

Medical and salutogenic approaches and their integration in taking prenatal and postnatal care of Czech women

Miloš Velemínský, Jr.¹, Dominika Průchová¹, Věra Vránová², Mária Boledovičová¹, Jana Samková¹, Jakub Samek¹, Petr Sák¹, Eliška Lukášová¹, Miloš Velemínský, Sr.¹

¹University of South Bohemia in České Budějovice, Faculty of Health and Social Studies, České Budějovice, Czech Republic

²Palacký University Olomouc, Faculty of Health Sciences, Olomouc, Czech Republic

Abstract

Objective: To compile a proposal of the system of taking complex prenatal, perinatal and postnatal care of pregnant women and their children in the Czech Republic with taking into account medical and salutogenic approaches.

Material and methods: A questionnaire was prepared comprising questions for mothers and making it possible to exactly use specified data from their healthcare documentation. The method thus consisted of a secondary data analysis and subsequent contact with mothers. This was implemented in the form a qualitative and narrative interview. The study included 541 women from five Czech regions.

Results: In this group, there was a high level of the preventive care with persisting preference of prenatal consulting rooms conducted by physicians. Most deliveries occurred in institutions in the presence of physicians. In the groups evaluated, there were, however, no significant differences. In spite of this, the evaluation of delivering women indicated that there is a high level of the perinatal care in terms of the medical approach. However, the salutogenic care calls for increasing the active participation of midwives in the prenatal, perinatal and postnatal care and extension and intensification of activities particularly in the psychosocial area.

Conclusion: In the group monitored, there were no significant correlations of determined perinatal interventions with the method and result of the delivery and condition of the mother and newborn. It is to mention that the medical perinatal care is at a high level.

Key words: Czech pregnant women; perinatal period of care; salutogenic care; medical; integration

INTRODUCTION

Through the mediation of the COST agency, the European Union established a project focused on the interconnection of medical and salutogenic approaches to taking prenatal, perinatal and postnatal care of pregnant women and their newborns. The main hypothesis of the project is based on an assumption that when evaluating the quality of the care provided in terms of a low mortality and morbidity of pregnant women and newborns, excellent medical

results are achieved in Europe. However, it is also obvious that the salutogenic approach to the care is rather neglected. In opinions of the authors of the project, this fact could bring a contribution of the already existing adverse tendency to invasive interventions, which can consequently lead to the surgical solution of the still existing physiologically developing pregnancy and delivery.

MATERIAL AND METHODS

A questionnaire was prepared comprising questions for mothers and making it possible to exactly use specified data from their healthcare documentation. The mothers completed the questionnaire either independently or with the assistance of an informed inquirer, or the questionnaire was directly completed by a staff member of the obstetric department. Employees of obstetric departments subsequently acquired data from records of the delivery and prenatal documentation. A printed form was prepared for these two activities, comprising the "Informed Consent". The method thus consisted of a secondary data analysis and subsequent contact with mothers. This was implemented in the form a qualitative and narrative interview. The study included 541 women from five Czech regions. The research study was approved by the Ethical Committee of the Faculty of Health and Social Studies, University of South Bohemia in České Budějovice and appropriate healthcare institutions.

The study was aimed at the accumulation of data, which are of basic importance for the orientation of investigators in the given research problem of contemporary medical and salutogenic principles in Czech pregnant women and mothers. These data correspond to the contemporary condition of the complex approach to pregnant women and mothers. The care was monitored in the first trimester aimed at the genetic screening. The assessment of salutogenic effects usually includes the life style, level of dwelling, site of the delivery, partner relationship, age of parents, parity, activity of the father in the pregnancy and delivery, abuse of alcohol, tobacco and drugs, fears of the delivery, experience with the delivery, stress conditions of the mother until 18 years of her age, optimism, capability of relaxation, satisfaction with the employment, assertiveness and fears of the future. Within medical principles, emphasize is put on the indication for the induction of the delivery and induction of premature uterine contractions, use of analgesia in the delivery, indications for operative delivery by caesarean section or per forcipem. The frequency of episiotomies and other injuries during the delivery were also analyzed. The gestation age and mass of the newborn were also evaluated. The complex evaluation of the mother anamnesis, her participation in prenatal courses for pregnant women or possibly her delivery plan were also included in the complex assessment.

In the data analysis, which was retro- as well as prospective, salutogenic and medical principles were evaluated. The medical part was processed by medical specialists, the salutogenic part particularly by midwives.

For the treatment of the data collected, a specialized electronic database was established which made possible detailed processing and mutual comparison of data obtained. The database and results processed will be put into www sites of the project after output controls.

