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Psychological variables in pregnancy: does age matter? An exploratory study

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Abstract

We are assisting in our days to a postponing of pregnancy to a later period of life. This paper describes an exploratory study on the effects of age on important psychological variables in pregnancy. The sample is composed of two groups of pregnant women: above and below 35 years, and compared how these women differed on maternal adjustment, marital satisfaction and psychological morbidity. Husbands/partners of these women were also included in the sample and a comparison between the couple was also assessed on the first two variables.

Results showed that younger women were better adjusted and had higher marital satisfaction. No differences were reported in terms of psychological morbidity. Men reported being better adjusted than their partners on attitudes towards pregnancy. Differences on whether the pregnancy was planned and number of children were also assessed. Implications of the study are discussed.

Key-words: *Pregnancy; Age; Psychological variables.*

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1. INTRODUCTION

Since 1980, in the USA, the proportion of first births to women in their thirties increased fivefold from 1970 to 1980 and it is expected that in the XXI century, 1 in 12 babies will be born from a mother above 35 years old (Winslaw, 1990). If in biological terms, late pregnancy has been the focus of several studies, in psychological terms, and in our country, we do not know of any study on late pregnancy.

Postponing pregnancy has positive and negative effects. On one hand, the couple has time to acquire a more positive and solidified vision of themselves in terms of professional stability. Older first-time mothers are better educated and better-off financially than younger mothers (Kobren, 1988). Since both parents have more time to mature and explore the relationship, they usually relate better to each other and are better equipped to receive a new member in the family. Postponing parenthood means more free time before having children and less time after the children are grown which can cause logistic and emotional complications. Usually, in later parenthood, women tend to involve

the father more in the pregnancy process (Mexia, 2000). However, in biological terms, and especially after 35, there is a higher risk of gestational diabetes, placenta praevia, emergency Caesarean section, delivery before 32 weeks gestation, hypertension and, because fertility rates decline gradually with age, older couples tend to take longer to conceive. Older women also have a higher chance of conceiving children with genetic problems (e.g., Down syndrome) and a higher change of post/birth hemorrhages and higher rates of miscarriage and stillbirth (Winslow, 1990; Jolly et al., 2000).

The increase in late pregnancy has been related with later age at marriage together with the desire of many women to complete their education and become established in a career (Lamanna & Riedmann, 1994). The availability of reliable contraception and assisted medical reproduction has allowed women to locate their parenthood later in their lives.

Maternity is an event and an important function very much valued and meaningful in our society. Literature emphasizes pregnancy as a period of crisis that generates deep changes in women at several levels: somatic, endocrine and psychological requiring several readjustments (Colman & Colman, 1994). Both pregnancy and maternity are dynamic processes that transcend conception and the birth of the child (Canavarro, 2001).

Pregnancy is also associated with the marital relationship. Studies have demonstrated a relationship between marital satisfaction and depressive symptomatology during pregnancy (O' Hara et al., 1893). Women with high levels of stress during gestation or that lack the presence of a partner are particularly vulnerable to the development of post-partum depression (Tavares, 1990).

Marital satisfaction during pregnancy has also been associated with maternal and paternal adjustment towards the birth of a child. Couples that experienced difficulties towards the birth of a child also manifested problems during pregnancy (Snowden et al., 1988; Hotchner, 1988). Maternal marital satisfaction has also been related with a lower incidence of maternal postpartum depression (Seltzer-Sucher, 1999).

For each member of the couple, the meaning of pregnancy may be different. For women, because it involves, physiological, psychological and social changes, it is usually lived with a lot of intensity. For men, reactions to pregnancy vary between neutrality and a deep emotional experience. Some fathers may present symptoms of "couvade syndrome" including anxiety complaints or unexplained fears during his wife's pregnancy (Colman & Colman, 1994).

We do not know of any Portuguese studies that have assessed the impact of age of pregnancy on maternal adjustment and marital satisfaction. In a previous study on adaptation to pregnancy and coping, we have emphasized the importance of including women's "partners in the

study of pregnancy adjustment (Pereira et al., 1999). Thus, in this study, our goal is:

1) To compare pregnant women above and below 35 years old on maternal adjustment to pregnancy, psychological morbidity and marital satisfaction;
2) To compare mothers and fathers on adjustment to pregnancy;
3) To explore the influence of a planned pregnancy and number of children on maternal adjustment and marital satisfaction;
4) To explore the relationship between maternal adjustment, paternal adjustment, marital satisfaction and psychological morbidity.

2. METHOD

2.1 Sample

The sample is composed by 104 pregnant women from the district of Braga, 71% aged less than 34 and 29% above 35 years old . 95% of the sample was married and 79% were in their second or third trimester of pregnancy and 75% of the women had planned the pregnancy. In terms of education, 25% had completed 12 years and 39% a higher degree, which is considered a highly educated sample. 70% of the sample received pregnancy care in private settings. Table 1 shows the sample characteristics.

