ISSN 2082-369X

Przegląd Medyczny Uniwersytetu Rzeszowskiego i Narodowego Instytutu Leków w Warszawie
Rzeszów 2013, 2, 216–218

Jaroslav Stančiak[1,2 (A,B,C,D,E,F,G)], Maria Kopáčiková[1 (A,B,C,E,F)]

Behaviour of pregnant women

Zachowanie kobiet w ciąży

[1] Katolicki Uniwersytet w Rużomberku, Wydział Zdrowia, Ruzomberok, Słowacja
[2] Państwowa Wyższa Szkoła Politechniki w Jihlavie, Katedra Studiów nad Opieką Zdrowotną, Jihlava, Czechy

ABSTRACT

The pregnancy means for woman an intensive process and it needs our interest. The maternal organism is adapted to changes in bio-psycho-social sphere and a new human being develops during the pregnancy.

Aim: We found out and compared satisfaction of pregnant women's behaviour and the quality of their attention for activities which improving conditions in pregnancy and securing health development of their child.

Subjects and Methods: Our research was based on a random sample of respondents. The study included 277 respondents. They were separated into two files – puerperas and midwives. For each group of respondents was used method of questionnaires. Data were statistically processing.

Results: We found out, that the satisfaction of pregnant women's behaviour and the quality of their attention for activities which improving conditions in pregnancy was acceptable. Some deficiencies were found.

Conclusion: We suggest to increase the quality of services to improve the pregnant women's behaviour and to contribute for standards of European Union by improving our services and by continuous educating of women. We suggest to motivate pregnant women to responsible behaviour during pregnancy and to create conditions for health development of their prenatal child.

Key words: Childbirth assistance, prenatal care, health education

Introduction

The maternity has special meaning for woman thinking that a biological sense of her life is keeping the human beings and the reproduction is its basic character. The way to fill this woman's noble role - the maternity – is connected to huge changes, especially during pregnancy.

The pregnancy means for woman an intensive process and it needs our interest. The maternal organism is adapted to changes in bio-psycho-social sphere and a new human being develops during the pregnancy. The maternal organism has to adapt to the new conditions, which arose from the presence and growth of its prenatal child. Except woman's adaptation to conditions during the pregnancy, she has to break changes in physical, psychical and social sphere. She has also stimulus from her child. Despite woman's organism is adapted to fill this special role, we can present that the gravidity means some stress for woman [1, 2, 3]. The pregnant woman is given lot of instructions and restrictions which change her usual life style. It's important to provide a sufficient professional care of high quality, the prenatal care, for woman (mother) and her child.

Udział współautorów / Participation of co-authors: A – przygotowanie projektu badawczego/ preparation of a research project; B – zbieranie danych / collection of data; C – analiza statystyczna / statistical analysis; D – interpretacja danych / interpretation of data; E – przygotowanie manuskryptu / preparation of a manuscript; F – opracowanie piśmiennictwa / working out the literature; G – pozyskanie funduszy / obtaining funds

Artykuł otrzymano / recived: 24.11.2011 | Zaakceptowano do publikacji / accepted: 11.03.2013

World health organisation in its programme "Health 21 - health for everyone in the 21st century: defined clearly, that care about normal pregnancy should be: de-medicalised, based on the certain processes, local available, multi-branches, holistic, family oriented, cultural relevant and creating a space for co - decision of a pregnant woman [4]. Inevitable services for the pregnant women are preventive checkups, consultancy and health education, pointing to none - smoking, rational nutrition, psycho - hygiene, preparation to the childbirth, care about child after a birth. Modern childbirth assistance has its place in all parts of medical services where it could importantly contribute to getting better its quality. It represents integral part of medical system [5, 6, 7].

Behaviour in the pregnancy

The aim of every woman is to give birth to a healthy child. The holistic access takes into consideration physical and psychical health, social and emotional aspects of our life. All these aspects are connected to each other. Disharmony in any of these spheres leads to the disbalance. Their connection to each other determines the pregnant woman to change her behaviour by active access to prevent disease and to be responsible for her own health and for health of her child.

