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Wpływ miejsca zamieszkania na zachowania zdrowotne kobiet w ciąży

Streszczenie

Wstęp. Aktywność ruchowa, nawyki żywieniowe, zachowania profilaktyczne, nastawienie psychiczne czy praktyki zdrowotne mogą mieć zasadniczy wpływ na przebieg ciąży i porodu.

Cel. Celem pracy było przedstawienie i porównanie postaw prozdrowotnych kobiet w ciąży, zamieszkałych na terenie dużego i małego miasta.

Materiał i metody. Grupę badaną stanowiło 171 kobiet w okresie połogu przebywających na oddziałach położniczych. Badanie zostało przeprowadzone w drugiej lub trzeciej dobie po porodzie, z wykorzystaniem autorskiej ankiety złożonej z 37 pytań.

Wyniki. Postawy ankietowanych kobiet ciężarnych były prozdrowotne. Ciąża skłaniała kobiety do podjęcia działań prozdrowotnych lub ich kontynuacji. Potwierdzono istotną zależność pomiędzy podejmowaną w ciąży aktywnością fizyczną a samopoczuciem i sprawnością fizyczną zarówno w trakcie jak i po ciąży.

Wnioski. Wobec uzyskanych wyników należy zwrócić szczególną uwagę na promocję zdrowego stylu życia kobiet w ciąży, w tym różnych form aktywności ruchowej oraz rozpowszechnienie działania szkół rodzenia szczególnie w mniejszych ośrodkach miejskich.

Słowa kluczowe: ciąża, zdrowie, aktywność fizyczna, samopoczucie.

Influence of the domicile on healthy behaviors of pregnant women

Abstract

Introduction. The motor activity, eating habits, preventive behaviors, psychological attitude, or health practice can have a fundamental influence on pregnancy and childbirth.

Aim. Presenting and comparing healthy behaviors of pregnant women living in the area of big city and small town .

Material and methods. The examined group covered 171 women after childbirth staying at the labor ward. The examination was conducted on the second or third day after the childbirth, with the use of the author's questionnaire including 37 questions.

Results. The attitudes of pregnant women were health promoting. The pregnancy induced women to take up new or continue healthy behaviors. An essential relationship was confirmed between the physical activity during pregnancy and the mood as well as physical fitness after childbirth.

Conclusions. In the face of the achieved results, special attention should be paid to the promotion of healthier lifestyle of pregnant women; especially to various forms of the motor activity as well as disseminating antenatal classes in smaller cities.

Keywords: pregnancy, health, physical activity, mood.

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INTRODUCTION

Physical activity during pregnancy has a beneficial influence not only on the general improvement of health, but it also reduces the risk of complications in the mother, embryo and a new-born child. The research confirms that taking up regular motor activity among women has a significant influence on the course of pregnancy.

During 9 months of pregnancy, there is some limitation of motor activity with reference to its frequency, duration and intensity in comparison to the state from before the pregnancy. Various reasons account for that: lack of time, fatigue, and care for embryo, worse physical fitness, less motivation, and the kind of performed activity [1].

Most frequent anxieties accompanying a decision about taking up some activity refer to risks of miscarriages and worsening of mood in the form of exacerbation of nausea or vomiting. With suitable activities: prenatal gymnastics, yoga, aqua aerobic, swimming and walks, gentle course of pregnancy, childbirth and avoidance of excessive increase of body mass are possible too [2].

Rachialgia and pains within pelvis (LBPP – *Low Back Pain and Pelvic Pain*) are general symptoms among gravidas, and their occurrence results in decrease of self-estimation and disturbs their sexual activity [3]. The risk of pronouncement of LBPP in the following pregnancy is very high, especially at stout gravidas and those not doing regular motor activity; however one must remember that more spare time spent on motor activity before the conception, means lower LBPP probability during the pregnancy [4].

According to research, pregnant women and those after a childbirth, have shown general drawdown of motor activity within 17^{th}-22^{nd} week to 27^{th}-30^{th} week of pregnancy; yet this level rises 3 months after a childbirth and remains constant through the following 12 months. In turn, childcare and recreation determine the greatest part of all activities of a woman [5].

