

**Younger mothers and older
mothers:
Maternal age and maternity care**

Note

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The editors and publishers have, as far as is possible, taken care to confirm that the information complies with the latest standards of practice and legislation.

Younger mothers and older mothers: Maternal age and maternity care

Edited by

**Tracey A Mills, Debbie M Smith and
Dame Tina Lavender**



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Foreword

The landscape of pregnancy and motherhood has changed greatly over the past decade. As a result, mortality rates have doubled in the past six years; there were just under 20 deaths per 1000 births in 2010–2011 compared to just under 10 in 2005. Health professionals are being asked to provide maternity care for women with increasingly complex problems, including older first time mothers and teenagers.

The aim of this book is to explore the issues and challenges facing maternity care providers as a result of the changing maternal age profile in the UK. A multidisciplinary team of leading practitioners presents detailed analyses and practical advice to guide midwives, doctors and other professionals when caring for women at extremes of maternal age. A holistic approach is taken and the full range of relevant issues from fertility and contraception to long-term psychosocial needs is covered. Each chapter covers an important aspect of maternity care and provides up-to-date evidence underpinning clinical practice and a discussion of the clinical challenges inherent in providing sensitive and effective antenatal and postnatal care. In a unique approach, each chapter examines issues from the perspectives of both younger and older pregnant women. Clinical scenarios and discussion questions are included to reinforce important concepts and guide learning.

This book provides excellent guidance on the problems older first time mothers and younger mothers are likely to experience. As health professionals it is only when we have this information that we are able to prepare and educate the women in our care.

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Introduction

Debbie M Smith and Tracey A Mills

Introduction

The rate of teenage pregnancies in the UK remains high, despite a slow decline in recent years (Department for Education, 2012) and pregnancy in women of advanced maternal age is becoming increasingly common, with births to women over 40 increasing three-fold since 1989 (Office for National Statistics, 2010). This trend towards extremes of maternal age is of considerable clinical and public health concern, because both teenage pregnancy and pregnancy at advanced maternal age are associated with increased risks of poor pregnancy outcomes and increased complications during pregnancy and birth. Therefore, reducing the risk of adverse outcomes for younger and older women and their babies remains a significant challenge to maternity services and health professionals.

Teenage pregnancy

The under-18 conception rates in England decreased by 24% between 1998 and 2010; 46.6 per 1000 girls conceived in 1998 compared to 35.4 per 1000 girls in 2010 (Department for Education, 2012). In addition, the number of under-18 conceptions resulting in a live birth decreased by 35%; from 26.9 per 1000 in 1998 to 17.6 per 1000 girls aged 15–17 in 2010 (Department for Education, 2012). Regional and local variations were evident, the North East of England had the highest under-18 conception rate (44.3 per 1000 girls aged 15–17) and the South East had the lowest rate (28.3 per 1000 girls aged 15–17; Department for Education, 2012). Therefore, care must be taken to ensure that the national decrease does not mask any local differences, especially increases in under-18 conception rates, since evidence suggests that the number of young parents presenting for maternity care in England remains high in certain regions of the country. The issues associated with being pregnant aged under 18 and the needs of young parents must be understood and addressed by health professionals at all stages of maternity care if the best maternal and fetal outcomes are to be achieved.

There is an extensive literature examining the psychosocial, cultural and environmental factors associated with poor sexual health and risky health

behaviours (see Ingham and Smith, 2009). There is considerable overlap between the reported risk factors for and adverse outcomes of young pregnancy (e.g. low level of qualifications and poor school attendance; Department for Education and Skills, 2007). This complex relationship is unclear. The adverse outcomes associated with young pregnancy are not solely a result of age, but rather an amalgamation of issues, including pre-existing risk factors. Research conducted with this view aims to understand the ‘...cycle of deprivation...’ evident in young pregnancy (Garlick et al, 1993: 139). The influence of social inequalities on outcomes should be central to health services research, particularly given the widening gap between rich and poor (e.g. Dorling et al, 2007). Social inequality exists in young pregnancy, with higher conception prevalence rates and a lower proportion of abortion in more deprived areas relative to more affluent areas (Uren et al, 2007). Research must address the means through which the deprivation of an area relates to individual outcomes as it is difficult to separate the effects of environment from individual circumstances (McCulloch, 2001). Echoing this complexity, Smith and Elander (2006) explored the contributions of geographical area and personal risk factors for sexual behaviour and young pregnancy, concluding that the impact of living in a more deprived area is dependent on individual characteristics. The association between young pregnancy and socioeconomic environment is poorly understood, and mechanisms and processes through which the socioeconomic environment shapes and influences young people’s individual sexual and reproductive behaviours are unclear (e.g. Arai, 2007, Smith and Roberts, 2009a, b). The influence of place on sexual and reproductive health needs further exploration (Smith and Roberts, 2011).

