

## CHAPTER 8

# PSYCHOSOCIAL CONDITIONING OF STRESS IN HIGH-RISK PREGNANCY AS A RESULT OF GESTATIONAL DIABETES

### SUMMARY

The aim of the thesis is assessment of psychosocial conditioning: type D personality, temperament, resilience, quality of marriage, influencing the kind of gain and loss of personal resources as well as the assessment of amount of stress in high-risk pregnancy as a result of pregnancy diabetes. 48 women with pregnancy diabetes were examined at Pregnancy Pathology Ward in Dr Jan Bizieli University Hospital No. 2 in Bydgoszcz. In the research the following instruments were applied: Type D Assessment Scale (DS14), Temperament Questionnaire EAS, Polish Resiliency Assessment Scale (SPP-25), Questionnaire of Marriage Quality, Conservation of Resources Evaluation, Perceived Stress Scale (PSS 10).

The research results show that the experienced stress in 67% is caused by the feeling of poor economic status, low openness to new experiences, feeling fear, low social inhibition and bigger number of children. Individual features such as: age, place of living, economic status, resemblance to partner, disappointment, self-fulfillment, distressed personality, resilience features account for the gain and loss resources. Psychosocial conditioning correlate with gain and loss resources after childbirth.

**Key words:** high-risk pregnancy, pregnancy diabetes, stress, conditioning, resources.

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## HIGH-RISK PREGNANCY AS A RESULT OF GESTATIONAL DIABETES

Personal resources play an essential role in a man's life in adaptation to a new reality, overcoming and dealing with obstacles. Undoubtedly, new experiences may enrich the increase in certain resources as well as contribute their shrinking while dealing with current difficulties. Procreation time changes the way of daily functioning, especially in the situation when it is threatened.

Gestational diabetes, despite much improved prognosis in recent decades, still, to great extent, is connected with occurrence of congenital disorders during pregnancy, early miscarriages. 3 to 4 times higher comparing to the population of women not being threatened with gestational diabetes.

By the end of XIX century mothers' death rate was 60%. The discovery of insulin by Cating and Best in 1921 and fast popularization of treating diabetes changed much in medicine (Wender-Ożegowska, Zawiejska, Brązert 2006).

The breakthrough in treating diabetes took place in 1953 thanks to Priscilla White, who, as the first, indicated treatment scheme where she included dietary regime, often application of little doses of insulin each time based on assessment of glucose content in urine sample and weekly assessment of glucose level in blood. Besides this, caesarean section was recommended after finishing the 35th week of pregnancy if the fetus has achieved proper body mass to avoid stillbirth which happened in 68% of cases. Only in 1970 first tests assessing level of phospholipids in amniotic fluid were drawn up, which enable assessing development level of fetus' lungs and contributed to decrease in premature caesarean sections. Thanks to the application of available methods of fetus supervision in gestational pregnancy, stillbirth in advanced pregnancy and neonate death rate due to respiratory failure were much decreased (Wender-Ożegowska, and others. 2006).

The term high-risk pregnancy also called threatened pregnancy is used in context of appearance, both with mother or fetus, of factors described as threatening the health or relation (Hatmaker, Kemp, 1998). This group comprises of pregnancies threatened with miscarriage, preterm birth, where high risk of fetus is between 6th and 20th/22nd week. Medicine distinguishes two basic kinds of miscarriage risk factors. First of them are genetic, hormonal, anatomic, immunological factors and intracorporeal inflammation. The other one includes psychogenic factors – releasing psychological stress resulting with strong inner tension, fear, feeling of danger, low spirits, feeling of uncertainty. Miscarriage as a failure in keeping pregnancy results in losing a child. It is the consequence of too low birth weight, not exceeding 500g which does not leave the chance to survive outsider mother's body (Pisarski, 1998).

Mother's illness or development of illness as a result of pregnancy contribute to high risk pregnancy. Such illnesses as gestational diabetes, high blood pressure, heart diseases, renal failure cause occurrence of biological and psychological stress. Women ill with diabetes are more susceptible to higher risk of having a child with congenital disorder, excessive body mass. In this case, there is also higher perinatal death rate. During pregnancy glycemia level is lower than with not pregnant women. It is the result of glucose transfer to the fetus as well as the domination of hypoglycemic factor, that is insulin over hyperglycemic ones during pregnancy. With pregnant women, basic insulin release and induction with nutritional factor is bigger (Oleszczuk, Szymański, Wilczyński, 1999).

National Group of Diabetes Registration and Perinatologist Association recommend that all pregnant women go through screening test. It arises from the fact that almost a half of the women diagnosed with gestational diabetes are not burdened with any risk factors. In this matter one-hour 75 g glucose test is carried out. Content of glucose is measured in two stages – the first on empty stomach and the next with the use of glucose. Gestational diabetes is diagnosed in two cases, when on empty stomach the result is 105 mg/dl, after an hour 190mg/ml, after 2 hours 165 mg/dl, after 3 hours 145 mg/dl (Kjos, Mestman, 1995).