AIM

The aim of this work was presentation and comparison of health behaviours of pregnant women, living in a big city and small town. The research was carried out on the example of Warsaw and Łuków. Moreover, an attempt of evaluating any dependence between the health behaviours taken up by women, and the course of pregnancy, was made.

MATERIAL AND METHODS

The examined group consisted of 171 women within a period of childbirth (2-3 days after childbirth). The examined persons were divided into four groups, assuming the age criterion: under 19 years of age, 20-29 years, 30-39-years and above 40 years of age.

The group of 123 women was in a maternity ward in one of six Warsaw hospitals. The remaining group of 48 women was recruited from among those women who were in a maternity ward in Łuków.

The women examined in Warsaw agglomeration were indeed statistically older and better educated than the group

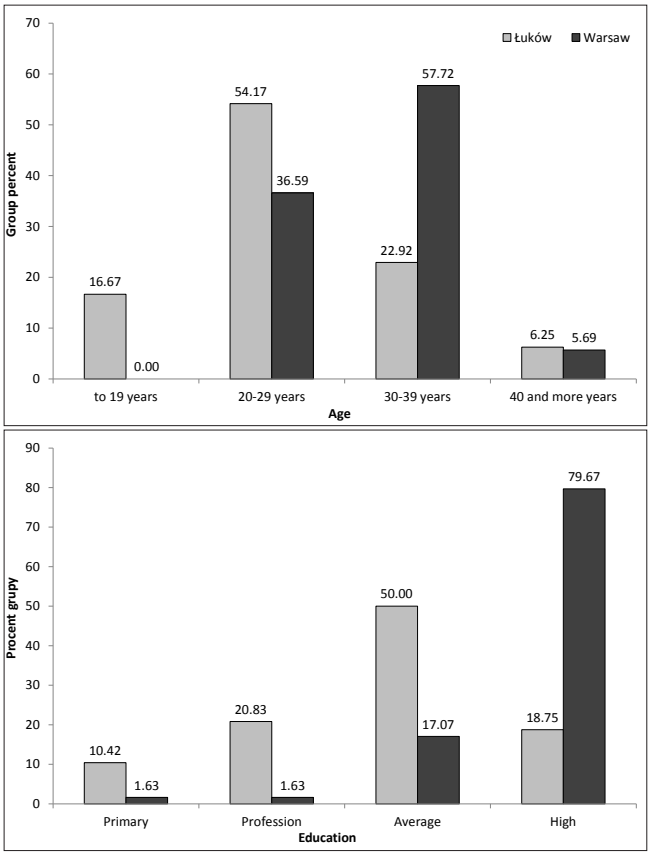

FIGURE 1. The age and education level of the examined women.

from Łuków ($p<0.001$) – Figure 1. For most of women from Warsaw (57%) and Łuków (52%) this was the first pregnancy. The groups did not indeed differ statistically on that score.

In the research author′s questionnaire was used, containing 37 questions concerning the age, biometrical data, education level, place of residence, motor activity, nutrition, course of pregnancy and childbirth. Patients filled the questionnaires on the second or third day after childbirth.

In quantitative elaboration of empirical material descriptive statistics and chi-square test were applied, making the differences estimation of answers on questions included in the questionnaire at women in two groups, possible. The significance of differences was accepted at the level $p\leq0.05$.

Differentiations of numerical values, characterizing the examined groups (activity, change in body mass), were qualified by means of analysis of variance (ANOVA). If results were different, their significance between each group was qualified with post hoc analysis with Tukey test. The level of significance was accepted at 0.05. The relationships among each parameter analysed in questionnaire were qualified by means of Pearson's correlation coefficient. As significant, one accepted the values at the level 0.05. Calculations were performed using Statistica (v. 9.0) and SPSS (v. 12.0) pack programs.

RESULTS

Best mood of the examined was characteristic for term II of pregnancy, with over 90% women in both groups qualify-

ing it as good or very good. No statistically significant differences were confirmed between the answers of women about e.g. mood during the pregnancy, in none of three terms.

