

# THE INFLUENCE OF PATRONAGE NURSES ON BREASTFEEDING

Ivana Samardžija Čor<sup>1</sup> and Zora Zakanj<sup>2</sup>

<sup>1</sup>Zagreb-Istok Medical Center; <sup>2</sup>Clinical Department of Gynecology and Obstetrics, Sestre milosrdnice University Hospital Center, Zagreb, Croatia

**SUMMARY** – The aim of this review was to estimate the influence of patronage nurses on breastfeeding. A retrospective research was conducted in the form of telephone questionnaire on a total of 25 subjects. Eighteen (72%) mothers had previous experience with breastfeeding, while 7 (28%) had no such experience. In 18 (72%) mothers, patronage nurses assessed the technique of breastfeeding because of difficulties with breastfeeding and examined breasts in 13 (52%) women. Exclusive breastfeeding was recommended to 21 (84%) mothers, while in 4 (16%) cases giving water and/or tea to the child was suggested. Breastfeeding on demand was recommended in 14 (56%) and breastfeeding by schedule in 4 (16%) cases. Advice about maternal nutrition during breastfeeding was given in 21 (84%) cases, while this type of advice was not necessary in only 4 (16%) cases. Patronage nurses helped the mothers with breastfeeding in 12 (48%) cases, had no influence on breastfeeding in 9 (36%) cases, and hindered breastfeeding in 4 (16%) cases. Patronage service has a relevant role in the preventive health sector. Patronage nurses should have better collaboration with maternity and pediatric care centers, so they can provide up to date breastfeeding education and thus offer their professional support.

**Key words:** *Breastfeeding; Breastfeeding mothers; Maternal-child nursing; Pediatric nursing; Nursing, community health*

## Introduction

The benefits of breastfeeding for both the child and the mother are numerous and well recognized. In the sole preparation for breastfeeding and during breastfeeding itself, it is important to have professional support and backup. Patronage nurse has a very important role in this aspect. Breastfeeding provides health, dietary (alimentary), immune, developmental, psychological, social, economic and environmental benefits<sup>1</sup>. Therefore, breastfeeding protection, promotion and support are a public health priority in all countries. Recommendations of the World Health

Organization (WHO) and United Nations International Children's Emergency Fund (UNICEF, now United Nations Children's Fund) are evidence based<sup>2</sup>, as well as the ones from the American Academy of Pediatrics (AAP)<sup>3</sup>. They reaffirm exclusive breastfeeding for the first 6 months of infant's life, followed by breastfeeding together with complementary food introduction, and then continuation of breastfeeding for 1 year or longer as mutually desired by the mother and the infant. Breastfeeding has not only short term but also long term positive influence on health. Breastfed children are considered to have a reduced incidence of type 1 diabetes, obesity, celiac disease, inflammatory bowel disease, asthma and atopic dermatitis, sudden infant death, and attention deficit/hyperactivity disorder<sup>4</sup>. Current randomized studies are expected to confirm these hypothesis<sup>5,6</sup>. Breastfeeding promotes development of a healthy relationship between the mother and the child, which is necessary for good

Correspondence to: *Prof. Zora Zakanj, MD, PhD*, Clinical Department of Gynecology and Obstetrics, Sestre milosrdnice University Hospital Center, Vinogradska c. 29, HR-10000 Zagreb, Croatia

E-mail: zora.zakanj@hotmail.com, samardzija.ivana@gmail.com

Received November 28, 2013, accepted March 3, 2014

mental and emotional health in adulthood<sup>7</sup>. It is important to be aware of the positive effects of breastfeeding on maternal health as well. The cumulative lifetime duration of lactation may be associated with a lower incidence of certain diseases in the mother, such as rheumatoid arthritis, hypertension, hyperlipidemia, cardiovascular disease, diabetes, and also breast and ovarian cancer<sup>8</sup>.

