeding education program was administered to a convenience sample of 18 undergraduate students during their maternal-newborn and women's health nursing course to evaluate if the additional breastfeeding curriculum would result in a significant increase in nursing students' breastfeeding knowledge, level of confidence, and role modeling. Improvement in breastfeeding knowledge would be demonstrated by higher scores on the posttest. Increased levels of confidence and role modeling would be demonstrated by nursing students' verbal self-reports post-simulation.

Data Collection: The data collection instruments were Marzalik's (2004) Breastfeeding Knowledge Survey (BFKS) and a post-simulation debriefing activity. Marzalik's BFKS has a Cronbach's alpha coefficient of 0.79. Content validity was established by a review of the survey by 10 experts in the field of lactation or maternity nursing. The survey was administered as a pretest during the recruitment meeting with the nursing students. The same survey, the posttest, was administered one week later, after the students received the breastfeeding education intervention. Data on level of confidence and role modeling were collected in a post-simulation debriefing activity by students' self-reports.

Data Analysis: A paired *t*-test was conducted to compare the mean scores of Marzalik's BFKS pre to post intervention with the alpha set to 0.05 to determine if the breastfeeding education program increased student nurses' breastfeeding knowledge. The student nurses' pretest scores on the 39-item BFKS ranged from 18 to 35 and the mean scores were 24.8 (SD = 4.6). Post intervention scores ranged from 26 to 38 and the mean scores were 32.9 (SD = 3). The difference between the mean scores pre and post intervention was statistically significant at $p < 0.001$. This indicated that there was a statistically significant increase in breastfeeding knowledge after the intervention. Descriptive statistics using percentages summarized the responses to the questions pertaining to the student nurses' level of confidence and role modeling post intervention in the debriefing session following the breastfeeding simulation scenario. In response to the debriefing question, "How confident are you in providing support to a breastfeeding mother?" 15 students (83%) stated that post simulation, they were very confident in their ability to provide this support; "After participating in the breastfeeding simulation, my level of confidence increased because the simulation allowed me to role model the behavior of the instructor playing the role of the maternity nurse."

Conceptual Framework: Bandura's (2001) Social Cognitive Theory and Orem's (2001) Self-Care Framework provided the theoretical framework to

Results

Table 1 Depicts the Demographic Data (N=18)

	n	%
Age		
22-25	8	44.4
26-29	3	16.7
30-33	5	27.8
34 or older	2	11.1
Gender		
Male	6	33.3
Female	12	66.7
Race/Ethnicity		
Asian	3	16.7
Black/African American	1	5.5
Hispanic/Latino	2	11.1
White/Caucasian	9	50.0
Two or more races/ethnicities	3	16.7
First Time Enrolled in Maternity Nursing Course		
Yes	18	100
No	0	0
Work in Setting Taking Care of Breastfeeding Mothers		
Yes	1	5.5
No	17	94.5
Ever Breastfed an Infant		
Yes	4	22.2
No	14	77.8
Ever Assisted With Breastfeeding		
Yes	7	38.9
No	11	61.1

Conclusion

The findings of this pilot study demonstrate that incorporating a comprehensive, and evidence-based breastfeeding education program into the undergraduate maternity nursing course increases student nurses' breastfeeding knowledge, level of confidence, and role modeling. Recommendations involve changing the standard undergraduate nursing education curriculum to incorporate a comprehensive and evidence-based breastfeeding education program that should become a permanent part of undergraduate nursing education. This may increase the likelihood that graduate nurses entering the workforce will be sufficiently prepared to support breastfeeding mothers. This may result in higher national breastfeeding rates.

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