Do the quality of health care services provided at personal health care institutions of Kaunas city and access to it meet expectations of pregnant women

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Key words: pregnant women; quality of health services; access to health services.

Summary. Objectives. To evaluate if the quality of services provided by family physicians and obstetricians/gynecologists at primary personal health care institutions of Kaunas city and access to it meet the needs and expectations of pregnant women.

Material and methods. Pregnant women visiting the selected health care institutions at their third trimester of pregnancy were asked to fill in the anonymous questionnaire. The study was conducted at two randomly selected maternity centers of Kaunas city and two family practices of Kaunas city where antenatal care was provided by family physicians. The questionnaires were given to 106 patients visiting family physicians (response rate was 88.7%) and to 202 patients visiting obstetricians/gynecologists (response rate was 81.7%).

Results. Health services provided by family physicians and obstetricians/gynecologists met the expectations of pregnant women in respect of providing with information and communication. The patients of obstetricians/gynecologists significantly more often stated that they were very satisfied with patient-physician communication (P<0.05), they significantly more often understood explanations given by the physician (P<0.001) and claimed having sufficient knowledge about pregnancy (P<0.05), while the patients of family physicians significantly more often asserted that the physician helped them in preparation for childbirth (P<0.05). The patients of obstetricians/gynecologists significantly more often did not face any problems with access to services as compared to the patients of family physicians (z=3.0). Most of pregnant women stated that they were satisfied or very satisfied with the quality of health care at the health care facility providing them with antenatal care irrespective of the physician’s specialty.

Conclusions. The quality of antenatal health care provided by both family physicians and obstetricians/gynecologists and access to it satisfied the needs and expectations of the surveyed women. Correction of the limitations noticed, e.g., closer communication, more understandable explanations, more attention to preparation for childbirth, better work planning, could improve the quality of antenatal care provided by the family physicians.

Introduction
Pregnancy and childbirth are the most important events in women’s lives and lives of their families. All pregnancy- and childbirth-related experiences are etched into women’s memories and shape their identities as mothers (1). The relationship pregnant women have with their care providers is a key determinant of whether they have positive pregnancy- and childbirth-related experiences. Along with statistical indicators of maternal and neonatal morbidity and mortality used to assess the quality of antenatal care (2), satisfaction of pregnant women with antenatal care is also of great importance. The report published by the World Health Organization recommends that health care providers must work so that their services provided would meet the patients’ expectations and their view of health care quality (3). The patients’ judgment about health care services they receive is very important for the improvement of health care quality (4). In Lithuania, which is currently undergoing the primary health care reform, antenatal care is provided by family physicians and obstetricians/gynecologists (5). Therefore, the aim of our study was to evaluate if the quality of services provided by family physicians and obstetricians/gynecologists at primary personal health care
institutions of Kaunas city and access to it meet expectations and needs of pregnant women.

**Study methods and study population**

In order to evaluate the pregnant women’s perceived access to services and quality of care, we conducted a survey of 259 pregnant women attending personal health care institutions of Kaunas city. Two maternity centers of Kaunas city were selected randomly for the study. A total of 202 pregnant women followed up by obstetricians/gynecologists were given questionnaires; the filled-in questionnaires were returned by 165 patients (18.7%). Another 106 pregnant patients, attending two family practices of Kaunas city, where antenatal care was provided by family physicians, were also invited to take part in the survey; 94 (88.7%) of the filled-in 106 questionnaires were returned. These primary personal health care institutions are the only ones in Kaunas, where antenatal care is provided by family physicians. A 27-item questionnaire worked out by the author was used for the survey. The items in the questionnaire were divided into three groups: sociodemographic indicators, questions related to pregnancy and contact between patient and physician/midwife as well as preparation of pregnant women for childbirth, and questions related to access to health care in pregnancy. Pregnant women at 34 weeks’ gestation or more were surveyed.

**Statistical analysis**

SPSS 13.0 software package was used for statistical analysis. A nonparametric chi-square ($\chi^2$) test and $z$ test were used to compute statistical relationships. A Student’s $t$ test was used to establish statistical significance. An assumption was made that the difference between groups is statistically significant when $P<0.05$.

**Results**

Female patients followed up by family physicians and obstetricians/gynecologists were compared in respect of age, education, and marital status. No statistically significant differences between the groups (the group of patients followed up by family physicians and the group of patients followed up by obstetricians/gynecologists) were observed in respect of sociodemographic indicators ($P>0.05$).

