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Teenage Parenthood and Social Exclusion: a multi-method study

Summary report of findings

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The views expressed in the report are those of the authors and not necessarily those of the Department of Health.

1. Background and aims of the study

This report describes a multi-method study of teenage parenthood carried out over two years from March 2002 by a team of researchers at the Social Science Research Unit, the Institute of Education, University of London, and the Medical Statistics Unit, London School of Hygiene and Tropical Medicine. The study is part of a programme of research commissioned by the English Department of Health (DH) in order to inform the government's Teenage Pregnancy Strategy.

The focus of the Teenage Parenthood and Social Exclusion (TPSE) Study is on the experience of teenage parenthood in the context of social exclusion. It draws on the familiar background of a policy commitment to reducing rates of teenage pregnancy and its conceptualisation as a 'social problem'. The origin of the policy concern is complex and variable both over time and internationally¹⁻³. While the health and other disadvantages accruing to teenage parents and their children are frequently cited as drivers of initiatives to reduce teenage pregnancy rates⁴, most teenage births are to older teenagers where there is little evidence of harm⁵. Concerns about the 'societal' costs of teenage parenthood, especially the 'welfare burden' of teenage motherhood are an important underlying policy theme^{1,6,7}.

Teenage parenthood has been identified as a mechanism for the intergenerational transmission of poverty and patterns of family deprivation⁸. More recently it has been associated with the general phenomenon of social exclusion, both as 'a cause and a consequence'⁹. The term 'social exclusion' is used by many as 'simply a currently fashionable way of talking about poverty'¹⁰. However, its reference to a societal tendency to push 'vulnerable' people into 'the least popular places'¹¹ means that its usefulness as a analytic tool lies in a much broader conception which ties social marginalization into structures of polarisation and inequality. A striking feature of teenage pregnancy rates both nationally and internationally is their tendency to follow indices of polarisation, with the highest rates in the most unequal societies^{2,3,9,12}. Epidemiological evidence of this kind has identified other key structural factors associated with high rates of teenage pregnancy, including the opportunities available to young people for post-16 education and training¹³, their exposure to sexual and other physical violence in childhood^{2,3} and access to useful practical information about sex, contraception and parenthood within a culture of openness about such matters¹⁴.

The TPSE Study takes a broad approach to the definition of social exclusion: individuals or groups are socially excluded if they are denied the opportunity of full social participation, should they desire to participate or not¹⁵. Social exclusion is a lack of recognition of basic rights, a process in which individuals are detached from their community, as a result of exclusionary practices on the part of the socially included¹⁰. It is a 'shorthand for what can happen when people or areas suffer from a combination of linked problems such as unemployment, poor skills, low incomes, poor housing, high crime, bad health and family breakdown'⁹. These problems are often mutually reinforcing, with the potential to create a vicious circle.

Much of the research and policy literature emphasizes the negative aspects of teenage parenthood and presumes that the children of teenage mothers are unintended and unwanted¹⁶. A related clear omission from much of the literature is the voices of teenage parents themselves¹⁷. The study reported on here explores the links between teenage parenthood and social exclusion using a range of both 'qualitative' and 'quantitative' data. The aim is to conduct an analysis and produce findings which reflect teenage parents' experiences and the interactions between different factors, in line with recommendations for extending research in this area¹⁴.

Research question and aims

Our research question was: What are the critical factors distinguishing between teenage motherhood *with* positive outcomes from teenage motherhood *without* such outcomes? There were three specific aims:

1. to explore the 'causes' and 'consequences' of teenage pregnancy and motherhood using qualitative and quantitative data;
2. to identify factors predictive of positive and negative outcomes; and
3. to examine any 'time effects' associated with the experience of teenage motherhood at different time points.

The focus of our study was on teenage *motherhood*. The main body of data used in the analysis was supplied by mothers; teenage pregnancy is a female experience, and teenage parenthood is largely female in many cultures, with the fathers of teenage mothers' babies being universally acknowledged as rather shadowy figures¹⁸. However, we did carry out some interviews with men who had fathered children as teenagers to try to remedy this research gap.

A particular strength of the TPSE Study is the use of datasets from two previous studies which enabled us to explore questions about teenage pregnancy in a longitudinal framework. We also collected new data, some from participants in the original studies, and some from new samples of mothers, fathers and children, in order to develop hypotheses to test through statistical analysis of the quantitative data, and examine in more depth the personal narratives underlying statistical patterns.

Altogether the findings in this report relate to the experiences of 1262 individuals in five different geographical areas of England who were studied by researchers over the period from 1986 to 2004.

2. Structure of this report

This report begins with a brief overview of the methods used to collect and analyse data in the TPSE Study and a summary of the main findings. This is followed by separate sections presenting the findings for the initial focus group discussions, the analysis of the questionnaire data, and the interviews with mothers, fathers and children. Section 10 reports on the feedback from the final focus group to which we presented the study findings. In section 11 we summarize and reflect on the key results, and in section 12 we identify some policy and research recommendations which flow from the findings. Two appendices provide detailed information on the socio-demographic characteristics of the participants in the various stages and types of data collection, and on the statistical techniques used to model the quantitative data.

3. Methods and participants

As noted above, the TPSE Study was a multi-method project drawing on two existing datasets, supplemented with the collection of new data. This section outlines the main techniques we used to collect and analyse the data presented in this report. A more detailed description of methods used in the statistical analysis is available in Appendix 2. Figure 3.1 outlines the methods and participants in the study.

Existing datasets

The existing datasets were collected for two randomised controlled trials (RCTs) of support interventions for mothers: the Social Support and Pregnancy Outcome (SSPO) Study¹⁹⁻²¹; and the Social Support and Family Health (SSFH) Study²². The women who participated in these studies were recruited in 1986-7 and 1999 respectively, and in both studies were predominantly socially disadvantaged. The SSPO Study was originally conducted in four areas of England (Derby, Reading, Stoke-on-Trent and Tunbridge Wells) with women who had previously given birth to a low birth weight baby; questionnaire data were collected early in pregnancy and at 8 weeks, 1 year and 7 years after birth. The SSFH Study collected data from a sample of London mothers using questionnaires and interviews at 8 weeks, 14 months and 20 months after birth.

Of the 1,196 women who took part in both these previous studies, 21% (246) had children as teenagers. New analyses were undertaken of these data, focussing on the comparison between the pre- and post-pregnancy circumstances of the mothers who had had teenage pregnancies and those who had babies later.

New data collection

New data collected for the TPSE Study included postal questionnaires sent to women in the two original studies who could be traced; interviews with some of these women, their children and partners; and focus groups with new samples recruited through local community services in London and Derby. Some of the fathers interviewed were also recruited through community contacts.

Focus group discussions with 31 women who were currently, or had previously been, teenage mothers, were carried out at two time points: first at the beginning of the study to help us to formulate the major themes to be explored in the questionnaires, interviews and analysis; and secondly at the end of the study, with a sub-group of those who had attended the first discussions, as a sounding board for the initial results to provide feedback and clarification.

We developed a **new questionnaire**: to explore longer term outcomes for teenage mothers versus older mothers; to ask for retrospective information about their teenage years; and to investigate further their experiences around the time of the birth of their eldest child. Three slightly different versions of this questionnaire were used, allowing for appropriate age-specific questions to be asked about the woman's eldest child. These questionnaires were sent to the women who had previously taken part in the SSPO and SSFH studies and had agreed to be contacted for follow up. (The National Health Service Central Register was used to try to locate women who had moved.) The 459 women who completed the questionnaire were given a £5 gift voucher to thank them. We tested two different ways of giving these vouchers by randomly allocating women either to be sent the vouchers with the questionnaires or after questionnaire completion. The purpose of this small methodological sub-study was to add to the evidence base for effective data collection methods²³. The results

will be written up separately. For clarity, the new questionnaires are referred to as the 'TPSE questionnaires' in the rest of this report.

In order to explore the themes of our study further, we **interviewed a sub-sample of the women in the two original studies who had become pregnant as teenagers**. The 54 interviews, carried out with those who volunteered on their TPSE questionnaires to provide additional information, explored the women's views on their childhood and adolescent years; their experiences of becoming a mother at a young age and their current situation; and their views on current policy relating to teenage pregnancy and parenthood. After the interviews were completed, we sent a short supplementary list of questions exploring some of the themes raised in the interviews to the TPSE questionnaire respondents.

We carried out some **interviews with men who had fathered children as teenagers** to ask about their own childhoods and adolescences, the early years of parenting and their past and current relationship with the mother and the child. These 13 fathers were accessed both through women in the study (their relatives or friends) and through local community contacts (e.g. a London Sure Start group working with young men). We also interviewed some **'children' of teenage mothers** (aged over 12 years). Access to the 19 children was via women in the study who had themselves agreed to be interviewed. These interviews explored the children's experiences and aspirations, and their views of young parenthood and other issues related to teenage pregnancy.

The TPSE Study received ethics approval from the London Multi-centre Research Ethics Committee. Written information was provided and consent gained from all participants.

Language interpreters were used to assist 31 mothers to complete the TPSE questionnaires. In two instances, an interpreter was used in the interviews with previous teenage mothers – one for a Spanish-speaking woman and the other for a Bengali-speaking woman.

Analysis of the data

The focus groups and interviews were tape recorded and transcribed. Thematic analysis was undertaken, with two members of the research team reading and coding each transcript. Statistical analyses of the existing datasets and the TPSE questionnaires were used to explore the relationships between teenage pregnancy and variables that could potentially be pathways to becoming pregnant while a teenager ('causes'), and those that could be 'consequences' of teenage pregnancy. Multivariate logistic regression models were used to explore these relationships.

An important step in our analysis was to create a two tiered approach to the analysis of both the quantitative and qualitative data. This looked at two groups of outcomes for teenage parents and non-teenage parents. 'Material' outcomes included educational qualifications, employment, housing tenure, receipt of means tested benefits, financial concerns and parenthood status (lone or not). 'Non-material' outcomes were physical health, satisfaction with life, depression, ease or difficulty of last year and emotional and practical support. To simplify the analysis, we created composite outcome measure for both 'material' and 'non-material' outcomes. Most teenage pregnancy research concentrates on material factors such as poverty, poor housing and educational qualifications. Our focus on 'non-material' outcomes was a direct result of the early focus group data, which highlighted the rather different perspectives mothers brought to the analysis of the causes and consequences of

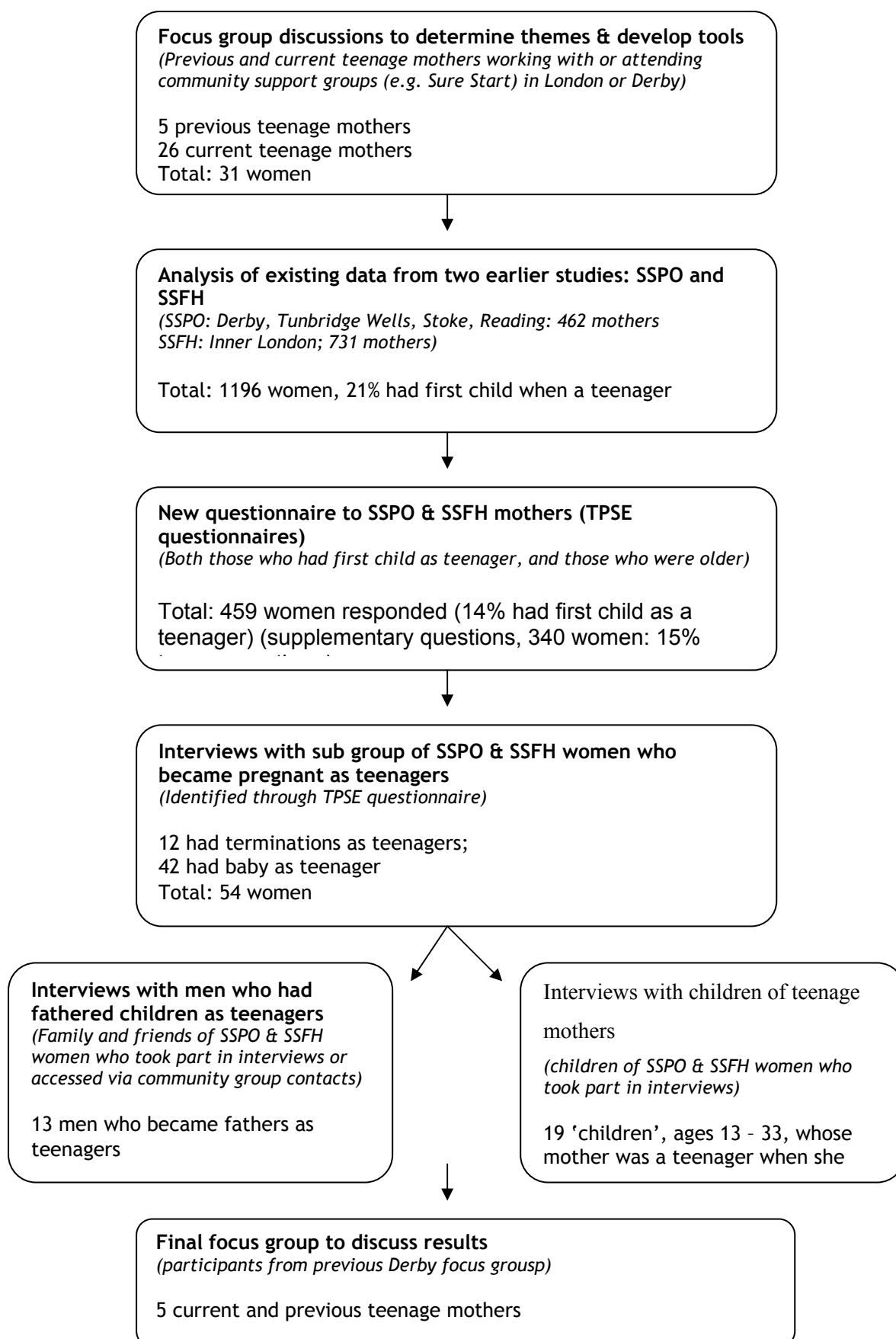
teenage pregnancy. In addition, in the qualitative material, we created a system for assessing the women's and children's current situations in order to distinguish between those whose childhood and current situations could be regarded as 'positive', 'mixed' or 'negative'; we then looked for factors that differentiated between these different types of outcomes.

Participants

Figure 3.1 shows the number of research participants who provided data for the TPSE Study at the various stages. Appendix 1 provides a socio-demographic profile.

Response rates in the original studies varied. In the SSPO Study, 95% of the sample provided data eight weeks after birth, 71% at one year, and 48% at seven years. In the SSFH Study, response rates at one year were 90% and at 18 months 82%. In both studies, non-responders were more likely to be socially disadvantaged. The new questionnaires developed for the TPSE Study were returned by 38% (459) of the 1196 eligible women, and the supplementary questionnaires by 28% (340). As before, those who did not respond were more likely to be socially disadvantaged. Additionally the non-responders were more likely to have been from the earlier SSPO study and to be women who had been younger when they had their first pregnancy. Response rates for the interviews were 68% (42/62) for interviews with current/previous teenage mothers, and 67% (12/18) for interviews with women who had had their teenage pregnancies terminated. The fathers interviewed were recruited using a 'snowball' technique, so a response rate is not applicable; 68% (19/28) of the 'children' we asked agreed to be interviewed.

Figure 3.1 Methods used in the Teenage Pregnancy and Social Exclusion Study



4. Summary of main findings

This section summarizes our key findings by themes and explores how our findings contribute to an understanding of teenage pregnancy.

Many teenage parents report positive experiences. For some women in the TPSE Study the pregnancy was planned or, if not planned, wanted. For others this was not overtly the case at the time, but their teenage pregnancy came to be viewed by many as a positive occurrence. Many women loved being a mother; for some having one or more children as a teenager turned their lives around in a positive way. Furthermore, the children who were interviewed felt they had gained by having a young mother, although their own priorities were to develop their careers, rather than have children at a young age as their mothers had done.

Dislike of school/educational failure. In both the qualitative and quantitative data in this study, teenage parenthood was strongly associated with: leaving school by 16 years of age, leaving school with no or few qualifications and disliking school. Boredom, bullying and educational failure were the main reasons given for school being a negative experience.

Poor sex education. Most teenage mothers felt that any sex education they had had at school and at home had been inadequate. Failure to use contraception was the most common reason given for becoming pregnant as a teenager, often as a result of lack of knowledge and access to services. In contrast, these women said that they could now speak openly about sex and contraception with their own children. The children's interviews confirmed this.

Violence. This was a theme in the interview data of the women who had become pregnant as teenagers, the children, and the teenage fathers. Violence featured in the teenage mothers' childhoods both in the home where they were victims or witnesses of violence, and in school where many were bullied. Violent relationships with husbands or partners, either current or past, were common.

Teenage pregnancy is not a social problem, social exclusion is the problem. Much that was negative about the experience of teenage pregnancy for the mothers, the children and the fathers resulted from factors related to their socially excluded lives rather than the teenage pregnancy *per se*.

Important factors for teenage mothers who do well in the long term. The key factors that characterised the lives of those previous teenage mothers who had done well were: support from family; having a positive partner relationship; developing a career or having employment they liked; and the passage of time since the birth.

Value of longitudinal method. The study draws on two existing data sets and supplements these with new data. Thus data collection occurred at several time points over eighteen years from 1986. This gives a longitudinal view of women's lives through childbearing and beyond, and allows an exploration of the impact that the passage of time has had on women's experiences.

Value of multi-method approach. Most studies of teenage pregnancy use either a 'qualitative' or a 'quantitative' approach. Using different methods, both qualitative and quantitative, in sequence throughout our study allowed the outcomes from one method to inform the content of the next, and made it possible for us to collect a pool of multi-dimensional data that is rich in depth, breadth and inclusion of the voices of teenage parents and their children. This is a framework that extends the more

restricted focus of much previous teenage pregnancy research to reflect the multifaceted nature of the social phenomenon of teenage pregnancy.

How our findings contribute to an understanding of teenage pregnancy

The TPSE Study confirmed the associations shown in other research between socio-economic disadvantage and risk of teenage pregnancy, and highlighted the increased chances of teenage mothers, compared to other mothers, living in difficult circumstances. However, our study, like others, showed that the social disadvantages associated with teenage pregnancy and parenthood are a function of teenage mothers' greater social adversity, not of their age *per se*. Lack of appropriate sex education and adequate sexual health services also emerge in this study, as in others, as significant deficits associated with unintended teenage pregnancy.

Many young mothers feel positive about having children, and are clear about the ways in which social policy initiatives could improve outcomes for them and their babies. The importance of school, professional and family, partner and community support emerges clearly as protective, both in allowing choices about the age at which parenthood starts, and for those who have children young.

A major finding of the TPSE Study is that dislike of school has a strong independent effect on the risk of teenage pregnancy. The data also show that violence in school and domestic settings is an important risk factor which has received little attention in previous research. Other findings include changes over time in the experience of teenage motherhood, with some lessening of stigma and enlarged education and training initiatives reported now compared with ten or twenty years ago.

5. Results – focus group discussions with mothers

Six focus group discussions were held early in the study with women who were currently teenage mothers or had previously experienced teenage motherhood. These focus groups were carried out between May and October 2002 to inform the development of the TPSE questionnaires and interview schedules. Four of the groups were with current teenage mothers and two with women who had been teenage mothers in the 1980s and early 1990s. The groups were convened in London and Derby and thirty-one women in total took part. A detailed report on the focus groups is available²⁴. Below we provide a summary of the findings.

The main themes that emerged in the groups with current teenage mothers were: opportunities gained and lost as a result of becoming pregnant at a young age; parenting; the impact on relationships; and the importance of practical support. There was the same emphasis in the groups with older mothers on the challenges of parenting as a young mother and the importance of support, but the women also reflected on some of the changes that have occurred over time in the social treatment of teenage pregnancy.

5.1 Current teenage mothers

Theme one: Opportunities

The current teenage mothers felt they had gained many opportunities as a result of becoming pregnant and having a baby. They spoke with ease about what they had gained, but information on lost opportunities tended to emerge in a more tentative and complex fashion, with more diversity in terms of the range of experiences and views.

Many of the women felt that they had more opportunities to work or study now they were a parent than they had had prior to the pregnancy/birth. They acknowledged that this was in part because they were more motivated:

'For me it's made me want to do more with my life...if I didn't have [my daughter]ⁱ I'd be like 'I've got to get a job, but it's not that important', but now I've got her I'm making sure that I do my education and get a good job so that I can support her for the rest of her life.' (L1-C)ⁱⁱ

The women felt that becoming a mother had given their lives more meaning, a sense of purpose and greater happiness. They spoke of the differences between their lives now and before their children were born:

'I'd be clubbing all the time, I'd be drinking all the night and in the daytime I'd be sleeping.' (L1-C)

Some teenage mothers felt that having their child at such a young age had resulted in the loss of significant opportunities. One woman talked of the *loss of childhood*, others about missing out on a time of life when responsibilities are minimal:

ⁱ Square brackets [] are used in this document in quotes when words have been replaced for anonymity or added clarity.

ⁱⁱ L1-C, L2-C and L3-C relate to the three focus groups held in London with current teenage mothers; D1-C relates to the focus group held in Derby with current teenage mothers.

'Seeing your friends at weekends things like that, different things like you're supposed to do at your age.' (L3-C)

'You feel like you are missing out because you haven't lived yet.' (L2-C)

Some women bemoaned the fact that they now had no option but to stay at home with their parents, because they were unable to support or house themselves:

'It would be so much easier if I had a place of my own then I could bring her up my way without people telling me "oh no you've done that wrong".' (L1-C)

Women's concerns about the negative impact on education, jobs and careers appeared more covertly in response to being asked what they thought was the best age to have a first child. Initially in the discussion a number of women appeared convinced of the benefits of having a child early and then concentrating on a career later. But when asked about the ideal time to become a mother, some of these same women commented that it was preferable to delay having a first child in order to pursue other experiences and choices.

