An evaluation of perinatal care offered at Białystok hospitals based on the opinions of postpartum women hospitalized in obstetric wards

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ABSTRACT

Introduction: Changes to perinatal care should pertain to respecting the psychological and social value of birth, the promotion of privacy and individuality, increased respect for a woman’s and her husband’s rights to information, and their conscious and active participation during labour and birth, as well as to the promotion of a holistic model of family care during the period of procreation.

Purpose: The aim of this study was to evaluate perinatal care offered at Białystok hospitals, based on the opinions of postpartum women hospitalized in obstetric wards.

Materials and methods: The survey was conducted in the obstetric wards of two Białystok hospitals, using a questionnaire developed solely for the purpose of this study in combination with the questionnaire developed by the Childbirth with Dignity Foundation.

Results: This study revealed that, in the opinions of parturient women, the level of the quality of perinatal care is significantly modulated by compliance with the patient’s rights during hospitalization, knowledge about the Patient’s Bill of Rights, the friendliness of medical personnel, the creation of an atmosphere of privacy during hospitalization, the feeling of safety during hospitalization, individuals’ attitudes towards the patient, the implementation of routine procedures, compliance with novel standards of perinatal care and the implementation of these standards in obstetric wards, and the quality of neonatal care.

Conclusions: Patient satisfaction is frequently used to evaluate the quality of medical care and to guide the development of health care services. The findings of this study underline the need to further discuss and specify the aims of quality perinatal care. The authors estimate that there are deficiencies in the different services that could be addressed by conducting a multi-professional and interdisciplinary research study.

Key words: Quality of perinatal care, patient’s rights.
INTRODUCTION

Medicalization of birth is common in Poland. Only a few obstetrical institutions in our country adjust to the existing standards, thus improving the quality of perinatal care. Excessive medicalization has a negative impact on birth and its consequences extend well beyond the walls of obstetric ward [1].

Hospitals in Western Europe have implemented the proposed changes several years earlier than in Poland. An increasing number of mother- and neonate-friendly obstetric wards have been created; all of them adjusted to the new standards. Family births have been accepted, delivery rooms reorganized and rooming-in system of neonatal care implemented. Also, a change has occurred in the way a woman giving birth is perceived. Her needs and psychological issues associated with pregnancy, delivery, and puerperium have been acknowledged. The parturient has been recognized as important and aware, deserving an opportunity to give vaginal delivery. The patient was no longer dependent on medical personnel, and was given large freedom in this important moment of her life. Evident advantages to both the mother and the child resulting from the implemented changes were quickly reflected by the change in the way the births were perceived by families, physicians, and midwives [2, 3].

WHO considers one’s right to optimal health, and consequently the right to optimal healthcare, as the highest values. This means that everyone should have access to healthcare services and that these services should be of an appropriate quality [2, 4]. Despite many efforts of medical personnel and such organizations as Childbirth with Dignity Foundation, many cases of patient’s right violation can be observed in Poland along with a high degree of medicalization of physiological birth. Consequently, all the attempts to evaluate the quality of healthcare have raised a wide variety of emotions [5].

Changes to perinatal care should pertain to respecting the psychological and social value of birth, promotion of privacy and individuality, better respect of woman’s and her husband’s rights to information, and their conscious and active participation in birth, as well as to the promotion of holistic model care of family during the period of procreation.

On September 23rd, 2010, Polish Minister of Health published the decree on the standards of perinatal care services offered to women during physiological pregnancies and deliveries and during neonatal care [6]. The decree entered into force on 8 April 2011, increasing the degree of the professional independence of midwives. The purpose of the standards was to systematize substantive, organizational, and legal aspects, as well as to standardize the procedures in healthcare institutions taking care of pregnant women. This document adjusted WHO recommendations regarding safe maternity and patient’s rights to the specifics of Polish healthcare system. According to the standards, the principal objective of perinatal care offered by healthcare institutions is to achieve a good health status of the mother and her child with simultaneous reduction of medical intervention to a necessary minimum. The standards pay attention to the execution of patient’s rights, such as respecting woman’s right to the informed participation in decisions associated with the birth (regarding activities of medical personnel and implemented procedures), as well as the right to select between giving birth under hospital or extra-hospital conditions [7].

Patient’s rights distinguish between the expectations and entitlements of the individual and systematize the relationships between medical personnel and the patients. They define the range of the duties of the professionals offering healthcare services and represent a set of clearly defined eligibilities. Compliance of the medical personnel caring for parturient woman with the following patient’s rights seems the most important in the context of improved perinatal care: right to respect for one’s privacy and personal dignity, right to information, right to expressing free and informed consent to medical intervention, and right to giving birth in the presence of selected close relative [8, 9]. The level of satisfaction with perinatal care is one of the determinants of its assessment as well as an individual experience for each hospitalized patient [10].