A specific feature of breast milk is the variability of its ingredients, which depends on the age of the child and his/her needs. Besides nutritional value, breast milk as the biological diet standard in infancy contains various immunoglobulins and other biological substances that affect the intestinal microflora of the child, such as lactoferrin, lysozyme, mucin, interferon and fibronectin<sup>9,10</sup>. Taken together, these factors, as well as the impact of microbiota on the function and development of the intestine, have been studied extensively<sup>11</sup>. In recent years, the role of pluripotent stem cells is emphasized. The role of pluripotent stem cells found in breast milk is not yet fully explored, but it is assumed that they participate in the development and differentiation of organ systems in the breastfed baby, especially in premature babies, and that they can contribute to the developmental programming of the body in adulthood<sup>12</sup>. In our community, the importance of breastfeeding has also been recognized and the program of comprehensive support for breastfeeding has been launched. Significant results are already achieved, especially in maternity hospitals granted the title of Baby Friendly Hospital<sup>13,14</sup>. The immediate challenge is standardized training of healthcare workers involved in primary health care of women and children, including gynecologists, pediatricians, family physicians and nurses, especially patronage nurses.

It is perceived that the recommendations differ among pediatricians, family physicians, nurses and patronage nurses, but also within these professions<sup>15</sup>. A research conducted in 2007 by UNICEF Office for Croatia showed that 50% of mothers ceased exclusive breastfeeding during the first month of the child's life, and that only 13.4% of mothers exclusively breastfed during the first six months. This suggests that the immediate environment of the breastfeeding mother, including patronage nurses who are in contact with the mother before the first visit to the pediatrician, can

significantly affect the duration of exclusive breastfeeding, as confirmed by 74% of the mothers claiming that patronage nurses gave them very useful suggestions<sup>16</sup>.

The role of the patronage nurse in breastfeeding is important even before birth, during their visits to pregnant women<sup>17</sup>. Regarding patronage healthcare of pregnant women, one visit during regular pregnancy is recommended, not before the 12<sup>th</sup> week of pregnancy. There can be more than one visit, depending on the assessment of the nurse, indications and in accordance with the chosen doctor's opinion. Nurse's visit to pregnant women also includes giving advice about preparing breasts for breastfeeding. Visiting healthcare of puerperal women and newborns includes first visit optimally up to 7 days after birth and the second visit at 15 days after birth<sup>18</sup>. According to the Croatian Health Service Yearbook for the year 2012, there were 41,771 live births in Croatia and 207,468 visits of patronage nurses to newborns, yielding a mean of 4.97 visits *per* newborn and representing a really good coverage<sup>19</sup>. However, there were 25,384 visits to pregnant women at the national level. Considering that the number of pregnant women was 41,901, the patronage healthcare coverage of pregnant women was only 60.6%.

## Subjects and Methods

The aim of this study was to assess the quality and contents of the advice on breastfeeding given to mothers by patronage nurses. The objective was to explore the confidence of mothers in patronage nurses, and also their authority in this area. Data on the experience and satisfaction with nursing visits, as well as on the advice and assistance received from patronage nurses, were collected retrospectively by telephone survey of the mothers to children born during two calendar years (from June 2010 till June 2012) in the eastern part of Zagreb County (Sesvete and Dugo Selo). The requirement for inclusion was that mothers had breastfed or were still breastfeeding their children. At the time the survey was conducted, the youngest child was 15 months old and the oldest child was 2.5 years old. All subjects answered twenty questions from the questionnaire. Of the total of 43 potential subjects, 25 (58.14%) mothers were willing to participate in the

Table 1. Recommendations of patronage nurses about exclusive breastfeeding and feeding on demand on the first visit after delivery

	Recommendations of patronage nurses about breastfeeding (N=25)	
	Yes n (%)	No n (%)
Exclusive breastfeeding	21 (84)	4 (16)
Feeding on demand	14 (56)	11 (44)

telephone survey. Telephone survey was conducted in all subjects by the same examiner.

## Results

First visit of the patronage nurse in the tested sample was in the period between the first and second day after leaving the maternity hospital in 23 (92%) subjects, and in only 2 (8%) cases the visit occurred between the third and fifth day. Of the total of 25 subjects, 7 (28%) were primiparae with no previous experience in breastfeeding, while 18 (72%) mothers had previous experience with breastfeeding. The mean duration of breastfeeding in our subjects who had previous experience with breastfeeding was  $12.25 \pm 3.17$  months. Only 7 (38.9%) study subjects exclusively breastfed their children to up to 6 months of age.