Theme two: Parenting

Parenting as a teenager, both the positive and negative aspects, was the second theme that emerged strongly from the focus groups with current teenage mothers. The women were proud and passionate as they discussed their parenting role. They were anxious to demonstrate both their belief in their ability to do the job very well, but also the many external constraints that they felt were put in their way:

'At the end of the day we can give our children the same as a 36 year old can.' (D1-C)

'We're young at heart and we know what to do for our kids... I think having a young child and being young yourself you know what they're into. You know what people say about young ones, "they don't know what it is to be a mother", but no one knows what it's like to be a mother the first time.' (L2-C)

These young mothers also spoke of having plenty of time to spend with their children when they were small. They felt that older parents were more constrained by their careers and lifestyles:

'Women who are working and have full time jobs, they can't spend very much time with their children.' (L2-C)

Succeeding where they felt their own parents had failed was an aim of a number of the young women. They saw their motherhood as an opportunity to give their children more stable lives than they themselves had experienced:

'I want her to be able to talk to me, not like me and my mum, for her to be able to actually come up to me, give me a hug, give me a kiss say goodnight, say hello, talk to me about what she's doing and that.' (L1-C)

The women who took part in these focus groups were living in poverty, often on benefits, and for some this was the most difficult aspect of their situation. They disliked being dependent on state benefits, and some complained about their treatment by benefits agency staff:

'I think the worst thing that has happened to a lot of people is the benefits agency. Because they made me live on £15 a week and said that (my baby's) dad was living with me and he wasn't and that took me six weeks to get my money back. And they just wasn't helpful at all, they were just nasty.' (D1-C)

Housing was another major problem. Many had become homeless as a result of the pregnancy or birth. These 'homeless' women, all of whom were in the London groups, had been placed in bed and breakfast or hostel accommodation by their local authority. One woman, a refugee, spoke positively of this experience, but most said they were living in very poor, inappropriate accommodation, and had been there for months and in some cases years:

'They try to tell me that they don't have to provide a fridge. When I start college in September I need to express my milk in the night time because I want to still breast feed in the evenings but I need to express off at least three eight ounce bottles and I need to put it in a fridge.' (L1-C)

The women disliked, and spoke with anger, about the negative stereotyping by the general public and by health and social service professionals of teenage mothers:

'The best one is the old people on the bus "oh, look at you, you get everything for nothing, everything's given to you".' (D1-C)

'Social services - if you are a 30 year old woman they don't give 'a flying' about ya. But if you're a 19 year old woman, they think "Ha! She's doing this wrong she's doing that wrong! She's taking drugs".' (L2-C)

Some of the discussion focussed on the lack of trust from their own families:

'It's more difficult when your mum, when family members, come round and it's like "right, she's my baby. I know what I'm doing!" and you've got people saying, "no, you're doing that wrong, you're doing this wrong" but you know because it's yours what you are supposed to be doing.' (D1-C)

Some women admitted to struggling with the level of responsibility that comes with being a mother. They discussed this in terms of financial responsibility, but a few also spoke in terms of the constant pressure of thinking about and looking after someone else 24 hours a day:

'Too much responsibility when you're young, I think so...I mean you have a day in college, in the morning I have to get the train to the child minders, I have to rush back to get home before five. If I go after five I'm paying extra money. So I think that's how it's hard.' (L3-C)

Theme three: Impact on relationships

At the time these young women conceived most were still living in the family home and spending their spare time with their school/college friends. Some of these young women, notably those in the London groups, described complex family relationships. Many had been anxious about telling their parents about the pregnancy, in particular their mothers. Some got the reaction they feared:

'I was scared to tell my mum, my mum went mad!' (L1-C)

Whereas others got immediate support:

'My mum said if I got rid of the baby I'd regret it. She said if I got rid of the baby I'd regret it for the rest of my life and if I had the baby she'd help me.' (L2-C)

There were also examples of relationships with other family members being strengthened as a consequence of the pregnancy:

'My nan's over the moon because she's glad to be a great granny before she dies.' (L1-C)

In addition to some improved relationships with family members, these women spoke of the new friendships developed with other young mothers:

'I'd had mine, and three days later [my friend] went in [to hospital and gave birth] and as soon as she came out she came round, and I went round there, and we looked after each other.' (D1-C)

For some women becoming pregnant had an overall negative impact on their relationships. Some of these had clearly had difficult relationships with their parents for many years. These very poor relationships were often not improved by the pregnancy; if anything, they deteriorated further. Three of the refugee women had arrived in Britain, alone and pregnant. None of these women was comfortable to discuss in the group their reasons for leaving their home country. One intimated that her pregnancy, as a young unmarried woman, had been unacceptable to her family:

'They regard you as someone spoilt where I come from, as someone spoilt if you have a baby when you are young... It's different here [in England]...because at home you have brought shame to your family. Whereas living here [teenage pregnancy/single parenthood] is more normal, more people have children and stuff like that.' (L3-C)

The teenage mothers in general were often disappointed by the reaction of friends from their past who did not have a child themselves. Many felt that these friends no longer were interested in spending time with them or failed to understand the constraints now placed on them.

The impact on relationships with partners was complex. One woman was clear that she would still have been with her partner and father of her child if she had not become pregnant and had the baby; another felt strongly that she and her partner were only still together because she got pregnant. At the time that the groups were held, most of the London women did not have a partner. For some this had always been the case; they had known they would be a single parent from the start of the pregnancy. For others the relationship had broken down, often before, or soon after the birth. Conversely, more of the women in Derby were in relationships. Some of these relationships were clearly good with a degree of shared parenting, but there was much expression of disdain that men could not cope with the rigours of fatherhood:

'He'd rather play football in the street, he can't face up to the responsibility, you know we'd be better off without him.' (D1-C)

Concern about anticipated difficulties with forming future partnerships was also expressed:

'It would be easier, because you wouldn't have baggage if you didn't have a kid.' (L2-C)

Theme four: Support

These young mothers spoke particularly of practical help given by family and friends, such as babysitting. They especially valued family support that was not overbearing or where they felt they were being judged:

'His mum helped, she was there for us and she came down as soon as we had [our daughter] and she's helped because she was like, she hasn't got involved, my mum hasn't got involved, she's like, "look, it's up to you what you do but you need us we're just a phone call away".' (D1-C)

Similar themes emerged when the women spoke of the professional postnatal support that was valuable to them. For example, one woman, referring to one particular health visitor working for a Sure Start programme, said:

'She's constantly telling you that you're a good mum and that you're doing well. She's always there.' (D1-C)

The young parents' support groups and organisations, through which we accessed the women, were particularly praised. The groups gave the women somewhere to go where they would get professional and peer support. The women acknowledged the help received from these groups with child care, access to educational and social opportunities and parenting skills:

'Seriously if I didn't come here I'd be going mad by now...It's only two days a week but them two days you've got to look forward to.' (L1-C)

Women in all the groups spoke about limited, and often, non-existent practical and emotional support from partners:

'It's not support for me (that I care about), but I would like him to get to know his own child. That would be nice.' (L2-C)

Some women felt that they had not had good support and understanding from professionals – both before and after they had the baby. They spoke angrily in some cases of interactions with professionals at the point of discovering their pregnancies. One woman was told by her GP:

'Oh you shouldn't get pregnant, you've got to get rid of this baby.' (L1-C)

In general the women wanted services that were targeted at teenagers. While some were told during their pregnancy that antenatal groups were generally available for teenagers in their area, this service never materialised. Those that attended groups said they felt uncomfortable and unsupported in mixed-age antenatal settings.

5.2 Previous teenage mothers

The main difference between the situations of the women who took part in the two sets of focus groups was that the older women who had been teenage mothers some years ago were now engaged in formal education and work. This was one of many effects of time that they reflected on during the focus group discussions. The key

themes of these discussions were the desire to have a baby; women's judgements about themselves as parents; support; and teenage pregnancy as an attractive life choice at the time when it happened to them.

Theme one: The desire for a baby

Four of the five previous teenage mothers who took part in the groups were clear that at the time that they became pregnant as teenagers they had, consciously or unconsciously, wanted a baby. Three attributed this desire for a baby to their own poor experiences in childhood. They said wanting a baby arose at least partially from a need for something of their own, something to love, and an escape from feeling unhappy:

'From about 11 onwards I was definitely left to my own devices and was very lonely...I remember actually saying it then, "I want a huge family and come Christmas and birthdays my children will always have somebody to be with".' (L4-P)ⁱⁱⁱ

The fourth woman's desire for a baby was the result of more positive experiences. She had come from a large, cohesive nuclear and extended family where pregnancy at a young age was common; she was in a stable relationship with a young man with similarly positive experiences of family life and they had planned the pregnancy. Over twenty years, and five more children later, they were still happily married.

For the fifth woman the pregnancy was a complete, and initially unwelcome, shock that took a while to adjust to and feel positive about, but she remembered that *'abortion didn't come into my mind'*.

Theme two: Parenting

The previous teenage mothers said that in general they had been good parents. They took pride in what they had achieved as parents, both when their children were young and as they got older. In their perspective, much of what was required to be a good parent was instinctive (and hence age was irrelevant), but they also felt that their own, often harsh experiences of childhood, had equipped them with useful practical skills, coping mechanisms, and above all a determination to parent better than they themselves had been parented:

'I left home at 13 and I had already looked after a lot of children. I was already equipped – with siblings and friends I used to babysit a lot for.' (D2-P)

'I'd had that year where I'd reached out and there had been absolutely nobody whether I needed them or not; it had made me quite resilient.' (L4-P)

Like the current teenage mothers, they stressed the advantages for children of having young mothers:

'Because there is only a 17 year age gap, I think that makes a difference. She [my daughter] feels more comfortable with me than a grey-haired old woman that she comes to visit every Sunday afternoon. I think that's that difference. She'll go out with me to town, she'll go for a drink with me, or whatever. She wouldn't feel out of place.' (D2-P)

ⁱⁱⁱ L4-P relates to the focus group held in London with previous teenage mothers; D2-P relates to the one for previous teenage mothers in Derby.

The women were clear that there had been considerable stigma attached to teenage pregnancy and parenthood at the time when they had their first child. They spoke of disapproval by members of the public and older mothers, and of being prejudged by doctors:

'There were mother and baby groups you could go to..[but]..the older women would sort of look at you when you entered the room and that sort of thing. There was that sense of insecurity there as a young mum.' (D2-P)

The women were in agreement that many of the difficulties they had to deal with in the past had been practical problems that arise from being poor and socially excluded, rather than from having a child at a young age *per se*:

'It's not being young, it's the other stuff that goes with it like housing, DSS, all types of things in that sense.' (L4-P)

Theme three: Support

Three of the previous teenage mothers in the focus groups spoke positively of the support they received, at the time they gave birth, from at least one member of their family – even if at the initial point of disclosure of the pregnancy there had been disapproval. The others were more isolated. Partners were mentioned only occasionally and were clearly not a major source of support:

'I left home and I didn't have family support because I lived quite a way from my family. So I had to basically be able to do it on my own. Obviously I had my husband's support, but he wasn't much use.' (D2-P)

In general the women did not seem to rely on friends at that time and most referred to the lack of groups and facilities specifically for young parents, places where they would have had an opportunity to meet other young mothers. The women from both groups perceived that many more such specialist services are available now.

Views on support from professionals were mixed. One woman commented how twenty years ago when she was a parent for the first time, professional interest was in the child, the mother was *'just this thing that did the basics [for the child]'*. She welcomed the approach that she had witnessed with her teenage son when he recently became a father, where it was the mother/parents that were the focus for professional support.

Theme four: Choices

The women in the focus groups for previous teenage mothers said that becoming a teenage mother had seemed to them a desirable 'choice' at the time because few other attractive choices existed. The women were also consistent in the view that, once they had become pregnant, there was a general assumption that they had little choice but to become full-time, stay-at-home mothers:

'When I fell pregnant I would have two by the time I was 18, I had pretty much been given the idea that this was life; I had made my bed and I was going to lie in it and life was going to be daunting and life was going to be hard.' (L4-P)

They were clear that, even if they had wanted something different, there were few other real choices, such as entering education, available. The reasons they gave for

this lack of choice were barriers such as: social class; a lack of money to pay for childcare; and a lack of readily available support and information:

'Obviously there are things you grow up wanting to do, you grow up thinking I want to be a nurse. In my case, that was the case but because I had three children in a short space of time, you know life just takes over. I think if someone had come along and offered me those [career] opportunities then I don't think I would have gone on and had any more children. Because I'd have set my mind on something else. Focused on something else than just being a mother. Definitely.' (D2-P)

The women mused about how their lives might have been different had they had more choices, but they were philosophical about this and the majority spoke with enthusiasm about the chances they were now getting:

'It's wonderful, I can't wait to start my college course, it's been a long time coming, I'm nearly 40 now, so I'm really starting my career now and I'm nearly 40 and that hasn't been such a bad thing for me.' (L4-P)

The women felt that young women today have the same desire to have a baby as they themselves had had 20 years ago. They did not judge this to be a bad thing, though the Derby group discussed the failure of society and families to create the conditions where teenagers in general are not bored and needing an escape:

'School, education...there's no interest there, and I think they are just bored with their lives and they'll seek excitement anywhere.' (D2-P)

Two of the women had teenage sons who were fathers. Both these young men were currently still in a relationship with the teenage mother of their child, and their mothers were clearly supportive of both their sons and the mothers of their sons' children and did not express any regret that their own children had, like them, become parents at a young age. There was considerable optimism that things would be better for their children who had become parents, both because of their own positive parental influence and the existence of better opportunities in society. Alongside this optimism, however, the women had the view that the difficulties they experienced, including the stigma attached to young parenthood and practical difficulties, such as a lack of affordable and decent housing, remained much the same.

5.3 Early focus groups – summary of themes

The teenage mothers in the focus groups had faced and continued to face enormous challenges since the births of their babies. For example, many had experienced homelessness and subsequent placement in very poor temporary accommodation, the breakdown of relations with partners, leaving them to cope with a newborn baby as a lone parent, and dependency on benefits. But a striking feature of the focus group discussions was that many women presented teenage motherhood as a positive experience. They were enthusiastic about the joy their children were bringing them and the opportunities that were available to them.

There were clear similarities, but also differences, in the opinions and experiences of the current teenage mothers and those who had become teenage mothers 10-20 years ago.

Similarities included reports of hardship and difficulty as the result of becoming pregnant at a young age; lack of support from family, partners and friends; insufficient and /or inappropriate support from official sources, such as health service staff, housing departments and social services; homelessness; poverty; and stigma. Despite these social and economic hurdles, the women expressed few regrets about having a baby so young. Both sets of mothers took pride in the fact that, despite their youth, they were good parents. They felt that their children gained from having young mothers.

Some of the mothers in the focus groups identified links between having experienced harsh childhoods themselves and their own lives as parents. Some saw a causal link, while others spoke mainly of a determination to give their children better experiences of childhood than their own. Where women had received good support from individual professionals, they remembered this clearly and attached great significance to it.

Differences between the two groups of mothers included the fact that most of the previous teenage mothers were clear about having wanted to have a baby when they were young, though they varied in the extent to which they had recognised this at the time. The same finding only emerged in one of the four groups of current teenage mothers.

The younger women felt that since becoming pregnant and /or parents, the opportunities they expected to have in education and employment had either merely been temporarily interrupted or, in many instances, enhanced. They attributed this to the availability of targeted support services for teenagers who were pregnant or parents. In contrast, the older women spoke of an era when there was a much lower level of expectation, opportunity and support for combining motherhood with other activities outside the home. As these previous teenage mothers reflected back, particularly in the light of what they knew was available to teenage parents today, some imagined that had they had such choices, the course of their lives might have been different.

The younger women also spoke of the opportunities they had to meet other teenage mothers, via specialist support groups with which they were involved. The older women had had no such opportunities. They described either having to face the anticipated disapproval of older mothers in toddler groups in their search for social contact with other mothers, or more commonly opt for isolation.

The younger women spoke with passion of their enjoyment of the emotional aspects of parenting and how parenting had given their lives more meaning. While the previous teenage mothers also took pride in what they had been able to give their child because they were young mothers, they could also see some benefits of being more mature as a parent of a young child.

Some of the above differences reflect changes in the social policy climate. Others may result in part from the understandable defensiveness of young mothers wanting to present their situations in a positive light.

5.4 Early focus groups – influence on study methods

Aside from the value of the focus group data in their own right, the focus groups made a number of methodological contributions to the TPSE Study. They helped us to identify: key themes; the range of options that might be offered as potential answers to certain questions; and the most appropriate language and tone to be

used in the questionnaires and interviews. A major theme to emerge was the importance of achieving neutrality, avoiding, in particular, any implied assumption that teenage pregnancy or parenthood is a predominantly negative experience.

The early focus groups also had an impact on our analysis strategy. Firstly, the significance of the amount of time that had passed since the first pregnancy was apparent: the older women had returned to education in their thirties and subsequently embarked on employment. Secondly, it was clear that normative definitions of positive and negative outcomes did not necessarily reflect the women's own definitions of such outcomes. For example, continuation in education is usually considered a positive outcome for teenage parents, yet it was clear that some of our participants felt that their emotional wellbeing as teenage mothers would be enhanced by being able to be full-time mothers until their children were at least school age. This was true for both current and previous teenage mothers. These varied perceptions of outcomes fed directly into the methods we used to analyse outcomes in the questionnaire and interview data.

6. Results – Analysis of mothers’ questionnaire data

The potential ‘causes’ and ‘consequences’ of teenage pregnancy were investigated using both existing data from the two previous studies (the SSPO and SSFH studies) and new information from the questionnaires developed specially for the TPSE Study. This section summarizes the findings. Since the datasets and analysis methods were complex, much more detail, including the original tables produced in the statistical modelling of the data, is provided in appendix 2.

Datasets

The data discussed in this section of the report were collected in questionnaires completed by two cohorts of mothers (1196 women in all) over the period from 1986 to 2004. These included 246 teenage mothers and a comparison group of 950 who had their first pregnancies later.

The two original studies that provided the cohorts, SSPO and SSFH, although similar in focus, were carried out with samples of mothers that varied in some key ways. The SSPO sample came from locations outside London, often in rural areas. As a group they were predominantly white, working class and all were having their second or subsequent baby in 1987. Just over a quarter (26%) were teenage mothers (5% were teenagers at the time of the study; 21% had previously been a teenage mother) (appendix 2). The SSFH participants lived in inner city London, two thirds were economically disadvantaged, and as a group came from very diverse ethnic and cultural backgrounds. Just over half were having their first child in 1999. Of the SSFH participants, 17% were teenage mothers (6% were teenagers at the time of the study; 11% had previously been a teenage mother) (appendix 2).

The new data collected for the TPSE study, were provided through following up the SSPO and SSFH samples. This follow up data gives a longer term perspective of the outcomes and issues being explored.

6.2 ‘Causes’ of teenage motherhood

Original datasets

We looked to see if the circumstances of women who were teenage mothers differed from women who had their babies later. When analysing data from the original data sets in the SSPO and SSFH studies separately, we found significant associations between teenage motherhood and the following factors in both studies:

- having been in rented accommodation
- leaving school by 16 years of age
- living on a low income

(appendix 2, tables 1, 4 and 7).

In addition, some factors were associated with teenage motherhood in the SSFH study alone:

- leaving school with no or few qualifications
- having a partner of social class 5, 6 or 7
- being from a black or minority ethnic group .

(appendix 2, tables 4 and 7).

Many of the factors that might predict teenage motherhood are likely to be related to each other. To take account of this, further analyses looked at these associations jointly in a multivariate logistic regression model. This model was based on data from 1112 women with information on the relevant variables from a dataset which

combined the original data from both the SSPO and SSFH studies, providing greater power to find differences between teenage and older mothers. All three factors identified above as being separately associated with teenage motherhood in both studies (poverty, school leaving age and housing tenure) continued to be associated with teenage motherhood when considered together. For instance, the likelihood of being a mother as a teenager was increased by poverty even for those who lived in private housing and left school at 16 years of age or over (appendix 2, table 8). Leaving school earlier or living in social housing added to this association, even taking into account the fact that there is an interrelationship between poverty and leaving school earlier, and between poverty and being in social housing.

New data

A smaller pool of women who took part in the original studies responded to the new TPSE questionnaire in 2003. These women were asked to reflect back to the circumstances of their first pregnancy. Of the 97 women who had become pregnant as a teenager, 88% said this first pregnancy was unplanned, compared with 50% of the 361 women who had become pregnant for the first time aged 20 or older ($p=0.00$) (appendix 2, table 13). Women's happiness about their first pregnancy also varied significantly, with a third of the women who became pregnant as teenagers being happy about it compared with over two thirds of the older women (33% vs 70%, $p=0.01$; appendix 2, table 13). When asked to provide reasons why they thought this first pregnancy occurred when it did, those who became pregnant as teenagers were most likely to say they had 'unprotected sex'; those who became pregnant at an older age said it 'felt like the right time'. Table 6.1 below shows the top reasons given by each group.

Table 6.1. Retrospective reasons given for first pregnancy

<i>'What do you think were the main reasons for you becoming pregnant at this time in your life?'</i> ¹			
Pregnant as teenager (n=93)		Pregnant age 20 yrs+ (n=354)	
Unprotected sex (<i>but not planning baby</i>)	43%	It felt like the right time	59%
Contraceptive failure	20%	Desire for a child	41%
Desire for a child	16%	Partner wanted a child	31%
Ignorance about sex	13%	Unprotected sex (<i>but not planning baby</i>)	16%

¹Multiple reasons could be given

When asked to reflect back on their lives when they were 16 years old, additional differences emerge between those who became pregnant as teenagers and those whose first pregnancy was at an older age (appendix 2, table 25). Those who became pregnant as teenagers were more likely to have been living with only one parent at age 16 and for their families to have had financial worries. Additionally, those who had a teenage pregnancy were more likely to say that they had had more emotional problems than their peers and to say that they disliked school. Equal proportions in the groups said that they were able to speak to their parents about personal things like relationships and sex.