The aim of this study was to evaluate perinatal care offered at Bialystok hospitals, based on the opinions of postpartum women hospitalized in obstetric wards.

MATERIALS AND METHODS

The study was conducted at obstetric wards of two Bialystok hospitals. Both institutions granted a written consent to perform the study between May 1st and November 30th, 2011. The survey included 100 patients hospitalized at the 3rd level reference hospital and 100 patients from the 3rd level reference clinic. The inclusion criteria of the study included vaginal delivery or previously unscheduled caesarean section. The responders were informed about the anonymous character of the survey and the possibility of withdrawal at any stage of the study. The protocol of the study was approved by the Local Bioethical Committee of the Medical University of Bialystok (decision no. R-I-002/305/20011).
The survey was conducted in the obstetric wards of two Białystok hospitals, using a questionnaire developed solely for the purpose of this study in combination with the questionnaire developed by the Childbirth with Dignity Foundation. The study was conducted in 2006. The questionnaire included five parts: demographic and obstetric data of the participant along with the scores for care offered at emergency department, delivery room, and obstetric ward.

Statistical characteristics of qualitative variables were presented as numeric and percentage distributions. Hospital of giving birth was considered a grouping variable in statistical analysis; consequently, the responders giving birth at the J. Sniadecki District Hospital in Białystok (2nd level reference) were compared to those from the Medical University of Białystok Clinical Hospital (3rd level reference).

The distributions of qualitative variables in these two groups were compared with the Pearson’s chi-square test and Fisher’s exact test. All calculations were conducted with Statistica 10 package (StatSoft, Tulsa OK, United States), and the level of statistical significance was set at p<0.05.

**RESULTS**

Two groups of women taking part in this study did not differ significantly with regards to the distribution of age and educational level. The fraction of 26- to 30-year-old women was the highest (35.5%); the studied group included 6.5% of responders below 20 years of age and 10% of participants older than 36 years. The structure of education was as follows: higher—49.5%, secondary—30.5%, post-secondary—8.5%, vocational—8%, elementary—3.5%. The fraction of women living in voivodeship capital (62%) was significantly higher amongst the responders from the 2nd level reference hospital (p<0.05), whereas the group of participants from the 3rd level reference clinic was characterized by significantly higher fraction of county capital-dwellers (27%) (p<0.05); the rural inhabitants corresponded to 24.5% of the sample.

From the view point of perinatal care, patient’s most important rights include the right to information, as well as to respecting woman’s privacy and personal dignity, giving free and informed consent to medical intervention, and giving birth in the presence of the selected close relative.

Most of the surveyed women obtained accurate information on the course of labour, used materials, and implemented procedures; 35% of the patients obtained the complete information throughout the entire labour, and 46% obtained most of the information. Patients from the second level reference hospital obtained complete information significantly more frequently (44%) (Figure 1).

![Figure 1. Availability of information regarding the course of labour, used materials, and implemented procedures.](image)

Equally good was the availability of paediatric information regarding the status of the neonate. Women giving birth at the 3rd level reference clinic showed higher levels of satisfaction in this matter: 71% of patients from this group obtained comprehensive paediatric information with regards to the status of the neonate as compared to 55% of the responders hospitalized at the 2nd level reference hospital (p=0.041) (Figure 2).

![Figure 2. Availability of paediatric information.](image)

Most of the surveyed women (76%) were asked about their consent for such procedures as external and internal examination and cardiotocography.

More than half of the patients (58.5%) admitted to hospitals they had no knowledge about the Patient’s Bill of Rights. Nevertheless, in the opinion of ¾ of the responders, the patient’s rights were obeyed in examined hospitals.

Medical staff attitudes towards the patient and the accompanying person is an important factor determining a higher level of satisfaction with perinatal care. According to the majority of responders (66%), the admitting personnel was friendly. Similarly, if the responder was accompanied by her spouse, partner, or other close relative, the personnel’s attitude to this person was friendly in the vast majority of cases (84%). Most patients (56%) evaluated the personnel of obstetric...
ward as friendly and helpful. Also, the attitude of staff in the delivery room was assessed as friendly and helpful. Such score was significantly more frequently ascribed by the responders from the second level reference hospital (83%) (p=0.021), while the patients of the third level reference clinic significantly more frequently (31.2%) (p=0.013) assessed the personnel’s attitude as neutral albeit helpful (Figure 3).

