

The training needs of doctors working in England and in Poland with breastfeeding women

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Submitted: 18 June 2007

Accepted: 6 August 2007

Arch Med Sci 2007; 3, 3: 259-266

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Abstract

Introduction: The aim of this study was to compare the training needs of Polish and English medical practitioners in breastfeeding support skills. Self-assessed competence in 22 skill areas, perceived need for update of breastfeeding support skills and perception of organizational barriers for breastfeeding were compared.

Material and methods: Surveys in both countries were conducted using largely similar questionnaires and procedures. The English sample (n=177) consisted of paediatricians and GPs; the Polish sample (n=54) included neonatologists, obstetricians, paediatricians and GPs.

Results: There were no differences in clinical practice competence level of the two samples; Polish doctors assessed themselves as more competent in regard to educative skills. Both English and Polish practitioners would welcome update of breastfeeding skills, but this need was expressed more frequently by Polish doctors. In both Poland and England greater intensity of breastfeeding experience was associated with identifying more areas for future update. However, unlike the English sample, within the Polish sample, doctors who were less competent expressed greater need for update. In both samples, greater breastfeeding knowledge was associated with higher self-assessed competence level. English doctors experienced more organizational barriers. Both Polish and English practitioners indicated early hospital discharge as one of the biggest barriers for breastfeeding support.

Conclusions: We conclude that core training is recommended to all practitioners in both countries, and that reliance on self assessed competence and need for update are not useful indicators for the deployment of scarce training resources.

Key words: breastfeeding, infant feeding, breastfeeding skills, professional training.

Introduction

There is evidence that breastfeeding choice and success is associated with greater breastfeeding knowledge, although for both expecting and new mothers the main source of information on breastfeeding is midwives, doctors were slightly more preferred advisors on the matter [1]. In both Poland and England breastfeeding support for approximately one month postpartum is provided by midwives [2], afterward women who encounter breastfeeding problems seek doctors' (usually general practitioner's or paediatrician's) advice. Although within this first four weeks most new mothers learn how to properly position and attach the baby, recognize

and deal with most common difficulties (e.g. pain, engorgement), later on they often come across problems that if not properly addressed may result in early breastfeeding cessation (e.g. mastitis, milk insufficiency) [3]. Moreover doctors are mostly expected to advise about supplementing breastfed babies and introducing complimentary fluids and solids [4].

Regardless of the important role of doctors in promoting and maintaining breastfeeding, pre-registration training with provision to acquire practice skills on breastfeeding is not required either in Poland nor in England [5, 6]. Furthermore, post-registration continuing professional development for breastfeeding is not mandatory for clinicians either [7]. In England relevant courses are available but expense seems to limit access [8], in Poland the training offer is not only quite expensive but also very scarce. Given the lack of requirements for pre-qualification training and lack of affordable opportunities for on going update in both countries, we anticipate more similarities than differences in training needs between England and Poland.

There are a very limited number of national surveys on the epidemiology of breastfeeding in Poland. In 1988 an evaluation of infant feeding practices and underlying factors was conducted [9]. In addition to highlighting the deficiencies in feeding practices experienced by 9299 infants from 402 post delivery units, it elaborated on the training needs of a diverse range of healthcare practitioners (doctors, nurses and midwives). In response to these findings, the National Breastfeeding Promotion Programme was introduced to increase breastfeeding initiation and duration by improving breastfeeding support in healthcare organizations through educating healthcare practitioners and expectant mothers about the advantages of breastfeeding and breastfeeding practices [10]. The evaluation of the programme conducted in 1997 showed that the median duration of exclusive breastfeeding in Poland had increased from 4 to 6 months [10], some 94% of women initiated breastfeeding (in comparison to 82% in 1988) and 60% were able to maintain it for 6 months (in comparison to only 13% in 1988) [10].

According to the Department of Health's National Infant Feeding Survey, breastfeeding rates in England have significantly risen for the first time since 1970s [11]. The breastfeeding initiation rate in 2005 was 78% [12], however of these, more than half give up during first two weeks and only 22% maintained any breastfeeding for 6 months [4].