Table 1 - **Sample characteristics**

Age	%	*Participants education*	%
≤ 34	71% (N= 74)	4 years	6%
≤ 35	29% (N= 30)	6 years	19%
		9 years	8%
	(M= 30.5, S.D.= 4.80)	12 years	25%
		Higher degree	39%
Pregnant of		**Gestation time**	
1st Child	64%	1st Trimester	15%
2nd or more	36%	2nd Trimester	40%
		3rd Trimester	39%
Marital Status		**Pregancy Appointments**	
Married	95%	Health Center	10%
Single	4%	Hospital	17%
Divorced	1%	Private Clinic	70%
Planned Pregancy	Yes - 75%		
	No - 25%		

2.2. *Procedure*

The sample was collected between December of 2000 and May of 2001. Women and their partners volunteered to participate in the study and answered the questionnaires while waiting for their appointments in the waiting room. When the husband or partner was not present, the woman took the envelope, that contained the questionnaires, home and a time was set for its return.

2.3. *Instruments*

The instruments used were:

- *MAMA* - Maternal Adjustment and Maternal Attitudes during Pregnancy – antenatal version (Kumar, Robson & Smith, 1984) that assesses five dimensions of maternal adjustment and attitudes towards pregnancy: Body Image, Somatic Symptoms, Marital Relationship, Attitudes towards Sex and Attitudes towards Pregnancy.
- *PAPA* - Paternal Adjustment and Paternal Attitudes during Pregnancy – antenatal version (Kumar, Robson & Smith, 1984) that assesses three dimensions of paternal adjustment and attitudes towards pregnancy: Marital Relationship, Attitudes towards Sex and Attitudes towards Pregnancy.
- *IMS* - Index of Marital Satisfaction (Hudson, 1992) that assess the degree, severity or magnitude of problems in the marital relationship.
- *HADS* – Hospital Anxiety and Depression Scale (Zigmond & Snaith, 1983) that assesses different levels of anxiety and depression.

3. RESULTS

Due to the characteristics of our sample, all statistical analysis was done with non-parametric tests: the Mann-Whitney test was used for differences between the groups and the Rho of Spearman for correlations between variables. We will present only tables of significant results to make the reading easier.

3.1. *Maternal Adjustment*

The results of the Mann-Whitney test showed that there were significant differences between the two groups in terms of marital relationship, attitudes towards sex, attitudes towards pregnancy, body image and in the total maternal adjustment. There were no significant differences in somatic symptomatology. Pregnant women below 35 in our sample were more adjusted than those above 35 years old.

3.2. *Marital Satisfaction*

The results showed that marital satisfaction was significantly lower in women above 35 years old (higher scores reveal less satisfaction).

Table 2 - **Differences between the two groups on Maternal Adjustment**

Age	*Marital relationship*	*Attitudes to sex*	*Attitudes to pregnancy*	*Body image*	*Maternal adjustment*
≤34	51.3	53.6	53.7	52.1	49.4
≥35	35.2	37.2	35.7	37.5	30.6
Z	-2.55	-2.78	-2.88	-2.34	-3.03
Sig.	.011*	.005**	.004**	.019*	.002**

**Sig. At .05 level (2-tailed); **Sig. At .01 level (2-tailed)*

Table 3 - **Differences between the two groups on Marital Satisfaction**

Age	*Marital Satisfaction*
≤34	36.3
≥35	54.8
Z	-3.16
Sig.	.002**

***Sig. at .01 level (2-tailed)*

3.3. Psychological Morbidity

There were no significant differences between the two groups on depression and anxiety levels as measured by the Hospital Anxiety and Depression Scale.

3.4. Maternal Adjustment and Satisfaction versus Paternal Adjustment and Satisfaction

We were also interested in assessing differences between mothers and fathers both on marital satisfaction and adjustment to pregnancy. The results showed that there were significant differences only on attitudes towards pregnancy. Interestingly, fathers were better adjusted than mothers. No differences were reported in terms of marital satisfaction.

Table 4 - **Differences Between Mothers and Fathers on Adjustment and Marital Satisfaction**

Gender	*Marital relationship*	*Attitudes to sex*	*Attitudes to pregnancy*	*Marital satisfaction*
Father	3.41	3.12	3.13	14.01
Mother	3.44	3.07	2.98	12.00
Z	.487	-.954	-2.75	1.22
Sig.	.627	.341	.007**	.221

***Sig. at .01 level (2-tailed)*

3.5. *Impact of Planned Pregnancy on Maternal Adjustment*

Whether the pregnancy had been planned or not also has an impact on maternal and paternal adjustment to pregnancy. The results of the Mann-Whitney test revealed that women who planned the pregnancy were better adjusted and had a higher marital satisfaction when compared to who did not plan their pregnancy.