Food in pregnancy should contain every day:

— proteins (100 g) in the same part vegetable and animal,
— fat (less than 80-90 g), predominantly quality animal fat,
— carbohydrates (maximum 350-400 g), especially polysaccharides, avoid beet sugar and sweetness [8, 9],
— fluids (2,5-3 l) like tea, still mineral water with low contain of sodium, fruit juice, milk,
— vitamins and minerals important for health development of the pregnancy and the child – ferrum, iodine, zinc, calcium, magnesium, folic acid [10, 11, 12].

If the food is variable enough, taking vitamin pills in pregnancy is not necessary. Alcohol drinking and drug using can harm seriously prenatal child in its development and growth. Alcohol and nicotine get fetoplacental circulation worse and they can lead to serious fetus abnormalities like embryopathy, fetal abnormalities or fetus dystrophy, to frequent disease like pre-eclampsia and to preterm labour. Children suffer from hereditary alcohol syndrome or new born infants suffer from abstinence syndrome. Smoking belongs to the most wide-spread exogenous harmful factors in the pregnancy. Its effects, active smoking or passive smoking, are significant all over the pregnancy. A fetus like an involuntary user is exposed to bigger risk than its mother [13, 14]. Drugs using without previous medical recommendation is not suitable. It's important to think about any indication of drug using [15, 16, 17]. Pregnant women can suffer from frequent urinating and from constipation. Daily diet rich in fibre and adequate income of fluids can enable to pass stool daily. The frequent urinating is caused by growth of uterus. It's not suitable urine retention or restriction of fluid income. The pregnant woman should sleep regularly, at least 8-9 hours daily. A temperature should be around 18 °C in her bedroom. The lack of rest can endanger the pregnant woman and her child. It's suitable to have a rest also during a day, using relaxing technique and other relaxing activities. Adequate physical activity is the base element of right living. If woman hasn't practiced exercises before the pregnancy, she shouldn't start doing exercise alone. It suitable doing exercise in psychophysics preparation. The pregnant woman can walk or go in nature. Swimming in natural water with escort keeps woman in good condition and it relieves the backache. To have a shower using tepid water is better than to have a bath using hot water. The woman shouldn't use irritating soup and make-up, rinse of vagina. The woman can do massage of her nipples. She can also do massage of her legs. She should clean her teeth regularly after each consuming of food []. A sexual life during the pregnancy depends on a woman's libido. It is not necessary to forbid it during physiological pregnancy if hygienic conditions are keeping and if a sexual partner tolerates changed woman's anatomy and he avoids to press the women's abdomen. Clothes should be comfortable, airy and releasable. It's not recommended to wear narrow trousers, shoes with high heels and suspenders. Clothes should be comfortable in surroundings where pregnant woman is. It's preferred natural material which can suck sweat and which can be washed easily. During winter it is recommended to use anti-slide shoes. Travelling by car should be reduced in the pregnancy (possibility of serious accident). It's preferred travelling by the train, because there is a possibility to use a toilet during a trip and because of smaller vibration and free movement in the train. It's not recommended longer flight in last trimester and if there is any complication also during entire pregnancy [15, 16, 17].

The pregnant women have different antagonistic feelings – they feel huge happiness, expectation, hope, confidence and thankfulness. Opposite of these are fear, doubtfulness and distrust. During the pregnancy the psychical changes depend on woman's personality, on her present life situation and on a place where she lives [18, 19]. The pregnant woman needs more interest, she needs support from her partner, her family and also from health care providers [20].

The aim of this study is to find out and compare women's satisfaction with filling demands which improving conditions during the pregnancy and securing right development of their child, these are:

— how often did they attend to activities improving conditions during the pregnancy
— how satisfied they are with filling demands.

Methods and material

File characteristic and methods

The empirical study had features of applied research in centers providing health care on the department of puerperal in some Slovak regions. The file was created by 277 respondents. The respondents were chosen by a casual selection. We chose as a basic element for selection:

— women after childbirth of various age
— midwives working in the prenatal counseling centers and midwives leading courses of psychophysical preparation

We have chosen as a main method of inquiries the multi-item questionnaire, as the most suitable method of inquiries about attitudes and opinions of bigger group respondents to this topic. The questionnaire was anonymous. Except the identification data it consists of opened, closed and semi-closed questions. Respondents had a choice between more possibilities, eventually to write down.