Diabetes occurring during pregnancy increases miscarriage rate. It also raises the frequency of perinatal deaths. The born children are more often diagnosed with irregularities. It arises from the fact of equalizing glycemia at conception and during organogenesis. Gestational diabetes increases occurrence of stillbirth due to metabolic disorders in final weeks of pregnancy and so sooner labour between 36th-37th week is recommended. It also causes macrosomia. Children of women ill with diabetes more frequently develop features of macrosomia and are exposed to dystocia. Another consequence of gestational diabetes is slow development of fetus' lungs. Diabetes increases the risk of complications in pregnancy, influences pre-eclampsia, polyhydroamniosis, urinary system infections and vaginal yeast infection (Hanretty, 2006 ).

## **PSYCHOLOGICAL CONSEQUENCES OF HIGH-RISK PREGNANCY**

A patient with gestational diabetes requires multispecialist care of endocrinologist, perinatologist, noenatologist. Emotional condition of a pregnant woman is dependent on medical, personality and social factors. The state of high risk pregnancy mostly comes down to bedridden for a long time at home, and in more serious cases – in hospitals. The fact of exclusion from daily activities effects in stress.

Women hospitalized due to pathology of pregnancy are severely affected by the fact of being separated with their family, stay in an unknown place, they worry whether the other householders will manage chores, missing family, fear of not being able to communicate with medical staff (Szymona-Pałkowska, Steuden, 2009).

The fact of going through medical examination is a big burden. Staying in a hospital uncovers mood disorders, emotional lability towards the pregnancy and the child in comparison to the women who stay at home. Perception and assessment of the threat to a child as hard to control evokes triggering defense mechanisms, increase of feeling of helplessness, hopelessness, and depression (Szymona, 2005; Szymona-Pałkowska, 2005).

Awareness of the high-risk pregnancy and its consequences leads to the parents suffering from long-term psychological stress. The level of the stress often exceeds the adaptation abilities. Advancement of medicine contributes to upkeeping the lives of the children born with little body mass. More and more of them later develop healthily and properly. Nonetheless, the fact only to little extent bridges parents' negative emotional experiences. At the beginning of a high risk pregnancy parents are informed of its negative effects as well as instructed on the medical procedures decreasing its risk. In fact, the information reaching the parents has a double effect. On the one hand, the information gives the feeling of controlling the threat and the situation. On the other hand, the knowledge does not diminish the level of experienced stress (Szymona, 2005; Szymona-Pałkowska, 2005).

Women in high-risk pregnancy are characterized with higher excitation, anxiety and irritability. They are often in low spirits and have breakdown. High risk pregnancy may be perceived as a failure concerning motherhood, which to great extent reduces the feeling of self-consciousness, satisfaction of the role. Women in this state try to reduce the tension, what has the opposite result, namely the increase of excitation and irritability (Semczuk, Steuden, Szymona, 2004).

Bogucka and associates (1995) researched the kinds of defense mechanisms applied in the situation when the labour and pregnancy are threatened with complications resulting from the health condition. The research showed that the usually applied defense mechanisms are as follows: eluding which takes the form of blocking the access to information and not confronting the difficult situation.

However, it is the short-term form of handling the situation because sooner or later the patient must confront the reality and take a different form of dealing with it.

The effect of 'sweet grapes' shows in the way of thinking that everything will be all right. Using the mechanism patients take advantage of the positive

experiences from their lives as a way of handling the difficult situation, building positive thinking.

The feeling of controlling and having influence on the situation is another defense mechanism applied by the patients of pathology of pregnancy. It is based on collecting information on the illness, e.g. the way of controlling glycemia in case of gestational diabetes, following a diet.

It has been shown that among ways of handling stress there are three basic, dominating styles and they are: eluding, solving problems and positive judging the situation. The active way of dealing with stress excessively concentrates attention on the child and so becomes more stressful and secondarily increases the risk of premature labour. Positive attitude towards oneself and the pregnancy reduces the level of tension. Women in high-risk pregnancy maintained that the support of the husband, friend and mother were extremely helpful. While in hospital, kind and professional attitude of medical staff is invaluable. The information passed by medical staff had impact on reduction of patients' anxiety (Semczuk, and others, 2004).

The results of research conducted by Barańska and associates (1995) showed that there is a need of extending the psychological care on the hospitalized women due to high-risk pregnancy. The women suffer from higher level of anxiety and feel negative emotions concerning their difficult situation. High-risk pregnancy demands from a woman vast adaptation strain. Preference of wishful thinking as a strategy of handling anxiety results from the necessity of staying in bed as well as subordinating activities to the hospital rhythm.

