

Influence of Education at The Childbirth School on Breast Feeding

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Summary

Breast feeding is the only proper way to feed a newborn and a baby during the first several months of his life. The most professional way of preparation for natural feeding is The Childbirth School. Education ought to be continued in maternity wards. The aim of this study is to prove that women who participated in The Childbirth Courses are better motivated and prepared for breast feeding. Material and methodology. The research comprised 294 lying-in women hospitalized in maternity ward in Clinic of Obstetrics and Perinatology, Pomeranian Medical University in Szczecin from June 2001 to December 2002. The examined women were divided into two groups:

- Group I – “study group” – comprised 129 lying-in women who attended the childbirth school courses during at least one pregnancy, but no earlier than 2 years ago.

- Group II – “control group” (reference group) – included 165 lying-in women who did not participate in any organized forms of prenatal education.

Every woman who agreed to participate in the research was accepted. There was applied analysis of lying-in woman’s documentation and author’s questionnaire which was also used for further research.

As a result of the research it was found that The Childbirth School increases motivation for natural feeding and prepares women for this activity. It also showed that more

emphasis should be given to childbirth education for puerperal women in maternity wards; it refers in special to those women who did not attend The Childbirth School.

Key words: The Childbirth School, natural feeding, education.

Introduction

Breast feeding is the only proper way to feed a newborn and a baby during the first several months of his life [1,2]. Natural feeding stands for one of the main topics touched during prenatal education at The Childbirth School [3,4,5]. This is the place where future mothers are prepared for the difficult art of feeding their babies [6]. To succeed in natural feeding one sometimes has to overcome many problems [1]; women usually get familiar with them at The Childbirth Schools and in maternity wards [5,7]. What seems particularly important, though, is the proper motivation. A mother who knows advantages of natural feeding [7] and is deeply motivated, will not get discouraged so easily because of cracked and sore nipples, or too much milk, she is not likely to resign at once due to lactation crisis [1,6], as well. Preparation for lactation ought to be continued in maternity wards [2,5].

The aim of the study is to show that women who attended The Childbirth School are more strongly motivated and better prepared for breast feeding.

Material and methodology

The research comprised 294 lying-in women hospitalized in maternity ward in Clinic of Obstetrics and Perinatology, Pomeranian Medical University in Szczecin from June 2001 to December 2002. The examined women were divided into two groups:

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Table 1. Analysis of the women's age from the study and control groups

Group	n	min-max	Q ₁ – Q ₃	m _e	M ± SD	p
I	129	20-42	26-30	28	28.2 ± 3.8	>0.05
II	165	18-43	24-31	27	27.5 ± 5.5	

n – number of individuals in the group; min – minimum value; max – maximum value; Q₁ – the first quartile; Q₃ – the third quartile; m_e – median; M – arithmetic mean; SD – standard deviation; p – significance level

- Group I – “study group” – comprised 129 lying-in women who attended the childbirth school courses during at least one pregnancy, but no earlier than 2 years ago
- Group II – “control group” – included 165 lying-in women who did not participate in any organized forms of prenatal education.

Every woman who agreed to participate in the research was accepted. There was applied analysis of lying-in woman's documentation and author's questionnaire which was also used for further research. The part of the questionnaire concerned with natural feeding was based on directions of WHO and UNICEF, which define the exceptional meaning of prenatal and postnatal care for preservation, propagation and support for breast feeding [2]. The assumptions are included in such documents as “The Initiative – The Child-Friendly Hospital” and “10 Rules of Breast feeding” [2], programmes: “The Promotion of Breastfeeding” [8], “The Propagation of Breastfeeding” [9] and “Improvement Programme of Perinatal Care in Poland” [5]. The obtained numerical values were subjected to statistical analysis. The study and control groups were compared in terms of qualitative features using a non-parametrical significance test – a chi-square independence test and a chi-square independence test with the Yates' correction. Whereas comparisons of quantitative features were made with a non-parametrical significance test – Mann-Whitney U test.

Results

The youngest lying-in woman in the study group was at the age of 20, and in the control group – 18. The oldest woman in the group I was 42 years old, and in the group II – 43. The average age in the study group equalled 28.2 years, and in the control group – 27.5 year). There were not found any statistically important differences between the age of the lying-in women from the study and control groups, $p > 0.05$ (Tab. 1).

In the study group considerably greater number of women were dwellers of towns with population of over 100 thousand ($p < 0.01$). As for other determinants there were not found any statistically important differences.