The research was being organised in April – December 2006. The questionnaires were distributed to 290 respondents (230 puerperas and 60 midwives). Returned to 277 questionnaires (220 women after childbirth and 57 midwives), that means 95.52% (79,42% women after childbirth and 20,58% midwives).

The results of research were processed statistically and they were illustrated in tables and graphs.

Results

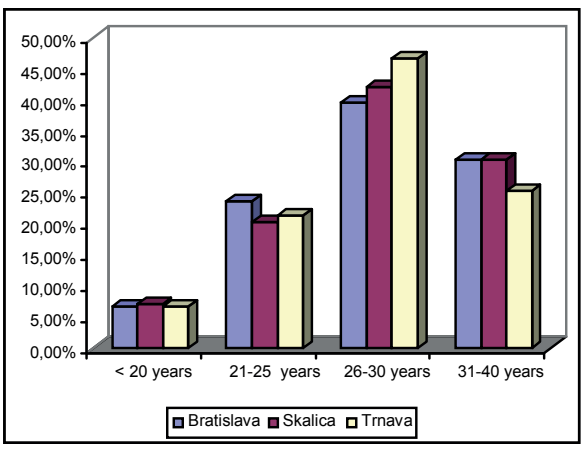
42.7% (94) of puerperas were 26-30 years old, 48 (21%) women were 20-25 years old. 63 (28.6%) women were 31-40 years old and 15 (6.8%) women were under 20 years old (graph 1a).

In the file of midwives the most numerous group was aged from 36 to 45 years, it means 42.1% (24) of midwives. 31.6% (18) of midwives were 20-35 years old and 15 (26.3%) midwives were above 46 years old (graph 1b).

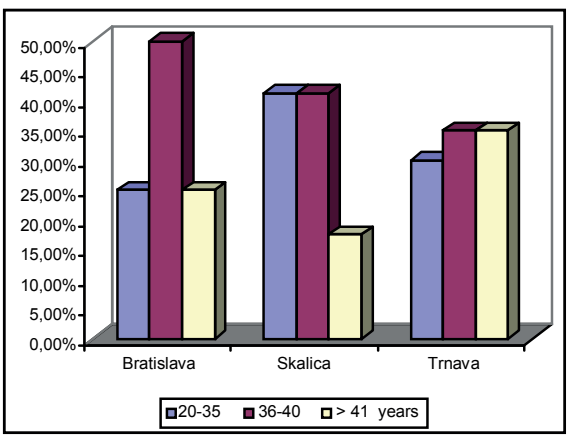
The education depends on a place of living (p=0.003). It is statistically significant more women with secondary education without school leaving examination (36.8%) in Skalica than in Bratislava (22.9%) and in Trnava (16,4%). It is statistically significant less women with secondary education without school leaving examination in Trnava (16.4%) than in Bratislava and in Skalica. It statistically significant more women with university education in Bratislava (35.7%) than in Skalica (11.8%) and in Trnava (27.4%). It is significantly less women with university education in Skalica than in Bratislav and in Trnava (graph 2a).

45.6% of midwives from file have secondary vocational education, 45.6% higher professional education in the field of midwife and 8.8% of midwives have university education. Midwives with secondary vocational education were in majority in Skalica (55.8%), there wasn't any midwife with university education. 55% of midwives have higher professional education in Trnava. 3 midwives from Bratislava and 2 midwives from Trnava (8.8%) have university education.