3.6. *Impact of Number of children on Maternal Adjustment and Marital Satisfaction*

Results showed that being pregnant of the first child had a positive impact on maternal adjustment (all subscales) and marital satisfaction, with higher scores reported by women who were pregnant for the first time when compared to those with two or more children.

3.7. *Maternal Adjustment in terms of Gestation Time*

We were also interested in finding out whether being in the first, second or third trimester of pregnancy had an impact on adjustment and marital satisfaction since women go through different physiological and body image changes during pregnancy. The results however, showed no significant differences.

Table 5 - **Differences between women who planned the pregnancy and those who did not on Maternal Adjustment and Marital Satisfaction**

Pregnancy Planning	*Body Image*	*Marital Relationship*	*Attitudes to Pregnancy*	*Maternal Adjustment*	*Marital Satisfaction*
Yes	51.3	53.7	52.2	50.3	37.8
No	36.8	27.6	36.7	27.1	54.4
Z	-2.17	-4.10	-2.33	-3.70	-2.60
Sig.	.030*	.000**	.020*	.000**	.009**

**Sig. at .05 level (2-tailed); **Sig. at .01 level (2-tailed)*

Table 6 - **Differences between women who were pregnant of their first child and those who were not on Maternal Adjustment and Marital Satisfaction**

Nº children	*Body Image*	*Marital Relationship*	*Attitudes to Sex*	*Maternal Adjustment*	*Marital Satisfaction*
1st Child	52.3	51.2	53.7	48.8	37.8
2nd or more	39.9	38.5	41.9	35.6	48.8
Z	-2.09	-2.15	-1.98	-2.28	-1.96
Sig.	.037*	.031*	.048*	.022*	.049*

**Sig. at .05 level (2-tailed)*

3.8. Relationship between Psychological Morbidity, Marital Satisfaction, Maternal and Paternal Adjustment

The results showed that higher morbidity was related with poor adjustment for both mothers and fathers but not with marital satisfaction. There was also a positive relationship between maternal and paternal adjustment . We also found that maternal adjustment was positively related with marital satisfaction for both mothers and fathers.

4. DISCUSSION

Results showed differences between pregnant women, below and above 35, on maternal adjustment and marital satisfaction. Pregnant women below 35 were better adjusted than older women. This result may have to do with the age cut-point we have chosen. A previous study (Gottesman, 1992), found that women aged 25-29 were more similar to women 30 years and older, than to women 20-24 years old. This later group experienced more difficulty in prenatal adjustment to the maternal role than those women 25 or older. In further research it will be important to replicate this study with three groups of women and see if, indeed, the youngest group differs from the other two on maternal adjustment. It will also be interesting to see if the differences between the younger and the older group remain after the child is born. It may be that the positive effects of late pregnancy may show only later. This hypothesis could be tested by comparing the antenatal *versus* postnatal versions of the maternal and paternal adjustment questionnaires.

Table 7 - **Relationship between Psychological Morbidity, Marital Satisfaction, Maternal and Paternal Adjustment**

	Anxiety	*Depression*	*Maternal Adjustment*	*Paternal Adjustment*	*Marital Satisfaction (mothers)*	*Marital Satisfaction (fathers)*
Anxiety		.552**	-.423**			
Depression			-. 497**			
Maternal Adjustment				.355**	-.314**	
Paternal Adjustment					-.301*	-.523**
Marital Satisfaction (mothers)						
Marital Satisfaction (fathers)						

**Sig. at .05 level (2-tailed); **Sig. at .01 level (2-tailed)*

The younger group in our study also revealed more marital satisfaction. Previous research showed that spouses reported marital satisfaction tends to decline over time (Glenn, 1990). In future studies it will be important to control for the number of years the couple has been together in order to better interpret this result.

Those women who were pregnant of their first child were also better adjusted. This result is in accordance with previous studies which suggest a decrease in marital satisfaction associated with the postnatal period (Belesky, Lang & Rovine, 1985) and show marital satisfaction to be higher in child-free unions (Glenn & McLanahan, 1982; Houskneckt, 1987).

As a result, it is understandable why marital satisfaction decreases with the number of children.

Interestingly, we found that fathers are better adjusted than mothers in the subscale of attitudes towards pregnancy. We believe that this result may have to do with the fact that several items in this scale assess concern towards the baby's health and women in general, and the older group in particular, may be more worried than their partners regarding this issue.

The fact that maternal adjustment and satisfaction is higher when the pregnancy has been planned makes sense since women who were expecting the event had time to prepare and better adjust to pregnancy (Daniels & Weingarten 1980).

As in previous studies (O' Hara et al., 1999), the results also showed that psychological morbidity was negatively associated with maternal adjustment.