Information acquired will serve as one of basic results for the compilation of a complex system of taking care of women in the perinatal period.

RESULTS

Deliveries by the caesarean section

Research results

In the research, more than 500 Czech women were addressed and results of quite completed questionnaires from 541 respondents were included into the treatment.

Within the whole group of respondents, 118 women, which was 22% of the whole group studied, mentioned that their delivery was conducted by the caesarean section.

The largest group included women who just experienced their first pregnancy: they were 54 in number. A further group included women just experiencing their second pregnancy, who were 51 in number. Total of 13 women just experiencing third and further gravidities were also present in the sample group monitored.

The average women age was of 26.48 years during the first delivery, 28.88 years during the second delivery and 34.83 years during the next delivery.

Most women addressed (91%) mentioned the attendance of gynaecologist's prenatal consulting room in the pregnancy period and the prenatal consulting room conducted by midwives were visited by a lower proportion of the group monitored (21%). A proportion of 6% of the women monitored reported direct contacts with midwives in the pregnancy period, who would offer visiting consulting rooms conducted by midwives. On the other hand, more than half the number of women inquired (53%) mentioned that they would be interested in services of midwives in the pregnancy periods.

A great majority of women (96%) mentioned that they were informed about all the examinations performed in pregnancy. Most of them also attended examinations such as blood sampling or ultrasonography (98%). Most women inquired (93%) furthermore mentioned that in the course of their pregnancy, they were informed about possibilities of tests focused on searching for women with risk of congenital foetus developmental defects. This information was mostly obtained from gynaecologists (88%) and in some cases also from other sources (5%): internet and leaflets were most frequently reported in a supplementing question, and a further proportion of respondents were informed at departments of medical genetics (7%).

Most women (84%) would appreciate a summarizing booklet or leaflet comprising brief information on the course of the pregnancy, delivery, puerperium, schedule and importance of basic examinations in this period.

About half the number of the women inquired (46%) visited courses during their pregnancy conducted by midwives, lectures, exercises or swimming.

A smaller proportion of women (11%) have prepared their delivery plans.

A half the group of the women mentioned the presence of close persons at the delivery (57%).

The women were furthermore inquired, whether they were allowed to take a position which would be most satisfactory to them in the course of the first stage of the delivery. More than half the number of the women inquired (68%) answered positively.

The question of spontaneous discharge of the amniotic fluid was negatively answered by 34% and half the total number of the women answered that they received an infusion in support of contractions. A proportion of 64% of women mentioned the use of methods relieving the pain.

Medical results

On average, the women visited the prenatal consulting room before delivery more than ten times. The median rate of visits was of 10. Most women (77%) ranged between nine and twelve visits, 13% visited the prenatal consulting room eight times on average, and almost 10% of the women experienced more visits before the delivery.

In the group monitored, the number of ultrasonographic examinations in the pregnancy period was almost four on average. The median number was of 3. A considerable proportion of the group examined (91%) ranged between 2 and 4 ultrasonographic examinations; this subgroup was followed by respondents with more than five ultrasonographic examinations (9%).

Planned admission to hospitalization for the delivery was reported by 60% of women inquired. The length of the hospitalization before the delivery took more than one day. The blood loss in the course of the delivery was of 389 ml on average; the median loss was of 400 ml. The minimum and maximum losses were of 250 and 700 ml respectively.

The newborn condition was physiological in 91%, suspect in 8.5% of the women.

Vaginal deliveries

Research results

Within the whole group of the Czech respondents addressed, in most women (76%), the delivery was performed through the vaginal way, in 22% of the women inquired the caesarean section was used, and the vacuum extraction delivery was employed in not quite 3% of the women inquired.

The vaginal delivery was performed in 401 Czech women monitored.

In a group of women whose delivery was performed through the vaginal way, there was the largest proportion of women just experiencing the first delivery: they were 160 in number and represented 39.9% of the sample group studied. A further group included women just experiencing the second pregnancy: they were 157 in number and represented the second most important group of respondents (39.2%). The women just experiencing the third pregnancy were 60 in number, and more pregnancies were experienced by 19 women. The smallest group included respondents pregnant more than four times: they were five in number. The average number of pregnancies in the group studied was of 1.89. The average number of the pregnancies is comparable with the average of the whole sample group studied.

The group mostly included women delivering for the first time: they were 194 in number and represented nearly half the group of women studied. The women just experiencing their second delivery were total of 161 in number (40%). The remaining women delivered several

times: most of them three times (34 women). The average number of deliveries in the group studied is of 1.66 per woman and is comparable with the average number of deliveries within the whole sample group studied.