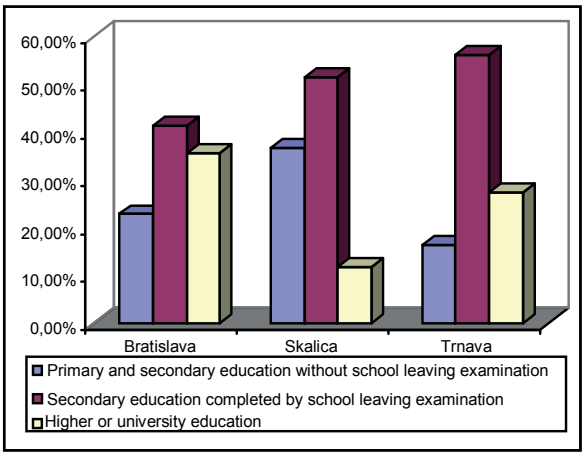
We found out how often the puerperas had practised activities improving conditions in the pregnancy and securing health development of their child. This part is scaled, so we used continuous variable for evaluation of responses. We used a method of diffusion analyses for rating. The reliability was being checkout with Crombach Alpha test a=0.665. There is not statistically significant difference between regions. 27.9% (55) of respondents were self-doing exercises once a week, 17.2% (34) of women once per month. 32.5% (64) of women from all regions weren't doing exercises anytime during the pregnancy. 57.6% (121) of puerperas studied literature once per week and 27.6% (58) of women once per month. The respondents obtained the majority of information from magazines 41.4% (87) once per week and 30% (63) once per month. 20% (39) of women asked for information their doctor once per week and 56.4% (110) of women once per month. 10.3% (18) of women obtained information from the midwife once per week and 18.3% (32) of women once per month. 45.4% (79) of women didn't look for



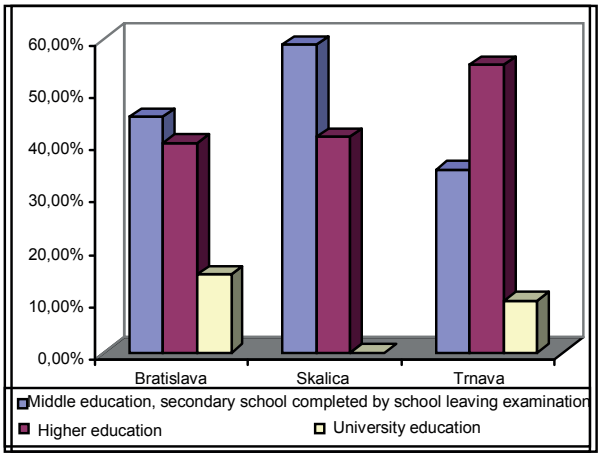
Graph 1a.Age distribution of respondents (puerperas)



Graph 1b. Age distribution of respondents (midwives)



Graph 2a. Education (puerperas)



Graph 2b. Education (midwives)

midwife with aim to be informed anytime during the pregnancy. According to the respondent's education there was significant difference p=0.025 after comparison among three categories (ANOVA). After using LSD test (post-hoc), there was significant difference between the group with university education against the group with secondary education (p=0.019) and against the group with primary education and secondary education without school leaving examination (p=0.014). The women with university education often practised activities improving conditions during the pregnancy and securing the right development of their child (Table 1).

The pregnancy burdens requirements to the woman and she has to adapt. We demonstrate the scale of respondent's satisfaction based on collecting information with filling demands of the pregnancy (table 2). The reliability – Crombach coefficient a=0.871. There is not statistically significant difference among categories of various age and regions.

The puerperas were the most satisfied with filling requirements about personal hygiene (diameter: Bratislava-1.457, Skalica-1.623, Trnava 1.592) and getting rid of addictive substances (diameter: Bratislava-1.455, Skalica-1.746, Trnava-1.514). 60.4% (127) of respondents were very satisfied with filling requirements of the personal hygiene and 31.9% (67) of respondents were satisfied. 127 respondents were very satisfied and 47 respondents were satisfied with getting rid of addictive substances like alcohol, cigarettes and drugs. The respondents expressed the smallest satisfaction with managing adverse influences and keeping psychical wellbeing. We found out a significant difference between some groups. There was significant difference between the group of women with primary and secondary education without school leaving examination against the group with secondary education (p=0.02), the group with primary and secondary education without school leaving examination against the group with university education (p<0.001) and the group with secondary education

Table 1. Averages of activities (according to the place)

