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ADAPTATION OF PREGNANT WOMEN IN THE CONTEXT OF SOCIO-DEMOGRAPHIC FACTORS AND LABOUR LAW

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Abstract. Occurrence of pregnancy puts a woman in a completely new situation not only physically, but also psychologically and socially. The process of adaptation to pregnancy is individual, depending on a number of factors such as age, current life plans, family and professional situation, or the ability to adapt emotionally. The aim of the study was to assess the degree of adaptation of pregnant women while determining the factors that can affect this process. The analysis considered education, professional activity, standard of living, housing conditions, number of past pregnancies, assessment of marriage/relationship, and parameters of sexual life included in the McCoy Female Sexuality Questionnaire (MFSQ). In the studied group of respondents, factors facilitating women's adaptation to pregnancy were professional activity and satisfaction with their partner in terms of sexual relations. This process was negatively affected by having children.

Keywords: adaptation; pregnancy; stress; motherhood; sexuality; professional activity.

INTRODUCTION

Holmes and Rahe included pregnancy in their Social Readjustment Rating Scale (SRRS) with a value of 40 out of 100 points, indicating the importance of this event in a woman's life [Holmes and Rahe 1976]. It is not uncommon for modern women to experience role conflict as they try to cope with both domestic, marital, and socio-professional responsibilities.

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For women who lack the ability to adapt quickly and completely to these changes, pregnancy may trigger negative emotions. Some scientific works on the specificity of the transition to motherhood, including the period of pregnancy, draw attention to the significance of this event, which can lead to stressful situations or maternal distress [Emmanuel and Winsome 2010; Light and Fenster 1974]. The aim of the study was to assess the degree of adaptation to pregnancy of the surveyed women and to determine what factors may shape this process. This study analysed education, professional activity, standard of living, housing conditions, number of past pregnancies, assessment of marriage/relationship and sexual life parameters included in the McCoy Female Sexuality Questionnaire (MFSQ) [McCoy 2000].

1. MATERIAL AND METHODS

The prospective research program included a group of 101 pregnant women between the ages of 17 and 41 who visited either gynecological clinics or private practices to confirm their pregnancy. 42 pregnant women were excluded from the study due to: cessation of sexual activity for medical and individual reasons – 19 respondents (45.2%), not consenting to participate in the study – 13 women (30.9%), and incomplete completion of the questionnaire research, preventing data processing – 10 respondents (23.9%). 59 respondents were qualified for the final analysis. Regarding the sphere of sexual life, the surveys were prospective in nature, and were conducted four times starting from qualification for the program (pregnant women up to 8 weeks into their pregnancy – 1st survey) consecutively at 12 weeks – 2nd survey, 24 weeks – 3rd survey and 36 weeks of pregnancy – 4th survey.

The research project was submitted and positively reviewed by the Bioethics Committee of the Medical University of Lublin.

Respondents with demographic characteristics such as age and education similar to the population of pregnant women in the Lublin Voivodeship were recruited for the study. The selection of research locations was purposive, with the intention of including women from a provincial capital city (Lublin), which is the largest academic center in eastern Poland, with schools and educational institutions at all levels. The city also boasts one of the highest ratios of students and academic staff to population in Poland. The selection of the second research center was made randomly from among other cities of similar size in the Lublin region. Biłgoraj is a small county town whose healthcare system serves both urban residents and surrounding rural areas.

A feature of the selection of respondents was also the type of health care provided, which the respondents used, with a distinction between paid

health care, which brings together a more affluent group of women, and free health care under contract with the National Health Fund, which is more often used by women of low or medium socioeconomic status.

The research tool was a questionnaire consisting of 3 parts-a general section on social status, a section characterizing attitudes toward pregnancy, and the McCoy Female Sexuality Questionnaire (MFSQ) relating to female sexuality. The effectiveness of the McCoy Female Sexuality Questionnaire (MFSQ) has been clinically proven many times.