A half of respondents were primigravidae, while the rest of them were multigravidae. The patients distributed equally in the family physicians’ and obstetricians/gynecologists’ groups according to the number of pregnancies, that is, the percentage of primigravidae was 51.1% and 50%, respectively, and the percentage of multigravidae was 48.9% and 50.0%, respectively ($P>0.05$). Most of the women, that is, 77% of the family physicians’ patients and 86.9% of the obstetricians/gynecologists’ patients, visited the physician for pregnancy by 12 weeks’ gestation. The difference between the groups was not significant ($P>0.05$).

More than half of patients, that is, 57.4% of the family physicians’ patients and 55.2% of the obstetricians/gynecologists’ patients, rated their health as good. There were no differences in respect of health rating between the pregnant women followed up by family physicians and obstetricians/gynecologists ($P>0.05$). Only three respondents rated their health as poor.

Patients’ judgment about the quality of services they receive firstly depends on the behavior of service providers (physicians, nurses). More than three-fourths (84%) of the family physicians’ patients and 99.4% of the obstetricians/gynecologists’ patients were very satisfied or satisfied with communication between patient and physician but the patients of obstetricians/gynecologists sig-

![Fig. 1. Satisfaction of pregnant women with communication between patient and physician depending on the type of service provider](image)

$\chi^2=27.02$, $1df=2$;

* $p<0.01$, as compared to the patients of family physicians.

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significantly more often assessed such communication as “very satisfying” ($z = 3.07$) (Fig. 1).

Respondents in two analysis groups differently evaluated satisfaction with communication between patient and midwife. More than two-thirds (69.8%) of the obstetricians/gynecologists’ patients were very satisfied with communication between patient and midwife, while only 44.4% of the family physicians’ patients asserted the same (Fig. 2). This difference was statistically significant ($z=2.9$).

All pregnant women wish to be provided with as much as possible information about pregnancy and childbirth. In view of this, we studied if health care institutions of Kaunas city were capable of meeting these expectations. There were no statistically significant differences between the answers of both groups to the question if the physician always explained about the patient’s and baby’s health, as well as the test and treatment results: 85.1% of the family physicians’ patients and 82.4% of the obstetricians/gynecologists’ patients answered that the physician thoroughly explained everything, and only 3% of the patients asserted that he/she did not. The question if the physician clearly explained everything the patient was concerned about was positively answered by significantly more patients of obstetricians/gynecologists as compared to the patients of family physicians (98.2% versus 86.2%; $P < 0.0001$). Thus, a high percentage of the respondents in both groups indicated that the physician thoroughly explained everything, though explanations given by the physician more often were understandable to the patients of obstetricians/gynecologists than to the patients of family physicians.

The patients of obstetricians/gynecologists significantly more often were confident in their knowledge about pregnancy and childbirth as compared to the patients of family physicians ($z=2.1$). Pregnant women followed up by family physicians more often were unsure about it than those followed up by obstetricians/gynecolo-

![Fig. 2. Satisfaction of respondents with communication between patient and midwife depending on the type of service provider](image)

$\chi^2 = 22.188$, lls=2, $p<0.05$;

* $p<0.05$, as compared to family practice.

3 pav. Tiriamaujų pasiskirstymas pagal tai, ar jų žinios apie nėštumą ir gimdymą pakankamos priklausomai nuo paslaugų teikiančios tarnybos

$\chi^2 = 7.523$, lls=2, $p<0.05$;

* $p<0.05$, as compared to family practice.
gists (Fig. 3). Though the patients of obstetricians/gynecologists more often were very satisfied with communication between patient and physician, they less often indicated that the physician helped them to prepare for childbirth as compared to the patients of family physicians ($z=2.1$). In this group, other type of help (unidentified) was more often the case in respect of preparation for childbirth ($z=2.2$) (Fig. 4). A small percentage of pregnant women in both groups indicated that maternity classes helped them to prepare for childbirth.

Along with assessment of general emotional satisfaction of patients with communication between patient and physician or midwife, an analysis of what namely was most appreciated by patients in the physician’s behavior was also performed. Professional competence was most valued by 41.1% of the patients, while 25.5%, 19.1%, and 13.8% of the patients most appreciated attention, specific answers to questions, and other features, respectively. It appeared that appreciation of the physician depended on the patient’s age: women aged less than 25 years statistically significantly more often most appreciated attention received from the physician ($z=2.2$) (Fig. 5). Older women more often most valued professional competence.

General health status of pregnant women undoubtedly has an impact on their satisfaction with the quality of health services. In our study, a moderate positive significant correlation was observed between health status and satisfaction with communication between patient and physician, satisfaction with communication between patient and midwife, sufficient knowledge about pregnancy as well as the willingness to be followed up by the same physician during subsequent pregnancies ($P<0.01$) (Table 1).