We report on a comparison of two surveys conducted in England and in Poland, using largely similar survey methods, affording a unique inter-country comparison. Using clinical and professional networks we invited doctors who work with

expectant and new mothers to take part in our survey. We compared the self-assessed competence in 22 skill areas, perceived need for update of breastfeeding support skills and perception of organizational barriers for breastfeeding. Additionally Polish doctors' training experiences, learning preferences and knowledge of policies and guidance on breastfeeding were assessed.

Material and methods

Developing the Polish version of the questionnaire

The Polish survey was based on the survey conducted in England in 2005, in which questionnaires were developed in co-operation with professionals, breastfeeding experts and potential participants [13].

Factor analysis was conducted on English data to create the subscales and Cronbach's Alpha was used to establish its internal consistency [13]. The same scales were used to conduct comparative analysis of Polish and English data. To ensure internal reliability of all scales, Cronbach's alpha test was performed on Polish data. Results were slightly better than those obtained in the English survey, with average alphas 0.89 and 0.75 respectively.

Objectives

The Polish and English samples were compared on the following variables: (1) work related variables; (2) self-assessed competence level in 22 breastfeeding support skills; (3) perceived need of an update of 22 breastfeeding support skills within the next two years; (4) perception of organizational barriers to breastfeeding; (5) assessment of the helpfulness of different learning approaches; (6) knowledge of policies and guidance on breastfeeding.

Four directional hypotheses were examined to establish if the Polish survey replicated the results obtained in England:

- 1) greater self-assessed competence in breastfeeding skills will be associated with spending more working time with breastfeeding women and their infants (greater breastfeeding experience intensity);
- 2) more areas for future update will be identified by doctors who (a) spend more working time with breastfeeding women and their infants (greater breastfeeding experience intensity) and (b) assess themselves as less competent;
- 3) more organizational barriers to breastfeeding will be identified by doctors who (a) spend more working time with breastfeeding mothers and their infants (greater breastfeeding experience intensity) and (b) rate themselves as less competent;

4) greater knowledge of policies and guidance on breastfeeding will be associated with being a doctor who (a) spends more working time with breastfeeding mothers and their infants (greater breastfeeding experience intensity) and (b) rate themselves as more competent.

Procedure

Contact lists for doctors who work with expectant and new mothers were established using clinical and professional networks. The survey in Poland was conducted between August and November 2006. An electronic version of the questionnaire was used as the sole means of response; in England an alternative of paper based questionnaires was offered. Initial e-mails contained letters requesting participation in the survey that included the instructions on how to access and complete an online questionnaire. Due to the distribution method used in both surveys it is not possible to estimate response rates.

Results

Work related variables

The English sample included 57 general practitioners and 120 paediatricians. Most of the doctors (48.9%; n=88) had been qualified for less than 5 years and 41.7% (n=75) for over 10 years. Just over half (55%; n=99) of the respondents spent

less than 25% of their time at work directly caring for breastfeeding mothers and their infants.

The Polish sample (n=54) included 18 neonatologists, 16 obstetricians, 14 paediatricians, 6 general practitioners, 6 doctors of other specialties, and 6 respondents who were in the process of obtaining their specialty. Four respondents were scientists in medical universities. Most of the Polish doctors (83.3%; n=45) worked in hospitals; 37% (n=20) were working in healthcare organizations contracted with the National Health Fund (NFZ) and 16.7% (n=9) worked in private clinics. Most of the respondents had been qualified for over 10 years (57.4%; n=31), with 33.3% (n=18) for 5-10 years. In Poland, most of the participants (74.1%; n=40) spent less than 25% of their working time with breastfeeding mothers and their babies.

Comparison of competence in 22 breastfeeding skill areas

Clinical knowledge: There were no statistically significant differences in self-assessed competence level between Polish and English practitioners. Although T-test result for scale totals were not significant, chi squared analyses showed that there was variation on some items between the two samples (Table I).