Most frequent complaints notified by women were back pains (Figure 2). In the group of examined gravidas from Warsaw, sleep disorder was the most frequent problem (61%), while a more frequent inconvenience notified in the group from Łuków was the swelling of limbs, of which half questioned complained (Figure 2).

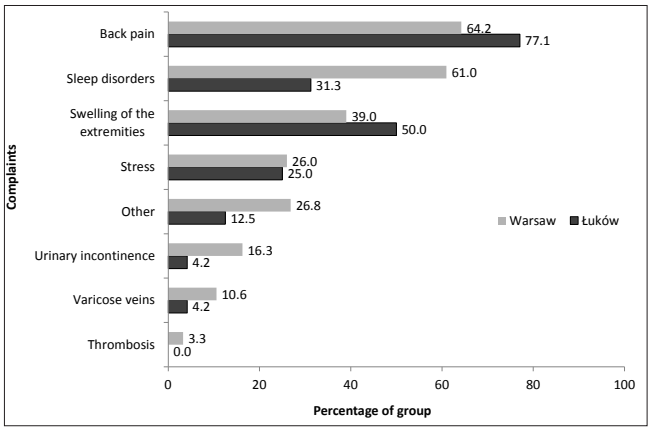

FIGURE 2. Health complaints occurring during the pregnancy in the examined group of women.

At women examined in Łuków, body mass during pregnancy increased on the average by 26.9% (±9.5%) with relation to weight from before pregnancy, while those examined in Warsaw put on weight on the average at 23.8% (±7.3%) of basic mass during pregnancy (p>0.05).

All examined women declared regular medical visits in the course of pregnancy. Vast majority from them (96% in Warsaw and 79% in Łuków) underwent seven and more consultations. This difference proved however to be statistically significant (p=0.001). Probably more frequent medical visits of gravidas from Warsaw were the result of greater accessibility of doctors in their regions of residence.

The results evidence correct sources of information, because most subjects pointed a doctor as showing indispensable information concerning the suitable behaviours before, in the course of and after the pregnancy (Figure 3).

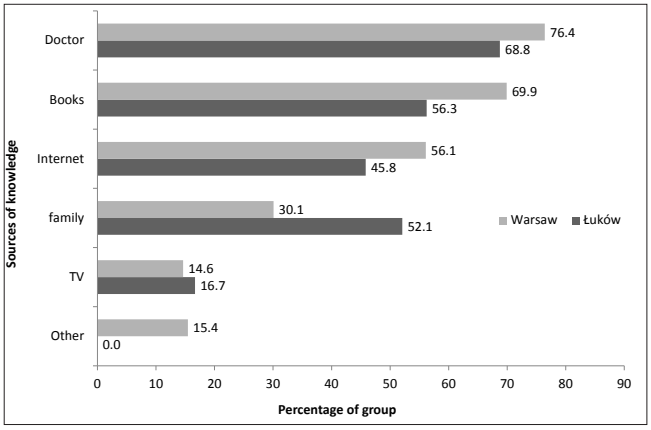

FIGURE 3. Sources of information concerning healthy attitudes in pregnancy in the examined group of women.

During pregnancy there were some stressful situations (reported by ⅘ of polled women). The examined subjects from Warsaw agglomeration most often got over stress walking and talking with a close person, in turn in regions of Łuków a large number of those examined apart from walks declared listening to music as a form dealing with stress (Figure 4).

Accessibility of activities (and infrastructure) in the place of residence (p=0.335) did not determine participation in organized forms of physical activity, and half of the examined women regularly undertook organized motor activity at home or at special classes.

Most frequent forms of motor activity undertaken during pregnancy were gentle and accessible forms of effort such as walks (about 75% of polled). What is more, a large group of the women (75% in Łuków and 86% in Warsaw) spent a lot of time doing housework.

Together with advancement of pregnancy, motor activity of women decreased (Table 1); although there was some slight increase of activity of Warsaw subjects in term II.