A further identification factor studied was the age of women at the time of the child delivery. The average age at the time of delivering the first child was of 25.8 years; in the case of the second child it was of 29.33, and in the case of the delivery of the third child it was of 31 years.

Visits to the gynaecologist consulting room in the course of the pregnancy were mentioned by most women addressed (84%), and the prenatal consulting room conducted by midwives were visited by a smaller proportion of the group monitored (21%). The direct contact with midwives in the period of pregnancy, who would offer visits to consulting rooms managed midwives, were mentioned by 14% of women monitored. On the other hand, more than half the number of the women inquired (54%) mentioned that they would be interested in services of midwives in the pregnancy period. The values in the subgroup of the women monitored, in which the delivery was performed through the vaginal way, exert the same values as those found in the whole sample group studied.

A great majority of women (99%) mentioned that at the time of their pregnancy, they were informed about all the examinations to be carried out in the pregnancy period. Most of them also experienced the examinations such as e.g. blood sampling or ultrasonography (98%). Most women inquired (93%) furthermore mentioned that in the course of their pregnancy, they were informed about possibilities of tests focused on searching for women with the risk of congenital foetus development defects. The women acquired the information mostly from their gynaecologist (86%); other sources represented (9%), internet and leaflets being mentioned most frequently among them and a further proportion of respondents was informed by departments of medical genetics (3%); almost 2% of women mentioned that they were informed by midwives. In this question, there were also no deviations of the values investigated compared to the whole group of the women studied.

Most women (82%) would invite a summarizing booklet or leaflet comprising a brief list of data on the course of the pregnancy, delivery, puerperium, and schedule and importance of basic examinations in this period.

Half the number of the women inquired (50%) attended courses conducted by midwives, lectures, exercises or swimming in the course of their pregnancy.

In a relatively small proportion of the group inquired (17.5%) the women have prepared their delivery schedule. Only two women among a group of 70 women, who mentioned that they have prepared the delivery plan, answered that it was not respected by healthcare professionals; all the other women declared that the delivery schedule was respected by the healthcare professionals in the course of the delivery.

Most women (79%) mentioned that in the course of the delivery, one or more close persons were present, most typically partners of the women (89%) and after that, there were parents of the women (8%) and then midwives or other persons (3%) present at the delivery.

The women were furthermore inquired, whether they were allowed to take a position which was most satisfactory to them in the course of the first stage of the delivery. Positive answers were obtained from most women (82%). In the course of the first stage of the

delivery, the most preferable position was lying on the side, after that the supine position and sitting position on a ball. The position on the side was preferred by 19% of women and this position was followed by the supine position (18%) and half sitting position (14%). Many women also preferred a possibility of using the shower or bath. In the course of the first stage of the delivery, the women also frequently took advantage of relaxation techniques for the moderation of pains: positive answers were obtained from 86% of the women inquired; they particularly preferred the shower with warm water and ball (82%), and thereafter balloon and gymnastic ball (14%); some respondents appreciated a possibility of taking advantage of the relaxation bath (2%).

Almost half the total number of women answered negatively (49%) the question of the spontaneous discharge of the amniotic fluid. The diruption, i.e. discharge of the amniotic fluid after an intervention by a healthcare professional was thus mentioned by half the number of women (52%).

The question whether the women were provided with an infusion in support of contractions was positively answered by more than half the number of the women and the question, whether some of methods relieving pains was employed in the course of their delivery, such as for example intravenous administration of pharmaceuticals or epidural anaesthesia, was positively answered by more than half the total number of the women inquired (57%).

In the course of the delivery itself, 54% of women were allowed to take the position chosen, which was more than half the number of women inquired.

The delivery itself was most typically conducted by physicians (72%), less frequently by midwives.

The women inquired also gave their opinions whether they were allowed to discuss the problem of the episiotomy before the delivery. A proportion of the group of women monitored (24%) mentioned that they did not have this chance. The question, whether the patient was informed about the purpose of the episiotomy was positively answered by most women inquired (66%).

Most of the women also mentioned that the baby was put on their abdomens immediately after the delivery.

The presence of close persons in the labour ward in the post-natal period was reported by 75% of the women.

Medical results

On average, the women visited the prenatal consulting room before the delivery almost 11 times. The median frequency was of 11. Most of the women inquired (67%) ranged between nine and twelve visits, followed by 21% of women experiencing several visits, and 10% of the women visited the prenatal consulting room before the delivery with a frequency up to eight.

The monitored number of ultrasonographic examinations in the pregnancy period was almost of 4 on average. The median number of examinations was of 3. A considerable proportion of the group studied (88%) ranged between two and four ultrasonographic examinations, followed by respondents with more than five ultrasonographic examinations

(11%), and none or only one ultrasonographic examination was encountered in 1% of the women inquired only.