While analysing educational background one can notice that statistically many more ($p < 0.001$) women from the study group (76%) received higher education, whereas in the control group it was only 31.5% which is more than twice less. On the contrary, noticeably more ($p < 0.001$) women from the control group had secondary and technical/primary education. As

Table 2. Characterization of the women from the study and control groups based on socio-economic and obstetric factors

Dwelling place	Group I (n = 129)		Group II (n = 165)		χ^2	p
	n	%	n	%		
Country	4	3.1	12	7.3	2.45	>0.05
Town – up to 25 thousands	5	3.9	11	6.7	1.10	>0.05
Town 25 – 100 thousands	4	3.1	13	7.9	3.03	>0.05
Town – over 100 thousands	116	89.9	129	78.2	7.19	<0.01
Education	Group I		Group II		χ^2	p
Primary or technical	4	3.1	40	24.2		
Secondary	27	20.9	73	44.2	17.5	<0.001
High	98	76.0	52	31.5	57.2	<0.001
Material situation	Group I		Group II		χ^2	p
Bad or very bad	3	2.3	6	3.6		
Average	39	30.2	59	35.8	0.99	>0.05
Good	70	54.3	81	49.1	0.78	>0.05
Very good	17	13.2	19	11.5	0.19	>0.05

χ^2 – a chi-square independence test; n – number of individuals in the group; Y – Yates' correction factor; p – significance level

Table 3. The type of feeding chosen by lying-in women from the study and control groups

Type of feeding	Group I (n = 129)		Group II (n = 165)		χ^2	p
	n	%	n	%		
Breast feeding	128	99.2	153	92.7	7.21	<0.01
Bottle-feeding	0	0	8	4.8	4.73	<0.05 (Y)
Mixed	1	0.8	4	2.4	0.40	>0.05 (Y)

χ^2 – a chi-square independence test; p – significance level; Y – Yates' correction factor; n – number of individuals in the group

for other determinants of financial conditions there were not observed any statistically vital distinctions between the groups ($p > 0.05$). Characterization of the women from the study and control groups based on socio-economic and obstetric factors is depicted in Tab. 2.

Significantly more ($p < 0.01$) women from the study group (99.2%) declared breast feeding as the only way of feeding a baby, whereas in the control group their number was a little smaller – 92.7%. As for bottle-feeding many more mothers ($p < 0.05$) from the control group wanted to feed their babies in this way – 4.8%. Not a single lying-in woman from the control group declared this way of feeding a baby (Tab. 3).

The surveyed women from the control group much more often ($p > 0.01$) planned to breast feed “as long as possible” than in the study group. At the same time, however, noticeably more ($p < 0.05$) women from the control group (6.2%) intended to breast feed their babies for one month only, whereas no one in the study group (0%) had such an intention. Other determinants did not much differ statistically, $p > 0.05$ (Tab. 4).

Analysis of natural feeding after 4-6 weeks from delivery showed that 93.1% of women from the study group breast feed their babies after the lapse of this time, while in the con-

Table 4. Period of natural feeding intended by lying-in women from the study and control groups (excluding bottle-feeding women)

Intended period of breast feeding	Group I (n= 129)		Group II (n= 157)		χ^2	p
	n	%	n	%		
Up to 1 month	0	0	8	6.2	6.26	<0.05(Y)
Up to 3 months	1	0.8	3	2.3	0.25	>0.05(Y)
Up to 6 months	38	29.5	44	33.8	0.58	>0.05
Up to 1 year	48	37.2	38	29.2	1.86	>0.05
Longer than 1 year	15	11.6	17	13.1	0.13	>0.05
As long as possible	27	20.9	47	36.2	7.35	<0.01

χ^2 – a chi-square independence test; p – significance level; Y – Yates’ correction factor; n – number of individuals in the group

Table 5. Natural feeding after 4-6 weeks from delivery in the study and control groups

Is she breast feeding?	Group I (n= 130)		Group II (n= 158)		χ^2	p
	n	%	n	%		
Yes	121	93.1	123	77.8	12.8	<0.001
No	9	6.9	35	22.2		

χ^2 – a chi-square independence test; p – significance level; n – number of individuals in the group

Table 6. Breast feeding after 4–6 weeks after delivery according to independent variables in the women from the study and control groups (excluding the bottle-feeding women in childbirth)

Age	Breast feeding				Finished breast feeding			
	Group I		Group II		Group I		Group II	
	n	%	n	%	n	%	n	%
Up to 25 years (n ₁ =26, n ₂ =56)	24•	92.3	40	71.4	2	7.8	16••	28.6
26-30 yeras (n ₁ =74, n ₂ =56)	69	93.2	49	87.5	5	6.8	7	12.5
31-35 years (n ₁ =23, n ₂ =31)	21	91.3	24	77.4	2	8.7	7	22.6
More than 36 years (n ₁ =6, n ₂ =14)	6	100.0	9	64.3	0	0	5	35.7
Dwelling place	Group I		Group II		Group I		Group II	
Town – over 100 thousands (n ₁ =116, n ₂ =125)	109•••	94.0	96	76.8	7	6.0	29•••	23.2
Town 25-100 thousands (n ₁ =4, n ₂ =12)	4	100.0	10	83.3	0	0	2	16.7
Town – up to 25 thousands (n ₁ =5, n ₂ =9)	4	80.0	7	77.8	1	20.0	2	22.2
Country (n ₁ =4, n ₂ =11)	3	75.0	9	81.8	1	25.0	2	18.2
Education	Group I		Group II		Group I		Group II	
High (n ₁ =98, n ₂ =48)	91	92.9	43	89.6	7	7.1	5	10.4
Secondary (n ₁ =27, n ₂ =74)	25	92.6	57	76.7	2	7.4	17	23.3
Technical and primary (n ₁ =4, n ₂ =35)	4	100.0	22	64.9	0	0	13	35.1
Material situation	Group I		Group II		Group I		Group II	
Very good (n ₁ =17, n ₂ =18)	15	88.2	16	88.9	2	11.8	2	11.1
Good (n ₁ =70, n ₂ =77)	64	91.4	63	81.8	6	8.6	14	18.2
Average (n ₁ =39, n ₂ =56)	38••	97.4	41	73.2	1	2.6	15••	26.8
Bad and very bad (n ₁ =3, n ₂ =6)	3	100.0	2	33.3	0	0	4	66.7