The first part covered: age, place of residence, marital status, education, professional activity, standard of living, housing conditions, number of past pregnancies, assessment of marriage and planning for current pregnancy.

The part on women's adaptation to pregnancy included 8 statements on the evaluation of pregnancy in personal, partnership and family aspects. The statements referred to partner relationships during this period, self-esteem, feelings of fear and anxiety related to the expectation of offspring, perception of pregnancy as a difficult time, full of sacrifice and dedication. The test was based on a typical Likert scale, with five possible responses: strongly agree, agree, no opinion, disagree, strongly disagree. Positive statements (1, 3, 5, 7) were rated as follows: strongly agree – 5 points, agree – 4 points, no opinion – 3 points, disagree – 2 points, strongly disagree – 1 point. For negative statements (2, 4, 6, 8), the reverse scoring was applied [Łepecka-Klusek and Jakiel 2009]. For the purposes of the current study, an additional assumption was made: if women's adaptation of women to pregnancy is correct in the entire study group or the percentage of maladaptive cases is extremely low, a comparison will be made in the group of women who adapt well, based on the median of the obtained results – women who adapt well with scores from the test threshold of 16 points to the median, and those who adapt very well above the median in the test.

The MFSQ questionnaire consists of 19 items rated on a 7-point scale combined into 5 collective domains (subscales): I – sexual interest (6 questions), II – sexual satisfaction (3 questions), III – vaginal lubrication (3 questions), IV – orgasm (4 questions), V – sexual partner (3 questions). Undoubtedly, the advantage of the MFSQ questionnaire is the ability to obtain an overall assessment of sexual life and individual domains.

Interpretation of the above partial results and the global score relates to a linear relationship – a higher score corresponds to better overall sexual functioning, as well as with respect to individual categories [McCoy 2000]. Approval was obtained from the *Mapi Research Trust* (France) to use the MFSQ questionnaire in the presented research project.

2. STATISTICAL ANALYSIS

For measurable traits, the normality of the distribution of analyzed parameters was assessed using the Shapiro-Wilk test. The Mann-Whitney U test was applied to compare independent groups. For more than two groups, the Kruskal-Wallis test was utilized. To compare multiple dependent variables, the Friedman ANOVA test was employed. Logistic regression was used to assess the probability of experiencing poorer pregnancy adaptation, enabling the analysis of data in a manner where the dependent variable contains probabilities ranging from 0 to 1. In the medical problem under consideration, the dependent variable is dichotomous: 1 represents good adaptation of pregnant women, while 0 represents very good adaptation to pregnancy. The regression coefficient (Z) obtained from the analysis, after logarithmic transformation, falls within the range [0,1], indicating the probability of weaker adaptation to pregnancy concerning specific clinical cases. A significance level of $p<0.05$ was adopted, indicating statistically significant differences or dependencies.

3. RESULTS OF STUDIES

The average age of the respondents was 27.97 ± 5.15 years. The majority of the respondents had higher education (n=28; 47.46%), 38.98% (n=23) had secondary education, and 13.56% (n=8) had vocational education. Among the respondents, 79.66% (n=47) were married, 16.96% (n=10) were unmarried (in an informal relationship with the father of the child), and 3.38% (n=2) were single/divorced. More than half of the respondents were employed (n=36; 61.02%), while 38.98% (n=23) were unemployed.

The majority, 79.66% (n=47) of the women declared having very good housing conditions (independently large apartment or house with amenities), the next 18.65% (n=11) of respondents had good conditions (small apartment/room with kitchen or independent room at parents'), and only 1.69% (n=1) had poor housing conditions (shared room).

Almost half of the respondents stated that the standard of living they have is good (n=29; 49.15%). For 20.34% (n=12) of the respondents, their material status/standard of living was high, while 28.82% (n=17) of women had average conditions, and 1.69% (n=1) described their material status/standard of living as poor.