The importance of dislike of school was echoed in the significant differences in teenage aspirations between those who became pregnant as teenagers and those whose first pregnancy came when they were older. In remembering back to when they were 16 years old and asked what things they most wanted to do in the next few years of their lives, those who became pregnant as teenagers said that they had wanted to:

- Finish school
- Move out of their parents' home
- Get a job
- Get married
- Have children

(appendix 2, table 25)

The desire for these was significantly greater amongst those who became pregnant as teenagers than among their counterparts who became pregnant later in life. Those who were older when they first became pregnant were significantly more likely to have said that at age 16 their aspirations were to:

- Get A levels
- Go to university
- Travel

(appendix 2, table 25)

A multivariate logistic regression model based on considering possible 'causes' of teenage motherhood from these TPSE data found, perhaps unsurprisingly, that teenage motherhood was more likely when the mother had not been living with the baby's father before the pregnancy, and when the pregnancy was unplanned (appendix 2, table 14).

6.2 'Consequences' of teenage motherhood

The original datasets allowed us to look at the short term 'consequences' of teenage motherhood. The new TPSE data allowed a longer-term perspective on these 'consequences'.

Original datasets

Taking the variables one at a time, teenage motherhood was significantly associated in both the SSPO and SSFH studies with a greater likelihood of mothers :

- having an income below the poverty line (at the initial postnatal follow up; appendix 2, tables 2, 5, 7)
- being a smoker (at the initial postnatal follow up; appendix 2, tables 2, 5, 7)
- being a lone parent (at the one year follow up; appendix 2, tables 3, 6, 7)

Other factors were significant in either SSPO or SSFH studies but not both, reflecting the differences between the two cohorts of women. For instance, at the first postnatal follow up in the SSPO study, teenage mothers were more likely than older mothers to:

- be bottle feeding
- have found their partner not very helpful during the pregnancy
- have felt depressed

(appendix 2, table 2)

At the first postnatal follow up in the SSFH study, teenage mothers were more likely than older mothers to:

- be on means tested benefits
- have a partner who rarely helps with housework
- have a partner who smokes

(appendix 2, table 5)

By the one year follow up, teenage mothers in the SSFH study were more likely than older mothers to:

- be depressed

- have a partner who smokes

(appendix 2, table 6)

Given the large number of possible outcomes of teenage motherhood, and the fact that many of the ‘consequences’ are closely related to each other, they were grouped into two categories: ‘material’ and ‘non-material’. The details of these categories are described in appendix 2.

In a multivariate logistic regression model, combining the SSPO and SSFH studies, looking first at ‘non-material outcomes, teenage motherhood (jointly with lone parenthood^{iv} and feeling that the last year had been rather difficult) was a predictor of **depression at the first postnatal follow up** (appendix 2, table 9).

Similarly, looking at ‘material’ outcomes, teenage motherhood (jointly with lone parenthood, being a smoker and leaving school early) was a predictor of **income below the poverty line at the first postnatal follow up** (appendix 2, table 10).

Finally, teenage motherhood (jointly with depression at one year postnatal follow up) was a predictor of lone parenthood at one year postnatally (appendix 2, table 11).

New data

The TPSE data allowed for longer term outcomes to be considered for the women, as well as some outcomes for their children.

The mothers were asked about their current situation. The number of years since they had had their eldest child ranged between 4 and 36 years. So their current situation reflected medium and long term outcomes as mothers. As in the shorter term outcomes, we found that the previous teenage mothers were significantly more likely than the non-teenage mothers to have poor ‘material’ outcomes over the longer term. Key differences between the two groups were:

For women who had been teenage mothers:

- More social housing
- Fewer educational qualifications
- Fewer women in employment in the last month
- Smaller proportions of time in work since the birth of the eldest child
- More on means tested benefits

(appendix 2, table 12)

Additionally, the previous teenage mothers were more likely currently to be:

- Lone parents
- Smokers
- In poor health

(appendix 2, table 12)

However, there were **no** significant differences between the previous teenage mothers and those who became mothers older when comparing ‘non-material’ outcomes:

- Depression
- Satisfaction with life
- Coping

^{iv} Lone parenthood was defined as ‘not having a partner at that time’.

- Levels of emotional and practical support

Additionally, similar proportions of the two groups of mothers were:

- currently studying
- not working and unhappy with this situation (appendix 2, table 12)

When carrying out multivariate logistic regression modelling on the ‘consequences’ of teenage motherhood using the TPSE data, we grouped together variables based on health, housing, work and education to assess the impact of teenage motherhood.

Looking first at health-related outcomes, teenage motherhood (jointly with others in the household being smokers) was a predictor of **being a current smoker** (appendix 2, table 15).

Teenage motherhood also seems to have ‘consequences’ for a woman’s employment and education outcomes. For instance, teenage motherhood was a predictor of **not having educational qualifications**; (jointly with not having education qualifications and being on means-tested benefits), it was also a predictor of **not being in paid work in the last month**. Additionally, teenage motherhood (jointly with having not being in paid work and not having education qualifications) was a predictor of **currently being on means-tested benefits** (appendix 2, table 17).

Having been a mother as a teenager herself was a predictor (jointly with still being with the child’s father) of women’s **unhappiness at the possibility of their children becoming a parent at the same age they did** (appendix 2, table 18).

Finally, teenage motherhood (jointly with not being in private housing, leaving school without qualifications and being a lone parent) was a predictor of **currently being on means tested benefits** (appendix 2, table 19).

Important outcomes for mothers

When asked to highlight from a list the five things that are most important to them now, there were few significant differences between the women who had been teenage mothers and those who became mothers at an older age (appendix 2, table 24). As table 6.2 below shows, the top four things were shared in common between the two groups. Whereas the previous teenage mothers placed more importance on personal happiness, the non-teenage mothers emphasised the desire to achieve a good home/work balance and to have a stable partner relationship.

Table 6.2. Five most important things in life now

Previous teenage mother (n=290)		Non-teenage mother (n=50)	
My children to be healthy	84%	My children to be healthy	81%
My children to be happy	78%	My children to be happy	75%
For me to be happy	68%	For me to be healthy	67%
For me to be healthy	62%	For me to be happy	52%
To have enough money	32%	To achieve a good home/work balance	47%

Children’s outcomes

At the point at which the new questionnaire data were collected, the eldest ‘children’ ranged in age from 4 to 33 years. Some questions were asked about all the children, regardless of their age, and others were age specific. Comparing children under the

age of 15 years who had mothers who had been teenage mothers and those whose mothers had been older when they had their first child, there were **no** significant differences relating to:

- physical health
- behaviour scores (*measured using the Strengths and Difficulties Questionnaire*^{25, 26})
- use of psychologists, counsellors, social workers
- childhood injuries in last six months (*under 5 year olds*)
- parental concerns about the child (appendix 2, table 12)

For the children who were 15 and over, there were two outcomes which were significantly different between those whose mothers had been teenage mothers and those whose mothers had had their first child when older. Significantly more children whose mothers had been teenage mothers:

- had no educational qualifications
- were no longer living at home

However, the average age of children in the category '15 years or older' was slightly older for children of previous teenage mothers than those of non-teenage mothers, so this increased age may have had some impact on the second of these differences.

'Material' and 'non-material' composite outcomes

As explained in the methods sections of this report (section 3 and appendix 2), a final stage of quantitative analysis was to combine a series of possible variables related to 'material' and 'non-material' outcomes and then summarize these as composite variables. This procedure allowed each mother to have an overall rating of currently 'doing well' or 'not doing well' for 'material' outcomes and also for 'non-material' outcomes. The basic comparisons shown in table 6.3 below indicate that significantly more of the non-teenage mothers than previous teenage mothers were currently doing well on material outcomes. No significant difference was found between the two groups on non-material outcomes, however.

Table 6.3. Composite scores for 'material' and 'non-material' outcomes by teenage motherhood status. Figures are % (n).

	Non- teenage mothers	Previous teenage mothers
'Material' outcomes composite variable		
Doing well	67% (265)	40% (25)
Not doing well	33% (132)	60% (37)
	p< 0.001	
'Non-material' outcomes composite variable		
Doing well	69% (274)	66% (41)
Not doing well	31% (132)	34% (21)
	p=0.648	

When we worked backwards from the composite variable for material outcomes, putting the relevant factors into a statistical model, we found that previous teenage mothers were no more likely than other mothers to have a poorer composite 'material' outcome, once adjustments were made for factors such as poverty at initial postnatal questionnaire, housing tenure in pregnancy, lone parenthood in the first

year of the baby's life, support in the first year, and age at leaving school (odds ratio 1.20; 95% confidence interval 0.57 to 2.51; $p=0.63$; $n=407$) (appendix 2, table 20).

The pattern was similar for the composite variable of 'non-material' outcomes. Previous teenage mothers were no more likely than other mothers to have a poorer composite 'non-material' outcome once adjustments had been made for factors such as housing tenure in pregnancy, maternal depression in the first year of the baby's life, and support in the first year (odds ratio 1.17; 95% confidence interval 0.58 to 2.36; $p=0.65$; $n=414$) (appendix 2, table 21).

We looked at the composite variables for 'material' and 'non-material' outcomes for the group of previous teenage mothers to find out which factors seemed to influence whether these were currently doing well or not doing well. For the 'material' outcomes composite variable, the two factors that seemed to influence a good outcome for teenage mothers was not being in poverty at the initial postnatal questionnaire and not being a lone parent at 1 year postnatal follow up. For the 'non-material' composite variable, those teenage mothers who were doing well now were most influenced by having had enough support in the first year of their child's life, being in good physical and emotional health in that first year, and being happy in a current partner relationship. (appendix 2, table 22)

6.3 Summary of findings from questionnaire data

In both the cohorts whose data we examined in this study, teenage pregnancy and motherhood were preceded by poverty and low educational achievement. Poverty appears to have a strong independent effect on the chances of teenage motherhood. Women who became pregnant as teenagers were less likely to be happy about the pregnancy than those who became pregnant later, and they were more likely to have grown up in single parent households and to have disliked school.

Analysis of the 'consequences' of teenage pregnancy and motherhood showed that young mothers were more likely to be poor, to be lone parents, to have low emotional wellbeing and to be smokers (women's smoking is a 'marker' of both poverty and motherhood in stressful circumstances²⁷). Teenage motherhood and lone parenthood were both predictors of low emotional wellbeing, low income and lack of educational qualifications. A poorer composite 'material' outcome was more common among teenage mothers, though once adjustments were made for factors such as poverty, support and school-leaving age, this difference disappeared. There was no difference between teenage and older mothers in a longer-term composite 'non-material' outcome. Priorities in terms of the most important things in life were very similar for both groups of mothers, and reported outcomes for the children were also very similar.

7. Results – Interview data from teenage mothers

This section provides a summary of the main findings from the interviews with mothers. Overall, 54 of the women who took part in the two earlier studies of social support and motherhood were interviewed for the TPSE Study. All had become pregnant as teenagers, although 12 had their teenage pregnancy terminated. The women were asked a series of questions which allowed us to capture a picture of the course of each woman's life from early childhood through growing up, becoming pregnant and via other significant life events to the current time. For some, this period spanned only two decades, with their teenage pregnancy being a relatively recent event, for others it was a period of three or four decades with over twenty years elapsing since they became pregnant as a teenager. These data enabled us to explore: the factors which appear to be protective for good outcomes, or conversely put a woman at risk of bad outcomes; and the effects of time on women's lives following teenage pregnancy.

The main themes to emerge in the interviews related to: experiences of school; the quality of women's childhoods; information about sex and relationships; employment; and support. We illustrate these themes below, before going on to comment on the teenage mothers' overall situations at the time they had their babies and later, when they were interviewed. Finally, we conclude this section with some additional themes for the women who terminated their teenage pregnancy.

7.1 Themes

Theme one: Dislike of school

A key aspect of school to emerge in the interviews with women who had become pregnant as teenagers was that school was fundamentally boring. This boredom extended from the types of subjects being taught, to the manner of teaching and the physical constraints of the classroom setting. Some of the older women said they had felt constrained from the lack of choice about what they were being asked to study. Many women mentioned that what they were being taught seemed entirely irrelevant to their lives at the time. Some found that the social aspects of school ameliorated this boredom, but for others this did not provide sufficient compensation, especially when close friends at school were lacking:

'Primary school was good...The last years at secondary school was a sort of rebellious time, even though I was due to take A level English, I ended up leaving school with no qualifications whatsoever...It started out when you get to that age where you sort of pick what road you want to lead, and go down it, and I found the options very [limited]... If you was a girl, it was just sitting at a typewriter, that seemed to be only thing for a girl to do and I really didn't want

Teenage mothers - key findings

- Profound dislike of school preceded teenage pregnancy
- Unhappy, complex, often violent childhoods, exacerbated for some by poverty
- Poor sex and relationships education
- Strong desire to be a mother for some
- Five key employment patterns emerged, with majority delaying employment until after child at school
- Support during pregnancy and first year is key to longer term success
- Other longer term protective factors include a positive partner relationship (not necessarily the father of the child), a career, and time for change to happen.

to do that. Everybody was geared towards the Pitmans, typing. I think that's when the rebellion thing started to come out' (age 35, pregnant at 15).

'I was never interested [at secondary school]. I thought "What on earth is this going to do for me?... Why am I coming here? And why am I learning these things about Borneo and all that?"...If someone had said to me, "It's a means to an end, it's just stretching your brain so you can get these qualifications so you can move on", then I might have realised what it was all about. But at the time no one was saying anything... I just thought "It's absolutely boring" and I wanted to be out and about, just doing things' (age 42, pregnant at 17).

Some of the mothers said that they were made to feel that they were 'thick' at school, often in embarrassing situations in front of their peers. These experiences had made them feel humiliated and removed all desire to attend school or achieve educational qualifications. Several of these women mentioned that later in life they had been diagnosed with dyslexia; they expressed frustration that teachers had been so unsympathetic and inappropriate in dealing with their situation. Teachers were also criticised for not managing classroom dynamics well; for either being too strict and unyielding or for letting young people 'run riot' so no learning could take place.

Bullying by classmates and, for a few, by teachers was a factor underlying some women's dislike of school:

'I wasn't happy at school...Because I was the only black person in every school I went to, I tended to get picked on a lot because of my colour and I found it hard to make friends... Few people spoke to me, everybody just kept me at arm's length' (age 27, pregnant at 17).

'When I started secondary school that was a nightmare... I got bullied, I got beaten up, oh terrible bullying. ...I just used to come home and cry' (age 28, pregnant at 18).

Some of these women said that they had found secondary school a very lonely place, where they had few friends. Others mentioned that they had friends who attended other schools or were older or did not attend school at all. In these situations, the lack of friendships at their own school led them to feel disengaged:

'I just didn't settle in [to secondary school] at all. My friends were all 12 months older than me...they were doing more grown up things than I should have been doing, but I did the same as them, so consequently I didn't fit in with the school set. Because I were going dancing and they were still sitting doing their homework and twiddling their thumbs. As soon as I were 15 I left'. (age 55, pregnant at 18).

Some women admitted that they spent their teenage years 'hanging out with the wrong crowd' - young people who did not value school - and as a result it was important that they disliked it as well. A few women discussed the thrill and ease of truancy; and the social importance of being part of the 'funny' crowd which disrupted classroom learning with its 'humorous' antics.

Often these educational and social reasons for disliking school were compounded by complicated or unhappy situations at home. Some mothers had had a huge amount of responsibility at home when they were teenagers: looking after younger siblings or running the household. In an extreme example of this, one 15 year old woman had responsibility for her six month old sister while her mother was in prison. For many in

these situations where there was an immediate need for them at home, school seemed entirely irrelevant.

There was often a lack of understanding from schools about the role that home life was playing in shaping school experience. However, school could also be a refuge from problems at home:

'I liked going to school because it got me away from home, because we had lots of problems at home with mum (who was schizophrenic). So I'd have a difficult night, we'd be up all night with my mum having fits...I'd go to school the next day, although I never spoke to anybody about it, it got me away from my problems at home' (age 36, pregnant at 17).

Reflecting back over their lives, leaving school early or without qualifications was the regret most frequently mentioned by women who had become teenage mothers. Just over half of the women had returned to some form of education later in their lives, and others were intending to in the future, because they could see that their lack of formal qualifications was hindering their chances of being employed in a job they would enjoy or that would pay sufficiently for them to stop receiving state benefits. However, for some of the women we interviewed, although they wished they had had qualifications, the experiences they had had at school were so bad that they would not consider a return to any form of education.

Theme two: Unhappy childhoods

The women who became pregnant as teenagers were asked in the interviews what life had been like when they were growing up. While for many of the women childhood was a happy time, for half there had been a lot of unhappiness in this period. Some women were unequivocal about there being little that had been good, while others spoke of unhappy aspects or periods interspersed with more positive experiences.

The extent and frequency of this unhappiness in childhood was a finding that we had not expected. Given what is known about the association between teenage pregnancy and poverty (see also the questionnaire data, appendix 2, tables 1, 7, 8), we had expected the women to talk about the impact of poverty. However, what the interview data showed was that it was not poverty *per se* that the women saw as being the most critical aspect of their childhood experience. Indeed, several women strongly denied that the material restrictions resulting from family poverty mattered to them, for example the chance to go on school trips because of a lack of money. Instead the common concerns that emerged from the interviews about childhood were: chaos and instability at home; loss; difficulties with parents; violence, and transience. The consequences of these experiences included feeling that there was too little love, too much responsibility and/or poor communication with parents; there was also a pattern of multiple housing moves. These themes often overlapped and intertwined within individual women's lives.

Chaos and instability

Many of the women described growing up in chaotic and unstable households. Parental drug or alcohol misuse and mental health problems were contributory factors in some households:

'Um, well my parents were heroin addicts so it was quite up and down, never sort of stable. I went to live with my nan; like nan and granddad sort of took me out of the situation, had me for about 3 years. ... Then I went back home.

Then my dad died when I was 10. Then I was taken to live with my aunt for about 3 ½ years' (age 24, pregnant at 16).

Loss

The loss of a significant person in childhood was a common theme. This was most often the loss of their father through parental separation, the trauma of which was often exacerbated by the ineptitude with which it was managed:

'We went to my aunt's for the weekend and came back and my father had moved out without warning anybody. And my mother didn't tell me for 10 months that he'd gone. He worked away a lot. But I found a letter that he wrote saying he'd gone and I couldn't discuss it with her, I've never been that close to my mother, not in that way' (age 43, pregnant at 15).

The death of a parent, or sometimes a sibling, was also a theme. Bereavement often marked the transition from a time that was remembered as being predominantly good to one that descended into unhappiness and hardship:

'[After my mum died when I was 14], I just didn't care about anyone or anything around me so, everything was a knock on affect of mum dying after that...' (age 28, pregnant at 17).

Difficulties with parents

Some women experienced parenting that they perceived as unduly authoritarian:

'Very strict I was definitely under the thumb of my father... I had the upbringing where I wasn't associated with too many friends apart from school. Never stayed overnight at friends' houses. Once in a blue moon I had a best friend who came and stayed. But apart from that, parties, birthdays – nothing' (age 32, pregnant at 18).

Other women felt one or both parents did not love them:

'There was no affection there, there was no "I love you". If you gave her hugs she would push you away' (age 27, pregnant at 17).

'My mum... I don't want to go into gory details but I think my mum has been there for me financially ...but emotionally, no. Definitely not, you know' (age 31, pregnant at 17).

Some women, even as very young children, had to cope with tasks such as caring for younger siblings and shopping for the household:

"Charlene^v do this, Charlene do that, Charlene, Charlene ..." all day. So it was like I mean some of my family, like the way they describe it, it was like my mum was slave driving me' (age 24, pregnant at 16).

Violence

Over a quarter of the teenage mothers interviewed described childhoods marked by violence in the home. They spoke of observing violence between parents, grandparents and/or towards siblings, as well as experiencing physical and/or sexual abuse themselves:

^v Pseudonyms are used throughout this report.

'My brother decided he was going to run away from my mum's one night. And he came back the following day....my mum told my dad and my dad beat him up like he was beating a man.'

Interviewer: 'And were you beaten?'

'Oh yeah. He used to beat me. He used to beat me with the rod that hangs the net curtains' (age 32, pregnant at 18).

Transient lives

The impermanence of 'home' featured in many stories. Some women had moved house frequently in their childhood as their parents tried to escape their problems:

'He [father] was always getting into all sorts of trouble with... So he moved us loads of times, we would be moving sort of five miles here and then after six months we'd be back. Then we'd move ten miles here and after a year we'd be back. We went to lots of different schools' (age 42, pregnant at 17)/

As they got older, some women had responded to their unhappy home life by running away on their own or with a boyfriend:

'We got picked up by the police basically, sent back. They stuck me in the cells overnight, they rang my mother and my mother said "keep her there, I don't want her back"' (age 43, pregnant at 15).

Others had ended up in care:

'We, like, stopped going to school, we was mucking about in the streets and stuff like that. And my mum, she couldn't cope with all of us. So she was out doing whatever she wanted to do, whether it was sleeping with guys or just hanging in the streets herself. And in the end we all got put in care, so we all ended up in children's homes after that' (age 36, pregnant at 13).

Reflections on unhappy childhoods

The teenage mothers were often forgiving and understanding of their parents' failings and minimized the horrors of even the bleakest stories. They described themselves as 'survivors' and 'tough'. But they also saw the damage; for example the low self-esteem and the high anxiety they suffered, often into adulthood. Sometimes they made a direct link to their first pregnancy:

'I didn't think [my childhood] had affected me, but once I'd done counselling and stuff like that it obviously had. But it took for me to be a mother to sort of look at the situation and think "well no, that's not right", you know, things should have been like this' (age 24, pregnant at 16).