## **STRESS IN THE CONCEPT OF CONSERVATION OF RESOURCES THEORY BY STEVEN E. HOBFOLL**

The main aim of human activity is gaining, keeping and protection of valued objects defined as resources. Resources are things valued by people. They include objects, conditions, personality features and energy resources (Heszen-Niejodek, 2007). People aim at gaining, keeping and protection of what is valued by them. Stress arises in circumstances of the threat of losing or actual loss of the resources necessary to survive for an individual ascribed to a family or social organization. Stress also arises when there is threat of losing resources or they are, in fact, lost or when investment of substantial amount of resources does not bring expected gain (Hobfoll, 2006). The first value division of the author was: material resources: house, communication means, fetishes, personal resources: professional competences, social abilities, leadership skills, state resources: health, employment, stable job, length of employment, marriage, values of

energy resources: they can be exchanged into the resources belonging to other categories (money, creditability).

Now the author enumerates four types of resources. They are divided into external and internal resources. The internal resources are as follows: self-esteem, professional competences, optimism, the feeling of competence. The external ones are: social support, employment, economic status (Hobfoll, 2006).

Stress is the consequence of social conflict of resource competition. Social competition binds the individual to the group in this way that personal resources (self-esteem, hope, professional competences) intertwine with adherence with the group or religious community. Self-esteem influences the choice of the right group.

COR (Conservation of Resources) theory says that the loss of resources is clearly incommensurate with gains. In other words, with the same state of gain and loss, the impact of the loss will be a lot stronger. It is mainly the loss or threat of loss of resources that define stress in terms of ontology, ontogeny and culture.

## **PSYCHOSOCIAL CONDITIONING OF STRESS CONCERNING PROCREATION**

Resilience is defined as an individual's ability to seclude from negative experiences and flexible adaptation to constantly changing life demands (Block, Block, 1980).

The term can be translated as resilience, elasticity, pliability, flexibility. Among the above mentioned suggested translations of the feature 'resilience' is regarded as best describing the meaning of the construct. The word resilience comes from Latin verb *salire*, which means springing and *resilire* – nip, come back to the previous state. There are two terms applied in literature- resilience, meaning effective overcoming negative apparitions and life events and resiliency meaning personality feature or relatively constant resource of an individual (Ogińska-Bulik, Juczyński, 2008).

Resilience is defined as a collection of personal features (ego-resilience), which include:

- set of abilities (competences) thanks to which a man deals with problems;
- abilities of effective handling stress of great intensity which involves flexible and creative handling obstacles;
- the ability to create and keep satisfying social bonds which may contribute to creation of positive emotions (Sęk, Heszen 2007).

Resilience is treated as an essential indicator of mental health which may protect an individual from developing signs of inadequacy or decrease their intensity (Connor 2006).

Semmer (2006) indicates that a resilient person is the one who interprets the environment as favourable or, similarly to an optimist, expects more positive events to happen to them than negative ones. The person is submissive, perceives stressful events as challenges. Accepts worsening of a situation and treats experienced failure as a normal event. Treats life as something that can be influenced as a result of their own activity and treats oneself as a person able to influence it. Difficulties are perceived as the chance for self-development.

The presented characteristics show that resilience is connected with such personality constructs as: emotional stability, openness to experience, optimism, feeling of coherence, feeling of control, feeling of being effective. It also shows that the inseparable personal feature leading to resilience is hardiness (Bartone, 2006).

Another feature of character modifying reactions to stress is having or not having type D personality. The term of type D personality was introduced in literature by Dutch psychologist Johan Denolett (Denolett, 1998). The personality is defined as distressed personality or prone to stress. Type D includes two relatively constant features: negative emotionality expressed with inclination to experience strong negative emotions such as fear, anger, irritation, hostility. The other one is social inhibition which concerns avoiding danger regarding social relations and refraining from expressing negative emotions and behavior.

Suppressing emotions is done consciously and appears in the social situations for fear of other people's negative opinion of and rejection. Type D personality people tend to worry, have low feeling of security, perceive the world pessimistically, feel unhappy, guilty, are shy and have weak bonds with others. They feel discomfort in presence of other people. Keep distance and do not share their emotions for fear of being rejected. Social inhibition shows big resemblance to introversion, is connected with suppressed temperament dealing with shyness, timidity, difficulties in expressing emotions. They are constant features, not changing in the course of development. Social inhibition also seems to be the equivalent of the personality type characterized by excessive control shown in difficulties in expressing emotions. As a result, the type with excessive control can be ascribed with the features characteristic for neuroticism and introversion (Strelau, Zawadzki, 2008; Ogińska-Bulik, 2009).

Type D personality people often experience psychological stress, are prone to depression, have difficulty perceiving and benefiting from social support, low self-esteem and the feeling of exhaustion (Ogińska-Bulik, 2005). Type D personality, especially negative emotionality, is connected with neuroticism. It is expressed with the tendency to catastrophic outlook on reality, estimating

events as threatening and harmful, feeling strong anxiety and tension. In social situations such an individual is shy and has discomfort in presence of others, worries and pessimistically looks on the world (Ogińska-Bulik, 2009).

