A Structured Public Health Approach to Increasing Rates and Duration of Breastfeeding in Romania

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Abstract

Background: Studies indicate that since 1990, rates of breastfeeding initiation and duration in Eastern Europe, including Romania, have decreased. Most breastfeeding promotion efforts in Romania have focused on in-hospital care, with an emphasis on training clinicians. Prior studies report that about 88% of Romanian mothers initiate breastfeeding in the hospital; however, these same studies report limited breastfeeding duration. We posit that an important problem is lack of support and education in the weeks and months following the birth. The nature of this problem suggests the need for an integrated and structured public health solution.

Methods: Based on our independent research, the results of an international maternal and child health (MCH) conference, and consultation with Romanian and American experts, we propose use of the public health problem-solving paradigm to support breastfeeding in Romania.

Results: This article presents a conceptual model showing the integration of input, output, and process components and a logic model explicating possible interventions (or needs) and barriers to breastfeeding. We propose a public health solution that begins with a new MCH within the public health training structure at a major Romanian university and a summer course bringing together Romanian and American students to study MCH, including breastfeeding.

Conclusions: We believe that these two courses will promote enthusiasm and generate ideas to develop community-based interventions as well as policy recommendations to increase breastfeeding duration in Romania. We suggest that this public health problem-solving approach provides an integrated way of maintaining and increasing breastfeeding; furthermore, this approach could be broadly used in Eastern Europe.

Introduction

HUMAN MILK IS RECOMMENDED worldwide as the optimal food for newborns, conferring significant advantages to both the developing child and mother.¹ The World Health Organization (WHO) recommends exclusive breastfeeding for the first 6 months of life, with the gradual introduction of complementary foods and continuation of breastfeeding until 2 years or beyond.²

Although European Union countries have endorsed WHO's *Global Strategy on Infant and Young Child Feeding*,³ available data indicate that member states have not fully adopted these recommendations. Data on breastfeeding initiation and dura-

tion in Eastern Europe, including Romania, are scant.⁴ The studies that do exist indicate that since 1990, rates of breastfeeding initiation and duration have decreased. The Romanian Ministry of Health reported that in 2004, 88% of Romanian women initiated breastfeeding at birth, but that only 16% of infants were breastfed at 6 months postpartum; the same study reported that only 12% of newborns were breastfed in the first hour after birth with an average age of 4.2 months at introduction of formula feeding.⁵ This evidence shows that even if breastfeeding initiation rates are high, sustainability of breastfeeding practices still poses significant challenges.

The Romanian National Board for Breastfeeding Promotion was established in 2002 to develop a national strategy for

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action on breastfeeding promotion, to define indicators for monitoring the UNICEF-based Baby Friendly Hospital (BFH) Initiative (BFHI), to evaluate breastfeeding support and promotion activities, and to monitor breastfeeding rates at discharge, 16 weeks, 26 weeks, and 1 year after birth.⁶ With the support of UNICEF and WHO, the Romanian National Board for Breastfeeding Promotion has developed and implemented the Strategy and Plan of Action for Breastfeeding Promotion in Romania. The BFHI is included in the National Health Program of the Romanian Ministry of Public Health.⁶ Currently, UNICEF reports that 35 hospitals out of 204 are active as BFHs and awaiting certification, and in that same year, about 30% of Romanian infants were born in BFHs.⁷

UNICEF and WHO offer in-service professional training, including a 40-hour "train the trainers" to introduce the skills and knowledge needed for BFHI implementation. UNICEF also offers an 18-hour course in breastfeeding management for clinicians.⁷ UNICEF reports an improvement in quality of care and breastfeeding promotion and support at BFHs according to the Ministry of Public Health evaluations; in 2007, 844 Romanian healthcare workers were trained in breastfeeding support.⁸

In 2008, the authors surveyed municipal hospitals in Transylvania ($n = 24$ of 52 hospitals). Nineteen of the 24 hospitals reported some form of lactation counseling and stated that they encourage breastfeeding; however, only five had a written policy on breastfeeding promotion. In these hospitals, both doctors ($n = 19$) and nurses ($n = 19$) provided breastfeeding counseling and support, but just one-third of the hospitals ($n = 9$) employed a professional trained in lactation counseling. The majority of these professionals received WHO-UNICEF training ($n = 6$), and only one was certified by the International Board of Lactation Consultants Examiners, the most widely recognized international accrediting body.