	Bratislava				Skalica				Trnava			
	N	Diameter	Med	SD	N	Diameter	Med	SD	N	Diameter	Med	SD
1	69	3,087	3	1,634	59	3,136	3	1,570	69	2,754	2	1,684
2	73	1,699	1	1,063	66	1,742	1	1,042	71	1,563	1	0,806
3	70	2,143	2	0,905	59	2,220	2	0,930	66	2,121	2	0,969
4	64	3,625	4	1,496	49	3,694	4	1,388	61	3,541	4	1,512
5	68	2,353	2	1,443	59	2,881	3	1,366	68	2,397	2	1,351
6	72	2,042	2	1,156	61	2,098	2	1,076	70	1,800	2	1,016
7	68	2,147	2	1,352	57	2,702	2	1,523	58	2,121	2	1,312
8	66	3,227	3	1,497	54	2,963	3	1,492	62	2,645	2	1,404
9	30	2,867	3	1,634	27	4,630	5	0,926	28	4,000	5	1,491
10	45	4,222	5	1,475	38	4,763	5	0,786	41	4,537	5	1,098
Diameter		2,741				3,083				2,748		
SD		0,761				0,964				0,928		
11	2	3,000	3	2,828	3	3,667	5	2,309	6	4,333	5	1,211

Key: 1-selfdoing exercise, 2-selfstudying literature, getting information from 3-the doctor, 4-the midwife, 5-friends, 6-magazines, 7-mother, 8-masmedia, 9-other, 10 course of psychophysical preparation, 11-other, the last possibility "other" was skipped from this analyses.

Table 2. The scale of self-satisfaction

	Bratislava				Skalica				Trnava			
	N	Diameter	Med	SD	N	Diameter	Med	SD	N	Diameter	Med	SD
1	71	1,859	2	0,850	69	1,725	2	0,662	72	1,917	2	0,931
2	70	2,000	2	0,917	69	1,884	2	0,814	72	2,056	2	0,948
3	71	2,310	2	1,116	69	2,217	2	1,041	72	2,069	2	1,167
4	70	1,457	1	0,736	69	1,623	1	0,876	71	1,592	1	1,050
5	66	1,455	1	0,788	63	1,746	1	0,950	70	1,514	1	1,046
6	69	1,957	2	1,063	66	1,970	2	0,841	70	1,943	2	1,006
7	70	2,229	2	0,904	66	2,212	2	0,755	69	2,000	2	0,891
8	69	2,348	2	1,012	69	2,174	2	0,804	69	1,942	2	0,820
9	68	2,426	2,5	1,012	67	2,403	2	0,889	70	2,171	2	0,868
10	67	2,687	3	1,033	67	2,463	2	0,876	69	2,275	2	0,889
Diameter		2,073				2,042				1,948		
SD		0,385				0,279				0,224		
11	1	2,000	2		3	2,333	2	1,528	2	2,500	2,5	2,121

Key: 1-nutrition, 2-having a rest, activity, 3-defecation, 4-personal hygiene, 5-getting rid of addictive substances, 6-clothes, 7-occupation, travelling, 8-physical stress, 9-keeping psychical wellbeing, 10-managing adverse influence, 11-other

completed by school leaving examination against the group with university education (p=0.011). The puerperas with university education were the most satisfied with filling requirements and the group with primary and secondary education without school leaving examination was the least satisfied with filling requirements.

The scale of satisfaction of midwives with filling requirements by the pregnant women is presented in table 3. According to midwives, the pregnant women fill requirements best in personal hygiene (diameter: Bratislava-1.850, Skalica-1.706, Trnava-1.800), they fill requirements worst in managing adverse influence (diameter: Bratislava-2.526, Skalica-2.647, Trnava-2.526). There wasn't significant difference between groups after comparing age and education of the midwives.

There was significant difference after comparing answers from the midwives to answers from the puerperas in Bratislava (p=0.016) and in Trnava (p=0.001). In both cases the midwives were less satisfied than the purperas in filling requirements in the pregnancy. We didn't find out any significant difference in rating from the midwives and the puerperas in Skalica. Broadly midwives were less satisfied than puerperas p<0.001 (graph 3).

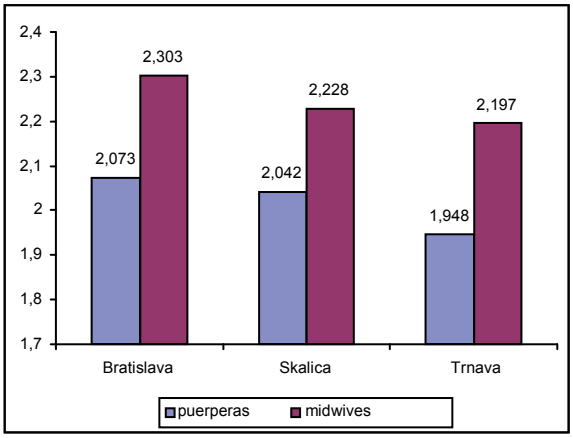
Discussion

According to the experience of midwives, pregnant women fill requirements best in personal hygiene and worst in managing adverse influence. The puerperas were satisfied with filling requirements about personal hygiene most of all and getting rid of addictive substances.