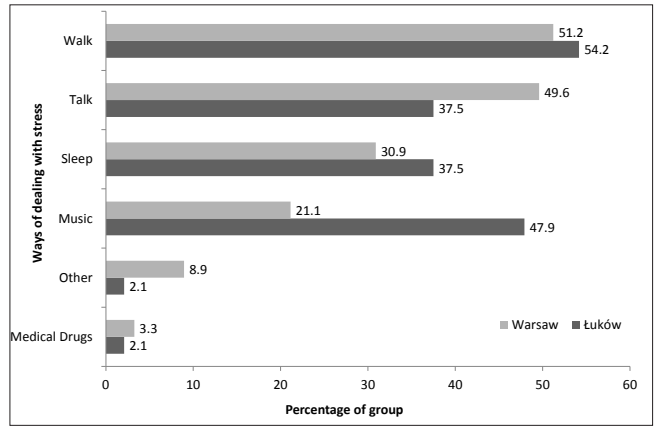

FIGURE 4. Preferred ways of dealing with stress in the examined group of women.

TABLE 1. Average declared number of days intended on motor activity in the following terms of pregnancy, in the examined group of women.

	Number of answers	Min	Max	Average	SD
I term					
Łuków	25	1	5	2.68	1.35
Warsaw	51	1	7	2.98	1.90
II term					
Łuków	25	1	5	2.40	1.29
Warsaw	53	0	7	3.13	1.84
III term					
Łuków	25	1	5	1.56	1.04
Warsaw	53	0	7	2.43	1.86

Imperceptibly higher percentage of the examined women in Łuków declared regular participation in group-activities or exercises at home. The place of residence did not determine regularity of exercises within a period of pregnancy (p>0.05).

In the examined group comparatively not large part of women participated in classes at school of childbearing. On that score, groups differed statistically in significant way (p=0.001). Most of the examined women – 87 in Warsaw (70.7%) and 29 in Łuków (60.4%) – declared spending

actively their free time within a period of 9 months of pregnancy.

The same percentage of the examined (95%) in both groups declared healthy diet during pregnancy. Such state of affairs was shown respectively by 118 women in Warsaw and 46 in Łuków.

Pregnancy more often determined the reason of taking up healthy behaviours at women from Warsaw, where such activity was implemented by 63 (51%) women and 18 (37.5% in Łuków). Vast majority of the examined, 114 (93%) from Łuków and 46 (96%) from Warsaw, thought that the change and maintaining the healthy lifestyle had influenced favourably the course of childbirth itself (the place of residence did not have any influence for the presented answers).

The age of pregnant women did not play any part in the increase of body mass during pregnancy. The lack of significant relationship between the age and the increase of body mass was confirmed in both groups.

Among women examined in Łuków, significant results of correlation for the mood in term III of pregnancy ($r=0.289$; $p<0.05$) were obtained. Interestingly, the older the polled women were, the better they felt during the term III. This can suggest better preparation (physical, mental) for pregnancy of older women; however, in Warsaw mood of the examined women did not have any relationship with their age. Simultaneously in the examined group of women, no correlation was proved between the age of a mother and body mass of a born child, both among women in Warsaw as well as in Łuków.

Age did not determine motor activity of gravidas from Łuków and regions; instead, in Warsaw two essential results were received: for dance ($r=-0.222$) and housework ($r=-0.181$; $p<0.05$).

Age proved to be the major factor translating itself on the estimation of health state according to numbers of APGAR points obtained by a child. In Łuków, the youngest women bore children of lowest score in APGAR scale ($p=0.045$). In Warsaw, the older were the women in labour, the higher was the score in APGAR scale obtained for their children ($p=0.042$).

The obtained results confirmed also that physical activity had positive influence not only on the state of health, but also on general mood. Most polled (respectively 46 and 114 women) qualified it as good or very good.

The education level of women was indeed the influencing factor on motor activity undertaken during pregnancy. The higher education level of women from Łuków, the greater their engagement into housework was, as one of the forms of motor activity ($r=0.344$; $p=0.017$). In turn the higher education of women from Warsaw, the smaller engagement into jogging as a form of spending free time ($r=-0.344$; $p<0.001$).