Educative skills: Analysis of the scale scores showed that Polish doctors consider themselves significantly more competent in comparison to their

Table I. Self rating of being competent or expert in clinical breastfeeding support skills (results only for those who found the skill relevant for their job: n/a responses excluded)

Clinical knowledge	England	Poland	χ^2	df	p
	Competent/Expert (%)	Competent/Expert (%)			
Advising about pain management	52	72.2	6.09	2	0.04
Advising about mastitis	46.3	66.7	3.97	2	NS
Advising about apparent milk insufficiency	53.7	55.5	5.16	2	0.07
Detect abnormal growth rates and advise on methods that continue to support BF	50.3	63	1.82	2	NS
Support BF by mothers of SCBU babies	44.1	59.3	0.50	2	NS
BF for mothers who are recovering from caesarian section/unwell	36.2	61.1	13.74	2	0.001
When to intervene if a new baby does not immediately breastfeed	39	64.8	6.61	2	0.003
Advising about positioning and attachment at first and later feeds	42.4	55.5	0.64	2	NS
Advising about complementary fluids for breastfed babies	44.6	70.4	8.70	2	0.01
Prescribing to breastfeeding mothers	36.7	51.8	2.07	2	NS
Knowledge of resources to support breastfeeding mothers	45.8	53.7	4.91	2	0.08

English colleagues (mean =2.85; SD=0.51; mean =2.49; SD=0.77; t=3.28; df=228; p=0.001). Chi squared tests showed that there were statistically significant differences between the samples in regard to all but one educative skill (breastfeeding as contraception) (Table II).

We now examine whether the data in the Polish sample replicate the English data on specific hypotheses.

Hypothesis 1: Greater self-assessed competence in breastfeeding skills will be associated with spending more working time with breastfeeding women and their infants (greater breastfeeding experience intensity)

The sample was divided into two subgroups: doctors who spend less than 25% of their time at work with breastfeeding mothers and their infants (less intensity; n=139) and practitioners who spend 25% or more of their working time with breastfeeding mothers and their infants (more intensity; n=92). In both the samples self-assessed educative skills did not differ dependent on time spent with breastfeeding mothers. In England, doctors who spent 25% or more of their working time with breastfeeding mothers and their infants assessed themselves as more competent in clinical knowledge, in Poland there was no such association [13].

Comparison of perceived need for future update on 22 breastfeeding skills areas

The subscale total scores show that Polish doctors would welcome an update of breastfeeding skills more frequently in comparison to their English colleagues (mean=2.79; SD=0.39; mean=2.05; SD=0.57 respectively; t=7.57; df=228; p=0.0001) (Table III).

Hypothesis 2(a): More areas for future update will be identified by practitioners who spend more working time with breastfeeding women and their infants (greater breastfeeding experience intensity)

In line with the English results [5], in Poland greater intensity of breastfeeding experience was associated with identifying more areas for future update (more intensity: mean=2.38; SD=0.48; less intensity: mean=2.08; SD=0.65; t=-3.79; df=226; p=0.0001; Pearson's r=0.24; p=0.001).

Hypothesis 2(b): More areas for future update will be identified by practitioners who assess themselves as less competent

In the Polish sample being more competent in both clinical and educative skills was associated with greater need for future update (Pearson's r=0.33, p=0.0001; Pearson's r=0.14, p=0.02 respectively). In England, the results did not support the hypothesis [13].

Knowledge of policies and guidance on breastfeeding

In Poland 77.8% of the doctors (n=42) reported having access to policies and guidance on breastfeeding in their workplace, in comparison to 58.2% (n=103) in England. Some 58.1% (n=28) of the Polish doctors correctly indicated 6 months as the WHO recommended time of exclusive breastfeeding, while in England 27.2% (n=48) knew the correct response ($\chi^2=11.46$; df=1; p=0.007). 71.4% (n=40) of Polish doctors correctly indicated 6 months as the minimum age when solids should be introduced. Only 3% (n=7) of the respondents knew that skin to skin contact should be made not later than 60 minutes after delivery most of the Polish doctors (77.8%; n=42) indicated 30 minutes as the correct answer, which is technically

