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ORIGINAL ARTICLE

The model of active participation of the father in childbirth, based on the preferences of the parturient women

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Abstract

BACKGROUND: The model of family-assisted birth is an element of obstetric care that met with large interest, with the development of perinatology in numerous countries. The modern father is expected to more actively participate both during pregnancy and birth, and also in the childcare.
AIM: The comparative analysis of the parturient Polish women and the forms of activity of the fathers participating in family-assisted births in order to know which forms of father's activity correlate with the expectations of women in labor and define the range of tasks for the father (model of action for family-assisted birth) that would correspond to the preferences of parturient women.
METHODS: 250 parturient women and 250 fathers who participated in the delivery were included in the survey. Couples after physiological delivery with the participation of father in all stages of childbirth were qualified. The surveys were conducted in the first day after the childbirth. The survey tool was an author-developed survey questionnaire in two versions: (A) for the mother and (B) for the child's father who participated in the birth. The statistical calculations were performed with use of the Statistica PL software. The frequency of occurrence of respective quality (non-measurable) features was evaluated with χ^2 (chi-square) nonparametric test. The level of statistical significance adopted for tests was $p<0.05$.
RESULTS: The largest coherence between the form of father's activity and the expectations of the parturient woman was found in case of psychical support in every stage of the delivery. Another form of activity of fathers, that in 85% of cases was concurrent with the expectations of women in labor was the act of cutting the umbilical cord and the participation of father in the child measurements and tests (78.5% coherence) and the need of stay of father with the woman and the newborn in the post-delivery period (70% coherence).
CONCLUSIONS: Obstetric care should take the preferences, connected with family-assisted birth, of both parents into account. The model of active participation of father in family-assisted birth forms a practical guideline for fathers willing to actively participate in the childbirth.

INTRODUCTION

The contemporary conception of active participation of the father in family-assisted birth was a result of experiences gathered from family-assisted births and the relations and opinions acquired in research of the births with the participation of the father (Chan & Paterson-Brown 2002; Bélanger-Lévesque *et al.* 2014).

Apart from the psychological impact the active participation of the father is connected with providing actual aid to the wife. The husband massages the lower section of the back, aids in use of relaxation techniques during breaks between the contractions, aids in choosing the right position for birth, observes the contractive action of the uterus, mobilizes the wife to perform tasks, aids with pushing, cuts the umbilical cord, aids in placing the newborn for its first breastfeeding. He is an instructor and coach of his wife, a support in difficult moments, and a companion in problematic situations (Chapman 1992). The scope of this activity may differ, depending on the aptitude towards common childbirth, and also the preferences of the parturient woman.

The work analyzes the correlations between the form of father's activity in the subsequent stages of birth and the expectations of parturient women in that aspect. It was assumed, that the form of father's activity may be either concurring or non-concurring with the preferences of the woman. The following connections were adopted: "yes" conformity – the father fulfills the expectations of the parturient woman (he performed actions as expected by her), "no" conformity – the father fulfills the expectations of the parturient woman (he did not perform actions as expected by her), "yes" nonconformity – the father did not fulfill the expectations of the parturient woman (she did expect the action and the father failed to perform it), "no" nonconformity – the father performed actions against the expectations of the parturient woman (she did not expect the action and the father still performed it).

AIM OF THE WORK

The comparative analysis of the parturient Polish women and the forms of activity of the fathers participating in family-assisted births in order to know which forms of father's activity correlate with the expectations of women in labor and define the range of tasks for the father (model of action for family-assisted birth) that would correspond to the preferences of parturient women.

MATERIAL AND METHODS

A group of 250 parturient women and 250 husbands – fathers who participated in the family assisted natural delivery in the clinical ward of the university hospital were included in the survey. Only couples after physiological delivery with the participation of father in all stages of childbirth were qualified. The surveys were conducted in the first day after the childbirth. The non-married couples, surgically ended births, complicated births and births in which the father only participated in a selected stage, as well as not fully completed questionnaires were excluded, as were the not fully completed questionnaires.