Primiparous women accounted for 69.49% (n=41), while the remaining 30.51% (n=18) of the respondents already had children. More than half of the respondents admitted that the current pregnancy was unplanned for

them (n=30; 50.85%), while for 49.15% (n=29), it was the result of conscious procreative plans.

The majority of women described their relationship with their husband/partner as relatively successful (n=26; 44.07%). The second largest group of respondents (n=24; 40.68%) considered their relationship to be very successful, while 13.56% (n=8) of women stated that the relationship with their partner could be better. Only 1.69% (n=1) of the respondents considered their relationship with their partner to be completely unsuccessful in their opinion.

3.1. Women's adaptation to pregnancy

The average score of adaptation to pregnancy obtained by the surveyed women was 28.61 ± 3.43 (Me=29), indicating proper adaptation across the entire study group. The Cronbach's alpha coefficient was 0.55, and the mean correlation between questionnaire statements was only 0.15. Therefore, an additional assumption was used, dividing women based on the median value (Me=29) into two groups. In the first group, women who scored up to 29 points were considered to adapt well to pregnancy, while those scoring above 29 points were grouped in the second group, considered to be very well adapted. Women with good adaptation accounted for 45.76% (n=27), while 54.24% (n=32) of the respondents were very well adapted. The statistical analysis did not reveal a significant relationship between women's adaptation to pregnancy and their age, place of residence, level of education, material standard of living, housing conditions, satisfaction with their relationship with the child's father, or whether the pregnancy was planned. However, the analysis showed a near-significant relationship (p=0.05) between the process of adapting to pregnancy and women's occupational activity. It was found that professionally working women were significantly more likely to demonstrate very good adaptation to pregnancy (63.89%) compared to non-working women (39.13%).

Furthermore, the relationship between women's adaptation to pregnancy and having children reached statistical significance (p=0.03). It was observed that surveyed women who already had children (33.33%) significantly less frequently exhibited very good adaptation in subsequent pregnancies compared to women who were primiparous (63.41%).

3.2. Assessment of factors influencing women's adaptation problems to pregnancy

The assessment of factors influencing women's adaptation to pregnancy included variables such as age, place of residence, number of pregnancies,

planning of pregnancy, occupational status, and evaluation of sexual parameters in the 6-8th week of pregnancy based on the MFSQ scale.

Stepwise logistic regression analysis with quasi-Newton estimation was used to analyze the effects of all the mentioned factors in the study group. The results showed that only two of the several variables analyzed had a statistically significant ($p<0.05$) effect on the constructed model and were therefore included in the regression equation. This is confirmed by the final incremental test value $x^2 = 36.19$ for the goodness of fit. The obtained model significantly ($p=0.01$) differed from the model with only the intercept, indicating a good fit to the obtained data (see Table I).

The calculated values of the parameter estimators of the model, which are confirmed to be significant by the t-Student and Wald tests, allow describing the model along with estimation errors. The model, described by the included variables, is as follows: logit P= – 1,29 professional activity – 0,22 sexual partner

The risk of poorer adaptation to pregnancy decreases by *0.28 times* in professionally employed women and by *0.80 times* with a higher rating of the partner in terms of sexual relationship in the 6-8th week of pregnancy.

Table I. Results of logistic regression analysis of analyzed parameters influencing adaptation to pregnancy

n=59	Constant B0	Professional activity	Rating of sexual partner in 6-8th week of pregnancy
Rating	5,763	-1,289	-0,225
Standard error	2,121	0,605	0,101
t-value	2,717	-2,132	-2,222
p-value	0,009	0,037	0,030
-95%CL	1,513	-2,500	-0,427
+95%CL	10,013	-0,078	-0,022
Wald's Chi-square	7,380	4,547	4,935
p-value	0,007	0,033	0,026
Odds ratio (unadj.)	318,308	0,276	0,799
-95%CL	4,541	0,082	0,652
+95%CL	22310,590	0,925	0,978
Odds ratio (adj.)		0,276	0,084
-95%CL		0,082	0,009