Table II. Self rating of being competent or expert in educative breastfeeding support skills (results only for those who found the skill relevant for their job: n/a responses excluded)

Educative skills	England	Poland	χ^2	df	p
	Competent/Expert (%)	Competent/Expert (%)			
Understanding physiology of lactation	48.6	66.7	10.31	2	0.005
Knowledge of medical contra-indications for BF	46.9	74.1	16.98	2	0.002
Encouraging mothers to initiate BF	46.9	79.6	20.54	2	0.0003
Being able to advise about risk and benefits of breast and formula feeding	45.2	75.9	17.44	2	0.001
Understanding breastfeeding as contraception	49.1	50	1.54	2	NS
Advising about breast refusal	25.4	70.4	45.15	2	0.0001
Advising about engorgement	36.7	74.1	29.92	2	0.0001
Advising about thrush infection	43.5	72.2	18.92	2	0.0008

Table III. Self rated importance for future update (results only for those who found the skill relevant for their job n/a responses excluded)

Area of breastfeeding support	England Quite/very important (%)	Poland Quite/very important (%)	χ^2	df	p
Knowledge of medical contra-indications to breastfeeding	59.3	94.4	19.71	1	0.0001
Encouraging mothers to initiate breastfeeding	54.2	92.6	18.02	1	0.0002
Advising about benefits and risks of breast and formula feeding	59.9	92.6	19.51	1	0.0006
Understanding breastfeeding as contraception	54.8	79.6	14.49	1	0.001
Advising about breast refusal	53.7	87	22.31	1	0.0001
Advising about engorgement	54.8	88.9	23.55	1	0.0001
Advising about thrush infection	65	87	15.47	1	0.0008
Advising about trauma to nipples	62.1	87	18.28	1	0.0002
Advising about pain management	58.1	87	23.47	1	0.0001
Advising about mastitis	62.1	87	19.72	1	0.0001
Advising about apparent milk insufficiency	61.6	90.7	20.28	1	0.0001
Detecting abnormal growth rates and advise on methods that continue to support breastfeeding	57.6	88.9	22.50	1	0.0001
Support breastfeeding by mothers of SCBU babies	61.6	87	14.69	1	0.001
Breastfeeding for mothers who are recovering from caesarian section/unwell	56.5	79.6	14.42	1	0.001
Knowing when to intervene when baby is not immediately breastfeed	55.4	81.5	14.35	1	0.002
Advising about positioning and attachment at first and later feeds	55.4	88.9	21.68	1	0.0001
Advising about complementary fluids for breastfed babies	60.4	88.9	18.71	1	0.0002
Prescribing to breastfeeding mothers	55.4	72.2	18.19	1	0.0002
Knowledge of resources to support breastfeeding mothers	63.3	81.2	13.15	1	0.002
Advising about weaning to liquids/solids	67.2	85.2	10.30	1	0.001
Advising about breastfeeding for mothers returning to work	69.5	81.5	6.81	1	0.009

incorrect, but is unlikely to lead to harmful practice compared to incorrect answers in excess of one hour (13%; n=7).

In the Polish sample, doctors' general knowledge of breastfeeding was tested. Over 98% of respondents (n=53) knew that mothers who had flu or a cold can continue breastfeeding without a risk of infecting the baby. Some 94.4% (n=51) of the doctors agreed with the statement that breastfeeding can contribute to prevention of allergies and autoimmune diseases, and 85.2% (n=46) knew that infants born preterm but after 33 weeks of gestation respond better to breastfeeding than to formula feeding. Some 70.4% of the respondents (n=38)

correctly disagreed with the statement that "mothers in post delivery units should receive information about formula feeding".

Hypothesis 3(a): Greater knowledge of policies and guidance on breastfeeding will be associated with being a doctor who spends more working time with breastfeeding mothers and their infants (greater breastfeeding experience intensity)

There was no significant difference on the subscale score of knowledge of policies and guidance by the variable breastfeeding experience intensity, a similar result to that found for the English sample.