The survey tool was an author-developed survey questionnaire in two versions: (A) for the mother and (B) for the child's father who participated in the birth. The questionnaires were to be filled in by the woman and man in the first day after the common birth, after explanation of the aim of the research, the mode in which the answers are to be provided, and obtaining of permission of the surveyed. The participation in survey was voluntary and anonymous, and the choice of couples random.

Statistical analysis

The statistical calculations were performed with use of the Statistica PL software suite. For numerical value groups arithmetic averages, the standard deviation and their percentage and numerical distribution were calculated for the respective groups. The frequency of occurrence of respective quality (non-measurable) features was evaluated with χ^2 (chi-square) nonparametric test. The level of statistical significance adopted for tests was $p<0.05$.

RESULTS

The age of the parturient women ranged from 18 to 37 years, with an average of 26.6 years (SD±3.6). The age of the fathers participating in their wife's childbirth ranged between 21 and 44 years, with an average of 29 (SD±4.1). The couples were, on average, married for 3.3 years (SD±2.5). The most numerous group of mothers were women aged 26 to 30 (48.8%) and slightly less numerous (40%) that aged less than 25. Among fathers the largest frequency of family-assisted births was also found in the 26 to 30 age group (55.2%) and then in those aged 30 and more (31.2%). 83.2% of couples were married for less than 5 years, and 16.8 for more than 5.

The family-assisted birth was most often chosen by mothers with higher (49.6%) and high school (40%) education, from working class (56.4%) or white collar (41.6%) families, living in cities (86%) and actively working (64.8%). Among fathers who decided to participate in the birth the majority had high school (43.2%), then higher (35.2%) and vocational (21.6%) education, from blue (62.8%) and white (35.6%) collar families, living in cities (86%) and actively working (86%). For 192 (76.8%) of the married couples it was their first family-assisted birth, for 58 (23.2%) the second. The decision to choose family-assisted birth was reached commonly by 217 (86.8%) couples, and it was a conscious decision resulting from common needs. Over half of the number of fathers (52.5%) and 33.6% of mothers participated

in the birth without previous preparation in childbirth classes.

In the first stage of delivery (Figure 1) statistically significant ($p<0.05$) correlations were found in the following forms of activity: providing psychical support to the parturient (82.5% "yes" conformities, 2% "no" conformities), massage of the lower back region (25% "yes" conformities, 52.5% "no" conformities), listening to the heartbeat of fetus (5% "yes" conformities, 72.5% "no" conformities) and first aid in water immersion (7.5% "yes" conformities and 72.5% "no" conformities). The above forms of activity correlate with the preferences of the parturient women. The father did fulfill the expectation of woman (by performance or non-performance of the respective activity pursuant to her expectation). In case of two forms of activity: reminding about relaxation and the evaluation of the frequency of contractions high values of "no" and "yes" conformities were also recorded, but the differences were not statistically significant ($p>0.05$). The following forms of activity: leading and control of breathing, aid in adopting convenient birth position and administration of beverages do not correlated with the preferences of the parturient woman (large proportion of "no" and "yes" nonconformities). The observed differences were not statistically significant with $p>0.05$.

In the second stage of delivery most of the many forms of activity presented by the fathers was concurrent ("yes" and "no" conformities) with the preferences of the parturient women. Significant relations at level of $p<0.05$ were found in the following forms of activity: providing psychical support to the parturient, listening to the heartbeat of fetus, reminding to relax, cutting the umbilical cord, placing id tag on the child's arm. What is worth noting is the result obtained in case of aiding in pushing. In 60% of cases a "no" nonconformity was found, that is over the half of the parturient women did not expect help during pushing from their husbands,