'I had parents who had an extremely unpleasant and violent marriage. I probably got married...well, I know I got married to get away from them' (age 41, pregnant at 19).

What was most consistent amongst the interviewees was their determination to do things differently with their own children:

'I've really struggled to get them a good education. I mean that's the best thing I can give them. And I make sure I show them lots of love. I'm quite physical with them because my parents weren't' (age 43, pregnant at 15).

Theme three: Poor sex and relationships education

When the teenage mothers we interviewed were asked specifically, 'Why do you think you became pregnant at a young age', they mentioned unprotected sex most frequently (41%) although nearly a quarter (24%) were planning a child or were happy to conceive, since they were with someone with whom they wanted to spend their future. The reasons for unprotected sex were less often ignorance (15%) than recklessness, denial or indifference to their own welfare springing from unhappiness in the past and/or a present neediness (31%):

Main reasons for becoming pregnant as a teenager (<i>interview data</i>):

- | |
|---|
| <ul style="list-style-type: none">• Not using or failed contraception• Dislike of school• Unhappy childhood• Having an older partner• Marriage or engagement• Wanting to be a mother |
|---|

'I don't know why (I became pregnant then), it could have been something to do with my friend being pregnant. I think I knew you could take the pill but I don't think there was a lot of advice for young people on the consequences. I think part of it was an emotional need at that time as well...maybe to keep the man...it was all subconscious. I was probably in a bit of denial, I actually didn't think a baby was going to come out, knowing I was pregnant but thinking I wasn't in a way' (age 48, pregnant at 18).

'[I was sexually active earlier because of having] no close relations with parents, father leaving home, not having any close friends' (age 43, pregnant at 16).

Other women (7%) thought they became pregnant as teenagers primarily because they were unable to negotiate using contraception with partners who preferred unprotected sex or wanted a baby:

'He was very forceful...somebody who wouldn't hear (me)...and be sensible and do frankly what they wanted to do, and I didn't know how to deal with it. I had come off the pill because I wasn't in a relationship...I was taken unawares...I was in a limbo period in-between friends...' (age 40, pregnant at 19).

Some (7%) used contraception that failed, or they used it incorrectly through lack of knowledge:

'I think it was a complete accident. I'd gone on the pill, I was extremely careful cause we used condoms just to make sure until we knew the pill was working, but when I got the diarrhoea and sickness, I didn't know that the pill didn't work' (age 36, pregnant at 14 & 17).

Total ignorance about sex was more common amongst older women, women from other cultures who had grown up abroad, and women who conceived in their early teens:

'When I first had my period I didn't even know what a period was. I called my mother to help me. "There's something wrong, I'm bleeding". She said, "Oh, it's your period, I'll go and get you some sanitary towels". And that was it. And I was petrified. Before I got pregnant I knew nothing (about contraceptives and contraceptive services). They offered to put a coil in me when I had the abortion' (age 36, pregnant at 13).

What was key for other women who had become pregnant as teenagers was a lack of communication about sex and intimate relationships in their families, at school and their wider social networks. This contributed to their ambivalent relationship to contraceptive use and the difficulty in taking control of their sexual behaviour.

Although their personal histories contained complex reasons for unplanned pregnancy, the reason most commonly suggested by the women for high rates of unintended teenage conceptions was more straightforward: poor sex and relationships education. A clear majority of the women we interviewed thought that both the government and parents had a role in educating teenagers about sex and relationships. They related their own experiences of how schools delivered sex and relationships education poorly. In these retrospective accounts, they felt it had lacked relevance and messages had been insufficiently forceful:

'We had sex education at school, but for some reason it didn't sink in...when you're a teenager you feel ...immune to disasters [like pregnancy]. You really do need to have it drummed into you...' (age 38, pregnant at 19).

'Not hold this condom, look at this leaflet. Where's that leaflet going? It's a waste of paper. Probably not even to recycling...It's boring, it's rubbish, there's nothing to hold you there... They say in writing, you will get AIDS, black screen, white letters, finished. What does that mean? Nothing, it's gone, you carried on the day. [Teachers] probably say, "yes we've done it", but they haven't done it successfully' (age 41, pregnant at 19).

Improvements the women suggested included: making teaching more relevant and explicit about the reality of caring for a child; inviting teenage mothers into schools with their babies to share their experiences, in order to dispel idealistic notions about childrearing; using simulator dolls; and working in groups, with a greater emphasis on discussing relationships and building self-esteem, and less of a medical or biological focus. In their view, girls and boys should work separately to facilitate open discussion; more time should be devoted to sex and relationships education; and it should be provided at an earlier stage:

'You need to get realistic situations they will be interested in. I would have done a film. I would have said, look this is my life, I'm running here, I've got a buggy here, nappy there, baby strapped to me, this is real. The dad going mad, "don't want this"... You need more aggressive things just to hit somebody over the head to wake them up a bit. You've got the little shy one there; you don't have to answer embarrassing questions. Maybe you have to hit people in different ways, so there's that option' (age 41, pregnant at 19).

'It needs to come over that it's a serious thing... taking the boys together or taking girls together, as two separate groups rather than together laughing' (age 41, pregnant at 19).

The women described instances of lack of communication with parents, in general, and about sexual or personal matters in particular. Sex could be an unspoken issue or an area where parents laid down the law with no questions countenanced:

'You couldn't like just open up. You spoke when you were spoken to. You're supposed to get on with your lives and not speak about your personal problems, you don't talk to anybody' (age 47, pregnant at 16).

These women who had become pregnant as teenagers placed a high emphasis on good communication with their own children, and thought they were doing a better job than their parents had done in educating their children about sex and relationships. Some mentioned parenting education as a way of supporting parents. They felt those with boys should teach them to use condoms, and believed that parents should discuss with their children the consequences of their actions, communicate more openly about sexual matters, and set clearer boundaries, with appropriate limits on social activities outside the home. By initiating dialogue and being more in touch with their children, the women thought that unwanted pregnancies could be prevented:

'Parents should be understanding, knowing where their kids are when they leave the house...be open and aware of the street slang...really truly in touch with their kids, and the sexual part of it...be open' (age 32, pregnant at 19).

Theme four: Employment

We asked women in the interviews to reflect back over their lives and to talk about their experiences of employment since their eldest child was born. Eighteen of the 42 previous teenage mothers we interviewed were in paid employment at the time we spoke to them; seven of these were working full time. Others had previously had employment, but currently were not working. The reasons for this included that they were now: in education, on maternity leave, 'between jobs'; or not wanting or able to be in paid work in the foreseeable future. One quarter of the mothers we interviewed had never had paid employment.

Positive aspects of being in employment

When discussing the paid work that they had done, previous teenage mothers talked about the positive aspects of being in employment. They enjoyed: the sense of accomplishment; the fun and social contact; the boost it gave to their self-esteem and confidence (of particular importance to women who had had traumatic experiences); the money it brought in; and the access it gave them to other things, such as the start of a career:

'I've done loads, I've done everything, I've worked in offices, I've worked in shops...some of it's been brilliant, others have been rubbish, but for the most part I enjoyed it, I like to be out and about and meeting people, I'm not keen on office work, I think it's boring [like] school work' (age 50, pregnant at 17).

'After I had the children I got a part time job...because I had postnatal depression and I'd been on tablets. And I must say it was a godsend. You know I started part time, progressed to fulltime, well it fitted in with school. But then I just felt like you know 'I'm capable of more than this I've got a good brain and I can do more than this' and it was actually my friend Julie, she was going on an Access course and she didn't want to go on her own. So we did an Access course which is just like a four week taster...And when it had finished they said "Would you be interested (in doing something else)?" So I

went on a business administration NVQ^{vi} and started with that and it became a mission' (age 39, pregnant at 18).

Difficulties associated with employment

Some of the women we interviewed who had been teenage mothers did not want to go into employment, but had little choice in the matter. For others, it was not the work itself that was problematic, but practical issues relating to employment. The most frequently discussed issue was the difficulty of finding appropriate childcare which would allow women to undertake paid work in a way that suited them. All of those who went into employment, through choice or necessity, when their eldest child was less than a year old had informal childcare support from either their own or their partner's mother. This was not always a problem-free arrangement for these young, new mothers:

'I had to go to work and that was it. Mother-in law [who was doing the childcare] said your time has come now to go back to work, and he'll be fine with us, like. But I didn't want to leave him. I wanted him to myself. It was too early to go back to work' (age 46, pregnant at 15; returned to work when baby was 12 weeks old).

Reliable, appropriate formal childcare was difficult to find; it was also prohibitively expensive. Some of the women had been given a free part-time nursery place through social services, but these were offered because the women were having personal difficulties (e.g. one woman had severe postnatal depression), and the time was used for respite rather than employment.

Some women discussed the difficulty of finding a job that would pay them enough money to cover childcare and travel expenses and still leave them better off than if they were on benefits. For those without educational qualifications, such jobs proved to be elusive, and it was in this context that some women talked of their regret that school had not been a better experience:

'Even if you get a job, you couldn't afford it. If you're living in a house and you're paying £3 or whatever rent [while on benefits] and if you get a job and you have to pay £50 a week rent. It's a big [jump]. You're not going to earn enough money at that age. ... I think that's what puts me off' (age 24, pregnant at 19).

Exhaustion and the difficulty of juggling a family and work were also mentioned as negative aspects of employment.

The teenage mothers we interviewed followed five main employment patterns.

1. Determined career track: Nine of the women started work soon after their first child was born. These women were determined to follow a specific career and most had embarked on training before or during their pregnancy. Their occupations varied, but included nursing, midwifery, professional childcare work, social work, music and cab-driving. The current age of these women varied from 24 to 48 years.

2. Went to work out of necessity: Four other women started working when their first child was young (pre-school) out of need for money, rather than because of career aspirations. These women had taken on a number of jobs over the years,

^{vi} NVQ = National Vocational Qualification

fitting these around their needs and circumstances at specific times in their lives. The current age of these women varied from 23 to 46 years.

3. Work once children are at school: Eleven of the women had made an initial choice not to return to training or employment until after their youngest child was in school, but were now in employment. Some of them made this choice for practical or financial reasons only; for others, it was a positive choice about wanting to be a full time mother when their children were young. These women often begun in their late twenties or early thirties with a return to part time education or training to gain skills and confidence, then embarked on employment. Four were currently in full time education. The jobs many women embarked on in this later period became careers, but all the women said they had no ambition to enter into a career at the time of the birth of their eldest child. The current age of these women varied from 27 to 55 years.

4. Casual worker: Seven of the women had dipped in and out of casual work, often doing a job that was very short term and would not affect the benefits they were receiving. These women said these jobs were done as much for 'something to do' or adult company as for the money. None of them were overtly ambitious and there was no anticipation of a return to education or training. The current age of these women varied from 32 to 50 years.

5. No work at all: Eleven of the women had had no paid employment since the birth of their eldest child. Five of these, who were in their twenties with small children, said they were considering a return to education/work once their children were in school. Two women in their early forties had actively chosen to stay at home and not have any employment. The remaining four women (ranging in age from 23 to 35) had chaotic lifestyles characterised by ill-health and complex family difficulties, meaning that long-term unemployment was the most likely option for them.

Theme five: Support

In answer to the question, 'What one thing helped you most when you first became pregnant?', 70% of those who had become mothers as teenagers said support, most commonly from their mothers or partners, but also from other family members. Only two women mentioned any other factor aside from personal resources, one citing housing and the other money.

The interviews showed that the amount and quality of support available was critical in distinguishing teenage motherhood with positive outcomes from teenage motherhood with less positive outcomes. Teenage mothers described in the interviews how support, provided mainly by their family or partner, less often by friends and professionals, helped them move towards or remain in a positive situation. Conversely, a number of women with negative outcomes lacked support entirely, or were abused by their partners.

Family support

Practical and emotional support from family members was especially important during teenage pregnancy and the early years of motherhood. In the longer term, family support was protective particularly for women without stable partners. Support seemed most valuable when it helped women develop their own skills as mothers. Some grandmothers, however, played an important role in taking over complete care of their grandchild, especially where the young women were in their early teens or were abusing drugs.

Support from their own mothers was mentioned as being especially crucial to women from stable, loving families, who continued to receive the support that they had had in childhood:

'I was scared when I had [my daughter], she wouldn't breast feed. She was sick every second, she was screaming, so I was having her during the day and mum was having her during the night. This screaming little thing...she's going to suffocate...the panic, and my mum going, "oh, it's okay". Imagine being alone and mum not there' (age 41, pregnant at 19).

Pregnancy disclosure could cause a rift with parents. This frequently healed through pregnancy or once the grandchild was born. Initial disappointment or anger was transformed through love, empathy, or a grandmother being able to share her expertise in childrearing:

'My parents weren't impressed; they hated [my boyfriend]...(but) my mum made it very clear she was going to support me. She was always going to be there constantly' (age 23, pregnant at 16).

For many of the teenage mothers who were currently doing well, but who had had poor or non-existent relationships in childhood with their own mothers, other family members such as fathers or siblings provided key support around the time of pregnancy and the birth. Many of the teenage mothers mentioned receiving support from their children, whether this was emotional support, or more practical support as their children became older. Parenthood turned the lives around of some whose early lives were chaotic or lonely.

Support from partners

Support that the previous teenage mothers received from partners was mixed. If a relationship was good and enduring it was a crucial factor in ensuring a positive longer term outcome for the woman. It could compensate where other protective factors were missing, and help heal the damaging effects of a difficult childhood. Partners often became increasingly important in a woman's twenties as they took over the role of key supporter which had been played by mothers during women's teenage years. Time and maturity played a role here, with good relationships following the bad ones women had formed in their youth, or a relationship with same partner improving as both partners worked successfully through difficult circumstances:

'We would have fights and terrible arguments. Life was difficult, but that made us really close. We've worked really well together. If things hadn't been the way they were they wouldn't be how they are now. We've had the tears, but we've been supportive to one another at times when we've needed to be' (age 35, pregnant at 17).

'I've got to get married so I'll just grin and bear it and we were together 10 years, then we got divorced. I used to get hit; he were very jealous, all the way through it was a nightmare. [With my new partner] it just clicked' (age 47 years, pregnant and married at 16).

Networks of support could be complex and hard to negotiate, with young women having to make choices between parents and partner:

'With or without him I was going to have [my son]. I decided, then he buggered off, came back and he obviously screwed up my head. I'd moved out of my mum and dad's [to a mother and babies' unit] because they wouldn't allow him in their house, then he buggered off (again) so...I'd made things uncomfortable for myself. [But] I knew that my mum was close to me even though we had fallen out a bit' (age 23, pregnant at 16).

Relationships could be damaging rather than protective. In these cases ending an abusive relationship was an important protective factor:

'The father of my kids was abusive so he would hit me a lot. I just want to concentrate on the kids...I don't want anyone, too much hassle. I'm more settled and I know that I want to study. I got on the access course for nursing...' (age 28, pregnant at 17).

Support from professionals

In the interviews the women described receiving professional support from health visitors, GPs, counsellors, social workers and childminders. Much of this was to avert a crisis:

'I asked my health visitor to write to social services [about respite child care]...I was on antidepressants, I needed a decent amount of 'me' time...They said she's still a bit too young to go into nursery so we'll pay for a childminder for 15 hours a week. Two days a week I could do what I wanted...be with a mate or just sleep. After she was three she started the local nursery full time...my depression [had] hit an all time low, she really needed it' (age 24, pregnant at 16).

'Social services helped me, cause I was slipping on the road to depression cause the [mother and baby unit] was a living hell and when they told me I'd have to move to a bed and breakfast it felt like the walls had caved in. [Social services] spoke to the housing and within a month I moved into [a flat]...with mum and dad down the road' (age 23, pregnant at 16).

Many teenage mothers in need of professional support had been unable to find it. However, support services were seen to be improving for younger women, through Sure Start, for example.

7. 2 Outcomes for teenage mothers who were interviewed: first year and longer term

Forty two of the women we interviewed had become mothers as teenagers. Their eldest children were now aged between 4 and 36 years. We asked the women questions about the first year after they had their eldest child and about their current situation. Using these data we constructed summary assessments of the women's situations at the two time points as 'positive', 'mixed' or 'negative'. These assessments took into account reports of both 'material' and 'non-material' issues at those time points; and made a simple qualitative assessment of general situation (e.g. if when her child was a year old, the woman was in stable accommodation and had a secure income, but reported serious emotional difficulties at that time, her situation would be assessed as 'mixed'.) Similar criteria were applied by the

research team to all the women we interviewed, but ultimately the categorisation was, to some degree, subjective.

In the first year after giving birth, 15 women were assessed as having a positive situation overall, 16 as having a mixed and 11 as having a negative one. At the point they were interviewed, these figures had changed to 20 women, 17 and 5 respectively, indicating considerable change for the better (table 7.1).

First year outcomes

In terms of 'material' outcomes, in the first year after they had their babies, a fifth of the mothers were bringing up their babies without a partner, a quarter had some form of paid employment. Half of these teenage mothers were living on means tested benefits during the first year and nearly two-thirds were living in council housing.

In terms of 'non-material' outcomes, a significant minority suffered from postnatal depression and others had poor physical health. Just over half of the women felt they received good overall support during the first year after their baby was born (e.g. from family, partner, friends and professionals). Of those who had a partner, 54% were satisfied with their relationship at that time.

Table 7.1 The situations of teenage mothers: interview data (N=42)

	In the first year after birth of study child	When interviewed for TPSE study
<i>Overall assessment of situation</i>		
Positive overall	36%	49%
Mixed overall	38%	40%
Negative	26%	12%
<i>Material outcomes</i>		
Lone parent	20%	33%
In paid employment	26%	43%
On benefits	50%	71%
Social housing	62%	60%
<i>Non material outcomes</i>		
Positive relationship with partner	54%	75%
Poor physical health	12%	10%
Poor mental health	29%	20%

Longer term outcomes

As noted above, the women we interviewed were, on the whole, materially in a better situation in the longer term than they had been in the year after they first gave birth. However, at the time of the interviews, only 43% were currently in paid employment and 71% were currently on some means tested benefits; 60% of the women were in social housing. A third of the women considered themselves to be lone parents.

At the time of the interviews, nearly three quarters of the women were in a partner relationship that they deemed to be positive. Many of these were with a new partner, not the father of their first child. Ninety percent were in good physical health; but 20% had experienced longer-term mental health problems since having their eldest child.

7.3 Summary of interview data: Protective and risk factors

Dislike of school, unhappy childhoods, perceived poor sex and relationships education, lack of employment and lack of support were factors associated with poor

outcomes for teenage mothers. Conversely, enjoying school, happy childhoods, adequate sex and relationships education, employment and support helped to protect women from the adverse ‘consequences’ of teenage pregnancy. The key protective and risk factors for the teenage mothers we interviewed are presented in the boxes below.

Protective factors	Risk factors
<ul style="list-style-type: none"> • Happy childhood • Support from family, mostly mother • Good relationship with partner • Resilience/strength of character • ‘Being maternal’ • Experience of looking after children • Career/ambition/qualifications • Financial stability after child • Time 	<ul style="list-style-type: none"> • Unhappy childhood • Father of child unsupportive • Father has little or no contact with the child • Violence present in childhood or adulthood • Loss through death and separation • Having poor mental health after child born • Poverty after becoming a mother • Lack of opportunities for a career

The importance of protective factors was most clearly apparent in the data from the five women who had had an unhappy childhood, but who were now in a positive situation. The factors that emerged particularly strongly for these five women as predictive of good outcomes were: time (for change to happen); a good partnership relationship; support from family and friends; and developing a career or having employment they liked.

All these five women were in their thirties and forties, and for most at least 20 years had passed since they gave birth as teenagers. The importance of time was striking in enabling these women to move from an unhappy starting point, including a pattern in which their own parents’ destructive patterns – violent and unstable relationships - were present in their own early adult lives. In contrast, the nine women who had unhappy childhoods but were assessed as currently being in a mixed situation were mainly in their twenties and early thirties, with fewer years having passed since they gave birth as teenagers. Had we interviewed ten to twenty years earlier the five women who were currently doing so well, four would have been in the midst of a violent relationship, three would have been coping with the death of one of their own babies and three would have been depressed. This highlights the critical importance in interpreting the ‘consequences’ of teenage pregnancy of the time point at which data are collected.

7.4 Women who terminated teenage pregnancies

Fifteen of the women we interviewed who had become pregnant as teenagers had decided to have their first pregnancies terminated. Three of these women then had subsequent teenage pregnancies that they chose to continue and became young mothers. In this section we illustrate some of the complexities surrounding the decision to terminate, and some of the consequences of this decision.

For most of these women, the decision to have a termination was a straightforward one, but for others it was much more complex. Those for whom the decision was straightforward on the whole had educational or career aspirations. These

aspirations often tipped the balance in favour of the decision, which was also influenced by the relationship with the father of the baby and with the wider family:

'[My boyfriend] was at the same school, he was the same year as me. ...From both of us I guess, because of my A levels and stuff there was no question of me ever having the child. So I mean straight away it was "We have to speak to my dad, you know, my dad will sort it all out and you'll have to go at half term and have a termination"' (age 36, termination at 17).

'Well I didn't consider any other option. Keeping [the baby] wasn't really [an option]... I didn't want to be with the father and my mum would be heart broken and my grandmother, my mum's mum, my mum's always saying that would kill her if anything like that happened...So I could have left home but I wasn't really brave enough, and I wanted to go to university' (age 27, termination at 16).

'I fell pregnant at 18 and I had my job and I had money... money that I'd never had before and I was going out clubbing, sounds very selfish I know but... and I just thought... I don't need this, I don't want this. I know I'm 18, I'm an adult but this is not what I want, I want a career, I want more than this and decided to have an abortion, which I did' (age 31, termination at 18).