We also found a relationship between maternal adjustment and paternal adjustment and between adjustment to pregnancy and marital satisfaction suggesting the importance of a partner during this period in a woman's life. In fact, studies have revealed that women with low social support and a high conflict relationship have three times more probability of having complications during pregnancy (Cobb, 1976).

If indeed, as in this exploratory study, age seems to matter in terms of adjustment to pregnancy, it seems important that pregnant women above 35 should have an opportunity to discuss the impact of pregnancy in their lives and how they are adjusting especially if they have a problematic marital relationship. This could be accomplished through the use of support groups for birth preparation that should be offered, on a free basis, in health centers where women receive their pregnancy care. According to the results of this study, when the pregnancy is not planned, it is also important to assess the woman's marital satisfaction and maternal adjustment in order to identify pregnant women at a high risk of developing symptoms of psychological morbidity.

We believe that this pilot study raises interesting hypotheses that should be tested in further research. In fact, it would be important to replicate this study in a less educated sample from a different geographic

area, and follow these pregnant women before and after the birth of their baby and at a year follow- up in order to explore if the relationships and differences observed remain.

REFERENCES

- Belesky J, Lang ME, Rovine M. Stability and change in marriage across the transition to parenthood: A second study. *Journal of Marriage and the Family* 1985; 47: 855-865.
- Canavarro C. Gravidez e maternidade. Representações e Tarefas de desenvolvimento. In M.C. Canavarro (Ed). *Psicologia da Gravidez e da Maternidade* (pp. 17--49). Quarteto Editora, Coimbra, 2001.
- Cobb S. Social support as a moderator of life stress. *Psychosomatic Medicine* 1976; 38: 300-314.
- Colman LL, Colman A. *Gravidez: A experiencia psicológica*. Lisboa. Colibri, 1994.
- Daniels P, Weingarten HR. Postponing parenthood: the myth of the perfect time. *Savvy Magazine* 1980; 55-60.
- Glenn ND. Quantitative research on marital quality in the 1980's: A critical review. *Journal of the Marriage and the Family* 1990; 52: 818-831.
- Glenn ND, McLanahan S. Children and marital hapiness: A further specification on the relationship. *Journal of the Marriage and the Family* 1982; 44: 63-72.
- Gottesman MM. Maternal adaptation during pregnancy among adult early, middle, and late childbearers: Similarities and differences. *Maternal Child Nursing* 1987; 20(2): 93-110.
- Hotchner T.*Childbirth and marriage: The transition to parenthood*. New York: Avan Books, 1988.
- Houskneckt SK.Voluntary childness. In M. Sussman & S. Steinmetz (Eds). *Handbook of Marriage and the Family* (pp.369-418). New York. Plenum, 1987.
- Hudson WW. Index of Marital Satisfaction.*The WALMYR Assessment Scales Scoring Manual*. Tempe, AZ: WALMYR Publishing Co, 1992.
- Jolly M, Sebire, N Harris, J Robinson, S Regan L. The risks associated with pregnancy in women aged 35 years old. *Human Reproduction* 2000; 15(*11*): 2433--2437.
- Kobren G. Older first time moms better educated, secure. *Omaha-World Herald* Dec. 30, 1988.
- Kumar R, Robson KM, Smith AMR. Development of a self-administered questionnaire to measure maternal adjustment and maternal attitudes during pregnancy and after delivery. *Journal of Psychosomatic Research* 1984; 28(1): 43-51.
- Lamanna MA, Riedman A. *Marriages and Families: Making choices and facing change*. Wadsworth Publishing Company, 1994.
- Mexia C. A maternidade depois dos 40. Saber e Lazer. *Net Sapo*, 2000.
- O' Hara MW, Rehan LP, Campbell SB. Postpartum Deprression: a role for social netwrork and life stress variables. *Journal of Nervous and Mental Diseases* 1983; 171: 336-341.
- Pereira MG, Santos AC, Ramalho V. Adaptação à gravidez. Um estudo biopsicosocial. *Análise Psicológica* 1999; 3: 583-590.
- Seltzer-Sucher L. Factors affecting paternal adjustment during the transi-tion to parenthood. *Dissertation Abstracts International*. IS: 0419-4217, 1999.
- Snowden LR, Schott TL, Awalt SJ, Gillisknow. Marital satisfaction in pregnancy: Stability and change. *Journal of Marriage and the Family* 1988; 50: 325--333.
- Tavares L. Depressão e relacionamento conjugal durante a gravidez e pós-parto. *Análise Psicológica* 1990; 8(4), 389-398.

• Winslaw R. Study is good news for people waiting to have children. *The Wall Street Journal* 1990; Mar. 8.

• Zigmond AS, Snaith RP. Hospial Anxiety and Depression Scale. *Acta Psychiatrica Scandinavica* 1983; 67: 361-370.