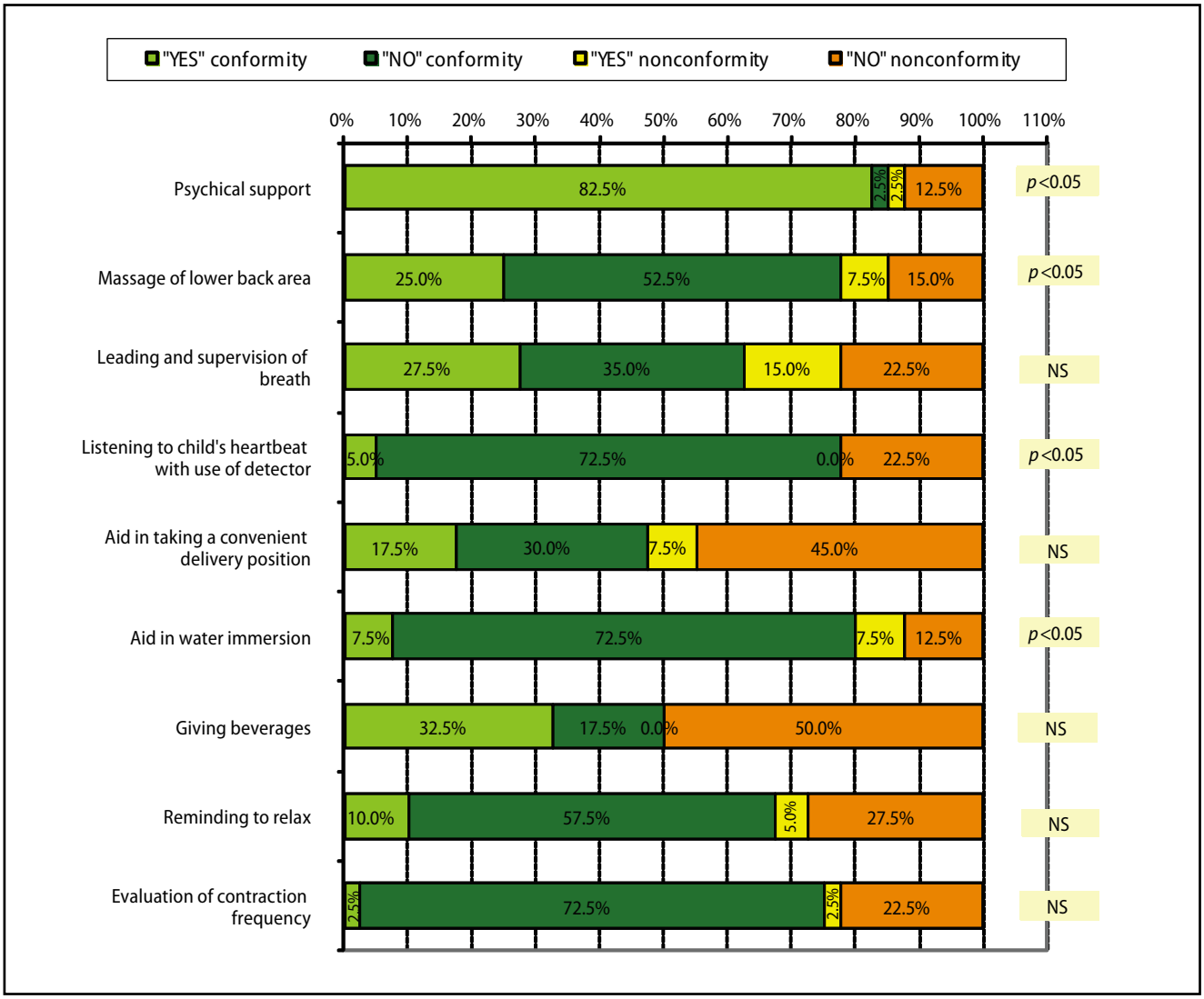

Fig. 1. Activity of fathers during 1st stage of family-assisted delivery and the preferences of parturient women. "YES" and "NO" conformities – the husband did fulfill the expectations of wife; "YES" nonconformity – the husband did not fulfill the expectations of wife; "NO" nonconformity – the husband performed actions that were not expected by the wife.

and the husband still provided it. Lack of correlation was also found in case of aid in taking convenient delivery position (17.5% of "yes" nonconformities and 37.5% of "no" nonconformities). The differences were not statistically significant ($p>0.05$) (Figure 2).