Another behavioural moderator is temperament regarded as an important regulator of emotional reactions and one of the factors being the basis of stress handling styles. It influences regulation of effort which means distribution or protection of resources. It is regarded as a risk factor of negative consequences of stress, impact of behavioural disorders, deterioration of health condition and appearance and lasting of unfavourable physiological and biochemical changes (Heszen-Niejodek, 2002).

'Temperament refers to relatively stable personality features, occurring in people from early childhood and having their equivalents in the animal world. Being primarily determined by innate neurobiochemical mechanisms, temperament is subject to slow changes caused by the process of adolescence and individually specific relation between a genotype and environment' (Strelau, 2006a, p. 693).

The most consequently hereditary aspect of temperament was mentioned in the theory of Buss and Plomin where 'temperament is referred to as these personality features which are hereditary and present from early childhood' (Buss, Plomin, 1984, p. 84). Buss and Plomin emphasize temperament is the foundation of human personality. When a man is very young, when their experiences are scarce almost all their personality is filled with temperament. The authors of the theory identified three basic temperaments: emotionality, activity level and sociability.

Emotionality according to Buss and Plomin includes distress, anger, fear. Distress is understood as emotional indifference expressed with the tendency to easy and intense response with anxiety where the level of nervous system activation is extremely essential.

Activity level is connected with physical energy output. Its constituent parts are tempo and vigor. Active people move fast and prefer fast-paced activities.

Sociability shows in a general tendency to find other people, be among them and avoid loneliness. People with high level of the feature are highly motivated to search for company (Oniszczenko, 1996). Temperament, according to authors, plays an important role in interaction person – environment. Very active people look for such situations where they can give vent to their energy. Sociability makes people search for social interactions, at work they prefer team work. Difficulties in a person's functioning can result from excessive emotionality leading to hyperactivity, frequent tantrums and these impact the quality of relations with environment. Excessive activity may lead to boredom in situations requiring decreased activity (Oniszczenko, 1997). Similar correlations were noticed in research based on the Eysenck's theory, where with little possibility to process stimulation and high emotional reactivity (emotionality in EAS) with



decreased activity, people undergo great emotional strain, which translates into capacity to acquire neoplastic diseases (Izdebski, 2007).

The information available in literature also shows that neuroticism as defined by Eysenck, that is the tendency to express negative emotions such as fear and strain (emotionality in EAS) has great modifying impact on behavior in stress situations, that is connected with increased stimulation of sympathetic nervous system. Very important is the relation of neuroticism and emotional reactivity which is expressed with little emotional resilience, that is essential while confronting with stressors (Strelau, Zawadzki, Oniszczenko, Sobolewski, Pawłowski, 2004).

Temperament in this theory plays an important modifying role. The authors put forward a hypothesis that a proper combination of two temperaments – activity and sociability may be the reason for individual differences in mood (depression) (Oniszczenko, 1997).

The above implies that the temperament features indirectly, through moderation of the level of activation, as a result of the influence of defined stressors, have an impact on the tinge of experienced emotions. They, however, regardless of experiencing life events, may generate certain emotions. Features of temperament which refer to negative emotions, independently from their particularity, are the stress moderators by increasing or decreasing emotional reaction to stress. Buss and Plomin expressed that by writing that emotionality means the tendency to easy and intense distress (Strelau, 2006a, 2006b).

Another conditioning having impact on undergoing high-risk pregnancy is the quality of marriage referred to as ‘subjective assessment of the relation of a married couple’ (Rostowski, 1987, p. 25). The quality of marriage depends also on how partners’ roles are defined and what strategies will be agreed on so that the marriage can execute its tasks. Getting married leads to changing personal identity. Marriage makes people take on a new role of a spouse and executing it in life. Each role carries certain expectations as for partner’s behavior and being with them. If partner’s behavior is commensurate with our image of it, if partners define assigned chores necessary to be done at home in a similar way, it favours higher assessment of their common life. If expectations are similar, there is a greater chance for experiencing satisfaction with the partner. Matching expectations to the behavior strengthens the relationship. Stress undergone by young couples is the divergence of the image of the roles played by them in marriage. The image of how their marriage should look like changes in the way customs in modern society change. Roles in marriage are not clearly defined, they lose their transparency, which obstructs consensus between partners (Plopa, 2005).

According to Plopa (2008) the quality of marriage can be influenced by the feeling of intimacy understood as the high level of satisfaction arising from the

fact of having a close relation with partner with clear need to build relations based on profound trust, openness, closeness, not hiding from the partner vital matters regarding, directly or indirectly, the relationship. Partner is characterized by high motivation to work on the relationship, its quality and the feeling of happiness of the partner's or their own. Partners feel closely knit, they are certain they have been connected by true love (Plopa, 2005).