Due to difficulties with breastfeeding indicated by mothers the first visit, the patronage nurses estimated breastfeeding technique in 18 (72%) mothers and examined breasts in 13 (52%) mothers.

Exclusive breastfeeding was recommended to 21 (84%) mothers, while in 4 (16%) cases giving water

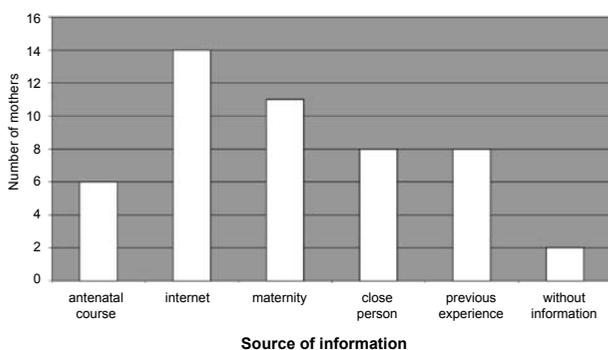


Fig. 1. The source of information about breastfeeding.

Table 2. Recommendations of patronage nurses about mother's nutrition during lactation

	Recommendations of patronage nurses about mother's nutrition during lactation n (%)
Balanced nutrition without restriction	4 (16)
Restrictive nutrition	18 (72)
Without nutrition advice	3 (12)
Total	25 (100)

and/or tea was suggested. Regarding the frequency of feeding, breastfeeding on demand was recommended in 14 (56%) and breastfeeding by a schedule in 4 (16%) cases, while in 7 (28%) cases the patronage nurse did not make any comments on the frequency of feeding. Nurse's recommendations for exclusive breastfeeding and feeding on demand are shown in Table 1.

The recommendations about maternal nutrition during lactation period are shown in Table 2, indicating that the advice was needed in 22 (84%) cases, while it was not necessary in only 4 (16%) cases.

Twenty-three (92%) mothers decided to breastfeed before childbirth and only 2 (8%) made this decision after delivery. Their decision was influenced by numerous sources of information, as shown in Figure 1.

During the survey, the subjects were asked about the person they would contact if having difficulties with breastfeeding. Their responses are shown in Figure 2.

The influence of patronage nurses on breastfeeding is shown in Figure 3. They helped the mothers with breastfeeding in 12 (48%) cases, had no influence on breastfeeding in 9 (36%) cases and hindered breastfeeding in 4 (16%) cases.

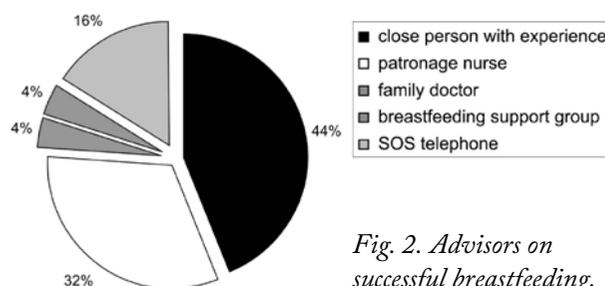


Fig. 2. Advisors on successful breastfeeding.

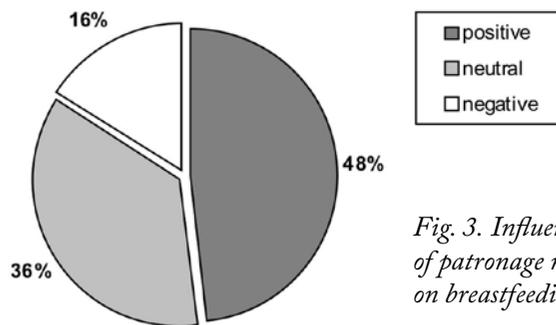


Fig. 3. Influence of patronage nurse on breastfeeding.