In the third stage of delivery and in the post-delivery period all forms of father activity correlate with the preferences of mothers (Figure 3). High rations of "yes" conformities were obtained in the range of: providing psychical support (77.5%), participation of the father in measurement and examination of the baby (78.5%), and staying with mother and child in the post-delivery period (70%). 77.5% of the mothers in the surveyed population did not expect the father to place the child for its first breastfeeding and the fathers did not perform this action (a "no" conformity), and 50% of them did not expect the father to hold the child in arms. The differences were statistically significant with $p<0.05$ (Figure 3).

The results of the present research, obtained through the analysis of preferences of parturient women, were used to develop an optimal (practical) model for an active participation of father during a family-assisted birth. The model for active participation of father during a family-assisted birth is a set of recommendations – proposals for fathers present during the child-

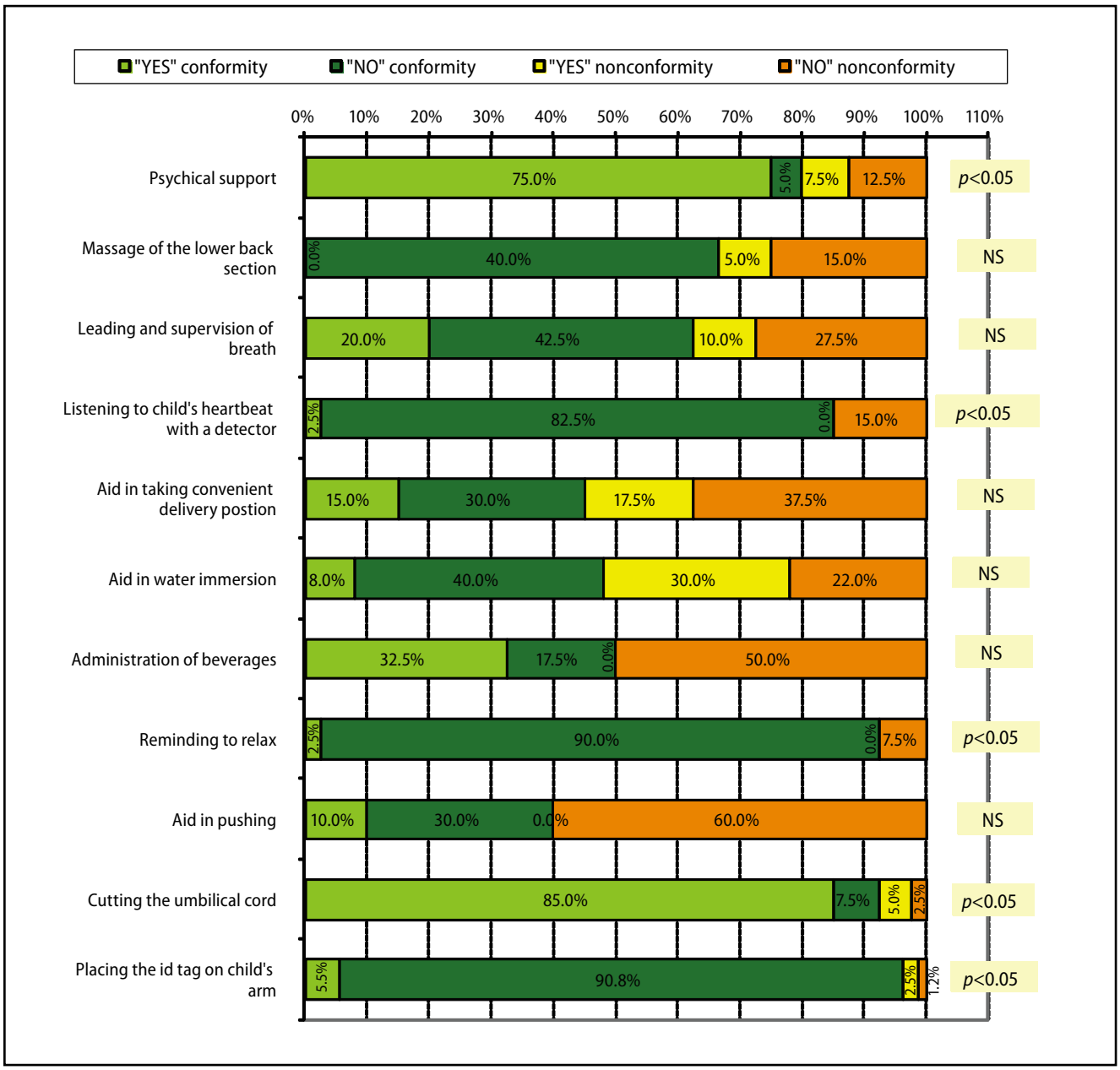