One of the most important aspects of intimacy is opening oneself, that is the process of divulging, revealing personal information and feelings to the other person, that cannot be acquired in any other way. Due to that, partners start trusting each other, reveal who they are for themselves, what their needs are, what they expect from each other (Fletcher, 2002). The higher level of openness in the relationship, the higher satisfaction with it. The point in divulging oneself is not sexual diversification but occurring different motives for it. Women most often reveal their feelings, emotions, speak to gain support from the husband (drawing attention to oneself is important, emotional support). Positive attitude to these requests positively influences the quality of the relationship. It also turns out that very useful is partners' conversation with divulging oneself at the end of the day (LePoire, 2006; Day, 2003).

A vital factor underlying the satisfaction from work is power share in marriage. Power is connected with giving orders, imposing one's will, avoiding the influence of the partner. Greater satisfaction from the relationship is achieved when women have an equal right to participate in taking family decisions and when the man takes part in bringing up children (Rostowska, 2009).

Many women still ponder that financial power in the family belongs to the man even if they work too. Despite the fact that women who do not lead the traditional lifestyle in their own families, still believe in traditional ideologies. Power in the family does not only come from financial income but also access to it. It also comes from sharing household chores. It is often the case that in families where a woman is an educated professional and when in public declares equality ideology, work share in her own home is very traditional (Mandal, 2011).

Chinowska, (2000) writes that over 90% of researched women claim doing almost all household chores on their own. Women mostly do not feel socially harmed in this situation, nor feel overloaded with work, they are sometimes even glad. These women seem to accept their less favourable social situation and treat their own sex as worse than males (Mandal, 2011).

## **Aim**

The aim of the work is assessment of psychosocial conditioning: type D personality, temperament, resilience, quality of marriage, which influence the

kind and level of personal gain and loss resources as well as assessment of stress level during pregnancy threatened with gestational diabetes.

### **Characteristics of the subjects**

48 women were subjects of the research in Clinic of Pregnancy and Pathology in Dr Jan Biziel University Hospital No. 2 in Bydgoszcz whose high risk pregnancy was threatened with gestational diabetes. Patients were between the ages of 18 to 39 (Mean = 30.5). 26 of the women had university education, 12 secondary, 8 vocational, 2 elementary. 14 women live in the vicinity of Bydgoszcz, 34 live in Bydgoszcz. 29 patients had no babies, 16 had one child, 2 women had two children and one had four children.

### **Method**

The research included:

- Type D Assessment Scale (DS14) Polish version (Ogińska-Bulik, Juczyński, Denollete, 2009),
- Temperament Questionnaire EAS by Buss and Plomin (Oniszczenko, 1997),
- Polish Resilience Assessment Scale (SPP-25) (Ogińska-Bulik, Juczyński, 2008),
- Questionnaire of Marriage Quality by Plopa, Rostowski (Plopa, 2005),
- Conservation of Resources“Evaluation (based on Stevan Hobfoll’s theory, Experimental version by Dudek, Koniarek, Gruszczyńska, 2006),
- Perceived Stress Scale (PSS 10) (Cohen, Kamarck, Mermelstein adapted by Juczyński and Ogińska-Bulik, 2009).

Psychometric parameters of the above tests are satisfying. Statistical analysis was carried out in the programme STATISTICA version 10, using Multivariate Stepwise Linear Regression analysis.

## **RESULTS**

Research on feeling gain and loss resources as a result of high risk pregnancy using Conservation of Resources Evaluation allowed to find out which gain and loss resources are experienced by women during high risk pregnancy threatened with gestational diabetes. Table 1 presents resources as ranges, where the first range means the value was most frequently chosen by the participants. The table includes eight ranges of the most frequently chosen values both for gain and loss.

Tab. 1. Feeling of lost and gained resources in high risk pregnancy threatened with gestational diabetes (N=48)

Loss of resources		Gain of resources	
1.	Physical fitness	1.	Seeing good sides of life
2.	Sufficient amount of sleep	2.	Successful relationship with one partner
3.	The feeling of living in economically stable country	3.	Respect from others
4.	One's own health	4.	Having suport from the family
4.	The feeling of controlling the situation	4.	Trust in oneself
4.	Trust in authorities	4.	Hope
4.	Possibility to persue interests, hobbies	4.	Opportunity to learn new things
4.	Job satisfaction	5.	Being independent
5.	Possibility to realize own plans	5.	Easy access to medical services
5.	The feeling of living in economically stable country	6.	Life wisdom
6.	Satisfying sexual life	6.	Equipping house with necessary media and devices
7.	Stable income	7.	Possessing material security for the old age
7.	Accepting one's appearance	7.	Possibility to realize own plans
7.	Confidence of one's attraction and beauty	7.	Happiness of the closest ones
7.	Job security	7.	Feeling of support from friends
7.	Trust in other people	7.	Mutual love
7.	Money for pleasures	7.	Persistence in reaching the aim
8.	Possibility to spend free time attractively	7.	Felling the sense of life
8.	Time free from chores	8.	Sufficient amount of sleep
		8.	Optimism and cheerfulness
		8.	Life resourcefulness
		8.	Having life energy 'drive'
		8.	The feeling of controlling the situation
		8.	Money for unexpected expenses
		8.	Achieving set golas in private life
		8.	Good realtions with the closest ones
		8.	Kind contacts with the family
		8.	Readiness to compromise
		8.	Possessing material security in case of dramatic changes in life
		8.	Accepting one's appearance
		8.	Being unaffected by failures
		8.	Money for pleasures