Table 3. The satisfaction with filling requirements (midwives)

	Bratislava				Skalica				Trnava			
	N	Diameter	Med	SD	N	Diameter	Med	SD	N	Diameter	Med	SD
1	20	2,100	2	0,788	17	2,176	2	0,809	20	2,050	2	0,826
2	20	2,100	2	0,788	17	2,294	2	0,849	20	1,900	2	0,718
3	20	2,150	2	0,587	17	2,353	2	0,786	20	2,300	2	0,801
4	20	1,850	2	1,040	17	1,706	2	0,772	20	1,800	2	0,616
5	20	2,500	3	0,889	17	2,294	2	0,849	20	2,150	2	0,813
6	20	2,300	2	0,979	17	2,059	2	0,748	20	2,050	2	0,605
7	20	2,650	3	0,813	16	2,438	2,5	0,964	20	2,450	2,5	0,759
8	20	2,550	2	0,686	16	1,938	2	0,680	20	2,300	2	0,733
9	20	2,300	2	0,801	16	2,375	2,5	0,885	18	2,444	2	0,511
10	19	2,526	2	0,772	17	2,647	3	0,862	19	2,526	3	0,513
Diameter		2,303				2,228				2,197		
SD		0,241				0,256				0,234		
11	0				1	3	3		1	4	4	

Key: 1-nutrition, 2-having a rest, activity, 3-defecation, 4-personal hygiene, 5-getting rid of addictive substances, 6-clothes, 7-occupation, travelling, 8-physical stress, 9-keeping psychical wellbeing, 10-managing adverse influence, 11-other



Graph 3. The satisfaction with filling requirements

60.4% (127) of respondents were satisfied with filling requirements of the personal hygiene very much and 31.9% (67) of respondents were just satisfied.

127 respondents were satisfied very much and 47 respondents were just satisfied with getting rid of addictive substances like alcohol, cigarettes and drugs.

Huttová [21] has published that almost half of women smokers continue to smoke during the pregnancy. However, this is about more than half a million young pregnant women [21].

The respondents expressed the dissatisfaction with managing adverse influences and keeping psychical wellbeing. There was significant difference between the group of women with primary and secondary education without school leaving examination comparing to the group with secondary education (p=0.02), the group with primary and secondary education without school leaving examination comparing to the group with university education (p<0.001) and the group with secondary education completed by school leaving examination comparing to the group with university education (p=0.011). The puerperas with university education were satisfied most of all with filling requirements and the group with primary and secondary education without school leaving examination was the least satisfied with filling requirements.

There was a significant difference comparing answers taken from midwives to answers from puerperas in Bratislava p=0.016 and in Trnava p=0.001. In both cases the midwives were less satisfied than the purperas in filling requirements in the pregnancy. We didn't find out any significant difference in rating from the midwives and the puerperas in Skalica. Broadly midwives were less satisfied than puerperas. Order to care for a pregnant woman is the birth of a healthy newborn without damaging the health of women. But even the best performing health care system of prenatal care can prevent situations that can cause a pregnant woman to her indifference, ignoring regular control and risk behavior [23].

We suggest to increase the quality of services to improve the pregnant women's behaviour and to contribute for standards of European Union by improving our services and by continuous educating of midwives in counselling and education in the pregnancy. We suggest to motivate pregnant women to responsible behaviour during pregnancy and to create conditions for health development of their prenatal child.

Conclusion

A healthy life start has to be a priority of each society. Normal childbirth makes a base for healthy development of human. The programme of the World Health Organisation „Health 21" defines the goals; identifies the field that leads to building the conditions for the pregnancy and maternity. Even the midwives can contribute to fullfil the goals by improving the quality of care of pregnant women, but also the pregnant women with their responsible behaviour for their own health and also for the health of their children.