Fig. 2. Activity of fathers during 2nd stage of family-assisted delivery and the preferences of parturient women. "YES" and "NO" conformities – the husband did fulfill the expectations of wife; "YES" nonconformity – the husband did not fulfill the expectations of wife; "NO" nonconformity – the husband performed actions that were not expected by the wife.

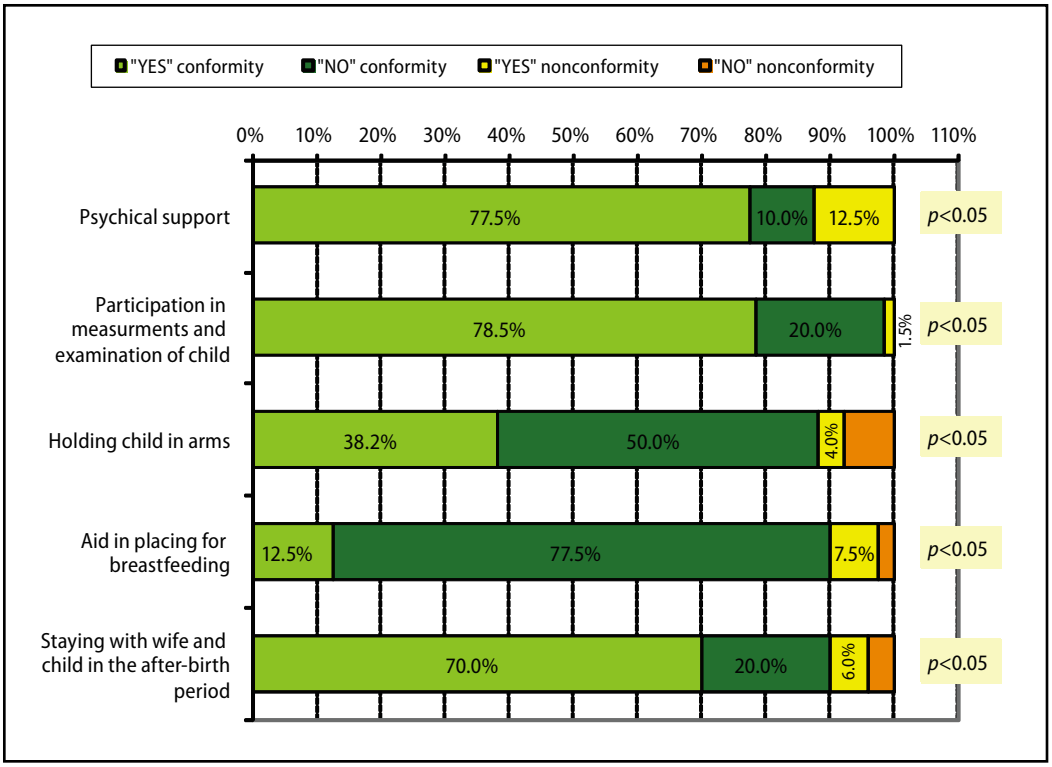

Fig. 3. Activity of fathers during 3rd and 4th stage of family-assisted delivery and the preferences of parturient women. "YES" and "NO" conformities – the husband did fulfill the expectations of wife; "YES" nonconformity – the husband did not fulfill the expectations of wife; "NO" nonconformity – the husband performed actions that were not expected by the wife.

birth. It includes a hierarchical set of tasks (actions) for the subsequent stages of birth, that takes the most often reported preferences of women into account. It shall not be treated as a standard for action, as every birth, even for the same couple of parents, is a unique event and requires an individual approach. The tasks collected in form of the model for active participation can help fathers in their fulfillment of their need of actively participating in the childbirth (Table 1).