The planned admission to the hospitalization for the delivery was mentioned by a smaller proportion of the respondents inquired (28%); there were more respondents whose admission to the delivery was not experienced in the term planned (72%). Most of these women (68%) mentioned that the reason for the admission to the hospitalization was the initiation of the delivery. Among them, the largest proportion (56%) mentioned beginning contractions, spontaneous amniotic fluid discharge, or contractions plus the discharge of the amniotic fluid.

The length of the hospitalization prior to the delivery was under one day on average; the median time of 0. Most women were hospitalized before the delivery for periods shorter than one day (56%) or for one to two days (38%).

The length of the first stage of the delivery up to three hours was encountered in 34% of the women; in the same group of women it took 3 to 6 hours (46%) and the length of 6 hours was encountered by 19% of the women.

The duration of the second stage of the delivery was shorter than 10 min in a majority of the women inquired (73%) and it was up to 30 min in a further group of women (22%). Only 6% of the women inquired reported that the second stage of the delivery was longer than 30 min.

In the group of women inquired, the first stage of the delivery took not quite 9 min on average; the median time was of 5 min; minimum length of 3 to 5 min and maximum length of 58 min. The largest group of the women inquired experienced the third stage of the delivery shorter than 10 min (79%) or shorter than 30 min (15%), and in not quite 6% of the women inquired, the third stage of the delivery took more than 30 min.

The blood loss in the course of the delivery was of 212.7 ml on average. The median loss was of 150 ml. The minimum loss of the blood and the maximum loss of the blood were of 100 ml and 1500 ml, respectively. No blood derivatives were administered in most women (96%).

In a majority of the women monitored, oxytocin was administered (99.3%). The interval from the analgesic administration to the delivery was of 2.51; the median value was of 1.16. The maximum value was of 9.3.

The number of vaginal examinations prior to the beginning of the first stage of the delivery was of 1.85 on average; the median was one examination; the maximum rate was of 15 examinations.

The newborn condition after the delivery was physiological in 97%.

DISCUSSION

The concept of salutogenesis was introduced in literature by Antonovsky (1979, 1987, 1996). The general concept of obstetrics suggests that the problem of salutogenesis in obstetrics particularly concerns providing the women with (non-traumatizing) prenatal care, and “natural”, i.e. physiological, delivery (Suominen and Lindstrom 2008, Berg et al. 2014, Meier Magistretti et al. 2014, Takegata et al. 2014).

In the prenatal care, a minor participation of midwives (Klomp et al. 2014), frequent ultrasonographic examination (Mujkic et al. 2014) and frequent and sometimes useless controls of pregnant women are discussed. It is mentioned that largest problem is a total absence of monitoring the biopsychosocial situation in pregnancy (Fedor-Freybergh 2013).

The concept of the natural delivery was dealt with by Lyberg and Severinsson (2010), Beeckman and Gottfredsdóttir (2014), Morano and Scambelluri (2014), Nieuwenhuijze et al. (2014).

In the course of the delivery, there are numerous medical and frequently also invasive medical approaches including the extensive medicamentous interventions and frequently rather deliberate indications for episiotomy and sometimes also operative way of deliveries. This fact is reportedly affected particularly by the presence of physicians at the delivery, who support the delivery conducted by physicians, legal and social situation and attitude of the public to the delivery and sometimes also by a professional level and education of midwives. In our group, the abundance of caesarean sections corresponds to the European average. The activity of midwives in the conduction of deliveries and in providing taking care of the newborn after the dismissal from the obstetric hospital to the household is also monitored. Taking care of the newborn after the dismissal from the obstetric hospital is within the competence of paediatric nurses. Even in our group, there were 28% of deliveries conducted by midwives. It is, however, necessary to provide the education of midwives who should be skilled in terms of theoretical and mainly practical capability. The active participation of family members, particularly of fathers, in the delivery is supported. In our group, the participation of fathers is relatively large.

Women in Czech Republic have currently a chance to choose the following method of the delivery in the maternity hospital: Primary caesarean section (still only in the case of the breech presentation), delivery conducted by a physician, natural delivery and programmed delivery (Roztočil 2012). Possibilities and usual procedures employed at particular working site are however, always of importance. Roztočil (2012) considered the desertification of the obstetrics. Further possibilities for the women are deliveries in the household (Guittier et al. 2012, Biesty et al. 2014).

This is possible from the standpoint of the delivering woman; there is no problem of a criminal act, but the legal arrangement does not make possible a planned active participation of a healthcare professional.

