Preterm birth and the satisfaction with getting pregnant

MARZENA BUCHOLC1, JAN OLESZCZUK2, HENRYK WIKTOR1

Abstract
The aim of this study was to verify whether women with pregnancy which ended in premature delivery, were satisfied with the fact of conception or if it was conditional and therefore if it had an impact on the behavior of pregnant women. Following investigation tools have been applied: standardized EUROPOP GROUP poll questionnaire with own adjustments to Polish conditions and self designed poll questionnaire concerning woman’s lifestyle during pregnancy. Medical records analysis extracted from EUROPOP GROUP questionnaire aimed to: woman’s gynecological and obstetrical history assessment, establishment of pregnancy duration, pathological signs occurring in the course of pregnancy, mode of delivery and neonate data. The study was conducted in the Clinic of Obstetrics and Perinatal Medicine at Self-Dependent Public Clinical Hospital No 4 in Lublin. The study group consisted of 555 respondents, whose pregnancy ended between 22 and 36 completed gestational weeks, calculated from the first day of last menstrual period. In the group of women who gave birth prematurely the percentage of those who were satisfied and dissatisfied with the fact of conceiving a child was similar. Certain demographic factors such as place of residence, educational level and family income had a significant influence on the acceptance of pregnancy. Dissatisfaction with conceiving a child had a significant influence on certain unhealthy behaviours: active and passive smoking during pregnancy and late first prenatal visit (after the first trimester). Women who did not accept their pregnancy significantly more often gave birth earlier (before the 32nd week).

Key words: satisfaction with getting pregnant, preterm delivery

Psychological stress cannot be omitted when factors causing disturbances in the course of pregnancy or unsuccessful termination of it are concerned. Its role can be looked at from both a medical and a psychological point of view. Psychological research on the influence of psychogenic factors on the course and outcome of pregnancy were aimed at three various issues: obstetric aspect of the meaning of a pregnant woman’s emotional state, her personality and stressful situations she experiences during that period [4, 6, 16]. Mamelle and others [10] showed that elements such as dissatisfaction with getting pregnant, lack of good relations within the family, lack of contact with the husband and negative perception of body changed by pregnancy had a significant influence on preterm birth.

This paper is aimed at checking whether women whose pregnancy ended in preterm birth were satisfied with getting pregnant, what was the reason and whether it influenced the behaviour of the mother.

Material and methods
Following investigation tools have been applied: standardized EUROPOP GROUP poll questionnaire with own adjustments to Polish conditions and self designed poll questionnaire concerning woman’s lifestyle during pregnancy. Medical records analysis extracted from EUROPOP GROUP questionnaire aimed to: woman’s gynecological and obstetrical history assessment, establishment of pregnancy duration, pathological signs occurring in the course of pregnancy, mode of delivery, and neonate data.

The study was conducted in the Clinic of Obstetrics and Perinatal Medicine at Self-Dependent Public Clinical Hospital No 4 in Lublin. The pilot study had been carried out beforehand, which allowed to verify the questions contained in the own investigation tool.

The study group consisted of 555 respondents, whose pregnancy ended between 22 and 36 completed gestational weeks, calculated from the first day of last menstrual period. The age of the respondents was in the range of 18-48 years, including 357 (64.3%) at the age of 30 or younger, whereas 198 (35.7%) were older. The educational level of respondents varied – 315 (56.8%) middle or higher, 240 (43.2%) basic professional or basic. Respondents inhabited various places, including 333 (60.0%) from towns, and 222 (40.0%) from the country. Primigravida comprised 43.2% (240) of the studied population, and multipara 56.8% (315).
Monthly income in the respondents families oscillated from 53 to 1460 zloty per person. A subdivision into two groups was made based on the poverty line in Poland (548 zloty in 2002) [9]. A vast majority of women surveyed (123, i.e. 66.5%) had income below the poverty line and the remaining 62 (35.5%) above it.

Pregnancy at its end, according to obstetrical, ultrasonographical and neonatal assessment, continued for 22 to 36 weeks, with the median value of 32 weeks. In more than a half of women (315, i.e. 56.8%) pregnancy ended before 32 week, and in the remaining 240 (43.2%) after this period.