## Discussion

Patronage nursing service has numerous important roles, especially in preventive care. Perinatal period is a very important time in terms of giving quality and expert help with breastfeeding, which needs to be provided not only in maternity hospitals, but also as soon as possible after leaving the maternity hospital. In our report, the first visit of patronage nurse to parturient woman and her newborn baby occurred one to two days after leaving the hospital in 92% of study subjects, and all (100%) subjects were visited within the first week of the child's life. All mothers gave birth in one of the maternity hospitals of the City of Zagreb, from which healthy newborns are discharged between the second and third day after natural birth, and between the fourth and fifth day after surgical intervention to deliver a baby. A Swedish study about early discharge from maternity hospital shows that mothers who leave the hospital very early, 12-24 hours after birth, have more negative emotions towards breastfeeding and they exclusively breastfeed their children until six months of age in 74% of cases, regardless of the fact that the patronage nurse visits them 2-3 times in the first week of their discharge. The same study shows that mothers to whom the usual maternity care was offered, exclusively breastfed their infants during the first six months of age in 93% of cases ( $p=0.021$ ). This fact indicates the need of early professional help and support, especially in the maternity hospital. In case of very early discharge from the hospital (within 24 hours of birth), the role of patronage nursing service is even more important<sup>20</sup>.

In addition to the early and expert help, information about breastfeeding given to mothers by health-care personnel is also important. Although significant improvement in the promotion of breastfeeding

has been made in the last few decades in the world as well as in our country, prejudices among health professionals still exist and reflections need to be adjusted according to current and evidence based guidelines. First, this means focusing on educational programs for healthcare professionals, which are supposed to be compatible, so that the health service users can get true, uniform and trustworthy information. In our community, as well as in international ones, conducting the "UNICEF/WHO 20-hour course on breastfeeding" proved to be very useful<sup>21,22</sup>. When it comes to primary contact with mothers, especially in the first weeks of the child's life, visits and advice of healthcare professionals have proved more efficient than support groups<sup>23</sup>. Such groups can be encouraging in making decision to breastfeed, but in the early postnatal period, when this is generally made, the support should be professional, informative enough, emotional and stimulative<sup>24</sup>. The period in which the mother needs information about breastfeeding is an especially sensitive period for her, due to personal reasons, but also because of her care for the newborn. Therefore, educational programs should also include information about the psychological changes after childbirth and the strategy for professional counseling and support<sup>25</sup>.

We believe that in the environment we live in, the role of patronage nursing service is very important in this early period, i.e. in the first days and weeks after discharge from maternity hospital. For more efficient care, patronage nurses should be better affiliated with maternity and pediatric care centers in specific areas<sup>26</sup>. Our report shows that mothers have a great amount of confidence in patronage nursing service, mostly because of the valuable individual contact in their familiar environment<sup>27</sup>. Patronage nursing service should gain its rightful place in preventive perinatal public health activities and development of a proactive model of the person-centered care should be encouraged<sup>28</sup>. Such care provides individual approach, appreciating the individual, respecting his/her rights and needs, shared decision making, holistic approach, and positive therapeutic relationship<sup>29</sup>.

Expert help in breastfeeding given to the mother is needed at all levels of perinatal care, starting from pregnancy, through the period of childbirth, and as soon as possible after leaving the maternity hospital<sup>30</sup>.

It is considered that providing information and real assistance is most effective in the first two weeks after childbirth, when most mothers stop breastfeeding, in the lack of appropriate assistance<sup>31</sup>.

Although this review includes a small number of subjects as well as a possible bias related to the professional having conducted telephone interview, it still shows that such assistance can significantly influence the acceptance and adoption of information by the mother. It is advisable that health personnel provide information and assistance to the mother. For effective assistance, it is necessary that the information is professional, verified, and in accordance with the uniform information given by healthcare professionals at various levels of perinatal care. Care is better and the help is more effective if different healthcare workers are better affiliated<sup>32</sup>. Patronage nursing service has a major role and reputation in preventive care activities related to the health of the population, especially in the field of breastfeeding, and should strive to better affiliation, as well as to education in accordance with the latest findings.

