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Original Articles

HOME BIRTH IN THE OPINION OF OBSTETRICIANS AND MIDWIVES: A SURVEY

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Summary

Many studies report benefits of planned home births by registered midwives. In the 21st century, there are still controversial views and vivid discussions. This publication presents results from a survey on the opinion of obstetricians and midwives about home birth. An individual self-administered questionnaire was distributed among 26 obstetricians and 60 midwives from 14 maternitycare units in Central Northern Bulgaria and 93 undergraduate students in their last year of midwifery education in 6 universities in Bulgaria. The study instruments were approved by the Institutional Review Board (IRB) at the Medical University – Pleven. Data analysis was performed with Microsoft Office Excel 2016 and SPSS v.21.0. Home births were supported by 26.9% of the obstetricians, 20.0% of the midwives and 66.8% of the students. According to 65.4% of the obstetricians, 23.3% of the midwives and 15.1% of the students, midwives are not qualified enough to provide homecare services at delivery. Only 11.6% midwives and 35.5% students were confident that midwives could give adequate home birth care. This lack of support for home births in all the study groups in our survey can be attributed to organizational factors within the health system, as well as to low self-confidence of midwives and mistrust on behalf of obstetricians.

Key words: home birth, opinion, midwife

Introduction

The prevalence of planned home births varies between countries, e.g., in Sweden it is only 0.1% compared to over 20% in the Netherlands [1]. In the USA, 0.92% of births occurred at home in 2013 [2].

Home births present challenges to researchers. A pregnant woman feels more comfortable in her home environment, medicalization is kept to a minimum, and family support is available. On the other hand, increased risks to the newborn including neonatal mortality have been reported [1]. Since some home births are unplanned, study designs can be undermined at the stage

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of sampling within randomized controlled trials [3], selection of appropriate comparison groups [4, 5], and calculation of adequate statistics [6, 7].

Many studies present the benefits of planned home births by registered midwives. Most studies report the low risk of complications and perinatal mortality [8]. Planned home births attended by registered professionals attendants have not been associated with increased risk of adverse perinatal outcomes in extensive studies in North America [4, 9, 10], the United Kingdom [11, 12], Europe [3, 13-15], Australia [5] and New Zealand [16].

In the 21st century, there are still controversial views about home births, and the discussion in studies continues. At the same time, home births are preferred just by a small number of women [1, 2, 11, 16, 17].

Janssen et al. (2002) have found that planned home births attended by a registered midwife are associated with very low and comparable rates of perinatal death and reduced rates of obstetric interventions and other adverse perinatal outcomes, as compared with planned hospital births attended by a midwife or physician [10]. Zielinski et al. (2015) also confirm the low risk of complications at planned home births and high level of emotional satisfaction [1]. Another reported advantage of home births is its cost-effectiveness [6]. Other studies, however, claim tripled neonatal mortality rate associated with less medical intervention during planned home birth [18].

Maternity care is organized differently by countries, and different alternatives are available, such as hospital care, birth centers and home births [17]. In some countries, home births are well regulated while in others there are no regulations. In cases of approved home delivery, the assistance of a midwife is conditioned by low-risk pregnancy, distance to hospital and other factors [19]. The National Institute for Health and Care Excellence (NICE) in the United Kingdom [20] and the American College of Nurse-Midwives (ACNM) [21] have developed guidelines for clinical practice at home births.

The American College of Obstetricians and Gynecologists (ACOG) stated in 2017 that „women inquiring about planned home birth should be informed of the risks and benefits based on recent evidence. Hospitals and accredited birth centers are the safest settings for giving birth; a woman has the right to make an informed decision about delivery. Fetal malpresentation, multiple gestations, or prior cesarean delivery are considered to be an absolute contraindication to planned home birth" [22].

The World Health Organization (WHO) has released a statement indicating that women can choose to deliver at home if they have low-risk pregnancies, receive the appropriate level of care, and formulated contingency plans for transfer to a properly-staffed/equipped delivery unit in case of problems [23].

These results confirm the need for partnership between women and healthcare professionals within well-organized and evidence-based maternity care to guarantee informed decision-making, best quality, and prevention of complications at labor.

Within the Bulgarian healthcare system, delivery in a hospital setting is guaranteed for every woman independent of her health insurance status. Alternatives to hospital deliveries are not envisaged. Currently, an insignificant number of births take place at home or in theambulance without pre-planning. Independently of the place of delivery, all women and newborns are hospitalized and actively observed by midwives and obstetricians .

This publication aims at presenting results of a survey on the opinion on home births of obstetricians and midwives.