The researches show that the state of high-risk pregnancy, hospital isolation firstly condition such values as: physical fitness, sufficient amount of sleep, feeling economic stability. Women also emphasized loss of feeling healthy, control over the situation they are in, political stability giving comfort of social functioning. Hospital isolation and high-risk pregnancy are connected with changing lifestyle and therefore women feel the loss as inability to realize their own plans, lack of satisfaction with job which had to be stopped earlier than in uncomplicated pregnancy. Additionally, the quality of sexual life worsens due to its non-existence while hospital isolation as well as for medical reasons. Break at professional life threatens stable income, confidence of employment continuity. Women revealed that due to high-risk pregnancy, the feeling of accepting one's appearance and confidence of being attractive also worsens. The time of high-risk pregnancy influences the loss of trust in other people. This is also a stage in life when the women do not have opportunity to spend leisure attractively.

Stay in hospital and feeling the risk of the pregnancy undoubtedly influences perception of experiencing also positive aspects of life. Women begin to notice positive sides of life. They realize the fact of being in a successful relationship with the partner. Women point out that they experience respect from other people as well as family support. They experience the opportunity of learning new things (undoubtedly connected with the fact of learning how to control blood sugar level, knowledge of diabetes gained as a result of the illness). Besides, the period of pregnancy relates with gaining knowledge of the child, processes taking place in a woman's body. They learn how to look after the child and the use of particular devices necessary to be acquired when the child is born. The resources that appeared both as gains and losses are: sufficient amount of sleep, acceptance of one's own appearance, money for pleasures, feeling of control over the situation. The question of the sleep and acceptance of one's own appearance is mostly connected with the individual experience of the pregnancy and health resources, physical resources that were not controlled in the research. Discrepancies in feeling loss and gain in terms of controlling the situation may be related with perceiving personnel competences. Women who felt safe in hospital experience the benefit of their own and child's health control. Negative attitude to hospital, the state of illness took away the feeling of control. It must also be noted that change to functioning in hospital, occurrence of illness result in feeling loss of control in life. The time of adaptation to the new circumstances is vital, too. It was not controlled how long time had passed from the moment of learning about the illness and whether the pregnancy was wanted, planned or not. The control of the variables would let to get to know and understand better the situation of women in high-risk pregnancy.

Tab. 2. Experienced stress and feeling of resource loss (N=48)

	Factor	Variable	$\beta$	R <sup>2</sup>	p
1	Experienced stress	1. Economic status	-0,36	0,67	P<0,01
		2. Social inhibition	-0,53		P<0,01
		3. Openness to new experiences and sense of humour	-0,35		P<0,03
		4. Number of children	0,38		P<0,01
		5. Fear (temperament)	0,38		P<0,01
2	Economic and political resource loss	1. Similarity	-0,62	0,39	P<0,01
		1. Number of children	-0,48		P<0,01
		3. Type D	0,41		P<0,03
		3. Self-fulfillment	0,46		P<0,03
3	Loss of family resources	3. Disappointment	0,35	0,12	P<0,03
5	Loss of hedonistic and vitality resources	1. Number of children	-0,55	0,47	P<0,001
		2. Tolerance	0,47		P<0,03
		3. Age	0,37		P<0,02
		4. Self-fulfillment	0,53		P<0,01
		5 Disappointment	0,54		P<0,01

The results presented above as an effect of Multivariate Stepwise Linear Regression analysis show that experienced stress is in 67% explained by economic status, social inhibition (Type D personality indicators), openness to new experiences and sense of humour (indicator of resilience), number of children and fear (temperament feature). Experienced stress decreases with the increase of economic status, social inhibition, openness to new experiences. It increases the higher the number of children is as well as the feeling of fear. Loss of economic and political resources is explained in 39% by such variables as similarity to the spouse, number of children, Type D personality and self-fulfillment in marriage. Loss of resources decreases with the increase of similarity to the spouse, number of children. It increases with the increase of Type D personality and feeling of self-fulfillment in marriage.

Loss of family resources is in 12% explained with the feeling of disappointment in marriage. The higher feeling of disappointment the stronger the feeling of family resource loss.