Obtained study results were subjected to statistical analysis. Analysed parameters, measured on the nominal scale, were determined according to the number and percentage. To detect existing differences or dependence between analysed qualitative features homogeneity $\chi^2$ or independence $\chi^2$ tests were employed. Conclusive error was assumed 5% and a significance level connected with it $p < 0.05$; indicating statistically significant differences or relationship. Statistical analyses were carried out by means of STATISTICA V.6.1 computer program (Stat Soft, Poland) [15].

Results

270 (48.7%) respondents declared that they were satisfied with getting pregnant. 285 (51.3%) mentioned their lack of satisfaction and 96 (33.7%) from the latter group admitted they were able to accept their pregnancy quickly. More detailed data and their relationship with demographical variables are shown in Tables 1-2.

Collected data showed that satisfaction with getting pregnant depended on the respondents’ place of residence ($p = 0.01$), their level of education ($p = 0.04$) and income ($p = 0.0002$). Women living in cities, with secondary or university education were more satisfied, as well as those with higher income. A relationship close to statistical significance ($p = 0.06$) was observed in case of respondents’ age. Younger women were more satisfied. Parity turned out to be insignificant. 375 respondents (67.6%) smoked before pregnancy, however stopped it during pregnancy.

The remaining 180 (32.4%) admitted to smoking from 1 to 30 cigarettes a day, averages 10 cigarettes (25th percentile – 5, 75th percentile – 15). When pregnancy was diagnosed 75 (41.6% of the latter group) gave up the habit and 105 (58.4%) continued smoking. 192 (34.6%) drank alcohol during pregnancy and 363 (65.4%) abstained from it.

Statistical analysis of the material proved an existing relationship between satisfaction with being pregnant and the risk of passive smoking ($p = 0.004$). Smoking during pregnancy turned out to be on the verge of statistical significance ($p = 0.05$).

Table 1. Satisfaction with pregnancy according to age, place of residence and educational level of respondents

<table>
<thead>
<tr>
<th>Satisfaction with getting pregnant</th>
<th>Age respondents</th>
<th>Place of residence</th>
<th>Educational level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Up to 30 years of age</td>
<td>More than 30 years of age</td>
<td>Town</td>
</tr>
<tr>
<td></td>
<td>$N = 357$ (64.3%)</td>
<td>$N = 198$ (35.7%)</td>
<td>$N = 333$ (60.0%)</td>
</tr>
<tr>
<td>Yes</td>
<td>$n = 192$</td>
<td>53.8</td>
<td>78</td>
</tr>
<tr>
<td>No</td>
<td>$n = 165$</td>
<td>46.2</td>
<td>120</td>
</tr>
<tr>
<td>Significance</td>
<td>$\chi^2 = 3.52$</td>
<td>$p = 0.06$</td>
<td>$\chi^2 = 5.76$</td>
</tr>
</tbody>
</table>

Table 2. Satisfaction with pregnancy in relation with parity and family income of respondents

<table>
<thead>
<tr>
<th>Satisfaction with getting pregnant</th>
<th>Parity</th>
<th>Family income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Primigravida</td>
<td>Multipara</td>
</tr>
<tr>
<td></td>
<td>$N = 240$ (43.2%)</td>
<td>$N = 315$ (56.8%)</td>
</tr>
<tr>
<td>Yes</td>
<td>$n = 132$</td>
<td>55.0</td>
</tr>
<tr>
<td>No</td>
<td>$n = 108$</td>
<td>45.0</td>
</tr>
<tr>
<td>Significance</td>
<td>$\chi^2 = 2.27$</td>
<td>$p = 0.14$</td>
</tr>
</tbody>
</table>
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Table 3. Satisfaction with getting pregnant and using stimulants during pregnancy