We studied certain indicators of access to health services, such as possibility to schedule an appointment at the time preferred by the patient, time spent in a waiting room before an appointment, general opinion about or-
ganization of work. Most of the patients had no problems with physician appointments, but the patients of obstetricians/gynecologists indicated this significantly more often ($z=3.0$). Patients of family physicians more often indicated that they faced partial problems: problems with physician appointments were more often reported by the patients of family physicians (Fig. 6).

Though 84% of the family physicians’ patients and 88.8% of the obstetricians/gynecologists’ patients asserted that they were able to see the physician at the scheduled time, the rest of them indicated that they had to spend some time in the waiting room before the appointment. Of such 15 respondents in the family physicians’ group, 26.7% had to wait for up to 10 minutes, 60% waited for 10–30 minutes, and 13.3% spent 30–60 minutes in the waiting room. The number of such respondents in the group of patients followed up by obstetricians/gynecologists was 24, and their waiting time did not statistically significantly differ from that spent by the family physicians’ patients. Time spent in the waiting room before the appointment defined as acceptable by the surveyed patients distributed similarly in the groups of pregnant women followed up by family physicians and obstetricians/gynecologists.

One of the questions summarizing access to health services asked if the patients had problems with physician appointments. Negative answers were significantly more often the case among the patients of obstetricians/gynecologists, while the patients followed up by family physicians more often faced partial problems.

Relation of the patients’ general health status to their satisfaction with the quality of antenatal care in family practice is presented in Table 2. A weak but significant correlation was observed between health status and appointment-related problems, and a moderate positive significant correlation was established between the self-assessed health status and satisfaction with organization of work at the patients’ health care institution as well as the quality of antenatal care and general health care at the health care institution ($P<0.01$). Of course, the better health status and general well-being of a woman, the easier it is for her to visit the physician, and fewer problems are caused by the mode of organization of work at the health care institution.

### Table 1. Relation of the respondents’ self-assessed health status to satisfaction with communication between patient and physician or midwife in family practice (Spearman’s correlation coefficients)

<table>
<thead>
<tr>
<th>Factor</th>
<th>(1)</th>
<th>(2)</th>
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<td>Health status (1)</td>
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<td></td>
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<tr>
<td>Satisfaction with communication between patient and</td>
<td></td>
<td>0.410**</td>
<td>1.000</td>
<td></td>
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<td>physician (2)</td>
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<tr>
<td>Satisfaction with communication between patient and</td>
<td>0.413**</td>
<td>0.795**</td>
<td>1.000</td>
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<td>midwife (3)</td>
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<tr>
<td>Sufficiency of knowledge about pregnancy (4)</td>
<td>0.320**</td>
<td>0.266*</td>
<td>0.288*</td>
<td>1.000</td>
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<tr>
<td>Willingness to be followed up by the same physician</td>
<td>0.328**</td>
<td>0.446*</td>
<td>0.355**</td>
<td>−0.003</td>
<td>1.000</td>
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<tr>
<td>during subsequent pregnancies (5)</td>
<td></td>
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* $p<0.05$; ** $p<0.01$.

![Fig. 6. Distribution of respondents according to the appointment-related problems depending on the type of service provider](image-url)

$\chi^2=13.447$, lls=2, $p<0.05$; *$p<0.01$, as compared to family practice.
Though the views of the family physicians' patients and the patients of obstetricians/gynecologists differed in certain issues, general assessment of the health care institutions attended by the patients was positive in most of the cases, and no significant differences were found. More than one-third (38%) of the family physicians' patients and 34.2% of the obstetricians/gynecologists' patients indicated that they were “very satisfied,” while 57.6% of the pregnant women followed up by family physicians and 55.9% of the obstetricians/gynecologists' patients stated that they were “satisfied.” Only 3.3% of pregnant women in the group followed up by family physicians and 9.9% of those in the group of obstetricians/gynecologists stated that they had no opinion; and only one patient of the family physician was not satisfied with health services provided at the health facility she was attending.

**Discussion**

In the study performed, judgment of the pregnant women about the quality of health services provided at two types of health care institutions in Kaunas city and access to it was compared. Discussion about the quality of antenatal care provided by family physicians has been taking place for more than two decades in the scientific literature (6–10). The first findings were controversial; some authors even claimed that labor and delivery complications more often occurred in pregnant women followed up by family physicians as compared to those followed up by obstetricians/gynecologists (6). However, subsequent studies confirmed that antenatal care for low-risk pregnancies could be successfully managed by family physicians (7-9). Antenatal care has been relatively recently introduced in family practice in Lithuania, which is currently undergoing the primary health care reform (5), but the very first studies performed in Lithuania have shown that pregnant women were satisfied with services provided by family physicians (11). Patients' judgment about and satisfaction with health services are considered an important indicator of health care quality. Results of surveys analyzing the patients' judgment about services provided by obstetricians/gynecologists in Lithuania have been more than once published in scientific literature (12–15). Data on how the patients’ expectations and needs are met by family physicians in a specific sphere of midwifery are still very limited (11, 16).