It is evident that much of the efforts to date in Romania have focused on in-hospital care, with an emphasis on training clinicians. We suggest that there are two problems with this approach: (1) Hospitals in Romania are already understaffed, so that adding a new task for clinicians may not be an efficient solution, and (2) the problem in Romania is breastfeeding duration, not initiation. About 88% of Romanian mothers begin breastfeeding in the hospital. The problem is lack of support and education in the weeks and months following the birth of their child.

The nature of this problem suggests a public health solution. In this article, we recommend a public health problem-solving approach to support breastfeeding in Romania. This article describes the steps we have taken based on Guyer's problem-solving paradigm.⁹ The problem-solving paradigm comprises six key steps: (1) define the problem, (2) measure the magnitude of the problem, (3) develop a conceptual framework for the key determinants of the problem, (4) identify and develop intervention strategies, (5) set priorities among strategies, and (6) implement and evaluate programs.⁹

In this article, we describe our modified version of Guyer's paradigm (1) to define the problem by describing the state of infant feeding in Romania, (2) to report on the magnitude of the problem based on our own research about infant feeding attitudes, knowledge, and behaviors in Romania, (3) to present a conceptual framework for the key determinants of improved breastfeeding rates, and (4) to propose a development strategy that will lead to new interventions. We assert that this

approach can be adopted in other Eastern and Central European countries with similar conditions and needs.

Defining the Problem and Measuring the Magnitude of the Problem (Steps 1 and 2)

Data presented in the Introduction show that although there is a high rate of breastfeeding initiation in Romania (about 88%), there are concerns about duration of both exclusive and supplemental breastfeeding. Most effort to date has gone into training hospital staff, as opposed to family physicians and the public at large.

In 2006–2007, we conducted a cross-sectional study in Cluj-Napoca, Romania to collect empirical data about breastfeeding initiation rates and infant feeding attitudes, knowledge, and behaviors related to infant feeding.^{10,11} We reported an in-hospital breastfeeding initiation rate of 88%; however, this rate was associated with neutral attitudes towards breastfeeding as measured by the Romanian version of the Iowa Infant Feeding Attitude Scale (Romanian version, IIFAS-R) (note that the IIFAS has been well validated by several studies around the world, and we reported strong psychometric characteristics for the population setting in Cluj).¹⁰ About 60% of new mothers reported receiving some type of infant feeding education while they were in the hospital (10% from physicians, 50% from nurses, and 3% from a lactation consultant). About one-third of participants received instruction on using a breast pump (either manual or electric), but most received this information from a friend or family member, not a health professional. About 60% of pregnant women reported negative attitudes toward breastfeeding in public, and fewer than half thought that women should be made to feel comfortable breastfeeding in public.¹⁰

Although we reported high rates of breastfeeding initiation in this Cluj-based study, these rates were associated with neutral attitudes towards breastfeeding and a weak breastfeeding education and support infrastructure. In interviews with hospital and family physicians, we learned that many new mothers receive prescriptions for free government-funded infant formula from their family doctors in the weeks following hospital discharge. Based on our data and these interviews, we concluded that breastfeeding initiation and duration rates in Romania are potentially fragile—new economic opportunity, infant formula advertising, and other cultural and economic forces will likely result in greater use of infant formula and declining breastfeeding initiation and duration. Our research suggests an urgent need to increase and improve breastfeeding promotion and education efforts in Romania, particularly after women return home from the hospital.

Develop a Conceptual Framework for the Key Determinants of the Problem (Step 3)

In the summer of 2007, the study team organized a 4-day international workshop, entitled "Maternal and Child Health: Building a Vision," to establish priorities for maternal and child health (MCH) in Romania. Romanian and American experts in the fields of pediatrics, neonatology, obstetrics and gynecology, epidemiology, public policy, lactation education, sociology, psychology, and economics attended the workshop.

During the workshop, participants identified infant feeding as a critical area for improvement. The central recommendation

FIG. 1. Conceptual model.

of the workshop was to train public health students in infant feeding and lactation support so that they can, in turn, work with governmental and non-governmental organizations to develop appropriate interventions to increase breastfeeding. After the workshop, the authors used the recommendations offered to develop a conceptual framework for improving breastfeeding rates and duration in Romania (Fig. 1).