For others the decision was straightforward, not because of career aspirations, but because of expectations of family life:

'I was 17 and I was very scared cause I was like a teenager, you know, and I was always one of those believers that... you should wait until you're married and you're settled, I always felt that being a teenager, being pregnant is not how your life should be because it's very hard to survive out there and even though you've got your parents there, it's not the same as if you're married and you've got a partner' (age 27, pregnant at 17).

One of the women who had a termination had been raped; for her the choice to terminate had been immediately clear. Other women had a far more difficult time making the decision about whether or not to have a termination, and cited rejection by partners or undue pressure:

'I was up at the university, and in my first week I finally discovered that I was, and er...and obviously rang [the father] and he said, "I don't want to know, how can you?" and I kept ringing and then eventually I spoke to his mother and she said er...you know, "stop pestering this is absurd, get on with it, deal with it yourself, I'm changing our telephone numbers," and that was it. And so I was deeply distressed by that... what am I going to do, I'm up at university, this is a life... what would I have to offer it, the man doesn't want anything to do with it...' (age 40, termination at 19).

'I mean, at that time I wanted it, I didn't wanna go through the abortion but because I felt very pressured because of my partner at the time, that's why I went through termination. ...I mean, he literally...(would have) beat it out of me if I hadn't gone through the abortion anyway' (age 23, termination at 16; teenage mother at 19).

Mothers, often an important source of support, were sometimes perceived as pressuring women to agree to a termination:

'I was terrified. Absolutely. I still am with my mother, if it's something I know she doesn't want to hear it terrifies me. I told my boyfriend who was 20 and I'd been seeing him for six months maybe. He wanted to get married, he wanted to take it on. He came with me and told my mother, who absolutely went ballistic... She said "right you're getting rid of it, I'm taking you to the doctor's tomorrow". And I protested, we fought and we argued, and it went on two or three weeks. And she said "you either get rid of it or you're going in a children's home". You know, that was my option.

Interviewer: *'And so how did you decide?'*

'Well, I didn't really want the baby. I felt I had the two of them fighting over it and I'm sitting there thinking I don't actually want it. You know, this is the last thing I want at 15. Which is crazy. But I felt disloyal to the boyfriend, who strangely enough I'm still in contact with. ... I felt I couldn't give in too easily because it'd be letting him down. It was all very difficult. So I let myself be railroaded basically' (age 42, termination at 15 years).

One woman was addicted to crack cocaine at the time she became pregnant through a 'one night stand':

'My parents organised an abortion for me and I hated them after that, because I wanted kids, but I realise now I wouldn't have coped' (age 27, termination at 19).

Sometimes a great deal of persistence was needed to overcome the entrenched views of other people:

'I was 15 but at this time I was still going to school...I thought – no, I've got to go to school, I can't have a baby now, kind of thing, went to the GP and... he said because of his religion, he really tried to discourage me from having an abortion... I made an appointment at the hospital and he was angry with me, he was really angry with me and he told me to go away and think about it and come back and I was in tears... I didn't even tell my mum then, I didn't tell anybody... I went away for about a week and a half and I went back and he was still angry with me, he really tried to discourage me but I was like... 'I can't you know, I'm at school', and he wasn't listening, he wasn't listening and eventually, reluctantly, he wrote the letter, referring me to the hospital...[I felt] really gutted, and it was shortly after that I think I must have gone haywire in school, eventually... you know, the headmaster just said – 'well, that's it... go' (age 35, termination at 15).

Some women recognised that they were in a 'no win' situation:

'But I just felt horrible and then I still got repercussions when I came out of hospital as well because, like my brothers, like even though they were younger than me, they all heard that I was pregnant. I mean the oldest brother, as soon as I came home, he called me a murderer. So I got called a murderer for getting rid of a baby as well. So I couldn't win whichever way I'd gone, you know. And that's made me feel even worse' (age 36, pregnant at 13, teenage mother at 17).

The situation of many young women facing the dilemma of an unintended pregnancy was summed up by one woman, who said that she rarely thought about the termination she had had 20 years ago:

'But talking about it today, I wish I did go ahead with it. The thought, you know, does go into my head, I shouldn't really have that child, but I just put it down to... I just think any woman who goes through a termination really doesn't want a termination, that's not what they want to do, it's the circumstance that they're in and their surroundings at that time, what caused them to do that. Some people might regret it, some people don't, some people might think – 'oh, it's the best thing.' But I do regret it, but it's not something that pulls me down, it's just there in my memory, it's just there' (age 35, termination at 15).

The effect of having come through the experience can be a positive one:

'It made me a stronger person but I do wish I didn't put myself through that situation' (age 27, termination at 17).

Another woman echoed the point about deciding to have a termination not being a light decision; she also reflected on the importance of thoughtful and sensitive care:

'The family planning doctor went through the process of asking me why I thought it was a good idea to have a termination so that they helped me through the rationale, which I knew was the right thing to do, and I found that helpful...because I actually felt they took, you know they gave me the opportunity to say, you know, I am distressed by my choice and it's not a choice I take lightly and indeed it is something that I dwell on... I know I did the right thing, and I'm absolutely pro-choice and always have been and always would be, but I think that isn't...it isn't a light thing and it can affect you. And to this day one thinks what would that child, how old would it be you know, so I mean one of the reasons that I wanted to do the survey was the fact that it actually gave me the opportunity for the first time in my life to try and make things better' (age 40, termination at 19 years).

8. Results - Interview data from teenage fathers

Interviews with 13 men who had become fathers as teenagers provide information about a group that is generally recognised as being hard-to-access. With the caveat that the sample was small and recruited in an *ad hoc* manner (through local community groups and via mothers we interviewed), the data we obtained contribute to the current limited understanding of this group.

Themes that preceded teenage conception for our sample of fathers were similar to those found amongst the mothers: unhappy childhood, dislike of school, and not using or failed contraception. Rejection and loss were prevalent from childhood to the present day. Rather than analysing outcomes for the fathers themselves, we explore here their relationship to their first child and to the mother of that baby, and look at what influences whether or not these relationships are maintained over time.

8.1 Themes

Theme one: Unhappy childhoods

A key theme for the men we interviewed was of difficult, emotionally impoverished childhoods, where their mothers were absent (24%) or their fathers were either absent or violent (69%). Their own fathers frequently provided poor role models, for example through alcoholism or lack of commitment to their partners or children. None of the men we interviewed had been able to talk intimately with their fathers, only one had been able to talk with his mother, and half had been unable to talk intimately with anyone when they were growing up.

Teenage fathers – key findings

- Unhappy childhoods
- Dislike of school
- Casual attitude to sex and contraception
- Most teenage fathers were in relationship with mother of baby during pregnancy and early years
- None together long term
- Most had long periods of poor contact with child
- Majority in contact with child currently

'My dad's an alcoholic and when we was younger he wasn't around a lot because he was abroad... When I about 13 he got done for drink driving and got put in prison...My dad has beaten Mum up, and ...he would sleep with prostitutes and I think he brought back some sexually transmitted disease. [One time] he was really drunk and being really nasty towards my mum, he threw [his dinner plate] across the room...grabbed my mum and put her up against the wall, and I remember jumping up and running over... I [said] 'leave her alone', and then I ran upstairs...Dad goes "You want to learn to punch"' (age mid twenties^{vii}, father at 16).

'I don't remember ever sitting down with anybody in the family and talking... the birds and the bees... never. Not even [to] my friends... no. I'm one of them people... if I've got a problem, I'll keep it to myself, I've got a lot inside, I'll deal with it my way, if I can't deal with it then it'll just have to go on, go on, go on, cause I don't talk to anyone, I end up losing my temper...' (age 22, father at 16).

'Mum hid [domestic violence] quite a lot from us....I didn't feel I could talk to [her about intimate relationships and sex] and I certainly wouldn't talk to my dad about it because he would just laugh...' (age mid twenties, father at 16).

^{vii} An exact age is not available for two of the fathers we interviewed

Rejection or loss tended to have been a pattern in these men's lives, due to a variety of circumstances. These included: family breakdown in their own childhood; the mothers of their children disappearing during pregnancy; partners rejecting them for their unacceptable behaviour or leaving them for someone else; their children not wanting contact; or ex-partners refusing them access to their children:

'At [two years old] my mum left...she met someone else... Two years ago I asked her "why did you leave?" And she said, because I wanted to...From that day on I have hated her... I rebelled against my dad because I blamed him for my mum leaving...I was on the Child Protection Register for physical abuse because my dad used to be an alcoholic after my mum left and he hit me...' (age early 20s^v, father at 15)

'I said I would be there for her but then [my girlfriend] just disappeared one day. I didn't see her for a year. It really annoyed me. She turns up with the child and wants money. What about the preparation together?' (age 26, father at 16).

Theme two: Dislike of school

Dislike of school was another common antecedent of teenage fatherhood (62%), with histories of disruption, exclusion and lack of achievement amongst the sample. Frustration at not having their educational or pastoral needs met at school coupled with an inability to communicate any distress they were feeling in the school environment or due to difficulties at home, often contributed to escalating violence and alienation with no effective professional intervention:

'My mum left and [my alcoholic dad] hit me and things...I was uncontrollable from about five...I used to go to school, I'd kick (and) hit the teachers, I would disrupt the class...I went into care...excluded from secondary school...ended up in boarding school...drinking...theft and criminal damage...' (age early 20s, father at 15).

'I'd left school [at 15], I never liked school, I hate getting told what to do. I got chucked out. I was 14, fresh start in a new school, then the teacher [said] "I've read your records, if you think you're gonna be doing what you done in your old school, you're not". I said "you're not giving me a chance", from that day I never let the teacher have nothing' (age 22, father at 16).

'I didn't like school, I'm dyslexic. I was left-handed and I was made to use my right hand and that set me back, and from then on I just hated it and didn't do no writing - I'm not very good at writing, I'm slow...I didn't really have that many friends. I was a bit of a loner. And we moved round quite a lot so I was always the new person in school. I'm not very good at meeting people... People would push me and push me, say nasty things about my mum and dad... 'cos they knew that I would snap and I would end up fighting and getting in trouble and get suspended from school... I left school when I was 15...We come to an agreement that they didn't want me in school and I didn't want to be there, so...No [qualifications], none at all. I left to work on a farm' (age mid twenties, father at 16).

Theme three: Contraceptive failure

When asked about reasons for the teenage conception, fathers tended to mention failed contraception, or a casual attitude to sex and contraception. They described

themselves as immature and irresponsible in comparison with young women of the same age. The majority were aware of where to access contraceptives, but frequently preferred not to use them. Some fathers mentioned being influenced by a male culture of notching up sexual conquests to ensure popularity:

'In school if you don't lose your cherries, you are an outcast, so you do it with anyone. We weren't allowed to go and buy condoms, so you took a chance... the condom split. Sometimes they get lost' (age 43, father at 19).

'Didn't use any [contraception]. Too lazy... to tell you the truth. Like all young people that I know... [I could get condoms] in the pub toilets... know that, I've used them before but...they just get in the way' (age 22, father at 16).

'Most of my mates used to go around boasting about how many people they have done things with and...at the time I thought it was the in-thing, to get someone pregnant.... It was like a new designer trend of clothes really...you get a girl pregnant; you become popular...as all teenagers think' (age early 20s, father at 15).

Theme four: Reactions to fatherhood

A majority of the teenage fathers we interviewed – 77% - were in a relationship with the mother of their baby at the time of conception. Half of them were happy about the pregnancy and half were unhappy or indifferent. About two thirds (69%) maintained contact during the pregnancy and half described being supportive to the mother in the early years, whether they were in a relationship with her or not:

'I have [my younger child] when [my older child's] in nursery, two to five, we go out...get a bit of shopping...My hands are filled with the kids, doing it day after day...We have our ups and downs but we are still together...When I go out, I think, oh, I'm worried about the kids, better go back, and I wouldn't think that if I didn't care (about my partner) or love the kids' (age 21, father at 19).

A minority of fathers were currently partners of the mother of their baby (23%). All of these were recent teenage fathers, whose first baby was two years old or under. For the majority of the fathers we interviewed the partnership had not endured. The relationship was more difficult to maintain where it had been casual at the outset or when there was a lack of trust between the man and the parents of the young woman:

'I just shit myself [when I found out about the pregnancy] – I felt crap. I hadn't even had a father, how could I learn to be a father? Women... it's instinct, it's natural. What am I going to do, how am I going to support and help her? Do we have to get married – that scared me more than having a child...I didn't even like the girl. When she went home to her family, [I was] out of the picture! They didn't like me...and that's what started conflict.' (age 43, father at 19).

Relations broke down also due to fathers assuming the role of family breadwinner before they were established in adequately paid work, so long hours were necessary to make a living wage. Little time remained for bonding with or nurturing the baby or deepening emotional ties with the mother:

'My relationship with my son [suffered]...[Absence] contributed a lot to the breakdown of the marriage...I did a block release course...HNC^{viii}, and that involved a tremendous amount of work...money was short...when I wasn't away, I was working all hours, I had my main job, I had a part-time job' (age 47, father at 19).

The teenage fathers, by their own admission, were often too immature to develop or sustain the relationship with the mothers of their first children, and moved on to a subsequent partnership that lasted. Some were able to move on easily, whether they maintained contact with their child or not, but a number were haunted by the permanent or temporary severing of that contact, over which they felt they had little control. By the time of our interviews, most fathers had experienced protracted periods of poor contact with the child, whether at the point their relationship broke down with the mother or from the outset:

'With her I've had, "You're not seeing him". Still get that now to this day. The saddest moment, when he first started talking he used to say he didn't want to come to my house. Her mum gets involved, then I won't see him for 2 months. We end up having a silly argument, then I won't see him for 2 or 3 weeks and then she'll pop up out of the blue saying, "Can you have him?" and I'll say, "Yeah". She only wants (me) to have the baby when she wants, not when I want to have him, but I get to see my son, that's all I'm worried about' (age 22, father at 16).

'I went to work one day and when I came home she'd disappeared with the children. I didn't know how to find out where the children were. Then after a few weeks, I had a phone call from my wife saying she needed money. There was no way I could contact her, she was calling from a public phone box' (age 47, father at 19).

Despite periods of struggle for some of the teenage fathers to maintain contact long-term, most were in regular contact with their children at the time of the interview, and those with a poor role model in childhood were trying to be better fathers than their own had been. However, this finding could reflect the fact that we reached some of our sample through community centres, where staff identified them through their role as fathers, or where they were able to find parenting support:

'When I found out she was pregnant, I was 16. I weren't really ready to become a dad so I moved away. I have suffered because my dad weren't there...not having him there on a Saturday to watch me play football, stuff like that, just all the things really. There's some stuff I can't talk to my mum about...My son ain't gonna go through what I went through and that's why I moved back down here when he was just two months old and I've been there ever since. I have him every weekend.' (age 22, father at 16).

Teenage fathers were more likely to maintain contact with their children after breaking up with mothers in the following circumstances: where the father and the mother restored amicable relations; where he was accepted by her family; where his own family was supportive; where he persevered against the mother obstructing access, when this was happening; and when the child was older at the time of the break up.

^{viii} HNC = Higher National Certificate

8.2 Summary of fathers interview data

The antecedents to teenage fatherhood in this small interview sample were unhappy childhoods, dislike of school and not using or failed contraception. Relationships with mothers tended to be fragile at the outset and were unlikely to endure. The odds were often stacked against the father maintaining regular long-term contact with his child. The relationship between father and child was most likely to flourish where he was strongly committed to it, the mother and her parents supported it, and his parents played an active role as grandparents.

9. Results – Interview data from ‘children’ of teenage mothers

Nineteen ‘children’ of teenage mothers were interviewed. The average age of the interviewees was 20 years, with a range of 13 - 33 years (see appendix 1). For convenience, we use the term ‘children’, despite the fact that most were adults at the time we collected data from them. As for the interview data from mothers and fathers, this section presents the children’s perspectives organised under the key themes that emerged. We add some comments derived from our assessments of the children’s overall situations – both when young, and now.

9.1 Themes

Theme one: Good mothers

Almost all the children described their relationship with their mother as good, both now and when they were younger. It was interesting how emphatic the majority were that having a young mother was, for them, a wholly positive experience. They spoke in particular of the benefits of having a mother who: could appreciate and share their interests; they could communicate with easily; had good health and energy levels and who, despite having grown-up children, still had many years of life ahead of her:

‘She’s not what I would class as a traditional mother who did the cooking and patching, she was almost a confidante, a friend and a lot of things rolled into one. Big sister type person, she has admitted she was very much a child herself when she had me’ (age 30, mother 19 when born).

‘I love the fact that she’s young, I love the fact that we’re so close in age. And also it’s like we’re sisters and we’ll borrow each other’s clothes and we can talk about ...like I know all about her friends, and she knows all about mine. Like if she’s upset I’ll go upstairs and she’ll cry on my shoulder, or if I’m upset I’ll go upstairs and like cry on her shoulder, whatever...I like it because I get the best of both worlds, because I don’t have an older sibling, I get an older sibling as well as my mum’ (age 16, mother 19 when born).

‘Basically I was there all through her twenties. I mean she would go out sometimes and she would dress up in all her punk stuff and I used to admire it so much’ (age 17, mother 17 when born, mother had first child at 15).

‘I’ve known my mother 30 years and I just think...I’m very pleased ‘cos you get a lifetime with them rather than just your parents dying at 22, 23.’ (age 30, mother 19 when born).

Theme two: Family relationships

In contrast to the positive accounts of their mothers, over half the children spoke of poor, non-existent or sporadic relationships with their fathers. The majority of the children’s fathers were not teenagers at the time of the pregnancy:

‘He left when...I can’t even remember, but I think I was about two...and from the age of seven ‘til this year I didn’t speak to him. And I found that really hard and for six years I hated him. Like I hated him with a passion. And it was partially

Key children’s findings

- Good relationships with mother
- Mother’s youth a positive factor
- Poor or sporadic relationships with fathers
- Grandparents supportive for many
- Quality of childhood predicts quality of current situation]
- Violence and bullying prevalent for a third
- Poverty
- No desire to be a teenage parent
- Career seen as priority before parenthood
-

because of what happened with my mum and silly things like that and also the fact that he didn't try and get in contact with me' (age 16, mother 19 when born).

The extended family featured as a positive factor in many of the children's stories. In particular three quarters of the sample mentioned grandparents, who often provided practical and emotional support in the form of accommodation, and financial assistance:

'As I look back and think about who underpinned my mum and how all those relationships worked, I'd say it was definitely between my mother's parents and my mother' (age 30, mother 19 when born).

Some children who had poor relationships with their natural fathers were very positive about the supportive, stabilizing role their grandparents had played through all the changes in family makeup:

'It was difficult, you know, being one of the few kids in the class without a dad...and so I think my grandfather stepped in' (age 30, mother 19 when born).

'I enjoyed [my childhood] mostly. Because my nan used to take me away all the time so I didn't have to see what went on [between my mum and dad]' (age 18, mother 19 when born).

'I remember vividly that he never paid any maintenance for me, and he was supposed to. And he went to court and my mum was very young and I was three or four and basically he destroyed her in court because he's a slick talker. And like my grandfather was like, "that's it, you're never going to court again, I'll take care of everything, he's not doing that to you"' (age 30, mother 19 when born).

Experiences of stepfathers were mixed. Some women spoke positively about them:

'I guess he treats me like his real daughter which I really like, I really appreciate because I know that he doesn't have to and I know it could be so different' (age 16, mother 19 when born).

Others had negative experiences with stepfathers.

Theme three: Violence

Over a third of the children had lived with domestic violence between their parents, or other adult family members, at some point in their childhood:

'He was usually drunk and he would actually lose his temper, items were being thrown around the house, police being called' (age 28, mother 19 when born, describing her stepfather).

'I know it wasn't a very good relationship and I bloody hate him for it.. he wasn't a nice person...he would beat her up and stuff...he would say things like 'yeah I was the one that was looking after you while your mum was out partying' but I know for a fact that wasn't true' (age 16, mother 19 when born).

A couple of the children who are now in their late teens and early twenties inferred that they had been physically abused in childhood by male family members.

Theme four: Poverty

Nearly everyone experienced poverty and social exclusion for at least part of their childhood. Some children spoke of the stress they witnessed in their mothers as they struggled to cope with financial hardship:

Interviewer: 'Has anything been difficult for you having a young mum?'

'I'm not sure about us but I think maybe for her. Like the income, things like that....she probably wouldn't be stressed as much 'cos of like money and things like that, she would be more calm' (age 13, mother 19 when born).

'It upset my mum, [that we didn't have enough money] so it upset me...sometimes it would get pretty bad, scraping through' (age 20, mother 14 when born).

But it was only in retrospect that some children realized how tough life must have been financially:

'They [our parents] must have been under such stress and strain supporting this family. But they never showed it in front of us. Because looking back I can't feel that there was any pressure in my childhood so there was never any worry' (age 19, mother 18 when born).

Theme five: School

School was a bad experience for nearly half of the sample, and over half had left school with few qualifications:

'School bored me, I didn't have a very long attention span. I don't think they teach you practical things... I think most teachers are shite. I think they're really poor' (age 30, mother 19 when born).

Bullying, often over many years, featured in the accounts of over a third of the sample:

'Even through high school I've always got bullied, all through primary and high school. All my life I suppose... Well I used to be crying all the time, didn't want to go to lessons. Used to always go to the head teacher but they never did anything about it. Moved from one high school to another 'cos my English teacher used to bully me as well' (age 18, mother 19 when born).

'From primary school it was just like name calling obviously but as I went to secondary school it was more like really nastiness like one girl hit me and people used to pinch things from my bag and really be nasty' (age 26, mother 18 when born).