## References

1. RENFEW MJ, McCORMICK FM, WADE A, QUINN B, DOWSEL T. Support for healthy breast-feeding mothers with healthy term babies. *Cochrane Database Syst Rev* 2012;5,CD001141.
2. World Health Organization. *Global strategy for infant and young child feeding*. Geneva: WHO, 2003.
3. American Academy of Pediatrics. Breastfeeding and the use of human milk. *Pediatrics* 2012;129:827-41.
4. OWEN CG, WHINCUP PH, COOK DG. Breast-feeding and cardiovascular risk factors and outcomes in later life: evidence from epidemiological studies. *Proc Nutr Soc* 2011;70(4):478-84.
5. ZAKANJ Z, WICKERHAUSER-MAJER T, GRGURIĆ J. Prevenira li dojenje nastanak debljine? *Paediatr Croat* 2004;48:47-52. (in Croatian)
6. FEWTRELL MS. Breast-feeding and later risk of CVD and obesity: evidence from randomised trials. *Proc Nutr Soc* 2011;70(4):472-7.
7. MATIJEVIĆ-MIKELIĆ V, KOŠIČEK T, CRNKOVIĆ M, TRIFUNOVIĆ-MAČEK Z, GRAZIO S. Development of early graphomotor skills in children with neurodevelopmental risks. *Acta Clin Croat* 2011;50:317-21.
8. NATLAND ST, ANDERSEN LF, NILSEN TI, FORSMO S, JACOBSEN GW. Maternal recall of breastfeeding duration twenty years after delivery. *BMC Med Res Methodol* 2012;12:179.
9. BALLARD O, MORROW AL. Human milk composition: nutrients and bioactive factors. *Pediatr Clin North Am* 2013;60(1):49-74.
10. WALKER A. Breast milk as the gold standard for protective nutrients. *J Pediatr* 2010;156 (2):3-7.
11. TACKOEN M. Breast milk: its nutritional composition and functional properties. *Rev Med Brux* 2012;33(4):309-17.
12. HASSIOTOU F, GEDDES DT, HARTMANN PE. Cells in human milk: state of the science. *J Hum Lact* 2013;29 (2):171-82.
13. ZAKARIJA-GRKOVIĆ I, ŠEGVIĆ O, BOŽINOVIĆ T, ČUŽE A, LOZANČIĆ T, VUČKOVIĆ A, BURMAZ T. Hospital practices and breastfeeding rates before and after the UNICEF/WHO 20-hour course for maternity staff. *J Hum Lact* 2012;28(3):389-99.
14. GRGURIĆ J, ZAKANJ Z, PAVIČIĆ-BOŠNJAK A, STANOJEVIĆ M. Program za zaštitu i promicanje dojenja u Hrvatskoj (rezultati i izazovi). *Paediatr Croat* 2010;54:132-3. (in Croatian)
15. WILKINSON SA, McINTYRE D. Evaluation of the 'healthy start to pregnancy' early antenatal promotion workshop: a randomized controlled trial. *BMC Pregnancy and Childbirth* 2012;12:131.
16. GRGURIĆ J, PAVIČIĆ-BOŠNJAK A, STANOJEVIĆ M, ZAKANJ Z. Priručnik za provođenje inicijative "Rodilište – prijatelj djece". Zagreb: UNICEF, Kratis, 2007. (in Croatian)
17. WIDEN E, SIEGA-RIZ A. Prenatal counseling: a practical guide for assessment and counseling. *J Midwifery Womens Health* 2010;55(6):540-9.
18. Zakon o zdravstvenoj zaštiti. Pročišćeni tekst zakona. *Official Gazette* 150/08, 71/10, 139/10, 22/11. (in Croatian).
19. Hrvatski zdravstveno-statistički ljetopis za 2012. godinu. Zagreb: Hrvatski zavod za javno zdravstvo, 2013. (in Croatian)
20. ASKELSDOTTIR B, LAM-de JONGE W, EDMAN G, WIKLUND I. Home care after early discharge: impact of healthy mothers and newborns. *Midwifery* 2013;29(8):927-34.
21. ZAKARIJA-GRKOVIĆ I, BURMAZ T. Effectiveness of the UNICEF/WHO 20-hour course in improving health professionals knowledge, practices and attitudes to breastfeeding: before/after study of 5 maternity facilities in Croatia. *Croat Med J* 2010;51:396-405.
22. TAPPIN D, BRITTEN J, BROADFOOT M, McINNES R. The effect of health visitors on breastfeeding in Glasgow. *Int Breastfeed J* 2006;1:11.
23. DENNIS CL. Peer support within a health care context: a concept analysis. *Int J Nurs Stud* 2003;40:321-32.
24. WAGNER EA, CHANTRY CJ, DEWEY KG, NOMMSEN-RIVERS LA. Breastfeeding concerns at 3 and 7 days postpartum and feeding status at 2 months. *Pediatrics* 2013;132(4):865-75.