Materials and Methods

The data were collected as part of a larger study on the quality of care provided by midwives and perspectives for its development in Bulgaria in the period January 2015 – January 2016. A specially designed individual self-administered questionnaire was distributed among 26 obstetricians and 60 midwives from 14 institutions for maternity care in Central-North Bulgaria and 93 undergraduate students-midwives in their last year of education in 6 medical universities in Bulgaria.

The questionnaires included closed-ended, open-ended and semi-closed questions. Some of the closed-response questions were designed as Likert scale or Forced-choice format.

The questionnaires for medical staff and students-midwives were distributed after

obtaining consent by managers of health institutions and deans of faculties, respectively. The introductory part of the questionnaires informed the respondents about the study aims, intended application of results and their right to refuse to participate. In case of refusal, the subjects were asked to return blank questionnaires. The questionnaires were sent in sealed envelopes directed to the different types of respondents. The filled-in questionnaires were collected in specially indicated boxes to guarantee anonymity. In the end, all questionnaires were returned to the principal investigator by post. The response rate among medical specialists and students was 60.6% and 89.4%, respectively, and 72.8% in total.

The study instruments were approved by the IRB at the Medical University – Pleven. Data processing was performed with the software package Microsoft Office Excel 2016 and Statistical Package for Social Science version 21.0 (SPSS v.21.0). Descriptive statistics for qualitative variables, such as proportions and ratios, were calculated. Comparisons between descriptive statistics for the three groups of participants in the study were made by applying Pearson Chi-Square and Pearson and Cramer's correlation coefficients. Statistical differences between groups were assessed at significance level ($p \leq 0.05$).

Results

Respondents' Characteristics

A total of 179 respondents participated in our study: 60 (33.5%) midwives, 26 (14.5%) obstetricians, and 93 (52%) undergraduate students. All of the undergraduate students were in their last year of midwifery education. The majority (83.7%) of medical professionals (22 of the obstetricians and 50 of the midwives) worked in inpatient maternity units. Only ten midwives (16.7%) and 4 (15.4%) obstetricians worked only in outpatients units, and the remainder worked at both in and outpatient units (Table 1**)**.

Table 1. Characteristics of participants

	Participants	
Variable	**Number**	**Percentage**
Professional position		
Obstetrician	26	30.2
Midwife	60	69.8
Type of maternity care unit		
Inpatient care	72	83.7
Outpatient care	36	41.7*
Total	**86**	**100.0**

* Results add up to more than 100% because multiple responses were possible

Opinion about home birth

The three groups of respondents were asked the same questions about home birth at low-risk (normal) pregnancy.

According to the results, as shown in Table 2, support of home births was expressed by 26.9% of the obstetricians, 20.0% of the midwives and 66.8% of the students. The largest was the proportion of students (25.8%) and obstetricians (15.4%) who expressed support for home birth only if hospital or ambulance services were provided. The difference was significant at $p=0.004$ ($\chi^2=11.106$; df=2; Phi and Cramer`s V=0.249). About 10% of students have indicated that pregnant women have the right to choose the birthplace and they support this right. Such response was not given by the doctors and midwives. There were no significant differences in the opinion expressed regarding home birth as to the importance of the presence of a doctor and midwife": 23.7% of the students, 11.7% of the midwives, and 7.7% of the doctors ($\chi^2=5.63$; df=2; Phi and Cramer`s V=0.177; p=0.060). Home birth only in the presence of a skilled midwife was supported by only 3.8% of the obstetricians, 3.3% of the midwives, and 6.5% of the students (p=0.660).

Most of the respondents expressed the same opinion about home birth as being "too risky" with the largest proportion of midwives (60%), followed by the obstetricians (46.2%) and 35.5% of the students (χ^2=8.858; df=2; Phi=0.222; Cramer's=0.222; p=0.012). "I do not support under any circumstances" was the opinion expressed by 23.1% of the doctors, 18.3% of the midwives and 22.6% of the students. Home birth was "against the rules of good practice" according to 15.4% of the obstetricians, 16.7% of the midwives, and 11.8% of the students. There were no significant differences for the last two categories of answers, respectively p=0.683 and p=0.796. We have not found such an opinion described in the available literature.