Figure 3. Attitude of personnel presented in the delivery room.

The vast majority of responders (93.5%) declared that they felt safe during hospitalization. This declaration was significantly more frequent among the patients of the third-level reference clinic (97%) (p=0.045) (Figure 4).

Figure 4. Feeling of safety during hospitalization.

Most responders (79.5%) would recommend the hospital to their relatives and friends. This was declared significantly more frequently by women who gave birth at the second level reference hospital (89%) (p=0.001) (Figure 5).

Figure 5. Declaration of recommending hospital.

Reducing medical intervention to a necessary minimum is considered to be one of the determinants of the quality of perinatal care. In as many as 57.5% of the participants, the labour was induced pharmacologically; in contrast, in 35.5% of cases no intervention was implemented to stimulate uterine contractions.

“All fours” (18.5%) and semi-sitting position (27.5%) were the most frequent positions taken during the second phase of labour. This finding suggests that hospitals are gradually departing from the obligatory supine position of the patient. Usually, (59.1%) the birth position was recommended by medical personnel.

In most cases, the responders could count on midwives to provide support regarding the guidance in breastfeeding technique, or did not require this type of assistance. Still, between 16% and 25% of women declared that have not obtained the expected support in this matter. The distribution of answers regarding the availability of midwives’ support with regards to the training of neonatal nursing was similar; however, the fraction of women who did not obtain this type of assistance was lower (8.6%). Most of the responders (59.8%) could depend on the support provided by medical personnel in the case of a depressed mood, the “blues”; and breast or breastfeeding problems.

The standards of perinatal care contain comprehensive definition of consecutive stages of care during pregnancy, labour, and postpartum. Each of these points contains the most current recommendations regarding perinatal care and the duties of responsible professionals. Complying with these recommendations is an important determinant of the higher quality of perinatal care offered by medical personnel. Among other issues, the recommendations address the question of performing enema or perineal shaving at admission. These procedures were not implemented in the majority of our responders (88%). At admission, the enema and perineal shaving were abandoned in 181 and 172 of the surveyed patients, respectively. Perineal shaving was performed more frequently in the admitting department of the 3rd level reference clinic (20%), whereas at the 2nd level reference hospital only eight patients (8%) were subjected to this procedure (p=0.015) (Figure 6).

Figure 6. Perineal shaving on admission.
In the vast majority of cases (95.6%), patient’s consent was sought prior to performing enema or perineal shaving.

Epidural/subarachnoid anaesthesia was the most frequent form of anaesthesia used in labour or immediately thereafter (75%). This form of anaesthesia was significantly more frequent in the 3rd level reference clinic (84% vs. 66% at the 2nd level reference hospital) (p=0.003) (Figure 7).

![Figure 7. Use of epidural/subarachnoid anaesthesia in labour.](image)

In most cases (60.6%), foetal cardiotocography was not monitored. This was the most frequent finding among the patients from the second level reference hospital (73.7%) (p=0.000). In contrast, the responders from the third level reference clinic cition of patients in whom the cardiotocography was performed continuously, which required remaining in a supine position through the entire labour (48.5%) (p=0.000) (Figure 8).

![Figure 8. Frequency of cardiotocographic monitoring.](image)

During delivery, women from the second level reference hospital were allowed to walk (90% vs. 55%) (p=0.000), drink (80% vs. 57%) (p=0.001), have a shower or bath (81% vs. 27%) (p=0.000), and use accessory devices (90% vs. 30%) (p=0.000) more frequently than the responders from the 3rd level reference clinic. More than half of the mothers were allowed skin-to-skin contact with their neonates immediately after birth. Usually, the duration of maternal-neonatal contact ranged between 1 and 5 minutes.

According to 35.5% of the responders, the umbilical cord was cut while the neonate was placed on mother’s abdomen. The vast majority of patients (89%) had unlimited contact with their neonates at obstetric ward, with the crib placed next to the bed of the mother.

**DISCUSSION**

Quality is not a new term. Disputes in this matter can be found as early as in the papers of Aristotle and Plato. Hippocrates from Chios introduced the notion of quality into medicine; his *primum non nocere* rule is considered as a manifestation of the attention paid to the quality of healthcare services. Leszczynska et al. presented the following description of changes taking place in the Polish hospitals: “Childbirth, originally a mysterious medical procedure, in which the woman was only (an object) or (maternofetal unit), over whose head physicians and midwives communicated using incomprehensible medical terminology, has started to change into an event in which the parturient is an important and aware individual” [11].

Complying with patient’s rights is gaining an increasing importance in social milieu. These rights belong to the fundamental legal and ethical standards of medical profession. The hospital has a duty to ensure safety and an appropriate level of service at every stage of hospitalization [12, 13].