Loss of hedonistic and vitality resources is explained in 47% with the number of children, tolerance of failure, negative emotions and treating life as a challenge, the age of participants, self-fulfillment and disappointment in marriage.

Resource loss decreases with the number of children and increases with increase of tolerance of failure, negative emotions and treating life as a challenge, the age of participants, self-fulfillment and disappointment in marriage.

Tab. 3. Feeling of resource gain (N=48)

	Factor	Variable	$\beta$	R <sup>2</sup>	P
1	Gain of hedonistic and vitality resources	1. Number of children	-0,46	0,47	P<0,01
		2. Disappointment	0,78		P<0,01
		3. Place of living	0,33		P<0,01
		4. Quality of marriage	0,52		P<0,04
2	Gain of family resources	1. Disappointment	0,95	0,37	P<0,01
3	Gain of economic and political resources	1. Disappointment	0,68	0,54	P<0,01
		2. Similarity/ Resemblance	0,51		P<0,01
		3. Openness to new experiences and sense of humour	-0,71		P<0,01
		4. Resilience	0,82		P<0,04
4	Gain of inner and spiritual resources	1. Number of children	-0,45	0,41	P<0,01
		2. Disappointment	0,76		P<0,01
		3. Quality of marriage	0,55		P<0,04
5	Gain of power and prestige resources	1. Place of living	0,46	0,50	P<0,01
		2. Openness to new experiences and sense of humour	-0,98		P<0,01
		3. Resilience	1,23		P<0,01

The results regarding feeling of gain in threatened procreation situation being the effect of high-risk pregnancy show that the gain of hedonistic and vital resources in 47% is explained with the number of children, disappointment with marriage, place of living and the quality of marriage. The feeling of gain decreases with the increase in number of children. It increases, however, with the feeling of disappointment with marriage, living in rural areas and the quality of marriage.

Gains of family resources are explained in 37% with the feeling of disappointment with marriage. With its increase, the feeling of family gain resources increases as well.

Economic and political resource gain is in 54% explained with disappointment with marriage, similarity to the spouse, openness to new experiences, sense of humour and resilience. The gain decreases with higher openness to new experiences and sense of humour. It grows, however, with the increase in disappointment with marriage, similarity to the spouse and resilience.

Gain of inner and spiritual resources is explained in 41% with the number of children, disappointment with marriage and the quality of marriage. The gain of the resources decreases with the increase in the number of children. It grows, however, with the increase in disappointment and the quality of marriage.

Gain in power and prestige resources in 50% is explained with the place of living, openness to new experiences, sense of humour, resilience. The feeling of gain decreases with the increase of openness to new experiences and sense of humour. It grows, however, with the increase in resilience and living in rural areas outside towns.

The presented results in Table 2 and 3 were obtained with the use of the following scales: Type D Assessment Scale (DS14), Temperament Questionnaire EAS, Polish Resilience Assessment Scale (SPP-25), Questionnaire of Marriage Quality, Conservation of Resources Evaluation, Perceived Stress Scale (PSS 10) and show only the essential interrelations. Variables in the tables were substantially relevant to the feeling of gain and loss resources in high-risk pregnancy threatened with gestational diabetes.

## DISCUSSION

High-risk pregnancy which is connected with long stay in hospital makes a woman feel many negative emotions that are non-existent in a normal pregnancy. The fear accompanying a woman is related to the feeling of child's life being threatened, doubts as for the diagnosis. Hospitalization has a negative impact on a woman's emotional state because it excludes her from daily duties, professional work, pursuing plans, interests, offering compulsory idleness and forcing infinite afterthought (Rutkowska, Kwaśniewski, Makara-Studzińska, Kwaśniewska, 2010; Bielawska-Batorowicz, 2006).

Hospitalization is connected with the feeling of dependence from others, adapting to hospital's dos. Women staying in pathology of pregnancy wards due to high-risk pregnancy are more irritable, depressive states can be observed (Michałek, Ciesielski, 1986).

Analysis of the results showed that women in the situation of complicated pregnancy as a result of gestational diabetes suffer higher amount of stress in case of having more children, feel fear, show little openness to new experiences, have little sense of humour and underestimate their economic status. Hospital stay leads to the situation where the less women hide their emotions and react according to them the higher stress they experience.

Smaller loss of economic and political resources is experienced by women having fewer children, feeling similarity to the partner in terms of views on the family. Loss of resources grows with women having characteristics of stress personality, who feel they self-fulfill in marriage and life.

The feeling of family gain and loss resource can be explained with the feeling of disappointment with the partner, marriage. Family resources include



satisfaction with children, happiness of the closest ones, kind family relations, happiness of children, health of the family, ensuring good start of life for the children. The fact of complicated pregnancy which is related with stay in hospital for the sake and health of the child implies the way of interpreting reality. The feeling of disappointment with marriage in such a difficult for a woman situation as well as validity of rationalization of the situation, excusing the sacrifices concerning the changes arising from high-risk pregnancy especially strongly emphasize gain resources as the result of pregnancy, delivery of a healthy child and, consequently, happiness.