Physical activity in progress of pregnancy proved to have essential transposition to mood of women. The basic form of activity – walking, which the polled in Łuków acknowledged, proved to be an influential element on mood during whole pregnancy. The answers of those polled from Łuków imply that the more women walked, the better they felt in all terms of pregnancy ($p<0.01$). Simultaneously, the more they were committed into housework, the better they felt in term II of pregnancy. In Warsaw, no correlation between the mood and the walk was found. However there was some essential correlation between the mood in trimester II and jogging ($r=0.181$; $p<0.05$).

The analysis of correlation between the kind of activity undertaken by women and their physical fitness, among those examined from the region of Łuków, showed that the more women were engaged into jogging and housework, the more efficient physically after pregnancy they felt ($p<0.05$). Warsaw gravidas obtained such effect the more they were involved in walking ($r=0.209$; $p<0.05$).

The number of days on weekdays intended on exercises (in every term of pregnancy) did not have any influence on the term or the manner of childbirth in both groups.

DISCUSSION

The answers of those polled prove the continuation of correct or changing to healthier lifestyle (giving up smoking, drinking alcohol or coffee, taking up everyday activity and greater awareness of choosing food products) from the beginning of pregnancy. Such behaviours suggest that pregnancy is a factor working in favour of informing and mobilizing for caring for health. Lack of essential differences between the women living in different in terms of population cities or towns, confirms that this healthy change happens regardless of the place of living.

In Gollenberg′s research carried out on group of 1231 gravidas, care for healthy lifestyle during pregnancy was showed. Only 1.4% women consumed liquor; however, 21% smoked cigarettes during pregnancy. Moreover, the research showed that gravidas with higher education level willingly applied the guidelines concerning the correct diet during pregnancy and more seldom reached for stimulants [6]. This can also be a result of social status, where better off persons could afford the change of a lifestyle, which is often connected with greater expenses.

In Australia, from among 587 gravidas examined, on the turn of 2002-2003 year, 39% of the polled women smoked cigarettes before pregnancy, from which 34% gave up the addiction during pregnancy [7].

Vast majority of the examined regularly frequented check-ups and a doctor in charge of pregnancy was one of main sources of information on the subject of correct conduct and care for health during pregnancy. The important role that is played by conversation of a doctor with patient when the patient is given some advice about the health promotion during pregnancy has principal influence on the rise of quality of prenatal care [8,9].

The polled women had best mood in term II of pregnancy, which allowed greater engagement into exercises. Near a half of the women did regular activity during whole pregnancy. The obtained results confirm therefore the research in which women affirmed that at the beginning of pregnancy their physical activity could be limited due to nausea and vomiting, while after ceasing of these complaints the activity increases. In spite of the pronouncement of physiological limitations, (change of physique, complaints during pregnancy) women do not give up motor activity, continuing lighter forms (walking, swimming, and gymnastics) [2].

Other factors, which could contribute to a little smaller activity in this period, are: general fatigue, laziness, lack of time or care for embryo. In turn in later period, women complain especially about the inconvenience during exercises (pot-belly) and this they point as reason of limited activity during pregnancy [1,10].

The research showed that taking up some motor activities e.g. walk, quick march, housework, jogging, improves mood of gravidas and subjective estimation of their own physical fitness. It univocally confirms the value of exercising and physical activity as both preventive, as well as therapeutic factor in the course of pregnancy. This activity did not have any influence on the manner and time limit of childbirth; therefore, possible anxieties about the negative results of physical activity are groundless.

In Denmark in groups of women in labour, for the first time, one ascertained that different forms of activity allowed for keeping their fitness during pregnancy (to diminish excessive increase of body mass) and contributed to facilitation of the course of childbirth [2]. Da Costa and co-authors suggest that physical activity has equally essential importance for psyche of gravida. In situation of intensive stress that accompanies pregnancy and childbirth it is not to be overrated [11].

Not only taking up the activity but also its kind is the major health factor. Works of many authors suggest that prenatal gymnastics, and especially swimming and exercise in water help reducing among other things "sacrodynia" and swellings of limbs [2,12-14]. In the examined group swimming beside walks, was one of more often mentioned forms of active spending of free time.