In this study, sociodemographic indicators, number of pregnancies, self-assessed health status did not differ significantly among the surveyed patients followed up by family physicians and obstetricians/gynecologists, which allowed stating that the patients’ satisfaction with care received depended on the extent to which services provided at both types of health care institutions met the patients’ expectations.

Antenatal care-related expectations of pregnant women described in literature sources fall into four main categories: the wish to be provided with enough information, emotional support, general support in relation with representation of their interests, and the wish to be provided with professional care (9). With our survey, we tried to find out how the expectations of pregnant women were satisfied at the health care institutions of Kaunas city.

Based on the findings of our study, the wish to be provided with professional care was the key expectation of a pregnant woman from her physician, that is, this one was the most frequently preferred answer to the question what was most of all appreciated in the physician’s behaviors. However, the further analysis of the data demonstrated that women under 25 most of all appreciated attention received from the physician, and only the older ones most often indicated professional competence. In order for antenatal care to meet the expectations of all patient groups, physicians taking care of pregnant women should pay special attention to the youngest pregnant women who have less experience.

Communication between patient and medical staff is one of the key aspects for all patients in assessment of the quality of health care services they receive (17, 18). Pregnant women need very much attention and understanding, their emotional state is often not stable, which makes com-

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<td>Health status (1)</td>
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<tr>
<td>Facing appointment-related problems (2)</td>
<td>-0.285*</td>
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<td>Satisfaction with organization of work at the</td>
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<td>-0.266*</td>
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<td>facility attended by the patient (3)</td>
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<tr>
<td>Assessment of the quality of antenatal care at</td>
<td>0.493*</td>
<td>-0.416*</td>
<td>0.623*</td>
<td>1.000</td>
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<tr>
<td>the health facility (4)</td>
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<td>Satisfaction of the patient with health care</td>
<td>0.432*</td>
<td>-0.177</td>
<td>0.604*</td>
<td>0.667*</td>
<td>1.000</td>
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<td>provided at the health facility (5)</td>
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* p<0.01.
communication between patient and medical staff a key factor (9). Most of the pregnant women surveyed by us were very satisfied or satisfied with communication between patient and physician, but it should be noted that the patients of obstetricians/gynecologists significantly more often were very satisfied. The similar tendency was also observed in the answers about communication between patient and midwife, that is, the patients of obstetricians/gynecologists significantly more often were satisfied with communication between patient and midwife as compared to the patients followed up by family physicians. It was noticed that satisfaction with communication correlated with the self-assessed health status, that is, the better was the patient’s perception of her health, the more she was satisfied with communication between patient and medical staff.

Literature sources contain data that family physicians not always provide pregnant women with enough information (19). The wish of the pregnant women surveyed by us to be provided with enough information was also a little bit better satisfied in the group of patients followed up by obstetricians/gynecologists. Though a high percentage of the patients in both groups stated that the physician thoroughly explained everything, these explanations significantly more often were understandable to the patients of obstetricians/gynecologists. Since neither education of the patients as well as their age, nor the number of pregnancies differed at the moment of the survey (which could have an impact on their ability to perceive information provided), the competence of the physician and capability to provide with information likely were the key factors, which determined the differences noticed. The patients of obstetricians/gynecologists also significantly more often were confident in their knowledge. However, when answering the question, what kind of help was of the most value in preparation for childbirth, the patients of family physicians significantly more often indicated the physician as compared to the patients of obstetricians/gynecologists and family physicians. Correction of the limitations noticed, e.g., closer communication, more understandable explanations, more attention to preparation for childbirth, better work planning could improve the quality of antenatal care provided.

The quality of antenatal health care provided by both family physicians and obstetricians/gynecologists and access to it satisfied the needs and expectations of the surveyed women. Correction of the limitations noticed, e.g., closer communication, more understandable explanations, more attention to preparation for childbirth, better work planning could improve the quality of antenatal care provided by the family physicians.

**Conclusion**

The quality of antenatal health care provided by both family physicians and obstetricians/gynecologists and access to it satisfied the needs and expectations of the surveyed women. Correction of the limitations noticed, e.g., closer communication, more understandable explanations, more attention to preparation for childbirth, better work planning could improve the quality of antenatal care provided by the family physicians.
Quality and accessibility of health care services provided to pregnant women

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