

## Attitude of primigravidas to pregnancy: a comparison between the younger and older age groups

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Received: 24.05.12; Accepted: 17.07.12

### ABSTRACT

**Background:** The socioeconomic changes together with the recent developments in assisted reproduction technology resulted in an increasingly age of marriage and age of first pregnancy. **Aim:** To identify the demographic characteristics, health concerns and behaviours of elderly primigravidas in comparison with their younger counterparts. **Materials and Methods:** Fifty primigravidas  $\geq 35$  years old and one hundred primigravidas  $< 35$  years were surveyed using a structured questionnaire related to their demographic characteristics and pregnancy complications. Cases were collected from both Kohafa and Sigar MCH centres in Tanta city. **Results:** Elderly Primigravidas were found to have higher educational levels, occupational career and socioeconomic level when compared with younger age Primigravidas. In addition, elderly Primigravidas were found to be at a significant higher risk of developing miscarriage, pregnancy-related complications, foetal Down's syndrome, foetal structural defect, baby's health hazards at birth and demands of physical neonatal care. Elderly Primigravidas also had significantly positive behaviours when compared with younger age primigravidas. **Conclusion:** The present study showed that socio-demographic pattern influences the attitudes of primigravidas to pregnancy.

**Key words:** Primigravidas, pregnancy, complication, age

### INTRODUCTION

An elderly Primigravidas is a woman in her first pregnancy, who is at least 35 years old.<sup>[1]</sup> Families in Egypt are undergoing major changes in their traditions regarding marriage and family formation. In Egypt, early marriage is no longer common as it

used to be; the average age at marriage for both genders is rising, and more women are staying single longer. Despite the fact that these trends are part of a general global phenomenon, they are also introducing new elements into Egyptian health issues. Changing demographic patterns of marriage reflects broader socio-economic changes taking place throughout the region.<sup>[1]</sup> Besides the

socioeconomic changes, the recent advances in assisted reproduction technology allowed many older women to get pregnant for the first time many years after marriage. These factors are responsible for the increasing number of elderly primigravidas. They have their characteristic socio-demographic pattern and their specific health concerns that may vary from their younger age counterparts.<sup>[3]</sup>

It has been observed that women who give birth for the first time at a later age are more likely to have higher family income and probably higher education. It has been documented that health behaviours have a significantly positive correlation with the age, education and income of pregnant women.<sup>[4]</sup> It was identified that there is a decline in pregnancy-related complications with increasing maternal education.<sup>[4]</sup>

Studies have documented that older women bearing children are more prone to complications of pregnancy, affecting mother and foetus/neonate.<sup>[5]</sup> Even after controlling for socio-demographic and medical risk factors, women >35 years are significantly more likely to have specific antepartum, intrapartum and postpartum complications.<sup>[6]</sup>

Several studies have depicted that pregnancy in old aged women is associated with increased maternal risks because there is a direct correlation positive between age and the occurrence of gestational diabetes, hypertensive disorders of pregnancy, abruptio placenta and placenta praevia.<sup>[7]</sup> They may have induction of labour, assisted vaginal delivery or caesarean section. These women are also likely to have a higher incidence of preterm delivery, stillbirth and postpartum haemorrhage<sup>[8]</sup> and increased rates of spontaneous abortion, growth retardation, low-birth-weight infants and congenital malformation, especially those resulting from chromosomal abnormalities.<sup>[5]</sup>

The present study aims at identification of the demographic characteristics, health hazards and changes in behaviours of elderly primigravidas in comparison to their younger counterparts.

## MATERIALS AND METHODS

### Study design and selection of subjects

The present study is a prospective comparative study. It was conducted during the period from June to December 2010. The study included 50

primigravidas aging  $\geq 35$  years plus 100 primigravidas aging  $< 35$  years. Women were excluded from the study if they have any signs of high risk pregnancy including vaginal bleeding and/or preeclampsia. The data collected from patients attending for antenatal care in both kohafa and Sigar MCH centres in Tanta city.