On the ground of the research, one can conclude that the place of residence determines the age of gravida, because women in Warsaw and regions proved indeed older than women examined in Łuków and regions. What is more, healthy attitudes are dependent on the access to information concerning the correct lifestyle (easier in bigger agglomerations) and on education level (more women with higher education in a large city); therefore the place of residence seems to be the factor strongly determining taking up healthy attitudes. The research confirmed that younger and better-educated gravidas take better care of their health during pregnancy. Apart from having a proper diet, resignation from stimulants (liquor, cigarettes) they are more physically active. Such attitude results in keeping correct body mass and control of its increase [6,15].

The executed questionnaire did not show essential influence of age of patients on the increase of body mass. Increase of body mass of women amounted averagely 25% with relation to their weight from before pregnancy. Scientific publications confirm that body mass of a gravida influences later natal body mass of new-born child and its health [16,17]. Women with low BMI have higher risk of inadequate, and with high BMI – a risk of excessive increase of body mass [16]. Moreover, those who exercise regularly have considerably smaller increase of body mass than non-active gravidas only in the third term of pregnancy [18]. The qualified norms of increase of body mass during pregnancy are the following: for women with correct body mass (BMI 19.8-26) this is 11.4-15.9 kilogrammes, and at overweight (BMI 26.1-29) 6.8-11.4 kilogrammes. Unfortunately, considerable number of women exceed these values of guidelines, which can contribute to the development of stoutness [19].

In the questionnaire formulated and executed for the present research, the question about sexual activity of expectant mothers was not placed purposely. Although this can be a major factor influent on physical and psychical condition of a gravida, this resignation was dictated by the wish of non-excessive violation of private sphere of those examined. In a pilot study this type of question was given – however most of women (especially in Łuków) avoided answering, explaining that this was for them too embarrassing and intimate question. Other (mostly from Warsaw) said that they had sex while pregnant only until they stopped feeling attractive; they felt discomfort or pain during sexual intercourse. For lack of general results for the whole examined group elaborating of this material was not continued.

Research focusing on the correlation between the pregnancy and the sex brought to light the fact that together with the course of pregnancy gradually the sexual activity of women grew smaller, along with the growing fear of pronouncement of possible postcoital complications. What is more, most of women would like to discuss this subject with their doctor, but they not always have courage to do so [20]. In Paulet's research first term of pregnancy proved most abundant with sexual relations, which were declared by 44.7% of the polled. This number came down over time. This can be influenced by the fact that at amost half of the examined women satisfaction from intercourse with partner remained the same throughout pregnancy, however at 27.7% it decreased [21].

Based on the obtained results, one can ascertain that knowledge of expectant mothers on the subject of healthy behaviours is satisfactory. Many scientific publications pay particular attention to the necessity of creation and dissemination of inquiry programs, promoting healthy nutrition, motor activity, showing negative results of usage of stimulants and encouraging to regular medical examinations. The target group of this project are women planning pregnancy and already being pregnant [22-25].

From the research carried out on stout gravidas, one can learn that in early period of pregnancy, those women at whom nausea, vomiting or lower back pains did not appear, exercised willingly and those who once miscarried, already had one child, or had lower BMI before pregnancy. Exercising in the final period of pregnancy, more exactly in third term, was common among women with higher education level [26].

CONCLUSIONS

1. Knowledge of the polled on the subject of correct lifestyle, nutrition, and activity during pregnancy is satisfactory and the place of residence is not a determining factor here.
2. A doctor in charge of pregnancy and the midwife are the main sources of information on healthy behaviour. Important is the fact that women seek broadening of this knowledge by reading books, the Internet, conversations with family members and with colleagues.

3. Active spending of time in the course of pregnancy first of all focused on such activities as: housework, walks or exercises. In most cases, those were unorganized forms, undertaken individually.
4. The analysis of dependence proved improvements of mood and diminution of complaints connected with pregnancy, such as swellings, back pains, sleep disorder, due to undertaken physical activity.
5. Participation in classes at school of childbearing is dictated by their accessibility, because in spite of wide support, participation in them characterized only the inhabitants of Warsaw agglomeration. Therefore, it seems legitimate to take measures aiming at spreading of activity of childbearing schools also in smaller municipal centres.

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