Table 2. Opinion about home birth for low-risk pregnancy

		Obstetricians N=26 n (%)	**Midwives** N=60 n (%)	**Students** N=93 n (%)	Chi-square test	Phi	Cramer`V	P
I support home birth								
a)	because it is a woman's right of choice	0 (0.0)	0 (0.0)	10 (10.8)	9.974	0.234	0.234	0.007
b)	with support from hospital or ambulance services	4 (15.4)	3 (5.0)	24 (25.8)	11.106	0.249	0.249	0.004
c)	with attendance of a physician and a midwife	2 (7.7)	7 (11.7)	22 (23.7)	5.63	0.177	0.177	0.060
d)	with attendance of a qualified midwife	1 (3.8)	2 (3.3)	6 (6.5)	0.832	0.068	0.068	0.660
I do not support home birth								
a)	it is too risky	12 (46.2)	36 (60.0)	33 (35.5)	8.858	0.222	0.222	0.012
b)	it is against the rules of good practice	4 (15.4)	10 (16.7)	11 (11.8)	0.762	0.065	0.065	0.683
c)	under no circumstances	6 (23.1)	11 (18.3)	21 (22.6)	0.456	0.050	0.050	0.796

* Results add up to more than 100% because multiple responses were possible

Opinion on professional knowledge and skills of midwives to assist birth at home

Most of the analyzed studies concerned the problems of "planned home births attended by a registered midwife" or "midwife-assisted home birth" [1, 3, 4-6, 8-10, 15-17, 19, 20]. Therefore, for us it was important to determine the respondents` opinions on professional knowledge and skills of midwives to assist birth at home (Table 3).

Table 3. Are midwives qualified to assist births at home?

	Obstetricians N =26		**Midwives** N =60		**Students** N =93	
	n	%	n	%	n	%
Definitely yes			7	11.6	33	35.5
Yes, but only with a physician	5	19.2	31	51.7	41	44.1
Definitely not	17	65.4	14	23.3	14	15.1
Other	4	15.4	4	6.7	5	5.4
No answer			4	6.7		
Total	26	100.0	60	100.0	93	100.0

The majority of midwives (51.7%) and undergraduate students (44.1%) stated they had the necessary knowledge and skills to assist home birth but only in the presence of a obstetrician. These results confirmed the lack of self-confidence of midwives. According to

65.4% of the obstetricians, the midwives were not qualified to assist home birth. This opinion was expressed by 23.3% of midwives and 15.1% of students as well. Only 11.6% of the midwives and 35.5% of the students were confident that midwives could provide adequate care at home births. The differences between the opinion expressed by the three groups of respondents was statistically significant (χ^2=51.915; df=8; Phi=0.539; Cramer's=0.381; p=0.001).

Other opinions were expressed by nine respondents (one doctor, four midwives, and four students). "Lack of proper organization in the health system" was indicated by one midwife and three students; "significance of preparation of pregnant women for childbirth during pregnancy" was important for one obstetrician; "need to change the midwifery training programs" was pointed out only by one midwife.

Discussion

Our results demonstrated very low support for home birth even in the presence of a team of specialists among the three groups of respondents. Support for home birth attended by a midwife was also very unconvincing and corresponded to the views expressed on the qualifications of midwives to assist home births.

The differences in opinions not supporting home birth in low-risk pregnancies were significantly higher among the three groups of respondents. The lack of trust expressed by the obstetricians and the lack of confidence pointed out by the midwives could be attributed to various factors, such as lack of regulations, lack of adequate conditions for carrying out home births, inadequate preparation of women for childbirth during pregnancy, and insufficient practical training of midwives.

Lack of real opportunities for the training of midwives to assist in home birth may be the explanation for the lack of support for this type of birth by the majority of student midwives.

Given the accumulated empirical experience, obstetricians and midwives believed that even at low-risk pregnancy the birth could present complications and could be well managed on the spot (which might be the preferred place of birth for the pregnant woman).

Study limitations

The limitations of the study include the small number of participants and the rather low response rate among medical specialists (60.6%), even though it was conducted in the most prominent health institutions for maternity care in Central-Northern Bulgaria.

However, the study results represent the prevailing opinion about home birth in Bulgaria. Our results correspond to the results of a nationally representative survey conducted between 30 November and 10 December 2012 among 1779 adult Bulgarian citizens, on behalf of the Ministry of Health. According to that survey, 72% of respondents strongly opposed to home birth. The highest opposition to non-institutionalized delivery was expressed by women, and 78% of them rejected this possibility [24].

Conclusions

Our results indicate the lack of support for home births at low-risk pregnancy among the majority of obstetricians, midwives, and midwifery students. This attitude is due both to the lack of organization in the healthcare system to regulate home birth, as well as to the uncertainty in the professional knowledge and skills of midwives and the lack of trust by doctors.

To establish whether there is a need to develop a regulation for this type of birth in Bulgaria it is necessary to study the opinion of pregnant women too. We have no planned such extension of our study at this stage. Should the need of regulations regarding home births is proven in the future, a corresponding reform into the organization of maternity services will be indicated to guarantee a high quality of professional care for women, minimization of risks, and improved qualification of midwives.

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