### Study questionnaire

Based on the relevant literature, a structured questionnaire was designed to collect socio-demographic data, age-specific pregnancy concerns and health behaviours. The questionnaire was revised by three experts. To assure the questionnaire feasibility, a pilot study was carried out. Few linguistic modifications were made to assure that the study candidates can easily understand the questions whatever their educational level was. Women were instructed to answer the questions by themselves while illiterate women were interviewed and the questionnaire was delivered to them in an appropriate manner. The socioeconomic status of the studied women was assessed using the Egyptian socioeconomic level questionnaire.<sup>[9]</sup>

### Statistical analysis

Statistical analysis was achieved using the Statistical Package for Social Science 11.0 computer program (SPSS Inc., an IBM company, Chicago, IL, USA). Numerical data were represented in the form of mean  $\pm$  SD while categorical data were represented in the form of number and percentage. Student t-test was used to compare the basic study findings while chi-square test was used to compare categorical data. *P*-value less than 0.05 was considered statistically significant.

## RESULTS

Comparison between the demographic characteristics in elderly and younger age primigravidas is shown in table 1. Primigravidas  $\geq 35$  years old had significantly a higher mean age when compared with younger counterparts ( $37.4 \pm 1.8$  versus  $24.8 \pm 3.8$  years;  $p < 0.0001$ ). Also, the elderly primigravidas were found to have higher educational levels, occupational career and socioeconomic level when compared with younger age primigravidas ( $p=0.004$ ,  $0.001$  and  $0.0001$  respectively).

**Table 1: Comparison between the demographic characteristics in older and younger age primigravidas**

		Older age (n=50)	Younger age (n=100)	Student t test	
				T	p
<b>Age (Years)</b>		37.4 ± 1.8	24.8 ± 3.8	27.3	0.0001*
				Chi-square test	
				X <sup>2</sup>	P
<b>Education</b>	<b>Illiterate</b>	7 (14.0 %)	22 (22.0 %)	15.6	0.004*
	<b>Read/write</b>	4 (8.0 %)	13 (13.0 %)		
	<b>Elementary school</b>	5 (10.0 %)	17 (17.0 %)		
	<b>Secondary school</b>	11 (22.0 %)	32 (32.0 %)		
	<b>University degree</b>	23 (46.0 %)	16 (16.0 %)		
<b>Occupation</b>	<b>Housewife</b>	23 (46.0 %)	54 (54.0 %)	14.6	0.001*
	<b>Manual worker</b>	12 (24.0 %)	39 (39.0 %)		
	<b>Professional worker</b>	15 (30.0 %)	7 (7.0 %)		
<b>Socio-economic level</b>	<b>High</b>	-	-	24.7	0.0001*
	<b>Middle</b>	28 (56.0 %)	17 (17.0 %)		
	<b>Low</b>	14 (28.0 %)	44 (44.0 %)		
	<b>Very Low</b>	8 (16.0 %)	39 (39.0 %)		

\* Significant results

**Table 2: Comparison between the health concerns in older and younger age primigravidas**

	Older age (n=50)	Younger age (n=100)	Chi-square test	
			X <sup>2</sup>	P
<b>Prenatal concerns</b>				
• General health during pregnancy	24 (48.0 %)	51 (51.0 %)	0.12	0.73
• Possibility of miscarriage	34 (68.0 %)	28 (56.0 %)	22.0	0.0001*
• Pregnancy-related complications	33 (66.0 %)	27 (54.0 %)	21.1	0.0001*
<b>Fetal concerns</b>				
• Fetal Down's syndrome	35 (70.0 %)	25 (50.0 %)	28.1	0.0001*
• Fetal structural defect	31 (62.0 %)	22 (22.0 %)	23.3	0.0001*
<b>Delivery concerns</b>				
• Possibility of preterm Labor	22 (44.0 %)	54 (54.0 %)	1.3	0.25
• Caesarean section	17 (34.0 %)	35 (35.0 %)	0.02	0.9
• Effort required for labor	37 (74.0 %)	65 (65.0 %)	1.2	0.27
• Baby's health condition birth	41 (82.0 %)	62 (62.0 %)	6.2	0.013*
<b>Postnatal concerns</b>				
• Neonatal care physical demands	34 (68.0 %)	41 (41.0 %)	9.7	0.002*
• Postnatal health	25 (50.0 %)	34 (34.0 %)	3.6	0.06
• Problems				

\* Significant results

The health concerns in older and younger age primigravidas are illustrated in table 2. More elderly

primigravidas were concerned about possibility of miscarriage (p=0.0001), pregnancy-related

complications ( $p=0.0001$ ), foetal Down's syndrome ( $p=0.0001$ ), foetal structural defect ( $p=0.0001$ ), baby's health condition at birth ( $p=0.013$ ) and neonatal care physical demands ( $p=0.002$ ) and the difference was statistically significant.