In the Czech Republic, it would be suitable to engage more midwives in the prenatal care in consulting rooms, particularly those mastering practical activities. Their competence has not yet been solved. Information about planned examinations in the course of the physiological pregnancy is at a very good level. The role of midwives is mentioned for example by Fontein (2010), Begley et al. (2011).

Based on data from mothers, summarizing informative booklets are missing. It is, however, to note that these brochures exist in sufficient amounts, but it is necessary to enhance activities in their distribution. Relatively few (about half proportion) women attended prenatal courses for pregnant women. Only few men participate in these activities. These courses were prevalently conducted by midwives. The pregnancy however, should not solely concern the pregnant women, it is suitable to support the concept of “pregnant parents” or possibly

“pregnant families”. The presence of family members at the delivery should be supported and possibly extended, but not at any price, within the framework of the social tendency.

There are few women having prepared their delivery plans. However, it was possible to state with a satisfaction that as far as the plan was prepared by the woman, the health professionals tried to respect it.

Most women were satisfied with the course of the first delivery stage. They were allowed to choose their position based on their choice, and shower or bath was available to them including the relaxation bath.

Our research did not support a discussed hypothesis that the medical conduction of the delivery allegedly negatively affects the physiological course and can result in the indication for the episiotomy or surgical delivery.

In vaginal deliveries, the disruption of the sac of foetal membranes was performed in 51% of women, and 57% of women were provided with a medication including the infusion in support of the uterine activity of possibly with intravenous analgesics. In deliveries by the caesarean section, the disruption of the sac of foetal membranes was performed in 66% of women, and 50% of women were given the medication supporting the contractions. In 64% of women, the analgesic medication was indicated. These results did not support the hypothesis that the high rate of caesarean sections is affected by premature interventions into the course of the physiological delivery. Of course there are no data on results from a possible control group. The frequency of caesarean sections in our group and in the Czech Republic is not considerably different from results reported from other European countries. In the outline of indications for the operative delivery, except for the breech position, there was no case of performing the SC based on a request by the delivering woman. They were also cases of the medical indication.

In 72%, they were conducted by a physician. There are no records whether this was always a delivery conducted by a physician or natural delivery. The presence of the physician does not automatically mean the medical conduction of the delivery.

Episiotomy is a partial surgical cutting of the perineum in the course of the delivery. It is prophylactic in nature. Advantages should be in the acceleration of the delivery and protection of the perineum and anus from irregular fissures. The World Health Organization issued their official standpoint concerning the problem of deliveries. The standpoint is as follows: “Systematic episiotomy is not justified. Alternative methods should be employed to protect the perineum”. In accordance with the World Health Organization, the use of episiotomies in vaginal deliveries should not exceed 10% (World Health Organization 1996). In our group, the frequency of episiotomies varies from one working site to the other and ranges between 38 and 42%. This corresponds to the European average. The problem of episiotomies is solved by Doležal (2007) in his publication. This supports the idea of extending the concept of the natural delivery and accept it as far as possible within the framework of deliveries conducted by physicians.

It is, however, necessary to define differences between the delivery conducted by a physician and natural delivery. The authors of the project believe that the number of deliveries conducted by experienced midwives will reduce the rate of surgical interventions in the course of the physiological delivery. However, there is no demonstration supporting this

statement and it is also impossible to estimate the importance of this decrease and its effects on perinatal results at particular working sites.

In the Czech Republic, deliveries in households have not yet been legally solved from the standpoint of health professionals. The vision of the future concerning the concept of conducting the delivery is analyzed by Roztočil (2012), who speaks about the desertification of the obstetrics.

The research examination indicates that the most important defect in the salutogenic approach is the absence of the psychosomatic-somatic attitude to the pregnant woman and to her foetus-child (Fedor-Freybergh 2013).

CONCLUSION

The study was implemented in 541 Czech women and the accumulated data served as a basis for the compilation of a proposal for the integration of taking care of the pregnant women and newborns in terms of medical and salutogenic problems. In the group monitored, there were no significant correlations of determined perinatal interventions with the method and result of the delivery and condition of the mother and newborn. It is to mention that the medical perinatal care is at a high level. However, the salutogenic care calls for increasing the active participation of midwives in the prenatal, perinatal and postnatal care. Emphasize should be particularly put on the extension and intensification in the psychosocial sphere.

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Contact:

Prof. MUDr. Miloš Velemínský, CSc., Dr. h. c., University of South Bohemia in České Budějovice
 Faculty of Health and Social Studies, Jírovcova 1347/24, 370 04 České Budějovice, Czech Republic
 Email: mveleminsky@tbn.cz