Identify and Develop Interventions, Set Priorities, and Implement and Evaluate Programs (Steps 4–6)

The final three steps are in an early stage of development because they rely on the training of public health students. We

have begun by offering an Introduction to MCH class within the existing Master in Health Policy and Health Management program at Babeş-Bolyai University. This course was taught for the first time in the fall of 2010 (by A.B.W.). This class introduced students to MCH, using a life-course, developmental approach with a focus on global issues. Course objectives included developing an understanding of women's reproductive health through the prenatal period; the perinatal-neonatal period, addressing preterm birth and low birth weight; infant nutrition (including breastfeeding); and fetal, neonatal, and infant mortality. Topics included infant mortality, preterm delivery, hypertensive conditions of pregnancy, fetal growth and development, contraceptive use, adolescent pregnancy, and infant feeding and nutrition. An important objective of this course was to nurture an interest in MCH among graduate students. Feedback from this course was very positive, and students asked how and when they could learn more about MCH.

In the summer of 2011, we plan to offer a two-part integrative MCH course. Part 1 (Research Methods in Global MCH) will be offered as a 3-credit course at the University of Iowa. Romanian students (as well as other students from eastern Europe) will have the opportunity to attend the course via Elluminate, a web-based teaching and conference software tool.

Following this course, we are offering a University of Iowa study abroad program in Romania, funded by the University of Iowa, Office of International Programs. We intend to enroll a modest number of students (about 12) for the first year, but increasing numbers in subsequent years. We expect to enroll six University of Iowa students and six Romanian students. The students will pair up to share and exchange of ideas based on their unique backgrounds and experiences. We will offer modules in nutrition, chronic disease, infectious disease, injury, minorities (primarily Roma), and mental health. Students will travel throughout Romania to work with and learn

FIG. 2. Logic model for development of community-based interventions to promote breastfeeding initiation and duration.

from experts in these fields. A key objective of this course is to further interest in MCH and improve their methods for studying and working in the MCH field. Each pair of students will develop an intervention that includes needs assessment, program development, and evaluation. Students will present these interventions at the end of the course.

By the fall of 2011, we will have the expertise (by sharing Romanian and American faculty) to offer more advanced MCH courses, including Program Development and Implementation, Program Evaluation, Infant Feeding and Lactation, Reproductive Epidemiology, Early Childhood Development, and MCH Policy.

With this background, we expect to have trained a cadre of MCH professionals able to work with communities to develop MCH interventions, including breastfeeding. We already have several students interested in doing summer breastfeeding projects. These students have offered excellent ideas for programs, including community development to support fathers and families, breastfeeding education during the antenatal period, breastfeeding peer support groups, provision of free or reduced cost breast pumps, and introduction of national legislation to prohibit infant food advertising in hospital or other healthcare settings.

Figure 2 lists these interventions, realistic barriers to provision of interventions that must be overcome, and the primary outcome: increased initiation and duration of breastfeeding.

Discussion

Our research and other evidence are strongly suggestive that although breastfeeding initiation rates in Romania are high, duration has dropped significantly in recent years. Following the tenets of Guyer's public health problem-solving approach⁹ provides a useful template for training students who, in the coming years, will develop and evaluate new interventions (especially community-based interventions) to encourage prolonged breastfeeding.

This approach can be used in similar environments worldwide, but particularly in Eastern Europe, where many of the countries have similar conditions and similar breastfeeding rates. This approach can play a unique role in eastern European countries where hospital and primary care settings are well institutionalized, but economic and infrastructural realities demand integrated, relatively low-cost approaches to promoting health behaviors at the community level, such as breastfeeding. Public health interventions will provide the additional support in healthcare settings needed to improve women's knowledge and attitudes and to give them the tools and support needed to initiate and continue breastfeeding.

Acknowledgments

The authors thank Cătălin Baba, Ph.D., Babeș-Bolyai University Cluj-Napoca; Michael Artman, M.D., University of Iowa; Florin Stamatian, M.D.; Gabriela Zaharia, M.D.; Ligia Blaga, M.D.; Tunde Kovacs, M.D.; and Georgeta Mușat. We owe deep appreciation to the Babeș-Bolyai University student

research assistants. This work was funded in part by the National Institutes of Health (NIH) Fogarty International Collaborative Training Program in Central Europe (5D43TW007261) and the NIH National Center on Minority Health and Health Disparities-funded Minority Health and Health Disparities International Research and Training Program (T37 MD001453). Other funders included the University of Iowa Vice President for Research and the Department of Pediatrics, Iowa Children's Hospital, University of Iowa.

Disclosure Statement

No competing financial interests exist.

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