Disappointment with marriage which occurs in the difficult situation concerns the fact called in Hobfoll's theory 'sapping' referred to an action which directly or indirectly diminishes the value of resources, preventing their distribution, decreasing their value. Most commonly it is a case in the close relations because the mechanism is strongly related with negative emotions. Very often, important stressors- in this case high-risk pregnancy, lead to occurrence of microstressors as conflicts with the people whose help we need the most. Bolger and associates (1990) proved that 80% of daily changes of mood are the result of conflicts.

Negative emotions and conflicts that may arise in the situation of high-risk pregnancy may result from many aspects. Chapman and associates' researches (1997) show that the men who underestimated their partner's stress, her reactions to stress were more severe. The mechanism of the discrepancy between man-woman interaction as regards her stressful events may be partly explained with woman's feeling that their value is lower when her partner does not notice the needs that are experienced by her as a woman- suggest Reis and Shaver (1988). Rostowska (2009) writes there are big differences between men and women in communicating emotions. Stressful situation comes from the fact that a woman will expect her partner to give her intimacy he will not be able to offer her due to the inability of living up to the requirements. It is more difficult for a man, according to Rostowska (2009), to listen carefully as the traditional model makes him have to know, be an expert. Besides, men in a conversation often take an active part trying to rebut position of the interlocutor and force their point of view (Rostowska, 2009). Moreover, Hobfoll and Liberman (1987) claim that certain individual features like self-assessment are independent of the situation that is always available for a women but support of the partner strictly depends on the confines of the situation.

Feeling of hedonistic and vitality resources loss explains higher level of treating life as a challenge. The ability to tolerate the difficulties that one comes across translates into loss of resources. Awareness of child's health threat, its loss show that the women having fewer children, with age suffer greater loss

of hedonistic and vitality resources. Loss of a bigger amount of resources concerning life pleasures occurs with the women who feel they are not self-fulfilled in marriage but, on the other hand, feel disappointment with the spouse in marriage and marriage itself. The concept of COR says that facing loss, threat, psychological stress is experienced. In order to prevent the threat, ego often benefits from the resources gathered for the family, relationship. Taking advantage of the resources is even necessary to reduce the consequences of depression, fear. Sometimes self-assessment, energy, the feeling of efficiency, sense of humour must be used to create other resources (Hobfoll, 2006). Hospitalization, being aware of the risk of the pregnancy are connected with the fact that women who highly assess the quality of their marriage experience more hedonistic and vitality gain resources as well as inner and spiritual ones, despite being disappointed with the partner who may not live up to his role to such an extent his wife expect him to. Szymona-Pałkowska (2005) interpreting emotional conflicts of parents in high-risk pregnancy points out that pregnant women become more irritable, critical towards the entourage, impatient, demanding. For this reason they transfer their frustration on the partner. Transferring negative emotions on the partner may be the attempt to protect their own ego. Distress connected with the negative assessment by the partner due to the difficulties in keeping pregnancy makes women assess their partners critically to make them aware of their own imperfections and so defend their self-esteem. The feeling of the resource gain is connected with the fewer number of children and, in case of feeling hedonistic and vitality gain resources, living in smaller towns.

The increase in economic and political gain resources is experienced by the women who are resilient, being in wedlock where they feel great similarity to the partner in family matters, attitude to family values. The values are not diminished by feeling disappointed with the partner as a result of the difficulty concerning high-risk pregnancy or having smaller amount of sense of humour and openness to new experiences.

Gaining power and prestige resources are connected with living outside big cities, feeling resilient especially accompanied by openness to new experiences and sense of humour.

## CONCLUSIONS

1. Loss of personal resources: Women while being isolated in hospital due to high-risk pregnancy suffer deterioration of physical fitness, insufficient amount of sleep, feeling of economic stability, loss of feeling health, control over the

situation they are in, political stability giving comfort of social functioning. Gains of personal resources: women notice good sides of life, successful relationship with her partner, experience respect from others.

2. Increase in feeling loss of personal resources is explained with a woman's age, having personality type D, fulfillment in relationship, feeling disappointment with the partner. Feeling of the loss decreases when having fewer children with simultaneous feeling greater similarity to the partner

3. Increase in feeling personal resource gain is experienced by resilient women, though showing little openness to new experiences, living in rural areas (outside city), having fewer children, being in successful wedlock, feeling great similarity to the partner, though being disappointed with him as a result of experienced difficulties.

4. Greater stress amount as a result of high-risk pregnancy is experienced by the women who have more children, often feel fear, who are not open to new experiences, have poor sense of humour and poorly estimate their economic status. Hospitalization leads to the fact that the more women hide their emotions and follow them the higher stress they experience.

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