Everyone spoke of the careers they were building or, for those who were still at school or without work or further education, hoped to pursue. However, half of the 14 who had already left school had few qualifications and these seven were, in the main, struggling to achieve with respect to employment. For some, the

discussion of future careers may have been a feature of the interview process, an answer that they saw as socially acceptable.

Theme six: The best age to have a child

Most of the children we interviewed had enjoyed having young mothers, and they appreciated that some people had the maturity to deal successfully with teenage parenthood. But a significant theme was that most of the children, regardless of how they were doing currently, were adamant that they wanted something different for themselves. Only one of the nineteen children had had a teenage pregnancy, and that had been terminated. (Eleven of the children were still in their teens at the time of the interviews.)

For some children the effect of having witnessed at first hand how hard life had been for their mothers was a strong influence on their own intentions relating to the timing of parenthood. So, too, was the emphasis that mothers had put, throughout the children's upbringing, on the children having a different kind of life from the ones mothers were experiencing:

'I'd be devastated if Tina had a baby now because although I think it would put a full stop on her life I think it would stop mine a little as well ...I know that sounds really selfish but I wouldn't want her to miss out her teenage years so I probably would step in and look after the baby' (mother, 19 when daughter was born, talking about her 17 year old daughter).

Of stated greatest importance to the children was time to pursue their own interests, including establishing a career and a home, and thereby being able to provide materially for the children most said they wanted in the future.

9.2 Outcomes for children

When we analysed the interviews with the children, we assessed their overall life situation both when they were young children, and at the time of the interview. As with their mother's experiences, we categorised their situations at these time points as 'positive', 'mixed' or 'negative, looking at both 'material' and 'non-material' outcomes. At the time of the interview, seven of the 19 children had an overall positive current situation, 11 had a 'mixed' current situation, and one a negative current situation. As young children their situation was assessed to be: seven positive; ten mixed and two negative.

Of the seven who had a positive current situation, five had had a good early childhood and two a more mixed experience. For the 11 who were assessed as being in a mixed current situation, their early childhood experience was good for two, mixed for eight and bad for one. One was currently in a negative situation; his early childhood was also assessed as negative. Thus, for the majority there was little change in these categorisations between early childhood and their current situations.

While the numbers are too small to draw conclusions about cause and effect, it was clear that most of the group who had positive current outcomes had parents who had stayed together in a good relationship or if not, the children had acquired a 'good' stepfather at a young age.

In contrast to this, two thirds of those in the current mixed or negative category had had bad, sporadic or non-existent relationships with their natural fathers from

a very early age. It was those within this group who were most likely to have left school or who were currently achieving least with respect to further education or work.

9.3 Summary of children's data

The interviews with children of teenage mothers allowed us to explore some themes with a group usually omitted from teenage pregnancy research. These results need to be viewed with an understanding that the sample is small, and was recruited via mothers, thus providing the possibility of bias.

Overall we found that more of the children had been, and continued to be, in a mixed rather than a positive or negative situation. In general a good early childhood predicted a good longer term situation, a mixed early childhood a mixed longer term situation and a bad early childhood a bad longer term situation situation.

While good relations with their mothers and extended family members were positive factors in most children's lives, difficulties within the home, especially poor relationships with natural fathers, often combined with bad experiences at school to make life challenging for many. Of course, these observations may be true of the children of many non-teenage mothers also. However, everyone was clear that good jobs or careers would be both fulfilling and improve their life chances, and these, rather than parenthood, were (or were expected to be) their priority in their late teens/early twenties. While expectations were high for everyone, it was clear that those who had had challenging childhoods and had done badly at school were vulnerable to failure. However, the interviews, showed that overall these children as a group had had less traumatic childhoods than those reported by their own mothers. Thus the mothers' stated and heartfelt aim for their children to have better experiences and more opportunities than they had had, had to some extent been achieved.

10. Results – the final focus group

Towards the end of the study a final focus group was held in Derby. The purpose of this group was to act as a sounding board for the initial results; providing both feedback and clarification. Five women took part, all of whom had been involved in one of the original focus groups. Two were current teenage mothers, two were in their early twenties and one was a previous teenage mother and now a grandmother in her forties.

At the beginning of the focus group we shared with the participants the themes that we felt came out most prominently in the study data. We listed these on a flip chart and went through each in turn. We then highlighted the main reasons given for becoming pregnant as teenagers and also the factors that seemed to lead to more positive and negative long-term outcomes for teenage mothers. We asked the participants to discuss whether there were additional aspects that they felt were missing, and whether our findings seemed relevant to their own experiences^{ix}.

The women in the final focus group saw themselves as fitting within our findings, from a variety of different circumstances. Some were in paid employment and some caring for their children full-time. Some were single parents, and some in stable partnerships. Despite these differences they each identified aspects of the findings that matched their own circumstances; for instance all said their own reasons for becoming pregnant as a teenager were reflected in our list of key 'causes'. One woman in particular was pleased that 'a desire to be a mother' was one of the reasons; this had been her own situation, and she felt that this positive choice was too often missing in discussions of teenage pregnancy.

The theme of dislike of school particularly resonated with the participants. One 17 year old mother, pregnant with her second child, explained that she had been bullied at school, and subsequently had no intentions or aspirations to return to any sort of schooling herself. Her only comment was that she hoped that her children would have a better experience there than she had. Others in the group commented:

'I hated school. I was bullied quite a lot. I enjoyed the lessons but just hated the people around me.'

A: *'I think the problem with school when I was there, and still is today, was that it just isn't stimulating enough to make anyone want to be there. There's more to life than just sitting around in lessons... Teenagers these days like a bit of an adrenaline rush. They like to know they've achieved something personally, and school isn't giving them that. It's boring.'*

B: *'You do the same thing every day'*

A: *'The tedious same routine.'*

Similarly, there was animated discussion in the focus group about the quality and nature of support relationships (one of the 'protective' pathways to good outcomes). Participants agreed with the importance of having positive relationships, with close family and/or a partner. They provided personal evidence of positive support, as well as recounting stories of poor support and blaming this for negative situations in which they had found themselves.

^{ix} Fewer quotations are used in this section because of technical difficulties with the recording of the session.

The younger women were very interested in what the children of teenage mothers had said when interviewed. They were pleased and somewhat relieved that the children described having good relationships with their mothers. It was clear that for some of the young mothers their focus was already on their children's lives, not their own. Others were still keen to do something for themselves, as encouraged by the older woman in the group who felt she had waited too long to do '*something for me*'.

11. Discussion

In this final section we draw together the findings from the different methods and types of data that formed part of the TPSE Study. We suggest some of the ways in which our study has contributed new understandings of the social phenomenon of teenage pregnancy.

To recap, our research question was: What are the critical factors distinguishing between teenage motherhood *with* positive outcomes from teenage motherhood *without* such outcomes? There were three specific aims: 1/ to explore the 'causes' and 'consequences' of teenage pregnancy using qualitative and quantitative data; 2/ to identify factors predictive of positive and negative outcomes; and 3/ to examine any 'time effects' associated with the experience of teenage motherhood at different time points. We addressed this question by reanalysing data from two previous studies and collecting new data from mothers, fathers and children using questionnaires, interviews and focus groups. Altogether, our study drew on the experiences of 1262 individuals in five different geographical areas of England who were studied by researchers over the period from 1986 to 2004.

11.1 Exploration of 'causes' and 'consequences'

Causes

Dislike of school

Many of the teenage parents we interviewed intensely disliked their time at school. This was reflected in high levels of non-attendance and poor attainment of educational qualifications. These events, in the most part, preceded the teenage conception. The new questionnaire data collected in our study showed that teenage mothers were significantly more likely than older mothers to report that they had disliked school and had low or non-existent educational aspirations post-16. For many women, dislike of school began once they joined secondary school. The reasons why they disliked school were multiple, often involving both educational and social factors, but the central theme was discomfort with, and alienation from, the culture and values of schooling. Reports of bullying were not uncommon, adding to the picture of schools as uncongenial places. Their unhappiness with education led many to drop out or leave as soon as they reached 16 years old. This, combined with lack of qualifications and often low-self-esteem made finding employment difficult. Many young women were ambivalent and confused about their future direction in life; whether consciously, or unconsciously, becoming a mother became an option to fill the void. As one said: *'It wasn't planned; I think it was just something to do. You know, I wasn't going anywhere else, I wasn't doing anything else or getting a job or anything. I just thought I'd have a baby'* (age 24, pregnant at 19).

Poor sex education

Many women cited poor sex and relationships education as a reason for their own pregnancy, and for the high level of unwanted teenage pregnancy in general. They related experiences of receiving sex education in schools that lacked relevance to their lives and was insufficiently hard-hitting. These accounts were given retrospectively and in a context of dislike of school, however they were strongly expressed views. Additionally, their parents communicated poorly with them, in general and about sex and relationship issues.

Many teenage parents report positive experiences

For some the pregnancy was planned or, if not planned, wanted. For others this was not overtly the case at the time, but came to be viewed by many as a positive occurrence. The questionnaire data showed that most teenage mothers reported good outcomes: 53% compared to 68% for older mothers. Many women loved being mothers; for some having one or more children as a teenager turned their lives around in a positive way. The advantages of having children young were often stressed. The 'children' who were interviewed felt they had gained by having young mothers, even though they reported that developing their career while they were young was their own main priority.

Violence

Exposure to violence in the home, as well as other forms of family dysfunction, was a theme in the lives of the women who had become pregnant as teenagers, both when they were children and in their adult relationships. It also emerged as a theme for the children and the fathers. As noted above, violence at school in the form of bullying was also often mentioned.

Teenage fatherhood

The antecedents to teenage fatherhood amongst our sample were unhappy childhoods, dislike of school and not using or failed contraception. The father's relationship with the mother tended to be fragile at the outset and unlikely to endure. Fathers found it difficult to provide support.

Consequences

Social exclusion, not teenage pregnancy, is the problem

Our questionnaire data showed that teenage mothers were significantly more likely than older mothers to: receive means-tested benefits; not have worked recently; not to have school or university qualifications and to be in social housing. Yet when adjustments were made for factors at baseline associated with teenage pregnancy, such as: poverty, living in social housing; lone parenthood; and leaving school before 16, the teenage mothers in the study were no more likely than the older mothers to have a poor 'material' outcome. This confirms the view that teenage pregnancy accompanies social exclusion but does not cause it. It is the poverty and social marginalisation that many, though not all, teenage mothers experience that needs to be addressed, rather than teenage pregnancy *per se*.

The questionnaire data also showed that there were no significant differences in longer-term 'consequences' for children of teenage mothers compared to those of older mothers.

11.2 Protective factors for teenage mothers

The key factors that characterised the lives of those teenage mothers in the TPSE Study who had done well were: support from family; having a positive partner relationship; having employment they liked; and time.

The amount and quality of support available was critical in distinguishing teenage motherhood with positive outcomes from teenage motherhood with less positive outcomes. In the interviews with mothers, support from family or partner was most important. The interview data particularly highlighted the strength of the positive impact of a good partner relationship, even for women who since the birth of their child had been victims of one or more poor and abusive relationships before finding a good relationship. Analysis of the longitudinal questionnaire data demonstrated that

informal support played a significant role in protecting mothers from adverse outcomes in the long-term.

Employment that the women liked was important. Teenage mothers in the TPSE Study were more likely than older mothers to lack paid work and be living on benefits. Employment acted as a protective factor for teenage mothers if they felt they had chosen to work and if they liked their jobs. But there were many obstacles in the path of employment, particularly those involved in finding appropriate and affordable daycare, and particularly when the women were lone parents.

The effects of the passage of time, commented on by women during the interviews, often enabled teenage mothers to turn their lives around in a positive way.

11.3 Exploration of time effects

Time was important in other ways. The teenage pregnancies of TPSE Study participants extended over 30 years, from 1967 to 1999, so both our longitudinal data analyses and the interview data could be used to explore the effects of time. Older teenage mothers noted that there were more opportunities and more support systems available for teenage mothers now than there had been ten, twenty or thirty years ago. Many current teenage mothers were planning to return to education or employment before their children went to primary school, but fewer of the older teenage mothers had been able to achieve this.

The time point at which data are collected on teenage motherhood can be crucial, since mothers who describe poor outcomes at one point in time may have very different experiences to report at another. The emphasis that many current teenage mothers put on their perceptions of themselves as good mothers in the TPSE Study was couched somewhat more reflectively in the comments of older mothers, who may have felt less defensiveness in taking a rounder view of their achievements and challenges.

11.4 Strengths of the TPSE Study

Using multiple methods allowed us to explore the processes involved in the experience of teenage pregnancy and parenthood in much more depth than if we had been restricted to the analysis of quantitative data alone. We were able to develop hypotheses and conceptual frameworks from the qualitative data and then apply these to the analysis of quantitative data and discuss the results of these analyses with participants in focus groups. The result is a different approach to research from the one usually taken to understand the causes of teenage pregnancy and the kinds of strategies that might be helpful both in lowering rates of unintended teenage pregnancy and in improving the lives of teenage mothers and their families.

The comparisons in our various data sources between the experiences of teenage and non-teenage mothers importantly enabled us to contextualise data relating to teenage motherhood. Data from both teenage and non-teenage mothers provided information about the experiences of pregnancy and motherhood, sources of support available to mothers, health and other outcomes for parents and children, and mothers' perceptions of social provision and policy priorities for families with young children. A strength of the datasets we analysed from the two previous studies of social support and motherhood was that these had used similar instruments to collect interview and questionnaire data.

The combination of interview with longitudinal questionnaire data enabled us to feed 'qualitative' findings into the statistical analysis. This was especially important in relation to the conceptualisation and measurement of the outcomes of teenage pregnancy. The distinction we developed, based on the interview data, between 'material' and 'non-material' outcomes, particularly reflected the views and experiences of current and previous teenage mothers, and so allowed these to help structure the analytic framework used for the questionnaire data.

11.5 Limitations of the TPSE Study

Using previously collected data also imposes the limitation of pre-defined questions and measures. We adopted a pragmatic approach to this, developing new 'composite' measures for the analyses we wanted to undertake for the TPSE Study. A further limitation is that the samples of participants came from particular geographical areas and were selected using certain criteria (for example, a previous low birthweight baby in the SSPO Study) that could have made them less generally representative than they might otherwise have been. Additionally, in our statistical analysis, there were potential limitations regarding selection bias of those responding (especially in the TPSE dataset) and the possible endogenous effects of the teenage birth. The potential risk of this last point was highlighted by Berthoud et al: '*In general, it is difficult to identify 'consequences' with any certainty because unobserved attributes of women that make them more likely to become teenage mothers could affect these later outcomes*'.²⁸

For the focus groups and interviews, we did not interview parents who had their first pregnancy or birth over the age of 20, so we lacked a comparison group for the findings we drew from those sources. The same was true of the interviews with children of teenage mothers: we could not compare what they said with what children in general might have said, reflecting on their experiences of growing up in different types of family with differently-aged mothers. We were also aware that some of these younger children, who were still living at home with their mothers, might have been less willing to talk about negative aspects of their experiences than if they had been older and living independently. Additionally, by recruiting the children through mothers, we were likely to have been given access to a sample who had more positive relationships with their mothers.

11.6 Contribution of the TPSE Study to an understanding of teenage pregnancy

The TPSE Study confirmed the associations between various measures of socio-economic deprivation and teenage pregnancy shown by other research^{12, 29, 30}. It also showed clearly, like other studies, that not all the adverse circumstances in which teenage mothers live are a consequence of pre-pregnancy adversity.²⁸ Some are a consequence of the social and economic contexts in which teenage mothers bring up their children. They are no different from older mothers in being more likely to experience negative outcomes when resources for parenting are lacking, for example suitable housing and enough social and economic support. It is these factors and not age per se that are crucial. Other research, from the United States, confirms the finding that children born to teenage mothers fare as well as children born to older mothers once disadvantaged family background is taken into account.³¹

Our findings on the positive evaluation of teenage motherhood by many teenage mothers and their children are also echoed by other recent research. For example, data from the Teenage Pregnancy Strategy Evaluation show that over half of the

young mothers interviewed considered that having a child made them feel good about themselves³².

The TPSE Study contributed new insights to this picture. Its findings considerably flesh out the influence that school experiences have over young people's chances of becoming teenage parents. These findings highlight the ways in which the general culture, values and organisation of schools create disaffection in some young people, and add to, rather than reduce, their risk of social exclusion³³, including the social exclusion that often accompanies parenthood at a young age. This is the first study that we know of which provides both qualitative and quantitative data suggesting that dislike of school has an effect on the chances of teenage pregnancy which is independent of the influence of other socio-economic factors. In this respect, our data support recent analyses of evidence from a large RCT of peer-led sex education which point to strong independent associations between dislike of school and behavioural measures related to teenage pregnancy risk.^{13, 34}

Our findings relating to the experience of violence in domestic and school settings expand on another risk factor. In addition the interview data showed a high incidence of poor quality partner relationships, which, as other authors have reported³⁵⁻³⁷, often involved violence. There is a small but growing literature on violence in relation to teenage pregnancy. One recent American study considered the impact of cumulative exposure to adverse childhood experiences, including domestic violence, and found a strong relationship with teenage pregnancy. The authors conclude that negative outcomes commonly attributable to teenage pregnancy seemed to result from the traumatic experiences in childhood rather than the teenage pregnancy per se^{1, 31, 38}.

Early support from family, partners, professionals, and community, emerges clearly as protective in the long term for teenage mothers. These findings echo those of our work on the recent national evaluation of Sure Start Plus, which found that professional support for pregnant teenagers and teenage mothers in the early postnatal period can be beneficial, at least in the short term.³⁹

The importance of school also emerged as a protective factor, both in allowing choices about the age at which parenthood starts, and for those who have children young. Education and employment are disrupted by motherhood at any age, but the disruptions are greatest for young mothers, so the ability to continue in education and in paid work marks out those young mothers who have the most positive outcomes. These mothers particularly valued having access to education and employment that was sensitive to their dual role as a parent.

The lack of adequate sex education and appropriate sexual health services noted as deficits underlying teenage pregnancy risk in the TPSE Study data apply both to family and school settings. Many of the TPSE Study participants felt that this is a crucial area where improvements are urgently needed. These participants were considering their experiences retrospectively and could have been partially influenced by a dislike of school in general. However, a clear majority of women thought both the government and parents had a role to play in educating teenagers about sex and relationships. These views confirm other data suggesting that parents feel there would be fewer unwanted teenage pregnancies if parents communicated better with their children⁴⁰; and that high quality experientially based sex education is rated highly by young people⁴¹. With respect to school-based sex education, systematic reviews of effectiveness find mixed evidence that existing approaches are effective^{18, 29, 42, 43}. However, most interventions have not been developed with input from teenagers, and have not taken the kinds of broad social approaches to

promoting young people's sexual health suggested by the participants in the TPSE Study.

The difficulty we had in finding teenage fathers who agreed to be interviewed reflects the marginal status of this group both in teenage pregnancy research and in the lives of many, but not all, teenage mothers. There is comparatively little literature on teenage fatherhood, but recent research suggests that professionals are not addressing the needs of teenage fathers, and must do so in order to help those fathers who have the potential make a positive contribution to their children's lives⁴⁴.

12. Policy and Research Recommendations

The reasons parents in the TPSE Study gave for having teenage pregnancies were multifaceted. Similarly, data on their experiences after birth bringing up their children demonstrate that there are many different kinds of factors involved in accounting for both good and poor outcomes. Thus, it is essential that policy initiatives intended to reduce unintended teenage pregnancy rates and/or improve outcomes for teenage parents and their children address complexity, rather than identifying simple unifactorial solutions.

A clear example is the evidence about the influence of young people's dislike of school on the likelihood of teenage pregnancy. This is not simply a question of initiatives to keep young people at school or devise more appropriate curricula; it is an issue about the extent to which the culture of schooling in the UK may alienate many young people from education and career aspirations as core values, and schools and social systems are not places where many young people feel comfortable. There may be lessons to be learnt here from other countries about ways in which schooling can achieve social inclusion, and how policy initiatives for young people at risk of social exclusion may benefit from taking a broad approach. For example, there is evidence from the US that youth development programmes with a broader approach, including building self esteem, may be a promising way forward in preventing unintended pregnancy, rather than sex education alone¹⁸.

Some ways forwards in terms of policy in the UK suggested by the findings of the TPSE Study are listed below.

- To reduce the level of *unintended* teenage pregnancies, our data suggest that greater consideration should be given to initiatives which target the culture of schooling and allow young people currently at risk of educational disaffection and other forms of social exclusion to feel that schools are more comfortable places where it is reasonable for them to develop educational and career aspirations.
- Given the finding of the TPSE Study and other research that the key issue is the social exclusion associated with teenage parenthood, rather than age *per se*, policy initiatives to reduce social exclusion, socio-economic polarization and social class inequalities in health in the population generally are likely also to be effective in reducing adverse aspects of teenage parenthood. Such initiatives may not involve targeting teenage parents directly, although some may work alongside initiatives that provide specific support to these parents.
- Teenage mothers, like mothers generally, identify a need for good parenting to be adequately resourced. Thus, initiatives to ensure that mothers have enough money to support their children and providing other key services could have an impact on improving outcomes for teenage mothers and their children. An example is the provision of appropriate and affordable daycare for preschool children, identified as a problem by some mothers in the TPSE Study. Although some wanted to be able to stay at home with their children until they were of school age, others who wished to return to work or education found there was limited provision of accessible childcare. The evidence is that such daycare provision enables mothers to participate more fully in the labour force⁴⁵; and over the longer term reduces the likelihood of young women having babies as teenagers and increases the chances of young people remaining in education⁴⁶.