4. DISCUSSION

G.L. Bibring, one of the first psychoanalysts to focus on understanding the psychological changes preparing for motherhood, perceived pregnancy as one of the significant developmental crises in a woman's life [Bibring, Dwyer, Huntington, et al. 1961]. She noted that pregnant women experience a specific constellation of emotional changes resembling a crisis, which mobilizes energy and prepares them to engage in new roles, while also being a time for building a new identity. It is emphasized that during pregnancy, due to the ease of reactivating childhood memories, anxieties and latent conflicts that were previously repressed may be aroused [Davis and Narayan 2020]. Furthermore, the waiting period for offspring naturally promotes experiencing heightened levels of anxiety [Dipietro, Costigan, and Sipsma 2008]. The authors understand this as a sign of women's efforts to resolve conflicts with their maternal objects and to shape their identity. Sometimes the adaptation process can be so burdensome that it manifests as weakened functioning in various aspects of a pregnant woman's life, including sexuality. The biopsychosocial dimension of changes during pregnancy may serve as a triggering or exacerbating factor in sexual difficulties [Brtnicka, Weiss, and Zvěřina 2009; Erenel, Eroğlu, Vural, et al. 2011; Morof, Barrett, Peacock, et al. 2003; Sottner, Zahumensky, Krcmar, et al. 2007].

Numerous scientific publications regarding women's attitudes during the transition to motherhood, starting from pregnancy, emphasize the lack of fluidity in this process and the associated experience of stressful situations [Ribeiro, Gondim, Scorzafave, et al. 2022; Biaggi, Conroy, Pawlby, et al. 2016], anxiety [Dipietro, Costigan, and Sipsma 2008], distress or unhappiness [Armstrong 2002], as components of the phenomenon known as maternal distress experienced by mothers [Saur and Dos Santos 2021; Sjöström, Langius-Eklöf, and Hjertberg 2004; Emmanuel and Winsome 2010].

It seems that women's adaptive abilities to pregnancy may be determined by various factors, including previous experiences related to motherhood and childbirth, the current situation of the woman, her psychoemotional and socioeconomic status, as well as personality type [Biaggi, Conroy, Pawlby, et al. 2016; Wiklund, Edman, Larsson, et al. 2006]. Considering the intensity of anxieties and concerns depending on the advancement of pregnancy, it appears that pregnant women experience them least during the second trimester [Wilska, Rantanen, Botha, et al. 2021; Onah, Iloabachie, Obi, et al. 2002].

In the conducted study assessing women's adaptation to pregnancy, among several analyzed factors that could influence the attitudes of the participants, such as age, place of residence, education, standard of living, having children, planning the current pregnancy, professional activity, satisfaction with the relationship, and evaluation of sexual parameters in the

6-8th week of pregnancy based on the MFSQ scale (desire, lubrication, satisfaction, orgasm, sexual partner), only three showed statistical significance. The study demonstrated that factors positively influencing the adaptation process of the respondents were professional activity and satisfaction with the partner in terms of sexual relationship. Having children among the respondents was identified as a factor weakening the adaptation process to subsequent pregnancies. It may seem surprising that age, planning the current pregnancy, or standard of living, attributes commonly correlated with the process of adapting/women's attitudes to the existing pregnancy, did not have a significant influence ($p>0.05$).