Piśmiennictwo / References

1. Leifer G. 2004. *Introduction into childbirth and paediatrics nursing*. Prague: Grada, 2004, 915 p. ISBN 80-274-0668-7.
2. Macků F, Macků J. 1998. *Pregnancy and childbirth handbook*. Prague: Grada Publishing, 1998, 657 p. ISBN 80-7169-589-0.
3. McCormick MC, Siegel JE. 1999. *Prenatal care: effectiveness and implementation.* 1999. Cambridge University Press, 1999, 349 p. ISBN 0-521-66196-X.
4. *National health programme, Health for everyone in 21.st century*. Bratislava: National health centum, 2000, ISBN 80-7159-123-8.
5. Enkin M, Keirse MJNC, Refrew M, Neilson J. *The Effective care in perinatology.* 1. edition, Prague: Grada Publishing, 2001, 386 p. ISBN 80-7169-417-7.
6. National Collaborating Centre for Women's and Children's Health. Antenatal care: routine care for the healthy pregnant woman. Accessed online January 17, 2005, at: http://www.rcog.org.uk/resources/Public/Antenatal_Care.pdf.
7. Kirkham C, Harris S, Grzybowski S. *Evidence-based prenatal care: part I.* General prenatal care and counseling issues. *Am Fam Physician*. 2005;71:1307–16.1321–2.
8. Hvizdák F, Chramec J. *Chosen topics from gynaecology and obstetrics for the students of public health.* Trnava 2003, 144 p. ISBN 80-88908-2.
9. Ševčík J. et al. *The pregnant and breastfeeding women's nutrition* . In: The nutrition and food-stuffs 2001, roč. 56, č. 2, s. 61-62. ISSN 1211-846X.
10. Tomáš S. *Painless delivery*. Martin: Osveta, 2000, 203 p. ISBN 80-8063-040-2.
11. Čech E. et al. *Obstetrics*. Praha: Grada 2006, 544 p. ISBN 978- 80-247-1303-8.

12. Roztočil A. et al. *Modern obstetrics*. Praha: Grada, 2008. 179 p. ISBN 978-80-8084-517-9.
13. 13. Tabaková M. *Education about the purperium and natural nutrition.* In: The nurse, 2003, roč. II., č. 1, s. 28-30. ISSN 1335-9444.
14. Kopáčiková M, Stančiak J, Novotný J. *Smoking in the pregnancy – still the actual problem.* In: Boledovičová, M. a kol.: Nursing in the 21st century in the process of changes III.: Proceeding from the international symposium. Nitra: Univerzita Konštantína Filozofa v Nitre, Fakulta sociálnych vied a zdravotníctva, 2009, s. 424-431. ISBN 978-80-8094-554 -1.
15. Huttová M et al. *Negative effects of smoking in pregnancy*. In: Alcoholism and drug addiction. Bratislava: Obzor. roč. 36, 2001, No.1, 66 p.
16. Kopáčiková M. *Prenatal care in selected regions of Slovakia.* Dissertation. Trnava : University of Trnava, 2007, 150 p.
17. Nolan P, Alcock G. *Maternal mental health 3. the practising Midwife*. febr, 1998, r.1, č.2, s. 20-22.
18. Healy A et al. "*Early Access to Prenatal Care: Implications for Racial Disparity in Perinatal Mortality.*," Obstetrics & Gynecology 2006;107,3: 2006: 626.
19. Simkin P. *The Labor Progress Handbook*. Oxford : Blackwell Science Ltd., 2000. p. 206. ISBN 0-632-05281-3.
20. Závodná V. Education in Nursing. 2. edition. Martin: Osveta, 2005, 118 p. ISBN 80-8063-193-X.
21. Huttová M et al. *The negative effects of smoking during pregnancy*. In: Alcoholism and drug addiction. Bratislava: Obzor. 2001;36(1):66.
22. *Law no. 576/2004* Coll of health care services related to health care and on amendments to certain laws
23. Kliment M. *Risky parental behavior during pregnancy and after childbirth.* Vla pract., 2007; 4 (7/8): 360-362

Adres do korespondencji / Mailing address:
j.stanciak@gmail.com
maria.kopacikova@gmail.com