- Our data on protective factors relating to teenage parenthood support the recommendation from the recent government Green Paper, 'Every Child Matters'¹⁴⁷: that a strong focus on parenting and families means paying more attention to the critical relationship between parents and children and providing them with more support. Our study findings suggest that this support should be provided in the early period after a teenage mother has a baby to have greater long term impact. These findings indicate that the most useful programmes could be those that attempt to repair relationships with families and/or which are able to make up for deficits in family support with appropriate professional services.
- The fathers of teenage mothers' babies must be regarded as key part of the picture, although current evidence is that they are often marginal in the lives of teenage mothers and their babies. Policy initiatives should be developed, with input from young people and teenage fathers themselves, to encourage responsibility and commitment in this group.
- Given the frequency with which domestic violence was mentioned as occurring within the adult relationships of teenage parents, we would suggest several interventions that could be considered in targeting this issue. Programmes focussing on prevention could develop and support self-esteem and raise awareness of domestic violence issues in children and young people, thereby targeting the problem before it begins. For existing teenage mothers, we would advocate that information about domestic violence is provided as standard by professionals working with teenage parents (e.g. midwives, health visitors, Connexions personal advisers, etc).

Teenage pregnancy research could benefit from some of the following ways forward:

- More research could be carried out into the possible correlation between experiences of violence as a child and subsequent teenage pregnancy.
- In order to improve school-based sex education and sexual health services for young people, two systematic reviews could be undertaken: one of young people's views about sex education; and another of the evidence from other countries with lower teenage pregnancy rates about the kinds of school sex education and sexual health services for young people provided in those countries.
- Following on from the recommendation above, much more use could be made of a comparative perspective in attempting to understand the relationship between teenage parenthood and social exclusion. Countries vary, not only in rates of teenage pregnancy, but in terms of the phenomenon of social exclusion and public policies directed to supporting parenthood generally and teenage parenthood specifically. Examination of some of these patterns could help to focus UK research more clearly, and could provide pointers for policy-makers.
- Consideration could be given to developing (with the help of teenage parents) initiatives to target some of the 'causes' of teenage pregnancy we found in our study. Prime among these would be dislike of school. Such initiatives could be part of research on disaffection with, and absenteeism from, school more generally.

- Further rigorous research could be carried out to examine the long term adequacy and effectiveness of the role of additional professional (rather than family) support in pregnancy and early postnatal period for teenage mothers.
- Any initiatives implemented with the aim of reducing teenage pregnancy should be properly evaluated so that reliable assessments can be made of their appropriateness and effectiveness.

References

1. Bonell C (2004) Why is teenage pregnancy conceptualised as a social problem? A review of quantitative research from the USA and UK. *Culture, Health and Sexuality* **6**: 1-18.
2. Health Education Authority (1999) *Summary bulletin: reducing the rate of teenage conceptions. An international review of the evidence: USA, Canada, Australia and New Zealand*. London: HEA.
3. Health Education Authority (1999) *Summary bulletin: reducing the rate of teenage conceptions. An international review of the evidence: data from Europe*. London: HEA.
4. Botting B, Rosato M, Wood R (1998) Teenage mothers and the health of their children. *Population Trends* **93**.
5. Smith G, Pell J (2001) Teenage pregnancy and risk of adverse perinatal outcomes associated with first and second births: population based retrospective cohort study. *British Medical Journal* **323**: 476.
6. Hobcroft J (2002) Social exclusion and the generations. In: Hills J, LeGrand J, Piachaud D (eds) *Understanding social exclusion*. Oxford: Oxford University Press.
7. Murray C (1999) *The underclass revisited*. Washington DC: AEI Press.
8. Furstenberg F, Levin A, Brooks-Gunn J (1990) The children of teenage mothers: patterns of each childbearing in two generations. *Family Planning Perspectives* **22**: 54.
9. Social Exclusion Unit (1999) *Teenage pregnancy*. London: The Stationery Office.
10. Burchardt T, LeGrand J, Piachaud D (2002) Introduction. In: Hills J, LeGrand J, Piachaud D (eds) *Understanding Social Exclusion*. Oxford: Oxford University Press, 1-12.
11. Power A (2000) Social exclusion. *Royal Society of Arts Journal* **2**: 47 - 51.
12. Mcleod A (2001) Changing patterns of teenage pregnancy: population-based study of small areas. *British Medical Journal* **323**: 199 - 203.
13. Bonell C, Strange V, Stephenson J, Oakley A, Copas A, Forrest S, Johnson A, Black S (2003) Effect of social exclusion on the risk of teenage pregnancy: development of hypotheses using baseline data from a randomised trial of sex education. *Journal of Epidemiology and Community Health* **57**: 871-876.
14. NHS Centre for Reviews and Dissemination (1997) Preventing and reducing the adverse effects of unintended teenage pregnancies. *Effective Health Care* **3**.
15. Barry B (2002) Social exclusion, social isolation and the distribution of income. In: Hills J, LeGrand J, Piachaud D (eds) *Understanding social exclusion*. Oxford: Oxford University Press.
16. Lawson A, Rhode D (1993) *The politics of pregnancy: adolescent sexuality and public policy*. New Haven: Yale University Press.
17. Phoenix A (1991) *Young mothers?* Oxford: Polity Press.
18. Swann C, Bowe K, McCormick G, Kosmin M (2003) *Teenage pregnancy and parenthood: a review of reviews*. London: Health Development Agency.
19. Oakley A, Rajan L, Grant A (1990) Social support and pregnancy outcome: report of a randomised controlled trial. *British Journal of Obstetrics and Gynaecology* **97**: 155-162.
20. Oakley A (1992) Social support in pregnancy: methodology and findings of a one year follow up study. *Journal of Reproductive and Infant Psychology* **19**: 219 - 231.
21. Oakley A, Hickey D, Rajan L, Rigby A (1996) Social support in pregnancy: does it have long-term effects? *Journal of Reproductive and Infant Psychology* **14**: 7-22.

22. Wiggins M, Oakley A, Roberts I, Turner H, Rajan L, Austerberry H, Mujica R, Mugford M (2004) The social support and family health study: a randomised controlled trial and economic evaluation of two alternative forms of postnatal support for mothers living in disadvantaged inner city areas. *Health Technology Assessment* **8**: 1-134.
23. Edwards P, Roberts I, Clarke M, DiGiuseppi C, Pratap S, Wentz R, Kwan I (2004) Methods to influence response to postal questionnaires *Cochrane Library*. Chichester, UK: John Wiley and Sons, Ltd.
24. Sawtell M, Wiggins M, Austerberry H, Oakley A, Clemens F, Elbourne D (2003) *Involving users in research: report of focus group discussions with current and previous teenage mothers*. London: SSRU, 38.
25. Goodman R (1997) The Strengths and Difficulties Questionnaire: a research note. *Journal of Child Psychology and Psychiatry and Allied Sciences* **38**: 581-586.
26. Goodman R (1999) The extended version on the Strengths and Difficulties Questionnaire as a guide to child psychiatric caseness and consequent burden. *Journal of Child Psychology and Psychiatry* **40**: 791-801.
27. Graham H, Hunt S (1994) Women's smoking and measures of women's socio-economic status in the United Kingdom. *Health Promotion International* **9**: 81-88.
28. Berthoud R, Ermisch J, Franesconi M, Liao T, Pevalin D, Robson K (2004) *Research Briefing: Long term Consequences of Teenage births for Parents and their Children*. London: Teenage Pregnancy Unit, Department of Health, 4.
29. NHS Centre for Reviews and Dissemination (1997) Preventing and reducing the adverse effects of unintended teenage pregnancies. *Effective Health Care* **3**: 1 -12.
30. Mayor S (2004) Young women in deprived areas of Britain are less like to have an abortion. *British Medical Journal* **329**: 14.
31. Lopez Turley RN (2003) Are children of young mothers disadvantaged because of their mother's age or family background? *Child Development* **74**: 465 - 474.
32. Evaluation of the Teenage Pregnancy Strategy (2003) *Annual report synthesis No 2: 2002*. London: Department of Health.
33. Willis P (1977) *Learning to labour: How working class kids get working class jobs*. Aldershot: Saxon House.
34. Bonell C, Allen E, Strange V, Copas A, Oakley A, Johnson A, Stephenson J (2005) The effect of dislike of school on risk of teenage pregnancy: testing of hypotheses using longitudinal data from a randomised trial of sex education. *Journal of Epidemiology and Community Health* **59**: 223-230.
35. Moffitt T, E-Risk Study team (2002) Teen-aged mothers in contemporary Britain. *Journal of Child Psychology and Psychiatry and Allied Sciences* **43**: 727 - 742.
36. Quinlivan J, Evans S (2001) A prospective cohort study of the impact of domestic violence on young teenage pregnancy outcomes. *Journal of Pediatric and Adolescent Gynaecology* **14**: 17 - 23.
37. Rosen D (2004) "I just let him have his way" - Partner violence in the lives of low-income, teenage mothers. *Violence against women* **10**: 6-28.
38. Hillis S, Anda R, Dube S, Felitti V, Marchbanks P, Marks J (2004) The association between adverse childhood experiences and adolescent pregnancy, long-term psychosocial consequences, and fetal death. *Pediatrics* **113**: 320 -327.
39. Wiggins M, Rosato M, Austerberry H, Sawtell M, Oliver S (2005) *Sure Start Plus National Evaluation: Final Report*. London: SSRU, Institute of Education, 110.

40. BMRB International (2001) *Evaluation of the Teenage Pregnancy Strategy. Tracking survey. Report of the results of benchmark wave. Jan 2001.* London: BMRB International.
41. Wight D, Raab GM, Henderson M, Abraham C, Buston K, Hart G, Scott S (2002) Limits of teacher delivered sex education: interim behavioural outcomes from randomised trial. *British Medical Journal* **324**: 1430.
42. Oakley A, Fullerton D, Holland J, Arnold S, France-Dawson M, Kelly P, McGrellis S (1995) Sexual Health education interventions for young people: a methodological review. *British Medical Journal* **310**: 158-162.
43. DiCenso A, Guyatt G, Willan A, Griffith L (2002) Interventions to reduce unintended pregnancies among adolescents: systematic review of randomised controlled trials. *British Medical Journal* **324**: 1426-1434.
44. Quinton D, Pollock S, Golding J (2002) *The transition to fatherhood in young men: influences on commitment.* Sheffield: Youth Citizenship and Social Change.
45. Toroyan T, Roberts I, Oakley A, Laing G, Mugford M, Frost C (2003) Effectiveness of out-of-home daycare for disadvantaged families: randomised controlled trial. *British Medical Journal* **327**: 906-909.
46. Zoritch B, Roberts I, Oakley A (1998) The health and welfare effects of day-care: a systematic review of randomised controlled trials. *Social Science and Medicine* **47**: 317-327.
47. DfES (2003) *Every Child Matters - Green Paper.* London: The Stationery Office.

Appendix 1: Sample characteristics

1. Existing data: combined SSPO and SSFH data sets (n= 1196)		
	Women who became mothers as teenagers (<20 years)	Women who became mothers aged ≥20 years
<ul style="list-style-type: none"> • Sample size • Average age when completed SSPO or SSFH questionnaire • Average age at first pregnancy • Year gave birth to first child • Ethnicity • Tenure • Parenthood status at birth of first child 	246 (21% of whole data set) 25 years (range 16-42 years) 17.5 years (range 13 – 20 yrs) 1963 – 1999 70% White British 80% social housing 23% lone parent	950 30 years (range 20 - 44 years) 27 years (range 20 – 44 yrs) 1967 – 1999 73% White British 48% social housing 15% lone parent
<ul style="list-style-type: none"> • Region 	51% London; 49% rest of England (<i>Derby, Stoke, Reading, Kent</i>)	64% London; 36% rest of England

The recruitment of women to the SSPO study was via midwives in antenatal clinics in four hospitals (Kent, Derby, Stoke and Reading) All women who attended for a second or subsequent pregnancy were asked a screening questionnaire by midwives, and if they had previously had a low birth weight baby (whether a live birth or stillbirth), they were invited to participate in the trial¹⁹.

The recruitment of the SSFH women was via postnatal home visits by researchers to all women living in deprived enumeration districts of Camden and Islington Health authority who had recently given birth. Lists of eligible women were provided fortnightly by the local HA, and information was sent prior to the visits. Researchers explained the trial and invited women to participate²².

2. New data: TPSE questionnaire (n=459)		
	Women who became mothers as teenagers (<20 years)	Women who became mothers aged ≥20 years
<ul style="list-style-type: none"> • Sample size • Average age when completed TPSE questionnaire • Average age at first pregnancy • Year gave birth to first child • Ethnicity • Tenure • Parenthood status at birth of first child • Educational qualifications • Current employment status 	62 (14% of all 459 mothers) 31 years (range 22–50 years) 18 years (range 13- 19 years) 1967 – 1999 63% White British 72% social housing 27% lone parent 61% any qualification 26% in paid employment	397 38 years (range 24–59 years) 26 years (range 11 – 42 years) 1969 - 1999 77% White British 37% social housing 14% lone parent 79% any qualification 56% in paid employment
<ul style="list-style-type: none"> • Region 	77% London, 23% rest of England	77% London 23% rest of England
Response rate: 459 of original 1196 = 38%		

3. Interviews with women who became mothers as teenagers (sub-sample of those responding to TPSE questionnaire)	
<ul style="list-style-type: none"> • Sample size • Average age now • Average age at first pregnancy • Ethnicity • Social class of origin • Region 	42 * 35 years (range 23-50 years) 17.5 years (range 13-19 years) 29 White British; 5 Black British; 4 Bangladeshi; 1 Japanese; 1 Columbian 37 'working class' 26 in London; 16 rest of England
<i>*Includes 3 women who terminated their first teenage pregnancy, but had a subsequent teenage pregnancy which they continued.</i>	
Response rate: 42 of 62 TPSE respondents who were teenage mothers = 68%	

4. Interviews with women who had terminations as teenagers (and did not have a subsequent teenage pregnancy)	
• Sample size	12
• Average age now	31 years (<i>range 26-43 years</i>)
• Average age at first pregnancy	17 (<i>range 15-19 years</i>)
• Ethnicity	8 White British; 2 Black British; 1 mixed White/Black British; 1 white Australian
• Social class of origin	7 'working class'
• Region	12 in London
Response rate: 12 of 18 TPSE respondents who terminated their first teenage pregnancy and did not later become a teenage mother = 67%	

5. Interviews with men who became fathers as teenagers	
• Sample size	13
• Relationship to study women	current partner: 3 son: 2 no relationship to study women: 8
• Average age now	30 years (<i>range 18 years to late 40s</i>)
• Average age fathered first child	16 (<i>range 15-19 years</i>)
• Average age of the mother of child	18 years (<i>range 15-25 years</i>)
• Ethnicity	10 White British; 3 Black Caribbean
• Social class of origin	12 'working class'
• Region	6 in London; 7 rest of England
<i>Note: snowball sample so response rate is not applicable.</i>	

6. Interviews with children of teenage mothers	
• Sample size	19
• Sex	12 female
• Average age now	18.5 years (<i>range 13-33 years</i>)
• Average age of mother at their birth	18 (<i>range 14-20 years</i>)
• Ethnicity	13 White British; 3 mixed race; 1 Black British; 1 Columbian; 1 unknown
• Social class	17 'working class'
• Region	10 London; 9 rest of England
Response rate: 19 of the 28 children of the teenage mothers we interviewed (who were born when mother was a teenager; current age 13+ years) = 68%	

7. Focus groups with current and previous teenage mothers

	Current teenage mothers	Previous teenage mothers
<ul style="list-style-type: none"> • Sample size • Average age now • Average age at first pregnancy • Year gave birth to first child • Ethnicity 	<p>26</p> <p>18 years (range 15-20 years)</p> <p>17 years (range 15-19 years)</p> <p>1999 - 2002</p> <p>19 White British; 4 Black African; 3 Black Caribbean; 2 mixed White/Black Caribbean; 1 mixed White/Black African; 1 Black British</p>	<p>5</p> <p>34 years (range 30-39 years)</p> <p>17 years (range 15-19 years)</p> <p>1981 - 1991</p> <p>80 % White British</p>
<ul style="list-style-type: none"> • Tenure • Parenthood status at birth of first child • Educational qualifications • Current employment status 	<p>96% social housing</p> <p>76% lone parent</p> <p>64% any qualification</p> <p>16% in paid employment</p>	<p>100% social housing</p> <p>40% lone parent</p> <p>80% any qualification</p> <p>20% in paid employment</p>

Appendix 2: Statistical Modelling of the Quantitative Data

Statistical analysis of the quantitative datasets in the TPSE Study focused on exploring the relationships between teenage motherhood and a number of variables that could potentially be on a pathway to becoming a mother while a teenager ('causes') or be considered 'consequences' of teenage motherhood. Some women (n=39) who were pregnant as teenagers, were not teenage mothers (either because the pregnancy did not continue or because the women was aged 20 by the time she gave birth). Unless specified otherwise, the following analyses are based on teenage motherhood rather than teenage pregnancy. Both 'causes' and 'consequences' are in quotations marks to signify the need for caution in assigning causality, given the design of this study (two cohorts studied longitudinally). Analyses were carried out in a number of stages. Factors were related to teenage pregnancy one at a time and for each of the original study datasets separately. Later analyses combined the datasets where this was possible and appropriate.

2.1 Methods for stages of analysis

Analysis - stage one: univariate analysis of original datasets

The data from both original datasets were entered into Stata version 7 or 8.2, cleaned and, where possible, coded consistently. The original studies were similar in the questions they asked (some were identical), but some variables were only available for one of the two studies. To ensure as much consistency as possible between the two studies, data were used that had been gathered at the same two time points in each study: 6-8 weeks postnatally and 1 year follow up. Univariate analyses were conducted to examine the distribution of possible explanatory variables with respect to the participants being a teenage mother or not. **In the SSPO dataset**, there were 465 subjects^x of whom 344 were non-teenage mothers, 22 were teenage mothers with the study baby, and 99 who had been teenage mothers with a previous baby. **In the SSFH dataset**, there were 731 respondents, of whom 606 were non-teenage mothers, 44 were current teenage mothers, and 81 were teenage mothers with a previous baby. The results of the univariate analysis for this dataset are shown in tables 4, 5 and 6. In both sets of tables, statistical tests for categories compare teenage mothers with non-teenage mothers, although the figures are presented descriptively in three categories: non-teenage, current teenage mothers and previous teenage mothers. The 'causes' analyses took as baseline data socio-demographic characteristics (collected 6-8 week postnatally, but relating back to pregnancy) in the two datasets (tables 1 and 4), and the 'consequences' analyses used 'outcome' data collected 6-8 week postnatally (tables 2 and 5) and 1-year follow up data (tables 3 and 6).

Analysis - stage two: modeling of existing data sets

Variables which were common to both the SSPO and SSFH studies and identified as of interest in the univariate analyses were then merged into a larger dataset. The data from both of these cohorts were combined in order to increase the discriminatory power of the datasets in detecting statistically significant relationships. It was explicitly acknowledged that the study cohorts were distinct in terms of the types of populations they studied; this was useful in estimating covariate effects because it increases the generalisability of the findings to the wider population of young mothers. A fixed-effects model was used to adjust for the cohort from which

^x Initially there were 468 subjects in the SSPO study, but for three of these women their teenage pregnancy status was unknown, so they were excluded from the analysis in the TPSE study.

each participant was recruited in order to control for unmeasured differences across the study populations which couldn't be included in a multivariable regression model and to address the possibility of the biased estimates which could result from unmeasured differences across cohorts.

Each variable was identified as either a possible 'cause' or a possible 'consequence' of teenage motherhood. This combined dataset included some variables measured at the one-year follow-up for both studies.

Univariate logistic regression analyses for the variables present in both the SSPO and SSFH studies were set up separately for each dataset (table 7). For the variables described as 'causes' the outcome was teenage motherhood (whether with the study baby or a previous baby), while for the 'consequences' teenage motherhood was the exposure.

Modelling of the combined SSPO and SSFH dataset was then undertaken.

For the **causes** analysis: multivariate logistic regression models were set up for each of the possible causes that had been identified univariately. The models were adjusted for dataset to address the issue of possible confounding by dataset.

A multivariate model for causes of teenage pregnancy was built in the following way:

1. The first variable entered in the model was the univariately most statistically significant predictor of teenage motherhood. The source of the data (i.e. SSPO or SSFH) was also included in this model.
2. The next most statistically significant predictor was added. If it lost its statistical significance in the new model it was removed; if it retained its statistical significance it was removed where the statistical significance of an older predictor was lost by its addition.
3. This process was repeated until the model contained a set of statistically significant predictors of teenage motherhood.
4. Interaction tests were performed between the most significant predictor in the model and all the other predictors; where these were significant, the interaction(s) driving the significant result was identified. This procedure was repeated with next most significant predictor and the other predictors until the model interactions had been identified.

The results of this model are presented in table 8.

For the **consequences** analysis the possible outcomes of teenage motherhood were grouped into two categories: 'material' and 'non-material'. The 'material' consequences of teenage pregnancy at baseline were: leaving school aged under 16; being relatively 'poor' (weekly household income £200 or less for SSFH women, weekly household income less than £106 for SSPO women); being a smoker; having a partner who rarely helps out around the home; and considering oneself a lone parent^{xi}. At baseline the 'non-material' consequences of teenage motherhood were: being cheerful or depressed in the last few weeks; having had an easy or difficult past year; being a smoker; being a lone parent and having a partner who rarely helps out around the home.

In the analysis, each of these consequences was treated as a separate outcome; for each one a model was constructed using a similar procedure to that described

^{xi} Lone parenthood was included in the material model, as a proxy for reduced financial resources (less potential earning power, greater potential childcare expenses, etc.)

above. Modelling for a 'consequence' was discontinued where teenage motherhood was not a statistically significant predictor. Because this approach involved multiple statistical testing of the data, caution should be exercised when interpreting p-values close to 0.05.

Variables measured at one-year follow-up of both SSPO and SSFH women were modelled separately. The modelling strategy was the same as described above. The consequences of teenage motherhood measured at one year follow-up were: being a lone parent; having had an easy or difficult past year; having had poor health over the past year and having felt depressed in the last few weeks.