In the publication by Gupton et al. [Gupton, Heaman, and Wang-Kit Cheu 2001] and Da Costa et al. [Da Costa, Larouche, Dritsa, et al. 1999], pregnancy planning also showed no significant correlation with the occurrence of emotional tensions or maternal distress. It is possible that in this context, unwanted pregnancy may have a stronger impact than unplanned pregnancy [Ross, Sellers, Evans, et al. 2004]. Many researchers note that the professional activity of pregnant women is associated with feelings of anxiety and stress [Kim and Chung 2018; Widowati, Kundaryanti, Ayuwan, et al. 2021; Lojewski, Flothow, Harth, et al. 2018]. In the study conducted by the researcher, the professional activity of the respondents was identified as a facilitating factor in adapting to the new situation. In the context of this result, the aspect of satisfaction with professional achievements, feelings of fulfillment, stability, and a lesser sense of loss regarding entering motherhood could be discussed. In the light of the current economic situation, frequent adjudication on temporary incapacity for work during pregnancy may be related to employers, reluctance to employ women of reproductive age, and may be a stress factor for women related to fear of competitiveness on the labor market or further professional development. In Poland, complications of pregnancy, childbirth and the postpartum period are one of the most common causes of sickness absence in general.[1] The reason for such a large number of medical certificates on temporary incapacity for work among pregnant women is primarily the diseases diagnosed in the mother and pregnancy complications. The basic provisions regulating the conditions and safety of employment of pregnant women are the Act of 26 June 1974 – the Labour Code (section VIII entitled "Employee rights related to parenthood")[2] and the Regulation of the Council of Ministers of 3 April 2017[3] on the list of strenuous, hazardous or harmful to health and may adversely affect their health, pregnancy or breastfeeding. The list is the basis for

[1] See https://www.zus.pl/documents/10182/39590/Absencja+chorobowa_raport_2023+.pdf/9be10057-0b2b-74f5-d397-2de1eefb1259?t=1710850664000 [accessed: 24.09.2024].

[2] Journal of Laws of 2024, item 878 as amended.

[3] Journal of Laws item 796.

determining (within the work regulations prepared by the employer) the type of work that, due to the severity and/or conditions of the working environment in a given workplace, cannot be performed by pregnant women. The general provisions of the Labour Code state that the working time of pregnant employees cannot exceed 8 hours a day and that a pregnant woman cannot be employed at night or delegated (without her consent) outside the place of permanent work. In own research, women's professional activity was analysed only on the basis of declarations in the first trimester of pregnancy. It seems reasonable to take into account in future research the impact of sickness absence in subsequent trimesters of pregnancy on the adaptation process and psychosocial functioning of women. It would also be valuable to learn about women's beliefs about their role in family and social life in the context of their willingness to continue professional activity or not during pregnancy. However, it is worth noting that the subjective assessment of the standard of living among pregnant women did not significantly differentiate the study group. In an era of increasing living standards and higher social expectations, it was anticipated that the financial benefits of professional activity would have a more significant influence on women's ability to adapt to pregnancy. For example, an analysis conducted on a group of 177 pregnant women in Sweden indicates generally better well-being in early pregnancy among respondents with higher economic status [Sjöström, Langius-Eklöf, and Hjertberg 2004; Nicholls-Dempsey, Badeghiesh, Baghlaf, et al.2023]. It is beneficial to refer to the study by Łepecka-Klusek and Jakiel (2009), which took place under similar conditions (Lublin Voivodeship) and utilized the same test to examine adaptation to pregnancy. In a retrospective study, the authors evaluated the adaptation of women to pregnancy in two groups, depending on the method of conception: natural and assisted reproductive technology. The adaptive difficulties identified by the researchers were significant for those better off than for those worse off, and furthermore, the necessity to give up professional activity was strongly associated with a weakening of adaptive capacities to pregnancy.

Karacam analyzed 1039 Turkish pregnant women for the occurrence of anxiety, stress, and depressive symptoms based on factors such as self-worth, marital satisfaction, employment status, domestic violence, unwanted pregnancy, etc. Their results indicate a higher risk of experiencing symptoms of decreased psychoemotional functioning during pregnancy among housewives/non-working women, attributed to financial dependence on their partners and the low status of women in traditional, patriarchal Turkish families [Karacam and Ancel 2009]. Among other factors contributing to the emergence of anxiety and depression during pregnancy, the authors listed marital problems, low self-esteem, recent stressful events, lack of support

from others, young age, and low level of education [Biaggi, Conroy, Pawlby, et al. 2016; Ohman, Grunewald and Waldenström 2003].

