

Lactation Education Course Evaluation Report

Executive Summary

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This evaluation report summarizes the results of an inquiry into lactation education at California State University, Northridge (CSUN). It presents the results of a survey administered to undergraduate students enrolled in four, 15-week lactation education courses in the department of Health Sciences. A total of 96 matched pre-post surveys were collected from students enrolled in these courses, and the comparison of their results provide insight into the effectiveness of the implementation of the lactation course. The following topics are the primary focus of this evaluation: These constructs included: a) objective content knowledge about breastfeeding and lactation; b) objective content knowledge about leadership training; c) confidence in delivering lactation education; d) future goals and activities related to lactation education, e) confidence and comfort in working with clients in a professional setting; and, f) attitudes toward breastfeeding and lactation.

Methods

To assess the implementation of the lactation course, a 64-question survey was administered to students enrolled in four lactation education courses during the 2018-19 academic year. Six primary sets of questions were included in both the pre- and posttest surveys, and each construct represented a topic addressed by the lactation education curriculum.

Participant Demographics

Of those students who participated in the study, 81% (78) noted that they were seniors, the overall range of the ages of students in the class was 19 years – 47 years (mean=23 years), the majority (n=84; 87.5%) identified as female, and 65.2% (62) of respondents identified as Latinx.

Results

Objective Questions

To evaluate the change in objective knowledge as a result of the lactation education course, two sets of questions were offered to students. The first series of questions asked about knowledge of breastfeeding and lactation; the second set of questions investigated leadership skills for lactation educators. Responses to both sets of questions were collected using pre/posttests, and were scored using pre/post t-test comparisons.

Increased Objective Content Knowledge about Breastfeeding and Lactation

Students participating in the study were asked a series of 29 questions related to their knowledge of breastfeeding and lactation. The questions were organized into the following six

subcategories: a) Positive Health Outcomes for Breastfed Infant and Breastfeeding Mother; b) Communicating with Mothers and Addressing Mother's Concerns; c) Understanding Lactation Educator's Scope of Practice; d) Hospital Practice(s) Influence on Breastfeeding; e) Baby Feeding Practices; and, f) Mother's Breastfeeding Practices. In their pretest responses, students averaged a total of 9 (31%) correct answers to these questions; in the posttest responses, the number of correct answers more than doubled to 22 (75%), a statistically significant increase ($p < .000$).

Increased Leadership Skills for Lactation Educators

In order to assess student knowledge pertaining to leadership skills for lactation educators, participating students were asked a total of 12 knowledge questions. The knowledge questions asked were related to cultural competency, professional traits and ethics, problem solving, communication, emotional intelligence, and critical thinking. In their pretest responses, students averaged about 3 (23%) correct answers to these questions; in their posttest responses, the number of correct answers more than doubled to 7 (58%), a statistically significant increase ($p < .000$).

Attitudinal Questions

In addition to a set of objective questions, student participants were asked attitudinal questions in the following areas: 1) student confidence in delivering lactation education to others; 2) their future goals and activities related to lactation education; 3) their confidence and comfort in working with clients in a professional setting; and, 4) their attitudes towards breastfeeding and lactation.

Increased Confidence in Delivering Lactation Education to Others

Students were asked a set of eleven questions in a pre/posttest format about the degree to which they agreed that they experienced increased confidence in delivering lactation education to others. These questions asked about confidence in student's abilities to educate others on the advantages of breastfeeding, provide others with strategies to overcome common breastfeeding barriers, educate others on breastfeeding practices, and dispel common breastfeeding myths. T-test results revealed that each of the eleven items illustrated a statistically significant ($p < .01$) increase across pretest and posttest measures, from an initial report of "disagree" to "strongly agree." Additionally, a scaled-score summary of these items – where all items were combined into a single, composite measure – was also found to be statistically significant ($p < .000$). This result suggests that, as a result of their participation in this course, students enrolled in the lactation education course strongly agreed that their overall level of confidence increased in delivering lactation education to others.

Increased Future Goals and Activities Related to Lactation Education

Participating students were also asked four questions regarding their future goals and activities related to lactation education. A t-test comparison of the means of pretest and posttest scores

of survey items related to applying lactation education to their future career were found to demonstrate statistically significant increases ($p < .01$) from “disagree” to “agree.” However, while scores increased on items related to interest in lactation-related internships, no statistically significant differences were found. A potential explanation for the lack of statistically significant increases could be because the course is an elective, and many students may have already formed career interests at the time of taking the course.

Increased Confidence and Comfort in Working with Clients in a Professional Setting

In addition to reports of future goals, and confidence in delivering lactation education, students were asked about their confidence and comfort in working with clients in a professional setting. Questions included items about confidence and comfort in approaching new clients/patients, being able to use communication skills to effectively educate clients/patients, and identifying ethical considerations within a professional setting. Similar to the scores for confidence in delivering lactation education, a t-test comparison of mean scores of each survey item in this set of questions demonstrated a statistically significant increase ($p < .000$). Additionally, a composite scale-score for these items demonstrated statistical significance ($p < .000$) illustrating, overall, that the lactation education course was effective in increasing the students’ confidence and comfort in working with clients in a professional setting.

Increased Attitudes Toward Breastfeeding and Lactation

In a final set of attitudinal questions, students were asked to respond to the 17-item Iowa Infant Feeding Attitude Scale (IIFAS) to assess the change in their attitudes toward breastfeeding and lactation. Among these items were questions about the nutritional benefits of breastmilk, comparisons between formula-feeding and breastfeeding, and impact of breastfeeding on the experiences of motherhood. For nearly each item, a t-test comparison of mean scores in this set of questions demonstrated a statistically significant increase ($p < .01$) from “disagree” (or “neutral”) to “agree.” Additionally, a composite scale-score for these 17 items also demonstrated statistical significance ($p < .000$) illustrating, overall, that students agreed that the lactation education course was effective in producing more positive attitudes toward breastfeeding and lactation.

Conclusion

The results of this evaluation point to some important and positive outcomes related to the 15-week lactation education courses at CSUN. In comparing 96 student responses to the pre- and posttest surveys, a number of key results are evident. For example, the pretest results reveal that students in the course generally started with limited overall knowledge of lactation education. As a result of the course, these students demonstrated statistically significant growth in their knowledge of lactation. Similar results were found in objective content knowledge related to the area of leadership skills for lactation educators. On nearly all of these objective items, a positive and statistically significant increase was found indicating notable growth in leadership knowledge among the students in the course.

When looking at the questions exploring attitudinal changes toward confidence in delivering professional lactation services, notable increases were found in a number of key areas. Importantly, all of the items in these areas were found to show positive and statistically significant change. Additionally, nearly all of the items assessing *attitudes towards breastfeeding and lactation* (using the Iowa Infant Feeding Attitude Scale) were also found to have statistically significant and positive growth as a result of the lactation education course.

Additionally, comparisons of pretest and posttest scores of survey items related to applying lactation education to their future career were found to demonstrate statistically significant increases. However, no statistically significant change was found in the attitudinal items focusing on interest in lactation internships. The lack of change in this area indicates a focus for strengthening this component of the course, or perhaps encouraging enrollment in the course earlier in a student's academic career.

Overall, the results presented in this report reflect a very positive impact of the lactation education course and illustrate the positive increases in students during the course in both their content knowledge of, as well as in their attitudes towards, breastfeeding and lactation.