• p<0.05 •• p<0.001 ••• p<0.01; n – number of individuals in the group

control group only 77.8%. It means that statistically many more (p<0.001) surveyed women from the control group gave up natural feeding during 4-6 weeks (Tab. 5).

Analysis of breast feeding and its duration according to independent variables such as age, dwelling place, education, material situation of lying-in women from both groups was illustrated in Tab. 6. Women from the control group aged below 25 years gave up natural feeding noticeably more frequently (p<0.05) than their peers from the study group. In other age groups there were not found statistically important differences. It is worth to be mentioned that in the study group neither woman older than 36 years gave up breast feeding. Taking into consideration dwelling place, noticeably more (p<0.001) women from the study group living in towns with population of over 100 thousand were breast feeding after 4-6 weeks from delivery – 94.0% (in group II – 76.8%). Most naturally-feeding mothers in both groups lived in towns of 25-100 thousand dwellers.

Analysis of natural feeding in respect to education of surveyed women did not reveal any statistically important differences between groups. There can be noticed a certain rule, however, in the control group: the higher education the more breast feeding mothers.

Studying the relation between natural feeding and financial situation we can easily notice that in the study group worse financial conditions meant more breast feeding women, while in the control group it was quite opposite – the lower earnings went in pair with greater number of women who resigned from breast feeding. Women from the control group whose material situation could be described as average more often (p<0.01) gave up breast feeding than women from the study group. In other groups statistically essential differences were not noticed (Tab. 6).

Discussion

Considerably more women in childbirth from the group I claimed natural feeding – 99.2% as opposed to the control group where most women (92.7%) wanted to feed their babies with a bottle. This is a result similar to that obtained by Cerańska-Goszczyńska and co-authors who observed that 100% of women educated at The Childbirth School and 94% in the control group chose to breast feed [3]. The researches carried out by Szwałkiewicz show that 100% of The Childbirth School participants took up natural feeding [6], and those done by Ulman-Włodarz prove that almost 90% of The Childbirth School participants apply breast feeding [7].

Considerably less women from the study group planned to feed naturally for the period of one month only, whereas in the control group noticeably more women intended to breast feed “as long as possible”. It does not agree with Cerańska-Goszczyńska and co-authors’ report which states that The Childbirth School participants proposed longer period of breast feeding [3]. As for other determinants there were not found any statistically vital differences. Analysis of natural feeding after 4-6 weeks from delivery revealed an important distinction in respect to the lying-in women from the study group, who not so often gave up breast feeding in this period of time. Quoting other authors, Inch notifies that the most common reason for giving up natural feeding is pain of nipples and insufficient amount of milk [10]. They are the problems tapped at The Childbirth Schools [4,5]. Thus, we can assume that such schools increase motivation to breast feed and prepare women for this type of feeding.

Resignation from breast feeding considering age demonstrated only one significant divergence – in the control group women at the age of 25 or less more often gave up breast feeding. In other age groups there were not found any crucial variations but these numbers were always smaller in the study group.

Analysis of breast feeding duration in dependence on residence showed that in towns of over 100 thousand citizens considerably less women resigned from breast feeding in the study group than in the control one. In case of other determinants there were not observed any vital differences, still they cannot be treated as the objective results because the groups were not numerous enough.

There were not noticed disparities referred to resignation from natural feeding in respect to education. In contrast to this, Ulman-Włodarz states that women with higher education breast feed longer and not so often resign from natural feeding [7]. Also Ulman-Doniec writes that all higher educated women breast feed and all of them do it for the period of more than three months [11].

Taking into account material situation, there was only found one important difference in relation to women whose material

situation was average. Considerably less lying-in women from the study group who declared average material conditions resigned from breast feeding. In this group not a single woman who described her financial situation as bad or very bad gave up natural feeding during 4-6 weeks after delivery; the group was not numerous enough though to draw valid conclusions.

Women who decided to finish breast feeding during the first 6 weeks after delivery were mainly those who did not attend The Childbirth School, were 25 years old or younger, with average financial conditions; there was not noticed any co-relation with educational background. On the contrary, The Childbirth School participants less frequently resigned from breast feeding in that period and their resignation was related neither to age nor education, it happened more often, however, in case of women who described their material situation as very good.

Conclusions

1. The Childbirth School motivates and prepares women to feed naturally.
2. More emphasis should be given to childbirth education for puerperal women in maternity wards; it refers in special to the women who did not attend The Childbirth School.

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