This study's finding that having children is associated with lower likelihood of very good adaptation to pregnancy diverges from most previous research [Deave, Johnson, and Ingram 2008] Most scientific reports on this topic have linked adaptive problems with primiparous women. Due to the lack of experience in childcare, the changes experienced during pregnancy are more strongly felt by primiparous women, making them particularly susceptible to adaptive problems during pregnancy [ibid.; Modh, Lundgren, and Bergbom 2011]. In this case, negative experiences of women from previous pregnancies and childbirth could be a source of anxiety and concerns about the course of the current pregnancy, although this issue was not considered in this study. Mauren O'Reily, observing the experiences of women in their second pregnancy, identified several problematic aspects of being a mother to another child. The author mentions sadness associated with the loss of a unique bond with the first child, concerns about meeting the demands of raising a larger number of children, or even planning the organization of life for a growing family [O'Reily 2004]. Similarly, Petersen (2009) while examining parents' concerns during pregnancy, noted anxiety about the reaction of older children to the birth of a sibling, although these were few cases. Data on the age of the children could contribute significantly to understanding these issues [Petersen, Paulitsch, Guethlin, et al. 2009].

In the presented study, a higher rating of the sexual partner (MFSQ) was accompanied by easier adaptation to pregnancy. The domain of the sexual partner in the MFSQ questionnaire referred to satisfaction with the man as a lover, friend, but also included his potential erection problems. Positive perception of the man in these aspects may be associated with having particularly strong mutual understanding between partners, providing support, and facilitating the woman's adoption of a constructive attitude in the new situation. However, it is puzzling that overall satisfaction with the relationship did not significantly differentiate how respondents adapted to pregnancy. Therefore, it is difficult to explain the causal nature of this situation: could it be that the relationship with the partner, emphasizing the sexual aspect (sexual partner domain – MFSQ), more strongly influences adaptation/attitude towards pregnancy than overall satisfaction with the relationship?

When attempting to relate the obtained results to studies by other researchers, it seems necessary to outline the limitations of the analysis. A one-time study of women's adaptation in the early stages up to 6-8 weeks of pregnancy may constitute a significant weakness due to the unique nature of early pregnancy. The initial period of pregnancy often exhibits an ambivalent attitude in women, even when the pregnancy was planned and anticipated, or conversely, an extremely narcissistic fantasy of being the

perfect mother and creating the perfect child. The realistic possibility of transformation in women's initial attitudes as pregnancy progresses does not provide entirely certain and reliable conditions for the conducted analysis. Therefore, it seems appropriate to conduct further in-depth research in this area and to ensure the psycho-emotional health of pregnant women in the care provided by midwives and doctors. This is particularly important considering the proven impact of prenatal anxiety on both the mother and the child. Anxiety disorders during pregnancy may predispose to somatic problems such as hypertension [Garza-Veloz, De la Rosa, Ortiz-Castro, et al. 2017], psychiatric disorders such as depression during pregnancy, postpartum depression, and anxiety disorders later in life [Biaggi, Conroy, Pawlby, et al. 2016; Rwakarema, Premji, Nyanza, et al. 2015; Huizink, Menting, Oosterman, et al. 2014]. Anxiety disorders during pregnancy also pose a greater risk of preterm birth, worse newborn parameters assessed on the Apgar scale, and behavioral disorders [Sandman, Glynn, Schetter, et al. 2006; Wallwiener, Goetz, Lanfer, et al. 2019; Hasanjanzadeh and Faramarzi 2017; Adamson, Letourneau and Lebel 2018].

CONCLUSIONS

The conducted analysis revealed that the pregnant women under study generally exhibited good and very good adaptation to pregnancy. In the surveyed group of respondents, factors facilitating adaptation to the ongoing pregnancy were professional activity and satisfaction with the partner in terms of the sexual relationship. Conversely, having children negatively impacted this process.

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