The Teenage Pregnancy Strategy was devised as a result of the Social Exclusion Unit report on teenage pregnancy (Social Exclusion Unit, 1999). The report presented young pregnancy as a public health issue by highlighting the greater risk of adverse outcomes for young parents and their children (e.g. social exclusion) and the cost to public spending. In summary, the strategy had two main targets, to reduce the under-18 conception rate by 50% by 2010 and to reduce teenage parents’ risk of long-term social exclusion by getting 60% back into education, training or employment. In 2010, the Government produced a report, *Teenage pregnancy strategy: Beyond 2010* (Department for Children, Schools and Families, 2010). This report outlined the successes of the strategy and the plans to take it forward, and these will be discussed in *Chapter 2*, Section 1.

Health professionals are an important feature of the multidisciplinary approach needed to help young parents make informed decisions during the antenatal and postnatal periods. Health professionals must be aware of the

increased antenatal risks and complications that are associated with pregnancy at a young age (*Chapter 3, Section 1*). The experience of working with young parents can be a long and time-consuming process. Trust has to be gained, meaning numerous visits, which take time and may not be possible in the current healthcare pathways. To build trust in a shorter period of time will mean listening to the young parents' concerns and needs without judgement, and being knowledgeable about the services that are available to them and to which they can be referred for additional support. If adverse outcomes for young parents and their children are going to decrease, health professionals must engage with young parents and offer them care that meets their antenatal (*Chapter 4, Section 1*) and postnatal needs (*Chapter 5*). Health professionals must also be aware of the possible long-term impact of a pregnancy at an early age for both mother and baby (*Chapter 6, Section 1*).

Advanced maternal age

Delaying or continuing childbearing past the age of 35 is becoming increasingly common among UK women. Recent data from the Office for National Statistics demonstrated that the mean age for giving birth had increased from 28.4 years in 1999 to 29.4 years in 2009. While overall fertility declined slightly over the same period, fertility rates among women aged 35 to 39 years and 40 plus increased by 1% and 2.4%, respectively. Births to women over 40 have nearly trebled in the last 30 years, from 9336 in 1989 to 26976 in 2009 (Office for National Statistics, 2010; *Figure 1.1*). This accelerating demographic shift appears to be a worldwide phenomenon, at least in developed countries. Between 1970 and 2006, the proportion of first births to women over 35 in the USA increased eight-fold (Luke and Brown, 2007). Births to women over 35 accounted for 25% of the total in Australia in 2006 (Australian Bureau of Statistics, 2007).

The trend towards postponement of motherhood has attracted significant concern among health professionals (and others) because of the negative impacts of advancing maternal age on fertility and pregnancy outcomes. Epidemiological studies consistently report increased infertility, miscarriage and need for assisted reproductive technologies in women over 35 (Nybo Andersen et al, 2000), with the real possibility of involuntary childlessness for women who delay motherhood. Older women who sustain a pregnancy are also more likely to experience complications and adverse maternal and perinatal outcomes, notably stillbirth (Cleary-Goldman et al, 2005; Reddy et al 2006; Luke and Brown, 2007). In response to increasing concerns of their members and other health professionals,

Live births per 1000 women

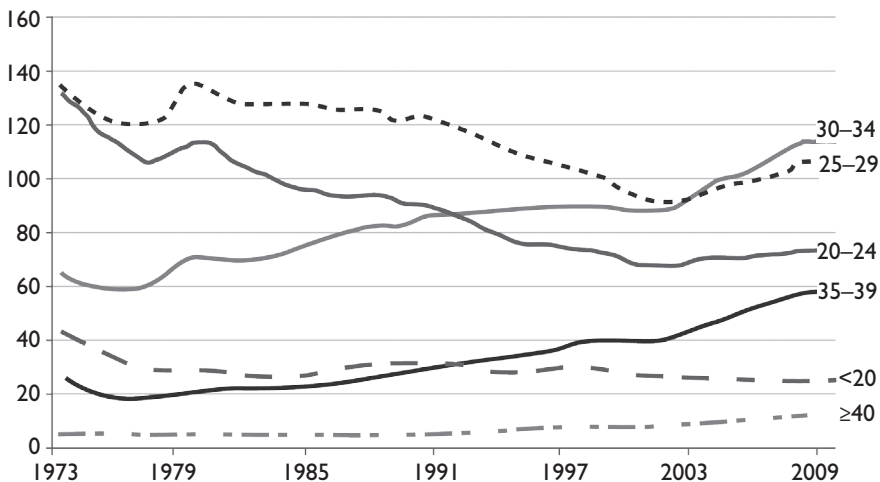


Figure 1.1: Age-specific fertility rates 1973–2009. Source: Office for National Statistics, licensed under the Open Government Licence v 1.0.