DISCUSSION

The participation of father during childbirth is the continuation of obstetric psychoprophylaxis (Agrawal & Gabryś 2004). Numerous accounts in the literature indicate the better effects of aid provided by a husband who was prepared for it during childbirth classes. Without the basic knowledge in this range the thought of participating in the childbirth may rise rejection and the participation in the childbirth itself will evoke fear and in consequence passive aptitude and lack of interest in the course of the process.

The present research suggests, that the largest conformity between father's activity and the expectation of parturient woman is found in the psychical support throughout all stages of childbirth. Another activity of fathers that conforms in 85% with expectations of the women is the cutting of umbilical cord, than the participation in examination and measurement of child (conformity in 78.5% of cases) and the need to stay with the woman and the newborn in the post-birth period (70%). When the remaining forms of activity are

Tab. 1. The model for an active participation of father during a family-assisted birth.

THE MODEL FOR AN ACTIVE PARTICIPATION OF FATHER DURING A FAMILY-ASSISTED BIRTH
First stage of childbirth – *tasks for fathers:*
1. Providing emotional support for the parturient woman *
2. Providing beverages **
3. Aid in taking a convenient delivery position **
4. Massage of lower back **
5. Leading and supervision of breath **
6. Aid in relaxing ***
7. Evaluation of frequency of contractions ***
8. Aid during water immersion ***
9. Listening to child's heartbeat with use of pulse detector ***
Second stage of childbirth – *tasks for fathers:*
1. Providing emotional support for the parturient woman *
2. Cutting the umbilical cord *
3. Aid during pushing **
4. Aid in taking a convenient delivery position **
5. Leading and supervision of breath **
6. Providing beverages ***
7. Aid in relaxing ***
8. Massage of lower back ***
9. Aid during water immersion ***
10. Placing id Tag on child's arm ***
11. Listening to child's heartbeat with use of pulse detector ***
Third stage of childbirth and post-birth period – *tasks for fathers:*
1. Providing emotional support *
2. Participation in measurement and examination of baby *
3. Staying with wife and child throughout the whole post-birth period *
4. Holding the baby in arms **
5. Aid in positioning the baby for breastfeeding ***
* high level of preference by parturient women
** average level of preference by parturient women
*** low level of preference by parturient women

considered lower values of conformities and nonconformities were recorded.

Johansson *et al.* (2012) in their study of experiences of 827 Swedish fathers participating in childbirth conclude, that there is a need for engagement of fathers in the birth period and providing them with emotional support (Johansson *et al.* 2012). The provision of emotional support by fathers/partners and the midwife is a guarantee for positive experiences of parturient women (Carter *et al.* 2014; Steen *et al.* 2012).

The present research concerning the expectations of parturient women confirm the high level of preferences in the range of the need for the father to cut the umbilical cord. The research of Brandao & Figueiredo shows, that fathers who cut the umbilical cord themselves showed stronger emotional engagement in care over newborn, and especially in caring for the child in the newborn stage (Brandao & Figueiredo 2012).

Our own observations are congruent with other reports and confirm the actual and broad interest of young parents in family-assisted birth (Chan & Paterson-Brown 2002; Bélanger-Lévesque *et al.* 2014). The African obstetrics have seen, together with the psychoprophylactic strand in preparation of the pregnant women for delivery, the increased awareness of the role of the father during pregnancy and delivery. The research of Kaye (2014) reports that the fathers do not know the tasks (roles) and feel alienated in hospital environment. As limiting the healthcare system is for the participation of men during delivery, the majority of African fathers would be eager to learn about their role during pregnancy and delivery (Kaye *et al.* 2014).

CONCLUSIONS

Obstetric care should take the preferences, connected with family-assisted birth, of both parents into account.

The model of active participation of father in family-assisted birth forms a practical guideline for fathers willing to actively participate in the childbirth.

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