Hypothesis 3(b): Greater knowledge of policies and guidance on breastfeeding will be associated with being a practitioner who rates themselves as more competent

The results replicated those from the English sample. Greater knowledge of policies and guidance on breastfeeding was associated with being more competent in regard to both the clinical skills subscale (Pearson's $r=0.27$; $p=0.04$) and educative skills subscale (Pearson's $r=0.43$; $p=0.001$).

Organizational barriers to breastfeeding support

English doctors reported experiencing organizational barriers to breastfeeding significantly more often than their Polish colleagues (mean =5.73; SD=2.46; mean =3.85; SD=2.86; $t=-4.72$, $df =227$, $p=0.0001$). Although chi squared tests showed that two organizational barriers were experienced more often by Polish practitioners: "different staff approaches to breastfeeding leads to giving mothers conflicting advice" and "some staff do not adhere to guidelines for breastfeeding". English doctors more often experienced problems regarding breastfeeding guidance: "guidelines difficult to follow in practice" and "lack of guidance". English doctors more often had problems with recommending breastfeeding to mothers who were having other medical and social problems and felt that facilities provided in their workplace are not breastfeeding friendly (Table IV).

Hypothesis 4(a): More organizational barriers for breastfeeding will be identified by practitioners who spend more working time with breastfeeding mothers and their infants (greater breastfeeding experience intensity)

In accordance with the English results, there were no statistically significant relationships between variables, time spent with breastfeeding mothers was not associated with perception of barriers.

Hypothesis 4(b): More organizational barriers for breastfeeding will be identified by practitioners who rate themselves as less competent

Perceiving more organizational barriers to breastfeeding was associated with perceiving oneself as being less competent in regard to clinical knowledge (Pearson's $r=-0.13$; $p=0.03$) although the correlation was not significant for the educative skills subscale. In the English sample, perception of barriers did not relate to any of the competence subscales.

Training and learning experience and preferences

Approaches to learning

Polish doctors experienced all the approaches to learning listed in the questionnaire more often than their English colleagues, with most popular being personal study (53 out of 54 respondents), informal skill development through colleagues (51 out of 54

Table IV. Perception of organizational barriers to breastfeeding support

Organizational barriers	England		Poland		χ^2	df	p
	Yes (%)	No (%)	Yes (%)	No (%)			
Staff's different approaches to breastfeeding leads to conflicting advice	46.3	53.7	61.1	38.9	3.61	1	0.05
It's difficult to recommend breastfeeding to mothers who have many other problems	61.6	38.4	7.4	92.6	48.59	1	0.001
Staffing levels are too low to provide mothers with enough support	39	61	38.9	61.1	0.00	1	NS
Guidelines for staff regarding breastfeeding are difficult to follow in practice	57	43	13	87	32.32	1	0.0001
There are no guidelines for staff practice regarding breastfeeding in my workplace	49.7	50.3	33.3	66.7	4.47	1	0.03
Some staff do not adhere to guidelines for breastfeeding	43.5	56.5	63	37	6.21	1	0.01
Mothers are given conflicting advice about breastfeeding in my workplace	55.4	44.6	44.4	55.6	1.98	1	NS
Mothers go home too early to provide adequate support	61.6	38.4	59.3	40.7	0.93	1	NS
The facilities/accommodation we provide are not helpful to breastfeeding women	44.6	55.4	20.4	79.6	10.24	1	0.001

respondents), formal skill development and mentoring (both cited by 50 out of 54 respondents). Polish respondents more frequently rated all of the approaches as helpful. Personal study, mentoring and formal skill development were found to be the most helpful forms of learning (94.3%; n=50; 92%; n=46 and 90%; n=45 respectively), of all the participants who experienced each particular form of training.