25. REA MF, VENANCIO SI, MARTINES JC, SAVAGE F. Counselling on breastfeeding: assessing knowledge and skills. WHO Bulletin 1999;77(6):492-8.
26. CHUNG M, RAMAN G, TRIKALINOS T, LAU J, IP S. Interventions in primary care to promote breastfeeding: an evidence review for the U.S. Preventive Services Task Force. Ann Intern Med 2008;149:565-82.
27. McCORMAK B, McCANCE T. Person centered nursing: theory, models and methods. Oxford: Blackwell Publishing, 2010.
28. ERICSON J, ERIKSSON M, HELLSTROM-WESTAS L, HAGBERG L, HODDINOTT P, FLACKING R. The effectiveness of proactive telephone support provided to breastfeeding mothers of preterm infants: study protocol for a randomized controlled trial. BMC Pediatrics 2013;13:73, doi: 10.1186/1471-2431-13-73.
29. SCHMIED V, BEAKE S, SHEEHAN A, McCOURT C, DYKES F. Women's perception and experiences of breastfeeding support: a metasynthesis. Birth 2011;38:49-60.
30. HANNULA L, KAUNONEN M, TARKKA M. A systematic review of professional support interventions for breastfeeding. J Clin Nurs 2008;17:1132-43.
31. HODDINOTT P, BRITTEN J, PRESCOTT GJ, TAPPIN D, LUDBROOK A, GODDEN DJ. Effectiveness of policy to provide breastfeeding groups for pregnant and breastfeeding mothers in primary care: cluster randomised controlled trial. BMJ 2009;338:a3026, doi:10.1136/bmj.a3026.
32. HODDINOTT P, PILL R, CHALMERS M. Health professionals, implementation and outcomes: reflections on a complex intervention to improve breast-feeding rates in primary care. Fam Pract 2007;24:84-91.

#### Sažetak

### UTJECAJ PATRONAŽNE SESTRE NA DOJENJE

*I. Samardžija Čor i Z. Zakanj*

Cilj ovoga prikaza je procijeniti utjecaj koji patronažna sestra ima na dojenje. Provedeno je retrospektivno istraživanje putem telefonske ankete na ukupno 25 ispitanica. Prethodno iskustvo s dojenjem je imalo 18 (72%) majki, a 7 (28%) ih je bilo bez iskustva. Zbog teškoća s dojenjem patronažne sestre su u 18 (72%) majki promatrale tehniku dojenja i pregledale dojke u 13 (52%) žena. Kao savjet o prehrani kod 21 (84%) majke je preporučeno isključivo dojenje, dok je u 4 (16%) slučaja preporučeno dodavanje vode i/ili čaja. Dojenje na zahtjev preporučeno je u 14 (56%) slučajeva, a dojenje prema određenom rasporedu u 4 (16%) slučaja. Savjet o prehrani majke tijekom laktacije bio je potreban u 21 (84%) slučaju, a samo u 4 (16%) slučaja nije bio potreban. Patronažne sestre su pomogle majkama u dojenju u 12 (48%) slučajeva, nisu imale utjecaja na dojenje u 9 (36%) slučajeva, a u 4 (16%) slučaja su odmogle dojenju. Patronažna služba ima važno mjesto u preventivnom radu. Da bi pružile stručnu pomoć pri dojenju patronažne sestre se trebaju bolje povezati s rodilišnom i pedijatrijskom skrbi, uz ujednačenu i suvremenu izobrazbu o dojenju.

*Ključne riječi: Dojenje; Majke dojilje; Sestrinstvo, majka i dijete; Sestrinstvo, pedijatrija; Sestrinstvo u zajednici*