the Royal College of Obstetricians and Gynaecologists recently issued a statement encouraging women to ‘...consider having families during the period of optimal fertility (age 20–35)’ (Royal College of Obstetricians and Gynaecologists, 2009).

Provision of effective maternity care to meet the needs of the increasing number of women becoming pregnant later in life relies on a clear understanding of the risks. However, interpretation of the available evidence is complicated by conflicting data and lack of consensus regarding the magnitude and importance of particular risks. Investigation of the effect of age on (fortunately) infrequent outcomes such as stillbirth requires a large sample. Although births to older women are becoming more common, they account for a small percentage of the total, around 10–20% births are to women over 35 and 2–4% to women over 40. The largest studies are based on retrospective examinations of birth registers which may lack data on many variables that could significantly influence outcome. For example, the children of older women may be fathered by older men. Older women also have an increased incidence of co-existing medical conditions, are more likely to be primiparous, use assisted reproductive technologies including ovarian stimulation/*in vitro* fertilisation and have multiple pregnancies. All of these are independent risk factors for poor pregnancy outcome. The age range of the control groups used for comparison also varies considerably between studies

(examples include 20–30, 25–29, and under 35 years) (Nybo Andersen et al, 2000; Reddy et al, 2006).

The limitations present in many of the existing studies reduce the validity and generalisability of findings (Kenyon and Bewley, 2009), meaning that many key questions remain unanswered. It is not clear whether increased risks of poor outcome relate to maternal age *per se* or the presence of co-morbidities. Evidence relating to the age threshold at which adverse outcomes become significant is also limited. Some studies have suggested this occurs after 35 years, while others argue that the association is only clinically important at age 40.

Despite the evidence for worsening reproductive outcomes, the trend towards delaying childbearing shows no signs of slowing. The reasons underlying this phenomenon are incompletely understood but shifting gender roles, increased independence and an emphasis on the importance of education and career for women are often cited. Access to effective contraception, assisted reproductive technologies and changing patterns of family building, including increased divorce rates and remarriage, are also likely to contribute (Carolan and Frankowska, 2011). Surprisingly, there has been little empirical research to examine women’s reasoning and views concerning the timing of childbearing. A recent qualitative study challenges the assumption that women perceive delayed childbearing as a conscious choice (Cooke et al, 2012). In Cooke and colleagues’ study, women who had delayed motherhood past the age of 35, identified a complex interplay of personal, social, economic and cultural factors as constraining earlier childbearing.

Despite the negative focus on an apparent increase in physical risks, later childbearing may have some advantages for the mother and baby. Childbearing women aged over 35 are likely to be better educated and of higher socioeconomic status than in the past. Older women may be more likely to follow a healthy lifestyle, attend for regular antenatal care and have a positive perception of their pregnancy, factors that are strongly associated with lower rates of poor outcome. Women in their 30s and 40s will also have greater life experience and information, which may mean that they feel more psychologically prepared to assume the responsibilities of parenthood. A recent Canadian study also identified a strong association of older maternal age and prolonged breastfeeding (Kehler et al, 2009). However, there is some evidence that older women might experience greater difficulties in adjusting to the demands of caring for a newborn infant in the early postnatal period. Bornstein et al (2006) reported that increasing maternal age is correlated to perception of the newborn as ‘difficult’ or maladjusted, possibly reflecting a decline in physical capacity and stamina with advancing age. Older women may also lack social support from extended families, which often

benefits younger women. While there are relatively few data regarding outcomes for the children of older mothers, there appears to be no evidence of any negative effect of maternal age on children's psychosocial wellbeing. One study reported that advanced maternal age was the strongest predictor of high educational achievement and positive psychosocial development in young adults at the age of 18 years (Fergusson and Woodward, 1999).

Summary

Providing effective, sensitive care requires an understanding of the unique issues and challenges affecting pregnant women at both ends of the age spectrum. Health professionals and maternity service providers need to understand the impact of maternal age on the health and wellbeing of pregnant women, their babies and their own parents. They must also be aware of recent policy recommendations for care and the most effective strategies to reduce the impact of associated complications.

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