The health behaviours in older and younger age primigravidas are shown in table 3. Old age primigravidas had significantly positive behaviours when compared with younger age primigravidas regarding the following items: Eat and drink only what is good for the foetus ( $p=0.031$ ).

**Table 3: Comparison between the health behaviors in older and younger age primigravidas**

	Older age (n=50)	Younger age (n=100)	Chi-square test	
			$\chi^2$	P
<b>Dietary habits</b>				
• Eat and drink only what is good for the fetus	41 (82.0%)	65 (65.0%)	4.6	0.031*
• Avoid junk food/desserts	42 (84.0%)	45 (45.0%)	20.8	0.0001*
• Take vitamin supplements for pregnancy needs	19 (38.0%)	21 (21.0%)	4.9	0.023*
• Avoid taking over-the-counter drugs without prescription	48 (96.0%)	76 (76.0%)	9.3	0.002*
<b>Prenatal care</b>				
• Attend regular prenatal visits	42 (84.0%)	51 (51.0%)	15.4	0.0001*
• Measure body weight regularly	31 (62.0%)	45 (45.0%)	3.9	0.05
<b>Other health behaviors</b>				
• Sleep at least eight hours daily	44 (88.0%)	83 (83.0%)	0.64	0.42
• Perform appropriate amount of exercise	23 (46.0%)	11 (22.0%)	23.3	0.0001*
• Avoid wearing tight clothing and high-heel shoes	41 (82.0%)	29 (29.0%)	37.6	0.0001*
• Avoid harmful substances and places that pose risk to your health or that of the fetus	42 (84.0%)	54 (54.0%)	13.0	0.0001*

\* Significance

## DISCUSSION

There is a strong relationship between age of female marriage and subsequent pregnancy and the socioeconomic changes in many communities with trends towards older age of marriage with higher education. Also, the financial difficulties and the increasing motivations of the newer generations may contribute to the increasingly older ages for male and female marriages.<sup>[10]</sup>

In the present study, comparison between the demographic characteristics in older and younger age primigravidas showed that the elderly primigravidas have higher educational levels,

occupational career and socioeconomic level when compared with younger age primigravidas. This is in accordance with Islam and Ahmed<sup>[11]</sup> who reported that older age at marriage is associated with higher educational and socioeconomic levels.

Comparison between the health concerns in older and younger age primigravidas revealed a statistically significant difference as more elderly primigravidas were concerned about possibility of miscarriage, pregnancy-related complications, foetal Down's syndrome, foetal structural defect, baby's health condition at birth. This is in harmony with the findings of Stark who found that medical and biological risks of pregnancy and of foetus

cause older women to be concerned for their own and their infant's well-being.<sup>[12]</sup> Viau and associates reported that 50% of advanced age pregnant women described concerns related to either foetal or maternal complications of pregnancy.<sup>[13]</sup> Also, these women were aware of the fact that their physical recovery might be slower than the younger group.<sup>[14]</sup>

Regarding the comparison between the health behaviours in older and younger age primigravidas, we found that old age primigravidas had significantly positive behaviours when compared with younger age primigravidas regarding eating and drinking only what is good for the foetus. It has also been documented that advanced age pregnant women show more health promotion behaviours than younger women. Stark<sup>[12]</sup> found that women who conceive later in life may possess the capacity to organize and adopt strategic actions to meet the demands of pregnancy, thus enhancing feelings of control and success during this experience. Viau and co-workers also reported that 86% of advanced age women adopted health behaviours before or during pregnancy that enhanced their prenatal nutritional status and their ability to meet family, employment, or social responsibilities.<sup>[13]</sup>

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doi: <http://dx.doi.org/10.14194/ijmbr.126>

**How to cite this article:** Abou-Romia F.A, El-Refaey A.M and El-Gharib M.N. Attitude of primigravidas to pregnancy: a comparison between the younger and older age groups. Int J Med Biomed Res 2012;1(2):119-123

**Conflict of Interest:** None declared