In their report published in 2007, Childbirth with Dignity Foundation underlines that informed and freely-expressed consent of the subject should constitute the base for each examination, procedure, administration of medicines, and other medical activities [1]. In our previous study, we found that most responders (78%) were asked about their consent for such procedures as external and internal examination or cardiotocography [10]. The results of our study are similar; 76% of the patients were asked about their consent prior to various procedures. However, the study by Moskal et al., conducted in Opolskie and Lubelskie provinces in 2002, documented that as many as 44% of participants have never been asked by nurses/midwives for consent to any nursing procedures [14].

Each patient hospitalized at a public or private healthcare facility has the right to information about his/her or her health status [9]. Studies show, however, that this right is often violated or even ignored. In the study conducted amongst the patients of Voivodeship Hospital in Lodz, Wróński et al., [15] revealed that as many as 68% of surveyed patients indicated a lack of sufficient information from the physician with regards to their health during hospitalization.
Informing the woman about everything that happens to her and her child markedly reduces the level of labour- and hospitalization-related stress and positively affects the cooperation between the patient and medical personnel. The study by Childbirth with Dignity Foundation revealed that 42% of the patients obtained complete information with regards to the course of delivery and that 35% of the responders obtained most of the information. As many as 70% of the participants of the same study obtained comprehensive paediatric information; however, 25% of the women declared receiving cursory information [1].

In the study by Roszkowska et al., conducted at the Cardinal Stefan Wyszyński Memorial Voivodship Hospital in Lomza, 82% of the surveyed women obtained satisfactory information with regards to their health status. This study revealed that most participants were accurately informed about the course of labour, used materials, and implemented procedures. Thirty-five per cent of the patients obtained complete information throughout the entire labour and 46% of the subjects obtained most of the information. The availability of paediatric information with regards to the child’s health status was equally good; as many as 62.9% of patients obtained comprehensive information on neonate status from the paediatrician [16].

The study by Kubicka-Kraszynska and Otfinowska revealed that women who asess their childbirth and hospitalization favorably simultaneously point to numerous violations of patient’s rights. This may indicate their lack of knowledge with regards to the particular issues and acceptance of numerous customarily approved behaviours of medical personnel [1].

Most surveyed patients of Białystok hospitals (58.5%) admitted a lack of knowledge about the Patient’s Bill of Rights. Nevertheless, as many as three-fourths of the responders declared that patient’s rights were obeyed in the studied hospitals.

As many as 82% of participants of a study conducted in the hospitals of Podlaskie province assessed the friendliness of admitting personnel as “very good” or “good.” Noticeably, this study revealed that personnel from county hospitals possessed higher friendliness – more than 60% of the participants evaluated this parameter as “very good” [10]. According to the data of Childbirth with Dignity Foundation, 74% of women assessed admitting personnel as friendly; 80% of the responders evaluated the attitude of obstetric ward and delivery room personnel as friendly and helpful [1].

Ratajczak, in the study conducted in 2003 at a hospital in Inowroclaw, revealed that personnel’s attitude toward the patients was identified as friendly by 98.08% of responders [17].

Most participants of this study (66%) evaluated admitting personnel as friendly; also, the attitude of medical personnel of obstetric ward was assessed as friendly and helpful by 56% of the responders. Medical personnel present within the delivery room were most commonly evaluated as friendly and helpful. Such scores were more commonly ascribed by the patients hospitalized at the second level reference hospital, whereas the patients from the 3rd level reference hospital significantly more frequently assessed the attitude toward the personnel as neutral but helpful.

Intravenous infusion of oxytocin is the most popular pharmacological method of inducing or stimulating birth. Both Childbirth with Dignity Foundation and the standards of perinatal care indicate certain situations in which the induction of birth is necessary, but postulate reducing medical intervention such as the stimulation of uterine contraction to a required minimum [1, 18]. According to the survey conducted in 2006 in the hospitals of Podlaskie province, the birth was induced pharmacologically in 39% of the responders and by means of amniotomy in 11% of the patients [19].

The frequency of birth induction and stimulation were also analysed. Our findings confirmed the frequent use of oxytocin in Białystok hospitals: the birth was induced pharmacologically in 57.5% of cases and 17.5% of the responders were subjected to amniotomy. No stimulating activities were undertaken in 35.5% of the patients.

The function of additional equipment, present at an increasing number of obstetric wards, is to facilitate the woman dealing with the first phase of the labour. These devices are designed to comfort the parturient and maximally reduce her pain [3].