<table>
<thead>
<tr>
<th>Satisfaction with getting pregnant</th>
<th>Smoking during pregnancy</th>
<th>Risk of passive smoking</th>
<th>Drinking alcohol during pregnancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>N = 450 (81.1%)</td>
<td>N = 156 (28.1%)</td>
<td>N = 363 (65.4%)</td>
</tr>
<tr>
<td>Yes</td>
<td>N = 105 (18.9%)</td>
<td>N = 399 (71.9%)</td>
<td>N = 192 (34.6%)</td>
</tr>
<tr>
<td>N%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Yes</td>
<td>234 (52.0)</td>
<td>102 (65.4)</td>
<td>183 (50.4)</td>
</tr>
<tr>
<td>No</td>
<td>216 (48.0)</td>
<td>54 (34.6)</td>
<td>180 (49.6)</td>
</tr>
<tr>
<td>Significance</td>
<td>$\chi^2 = 3.56$</td>
<td>$\chi^2 = 8.11$</td>
<td>$\chi^2 = 0.43$</td>
</tr>
<tr>
<td>p</td>
<td>0.05</td>
<td>0.004</td>
<td>0.51</td>
</tr>
</tbody>
</table>

Women who smoked were more often dissatisfied. No significant relationship was discovered in case of drinking alcohol.

The timing of the first prenatal visit varied significantly. A vast majority of women (351 – 63.2%) made it during the first trimester, the remaining 204 (36.8%) later. The relationship between satisfaction with pregnancy and the timing of the first prenatal visit is shown in Table 4.

The data show that the relationship between timing of the first prenatal visit and satisfaction with getting pregnant was of high statistical significance ($p = 0.00007$). A statistically significant relationship was discovered when the time of the termination of pregnancy was taken into consideration. Women satisfied with pregnancy delivered children significantly later ($p = 0.03$).

Discussion

Motivations for parenthood vary. The desire to have a child may result from love, willingness to strengthen the relationship between partners or willingness to prove one’s sexual identity. It may also be treated as a cure for depression or loneliness [2, 5, 12]. The question of satisfaction with getting pregnant is complicated because it has a few levels: conscious, unconscious, intellectual, emotional and behavioral. In the surveyed group the percentage of women satisfied and dissatisfied with pregnancy was similar, the latter group being slightly larger. It may be alarming to certain extent as the lack of acceptance of pregnancy is mentioned as a stress factors for mothers. The research concerning the influence of stressful situations on the course of pregnancy showed that it is not the number of such situations but stress level that mattered. The most significant was the importance of being pregnant [1, 2, 7, 11]. It is claimed that there is a number of various factors that can influence the acceptance of pregnancy. Authors [2, 3, 14] point out to maternal age, their level of education, place of residence or family income. It also has been proven by the presented material, since women who were pleased with getting pregnant more often lived in cities, were better educated and had higher socioeconomic status. In case of family income the relationship was of high statistical significance. It proves a common opinion that
lack or shortage of financial resources is a reason for postponing maternity or resigning from it completely [8]. Planned parenthood always means the necessity to give up certain plans and habits. It means that every pregnancy can be a period of psychological crisis which, if dealt with properly, leads to a higher level of functioning, thus is beneficial for development [8]. Not always are the behaviours positive. According to Danish scientists [7], heavy stress changes the lifestyle of a mother-to-be, for instance increases the use of alcohol or smoking. It has been proven by the presented material, indicating that women who did not accept the pregnancy smoked more often and exposed the fetus to ETS. Messer and others [11] showed that maternal stress between 28th-30th week of gestation had a significant influence on the occurrence of preterm birth. Similar results were obtained by Rondo and others [13] who pointed out that the maternal stress doubles the risk of a pathological pregnancy. This research indicated that women dissatisfied with conceiving a child significantly more often gave birth before the 32nd week of gestation. Similar results were obtained by Mamelle and others [10]. It may be thus stated that low emotional state of a mother was disadvantageous to the course of pregnancy. It may suggest that women who do not accept pregnancy are at risk of preterm birth. Therefore it seems necessary to provide them with a professional psychological support.

Conclusions

In the group of women who gave birth prematurely the percentage of those who were satisfied and dissatisfied with the fact of conceiving a child was similar.

Certain demographic factors such as place of residence, educational level and family income had a significant influence on accepting pregnancy.

Dissatisfaction with conceiving a child had a significant influence on certain unhealthy behaviors: active and passive smoking during pregnancy and making the first appointment with the doctor later (after the first trimester).

Women who did not accept their pregnancy significantly more often gave birth earlier (before the 32nd week).

References


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