Professional training experience

Due to the differences in breastfeeding training in the two countries, the samples' results were not directly comparable. We describe only the Polish results here, focusing on training offered by the Breastfeeding Promotion Committee (KUKP). The access rate of any form of breastfeeding training offered by KUKP was very low. The most accessed one was the Basic Lactation Knowledge course (18/54; 33.3%), followed by the course for Breastfeeding Supporters and Lactation Consultants (15/54; 27.8%) and the course for healthcare organizations which is a part of becoming a UNICEF Baby Friendly Initiative accredited hospital (12/54; 22.2%). The vast majority of the participants (91.7%; n=11) who attended the course for healthcare organizations rated it as helpful. Most (77.8%; n=14), found the Basic Lactation Knowledge Course helpful; the course for Breastfeeding Supporters, Lactation Consultants and Breastfeeding Problems course was considered helpful by about a half of its participants. IBCLC was the least popular form of professional training – only 10% (n=1) of practitioners who attended it rated it as helpful.

Discussion

The aim of the study was to compare the breastfeeding training needs of English and Polish doctors. This is important since the experience of effective training methods developed in one country may be transferable to another, and distance learning methods may facilitate sharing of training opportunities.

The results for the English sample and the methodological limitations of the survey conducted in England have been discussed [13]. Regarding the Polish survey, there are also some methodological weaknesses that must be kept in mind when interpreting the results. First of all, the amount of data that we were able to gather is too small to assure representativeness. Moreover, the survey in Poland was conducted only electronically, which while allowing wide distribution of the questionnaires, means that the exact response rate remained unknown. Most of the practitioners who were distributing the questionnaires were directly engaged in breastfeeding promotion. Although they were trying to gather the highest number of

responses possible, it is likely that only a limited number of doctors who were especially interested in breastfeeding issues and thus the most knowledgeable, decided to participate in the survey. If so, the results that we obtained may overestimate the competence and knowledge of Polish practitioners. Furthermore we used a self-report measure that may introduce social desirability bias.

It is not possible to directly compare the results of Polish doctors' competence in breastfeeding support skills survey from 1988 and 1997 with our findings. It seems though that the knowledge of breastfeeding policies and practice among doctors has significantly improved over the past 20 years and is now comparable with English levels. Today, Polish doctors assess themselves as quite competent in most breastfeeding support areas although there are still some skills where only a little over a half of respondents feel at least competent. For example, in 1988 less than 30% of practitioners felt confident to advise mothers about apparent milk insufficiency [9], today it is only a little over 50%. The need for updating significantly increased from a little over 60% of respondents declaring in 1988 that their breastfeeding knowledge needed to be revised [9] to over 90% in our sample, which is significantly more than in the English sample. Currently Polish doctors, in comparison to the situation in 1998, and in comparison to their English colleagues now recognize fewer organizational barriers to breastfeeding and feel that they can do more to promote it which is quite an achievement. If the doctors who distributed the questionnaires were directly engaged in breastfeeding promotion and were employed in the hospitals that hold BFI accreditation, their colleagues who completed the survey may have had the same interests and were working in the same organizations. We can assume that in those hospitals efforts are made to minimize the barriers for breastfeeding and thus doctors feel they have more room to promote it.

However the access to professional breastfeeding training in Poland is very limited in comparison to England. There is only one institution (Breastfeeding Promotion Committee – KUKP) that organizes breastfeeding training, monitors the process of becoming a Baby Friendly Hospital and conducts the periodic evaluation of participating organizations. Polish practitioners mostly rely on personal study and mentoring as ways to improve their skills.

The training needs and self assessed need for an update is similar in Poland and England. A general framework is provided by UNICEF BFI, but we have found that significant skill deficits are commonplace. There is a need for practical and effective methods of supplying training, especially in Poland where the training access is very limited.

Reliance on self assessed competence and self selection for update is likely to be a poor use of resources, since the least skilled are least likely to seek update. However, as there are common competences required, and quite similar levels of competence and policy knowledge achieved, we suggest the time is right for international collaboration on sharing effective training practice, and for improving shared training via distance learning.

Acknowledgments

Advice on developing the Polish version of the questionnaire was given by Mrs. Elzbieta Strembska-Bratek. A large number of healthcare practitioners, especially Dr Magdalena Nehring-Gugulska, Dr Tomasz Sioda, Mrs. Elzbieta Strembska-Bratek and participants of KUKP's training assisted in its distribution.

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