In the study conducted in Łomża hospital, 78% of the responders were allowed to walk freely around the labour room [16]. Also, the women who participated in Ratajczak study could use various devices and activities, such as mattress (45.94%), gymnastic ladders (20.17%), having a bath (29.79%), Pezzi ball (66.39%), and saco bag (22.13%) [17]. Research conducted by the Childbirth with Dignity Foundation revealed that 90% of the responders could walk around the labour room; 83% of them were allowed to drink fluids, and 79% had access to the shower [1]. In the study by Leszcynska et al., conducted at obstetric wards of Śląskie Śląskie province in 2003, delivery room patients were allowed to walk freely (56.18%), have a shower (56.18%), use such devices as saco bag (49.77%), and drink fluids (35.31%) [11].

Hospitals taking part in our study differed significantly with regards to allowing their patients to walk, drink, have shower or bath, and use accessory equipment. The patients of the 2nd level...
reference hospital were significantly more frequently allowed to walk (90% vs. 55%), drink (80% vs. 57%), have shower or bath (81% vs. 27%), and use such accessory equipment as balls, mattress, gymnastic ladders, and saco bag (90% vs. 30%) as compared to the individuals from the 3rd level reference clinic.

Ratajczak’s survey of maternal opinions revealed that 82.35% of postpartum women were properly instructed with regards to the breastfeeding technique. 74.78% of the responders declared that they had obtained necessary help for problems with lactation, and 81.51% received comprehensive information about breastfeeding [17]. Activities undertaken at obstetric-neonatal wards were also analysed in the study of Childbirth with Dignity Foundation. It was observed that slightly more than 60% of patients could depend on help in neonatal feeding and nursing offered at the initiative of personnel; 18% of the women had to request the support, and 14% of them were left on their own. Fifty-one per cent of the responders obtained help initiated by the personnel in the case of mood depression or such difficult situations as breast fullness and anxiety about the child; 37.5% were helped solely in selected issues, and for 12.5% of them, their problems were ignored [1].

Most of our responders could rely on midwives for instructions of breastfeeding technique, or did not require this type of support. Still, 16-25% of the participants declared a lack of expected support in this matter. The distribution of answers regarding the availability of midwives’ instruction on proper neonatal nursing was similar. In this case, however, the fraction of women who did not obtain expected assistance was lower (8.6%). Additionally, it was observed that most women (59.6%) could depend on the support provided by the medical personnel in cases of depressed mood, the “blues”, or problems with breast and breastfeeding.

According to the standards of perinatal care, the mother should be allowed at least two hours of continuous skin-to-skin contact with her neonate immediately after birth. During this time, midwives should encourage the woman to recognize the moment when her child will be ready to suck and offer assistance if needed [20].

According to our previous study, 61% of women giving birth in the hospitals of Podlaskie province were allowed skin-to-skin contact with their neonates. In 15% of cases, the duration of the contact was “unlimited,” while in 37% of the responders, it lasted only “several minutes,” and “a while” in the remaining subjects [19]. The duration of neonatal-maternal contact immediately after birth was also analysed in the survey conducted by Childbirth with Dignity Foundation. The contact lasted from 1 to 5 min. in 51% of the participants, between 5 and 30 min. in 10%, and more than 30 min. in 6.5% of the responders; in 32% of the cases, the neonate was taken from the mother immediately after birth [1]. In as many as 68.34% of women participating in Ratajczak’s study, the baby was encouraged to breastfeed as early as in the delivery room during the skin-to-skin contact; the participants of this survey could rely on the assistance and support of medical personnel [17].

More than half of the mothers taking part in our study were allowed skin-to-skin contact with their neonates immediately after delivery. Usually, the time of contact between mother and her neonate ranged from 1 to 5 min. (61.4%). In 21.3% of the cases the duration of the contact ranged between 5 and 30 min., and in 7.1% above 30 min.; only in 10.2% of the cases the child was taken away immediately after birth. Unfortunately, the neonate was encouraged to breastfeed immediately in the delivery room in only less than 20% of the cases.

**CONCLUSIONS**

Patient satisfaction is frequently used to evaluate the quality of medical care and to guide the development of health care services. In this study, the standards of perinatal care services offered to women during deliveries was the central component of an implementation Childbirth with Dignity Foundation program based on a well-described change model carried out by hospital administration and clinical leaders. That document adjusted WHO recommendations regarding safe maternity and patient’s rights to the specifics of Polish healthcare system and markedly improved delivery of essential safety practices by health workers. Future study will determine if this program can be implemented at scale and improve health outcomes.

**CONFLICT OF INTEREST**

The authors declared no potential conflicts of interest.

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