The results of these models are shown in tables 9, 10 and 11.

Analysis - stage three: univariate analysis of new data (TPSE questionnaire)

Similar procedures were followed for the analysis of the new questionnaire data collected from SSPO and SSFH participants specially for the TPSE Study.

These questionnaires were returned by 459 women, of whom 396 were non-teenage mothers, and 62 had been teenage mothers (14 from the SSPO dataset and 48 from the SSFH dataset).

In these questionnaires, women were asked about their first pregnancy experiences. Through this route, we determined that other women had become pregnant as teenagers, but did not go on to become teenage mothers. Univariate analysis was carried out both by teenage *motherhood* status (table 12) and, for selected variables, by teenage *pregnancy* status (table 13).

Analysis - stage four: modelling new data

Tables 14 and 15 -19 provide models of the 'causes' and 'consequences' of teenage motherhood as identified from the data provided in the TPSE questionnaire. Methods for modeling followed those utilized in *Analysis -stage two*. Despite now having information on both teenage pregnancy and teenage motherhood status, for consistency with the other analyses, the regression analysis was carried out using teenage *motherhood* status only.

Analysis – stage five: modeling composite material and non-material outcomes (TPSE data)

The next step in the analysis of the TPSE questionnaire data was to model the factors related to good outcomes for mothers. In order to do this, 'material' and 'non-material' outcomes were each combined into a composite variable which could be 'good', 'poor' or 'mixed'.

Having had a good 'material' outcome at follow-up was defined as possessing four or more of the following characteristics at the time of completion of the TPSE questionnaire:

- * Possessing any qualifications (including City and Guilds, NVQs, A-levels, degrees, etc)
- * Having been in paid work in the last month
- * If not in paid work, being happy about not being in paid work
- * Being satisfied with one's housing situation
- * Not usually being worried about money

- * Not being in receipt of means-tested benefits
- * Not considering oneself a lone parent

Because for many people there is overlap between some of these variables, it was thought necessary to generate a composite outcome which would capture some of the 'material' aspects of people's lives. The cutoff point was chosen in order to give a sensible and sensitive outcome measure. A cutoff of "four or more" was chosen because using this definition nearly two-thirds (63.2%) of the population were "doing well". This was felt to be appropriate both in terms of the population to which the study results would be generalised, but also in terms of the statistical power necessary for performing multivariable logistic regression.

Using this composite good 'material' outcome, an explanatory model was constructed using teenage motherhood, year of birth of the child (before 1990 vs. 1990 or after) and housing tenure at baseline as predefined predictors. If any of the predefined predictors were not statistically significant in the model, they were removed, least significant first, with the exception of the teenage motherhood variable which was forced into the model. Once the predefined predictors had been selected, a forwards stepwise logistic regression model with a P-value set at P=0.05 was constructed using the possible predictors, with the chosen combination of predefined predictors being forced into the model. The possible predictors were: lone parenthood during the first year; relative poverty at baseline; leaving school at age 16 or over; having had enough support in the first year after birth (either practical support or emotional support or both). The results from this model are shown in table 20. Twenty five of 62 teenage mothers (40%) were classed as having had a good material outcome, while 265 of 397 non-teenage mothers (67%) had a good outcome; the difference in proportions is statistically significant ($\chi^2_1=16.10$, $P<0.001$).

A composite good 'non-material' outcome was defined as having four or more of the following characteristics at the time of completion of the questionnaire:

- * Having generally good health in the past year
- * Feeling that the last year was fairly easy
- * Feeling fairly satisfied with life
- * Feeling not depressed over the past few weeks
- * Feeling that one has had enough practical support over the past year
- * Feeling that one has had enough emotional support over the past year

The cutoff for the "non-material" outcome was chosen on similar grounds; just over two thirds of the population (68.6%) of the population were "doing well" where the cutoff of four or more of the six factors was chosen.

The odds of a good 'non-material' outcome were modelled in the same way as the odds of a good material outcome, described above, using a combination of predefined and possible predictors. The predefined predictors were the same as for the modelling of a good material outcome. The possible predictors for a good non-material outcome were: being a lone parent in the first year after birth, having good health in the first year, feeling depressed at the one-year follow-up, having had an easy past year at the one year follow-up, having had enough support in the first year after birth (either practical support or emotional support or both). The results from this model are shown in table 21. Forty-one of 62 teenage mothers (66%) were classed as having had a good non-material outcome, while 274 of 397 non-teenage mothers (69%) had a good outcome; the difference in proportions is not statistically significant ($\chi^2_1=0.21$, $P=0.65$).

Following the modelling of the good material and non-material outcomes, some additional descriptive analysis was carried out on a subset of the data, looking particularly at those factors that influenced good and bad composite outcomes for teenage mothers. Table 22 shows the factors that had influence for teenage mothers.

The difficulty of loss to follow up was expected in this study because of the long elapsed time between participants' initial responses and the follow up carried out as part of the TPSE study.

A study of the implications of dropout was carried out by Sarah Hardoon as part of an MSc in Medical Statistics^{xii}. The study modelled the 'missingness mechanism' in different ways, using the missing completely at random (MCAR) mechanism assumed by the completers' analysis performed in this study, and using missing at random (MAR) and a model-based approach to test the robustness of the model chosen for the "good" outcome.

"From all analyses done, the key predictors of 'doing well' now are being a private renter or home owner at baseline, being a lone parent at baseline and leaving school before age 16.

There is some borderline evidence that financial status at baseline, depression at baseline and source study are associated with the outcome too." Hardoon, 2004.

Analysis – stage six: univariate analysis of new data (supplementary sheet of questions)

A supplementary sheet of questions was sent to the 459 women who completed the TPSE questionnaire. This was returned by 340 women. Descriptive analysis of these data are presented both by teenage motherhood status (tables 23 and 24) and teenage pregnancy status (table 25).

^{xii} Hardoon S, 2004. Investigation into the reasons for dropout in a follow-up study of mothers and comparison of methods for dealing with the resulting missing outcome data, unpublished.

2.2 Tables from existing data: SSPO and SSFH data sets

Table 1: Univariate analysis of possible ‘causes’ of teenage motherhood from initial postnatal questionnaire SSPO dataset (1987). The figures are n(column percentage) unless stated otherwise.

	Non teenage mother	Current teenage mother	Previous teenage mother	χ^2 or Z, P
Woman's age at birth of her <i>first</i> child ¹ (years) mean, sd (n) (<i>missing</i> =28)	25, 3.81(319)	18, 0.89 (19)	18, 1.06 (99)	$z=16.1$, $P<0.001$
Ethnicity Black or minority ethnic group (<i>missing</i> =7)	15 (4.4)	1 (4.6)	4 (4.1)	$\chi^2_1=0.67$, $P=0.41$
Rented housing at baseline (<i>includes council, housing association, private rented, temporary accommodation</i>) (<i>missing</i> =3)	96 (28.2)	22 (100)	67 (67.7)	$\chi^2_1=76.28$, $P<0.001$
Left fulltime education <16 years (<i>missing</i> =6)	58 (17.2)	6 (27.3)	37 (37.8)	$\chi^2_1=17.96$, $P<0.001$
Weekly household income at baseline < £106 (<i>missing</i> =26)	73 (22.5)	18 (90.0)	48 (51.6)	$\chi^2_1=50.0$, $P<0.001$

¹ First child = first live birth of a child for the woman (includes children who subsequently died in the early neonatal and later periods)

Table 2: Univariate analysis of possible ‘consequences’ of teenage motherhood from initial postnatal questionnaire SSPO dataset (1987). The figures are n(column percentage) unless stated otherwise.

	Non teenage mother	Current teenage mother	Previous teenage mother	χ^2 or Z, P
Mother's age at birth of <i>study</i> baby ¹ (years) mean, sd (n) (<i>missing</i> =1)	29.3, 4.63 (342)	19.8, 0.79 (22)	27.5, 5.27 (99)	$t_{461}=6.1$, $P<0.001$
Assisted or Caesarean delivery of study baby (<i>missing</i> =1)	82 (24.0)	2 (9.1)	19 (19.2)	$\chi^2_1=2.27$, $P=0.13$
Study baby birth weight mean, sd (n) (<i>missing</i> =5)	2900, 632 (340)	2917, 622 (22)	3060, 516 (97)	$t_{457}=-2.21$, $P=0.028$
Bottle-feeding study baby (<i>includes bottle and mixed bottle/breast, excludes tube only</i>) (<i>missing</i> =10)	249 (74.6)	21 (95.5)	81 (82.7)	$\chi^2_1=5.50$ $P=0.019$
Had no support during this pregnancy but did not need it Had no/ very little support but needed it Had enough or more than enough support (<i>missing</i> =4)	9 (2.7) 45 (13.3) 285 (84.1)	1 (4.6) 1 (4.6) 20 (90.9)	2 (2.0) 26 (26.3) 71 (71.7)	$\chi^2_2=5.52$ $P=0.063$
Partner very unhelpful/not helpful during this pregnancy (<i>missing or no partner</i> =22)	22 (6.8)	2 (11.1)	16 (16.3)	$\chi^2_1=7.99$ $P=0.005$
Year preceding birth of study baby very/quite difficult (<i>missing</i> =13)	76 (22.7)	6 (28.6)	31 (32.6)	$\chi^2_1=3.89$ $P=0.049$
Last few weeks depressed or low spirited (<i>missing</i> =1)	27 (7.9)	8 (36.4)	18 (18.2)	$\chi^2_1=16.29$ $P<0.001$
Physical health not at all good/not good (<i>missing</i> =2)	23 (6.7)	0 (0)	11 (11.2)	$\chi^2_1=0.78$ $P=0.38$
Living in rented housing (<i>includes council, housing association, private rented, temporary accommodation</i>) (<i>missing</i> =3)	96 (28.2)	22 (100)	67 (67.7)	$\chi^2_1=76.28$, $P<0.001$
Left fulltime education <16 years (<i>missing</i> =6)	58 (17.2)	6 (27.3)	37 (37.8)	$\chi^2_1=17.96$, $P<0.001$

	Non teenage mother	Current teenage mother	Previous teenage mother	χ^2 or Z, P
Weekly household income < £106 (<i>missing=26</i>)	73 (22.5)	18 (90.0)	48 (51.6)	$\chi^2_1=50.0$, P<0.001
Lone parent at birth of study baby (<i>missing=1</i>)	10 (2.9)	3 (13.6)	1 (1.1)	$\chi^2_1=0.04$, P=0.83
Woman smokes (<i>missing=1</i>)	124 (36.3)	15 (68.2)	58 (58.6)	$\chi^2_1=21.87$, P<0.001

¹ Study baby = the baby whose pregnancy/birth led to participation in the original SSPO study. This was not the first child for any of the participants, as having had a previous low birth weight baby was a prerequisite for participation in the original study.

Table 3: Univariate analysis of possible ‘consequences’ of teenage motherhood at 1-year follow-up of SSPO sample (1988/9). The figures are n(column percentage) unless stated otherwise. Numbers missing refers to the baseline sample size of 468.

	Non teenage mother	Current teenage mother	Previous teenage mother	χ^2 or Z, P
Study baby 'difficult' to care for (generally difficult or difficult at first) (<i>missing=105</i>)	12 (4.4)	1 (9.1)	1 (1.3)	$\chi^2_1=0.75$, P=0.39
Study baby been back to hospital since the birth (<i>missing=unknown</i>)	46 (12.4)	4 (16.0)	19 (17.4)	$\chi^2_1=1.86$ P=0.17
Study baby is often unwell (<i>missing=105</i>)	10 (3.7)	1 (9.1)	5 (6.7)	$\chi^2_1=1.69$, P=0.19
Partner very unhelpful/not helpful during the past year (<i>missing or no partner=122</i>)	26 (10.0)	0 (0)	10 (13.7)	$\chi^2_1=0.32$ P=0.57
Partner never/not very often helps with household tasks (<i>missing or no partner=139</i>)	18 (7.1)	0 (0)	6 (9.0)	$\chi^2_1=0.096$ P=0.76
Had no support but did not need it (<i>missing=108</i>)	14 (5.2)	1 (9.1)	1 (1.3)	$\chi^2_1=1.24$ P=0.27
Last year very/quite difficult (<i>missing=107</i>)	75 (27.7)	2 (18.2)	27 (36.0)	$\chi^2_1=1.56$ P=0.28
Last few weeks depressed or low spirited (<i>missing=121</i>)	18 (6.92)	0 (0)	8 (11.1)	$\chi^2_1=0.66$ P=0.42
Physical health not at all good/not good (<i>missing=127</i>)	27 (10.0)	3 (27.3)	11 (14.7)	$\chi^2_1=2.56$ P=0.11
Lone parent at 1 year (<i>missing=105</i>)	9 (3.3)	2 (18.2)	6 (8.0)	$\chi^2_1=5.22$, P=0.022

Table 4: Univariate analysis of possible ‘causes’ of teenage motherhood at initial postnatal questionnaire in SSFH dataset (1999). The figures are n(column percentage) unless stated otherwise.

	Non teenage mother	Current teenage mother	Previous teenage mother	χ^2 or Z, P
Mother's age at birth of her first child ¹ (years) median, IQR (n) (<i>missing=0</i>)	27.8, 23.5 - 31.9 (606)	18.9, 18.2 - 19.5 (44)	18.5, 17.4 - 19.1 (81)	z=17.6, P<0.001
Ethnicity – Black or minority ethnic group (<i>missing=2</i>)	241 (39.9)	18 (40.9)	50 (61.7)	$\chi^2_1=8.92$, P=0.003
English not first language (<i>missing=0</i>)	232 (38.3)	15 (34.1)	35 (43.2)	$\chi^2_1=0.12$, P=0.72
Rented housing (includes council, housing association, private rented, temporary accommodation) (<i>missing=0</i>)	429 (70.8)	44 (100)	79 (97.5)	$\chi^2_1=42.71$ P<0.001

	Non teenage mother	Current teenage mother	Previous teenage mother	χ^2 or Z, P
Left fulltime education <16 years (<i>missing</i> =3)	44 (7.3)	7 (15.9)	18 (22.2)	$\chi^2_1=19.47, P<0.001$
Left education with no qualifications (<i>missing</i> =19)	74 (12.5)	15 (35.7)	28 (35.4)	$\chi^2_1=38.74, P<0.001$
Partner social class 5, 6 or 7 (<i>missing or no partner</i> =140)	162 (33.3)	18 (66.7)	29 (50.9)	$\chi^2_1=15.89, P<0.001$

¹ First child = first live birth of a child for the woman (includes children who subsequently died in the early neonatal and later periods)

Table 5: Univariate analysis of possible ‘consequences’ of teenage motherhood from initial postnatal questionnaire SSFH dataset (1999). The figures are n(column percentage) unless stated otherwise.

	Non teenage mother	‘Current’ teenage mother	Previous teenage mother	χ^2 or Z, P
Mother's age at birth of <i>study</i> child ¹ (years) median, IQR (n) (<i>missing</i> =0)	30.9, 26.7 – 34.2 (606)	18.9, 18.2 – 19.5 (44)	26.3, 22.5 – 31.9 (81)	t= 40.76, P<0.001
Number of children median, IQR (n) (<i>missing</i> =0)	1, 1 – 2 (606)	1, 1 – 1 (44)	3, 2 – 4 (81)	z=-4.15, P<0.001
Study child is first child (<i>missing</i> =0)	311 (51.3)	44 (100)	0	$\chi^2_1=10.78, P<0.001$
Assisted or Caesarean delivery (<i>missing</i> =8)	213 (35.4)	14 (32.6)	15 (19.0)	$\chi^2_1=6.20, P=0.013$
Baby birth weight (g) mean (sd), n (<i>missing</i> =0)	3341 (588.7), 606	3111 (604.7), 44	3117 (645.9), 81	t=-3.70, P<0.001
Baby been back to hospital since the birth (<i>missing</i> =19)	212 (36.0)	14 (31.8)	32 (40.5)	$\chi^2_1=0.09, P=0.77$
Bottle-feeding (includes bottle and mixed bottle/breast) (<i>missing</i> =2)	210 (34.8)	19 (43.2)	35 (43.2)	$\chi^2_1=3.19, P=0.074$
Had no support (<i>missing</i> =14)	31 (5.2)	1 (2.4)	5 (6.4)	$\chi^2_1=0.008, P=0.93$
Partner helps 'rarely'/'never' with housework (<i>missing or no partner</i> =122)	136 (26.3)	11 (39.3)	24 (38.1)	$\chi^2_1=5.71, P=0.017$
Help poor from family (<i>missing</i> =13)	98 (16.5)	7 (15.9)	20 (24.7)	$\chi^2_1=1.85, P=0.17$
Maternal depression –EPDS ² score median, IQR (n) (<i>missing</i> =24)	8, 5 -12 (588)	9, 7 – 14 (42)	9, 6 – 13 (77)	z=-1.33, P=0.18
Maternal depression (using an EPDS ² cutoff of 12 points) (<i>missing</i> =24)	160 (27.2)	17 (40.5)	24 (31.2)	$\chi^2_1=2.55, P=0.11$
Last year rather/very difficult (<i>missing</i> =5)	324 (53.8)	27 (61.4)	46 (57.5)	$\chi^2_1=1.06, P=0.30$
Last few weeks depressed or low spirited (<i>missing</i> =3)	150 (24.8)	13 (30.2)	26 (32.5)	$\chi^2_1=2.54, P=0.11$
Control over life: not as much as needed / none (<i>missing</i> =10)	247 (41.3)	21 (48.8)	30 (37.5)	$\chi^2_1=.001, P=0.97$
Rented housing (includes council, housing association, private rented, temporary accommodation) (<i>missing</i> =0)	429 (70.8)	44 (100)	79 (97.5)	$\chi^2_1=42.71 P<0.001$
Left fulltime education <16 years (<i>missing</i> =3)	44 (7.3)	7 (15.9)	18 (22.2)	$\chi^2_1=19.47, P<0.001$
Left education with no qualifications (<i>missing</i> =19)	74 (12.5)	15 (35.7)	28 (35.4)	$\chi^2_1=38.74, P<0.001$

	Non teenage mother	'Current' teenage mother	Previous teenage mother	χ^2 or Z, P
Left education with GCSE or NVQ only (<i>missing=19</i>)	134 (25.9)	20 (74.1)	28 (54.9)	$\chi^2_1=40.50$, $P<0.001$
Partner social class 5, 6 or 7 (<i>missing or no partner=140</i>)	162 (33.3)	18 (66.7)	29 (50.9)	$\chi^2_1=15.89$, $P<0.001$
Weekly household income \leq £200 (<i>missing=51</i>)	267 (47.3)	34 (79.1)	53 (73.6)	$\chi^2_1=30.87$, $P<0.001$
On any benefits (<i>missing=11</i>)	559 (93.6)	42 (97.7)	79 (98.8)	$\chi^2_1=4.36$, $P=0.037$
On means-tested benefits (<i>missing=11</i>)	225 (37.1)	31 (70.5)	56 (69.1)	$\chi^2_1=44.67$, $P<0.001$
Lone parent (<i>missing=0</i>)	136 (22.4)	20 (45.5)	33 (40.7)	$\chi^2_1=21.53$, $P<0.001$
Respondent smokes (<i>missing=1</i>)	136 (22.5)	24 (54.6)	32 (39.5)	$\chi^2_1=26.63$, $P<0.001$
Partner smokes (<i>missing or no partner=112</i>)	196 (37.3)	18 (64.3)	35 (53.9)	$\chi^2_1=12.79$, $P<0.001$

¹ Study baby = the baby whose pregnancy/birth led to participation in the original SSFH study. This was not the first child for half of the participants.

² EPDS=Edinburgh Postnatal Depression Scale. The higher the score, the more likely the woman is depressed. Scores over 12 are considered high risk for depression. (Cox et al, 1987)

Table 6: Univariate analysis of possible ‘consequences’ of teenage motherhood at 1-year follow-up of SSFH dataset (2000). The figures are n(column percentage) unless stated otherwise. The numbers missing quoted refer to the original sample size of 731.

	Non teenage mother	‘Current’ teenage mother	Previous teenage mother	χ^2 or Z, P
Baby’s health ‘not very good’ (missing=76)	28 (5.1)	5 (14.7)	4 (5.6)	$\chi^2_1=1.92$, P=0.17
Any contact with a hospital doctor (missing=74)	67 (12.2)	3 (8.8)	14 (19.4)	$\chi^2_1=1.19$, P=0.27
Had no support (missing=77)	32 (5.8)	1 (2.9)	6 (8.3)	$\chi^2_1=0.093$, P=0.76
Has contact with family and friends less than once a month (missing=86)	18 (3.3)	2 (6.1)	2 (2.9)	$\chi^2_1=0.11$, P=0.74
Has contact with family less than once a week (missing=86)	35 (6.4)	1 (3.0)	1 (1.5)	$\chi^2_1=3.12$, P=0.077
Maternal depression -EPDS score median, IQR (n) (missing=124)	8, 4-12 (516)	10, 7-14 (33)	7, 3-12 (58)	z= -0.44, P=0.66
Maternal depression (binary using an EPDS cutoff of 12 points) (missing=124)	144 (27.9)	12 (36.4)	15 (25.9)	$\chi^2_1=0.12$, P=0.73
Last few weeks depressed or low spirited (missing=77)	187 (34.3)	16 (47.1)	32 (44.4)	$\chi^2_1=4.69$, P=0.03
Stress level very / quite high (missing=89)	414 (76.4)	27 (81.8)	47 (70.2)	$\chi^2_1=0.26$, P=0.61
Mother smokes (missing=75)	127 (23.1)	17 (50.0)	29 (40.3)	$\chi^2_1=18.87$, P<0.001
Partner smokes (missing=181)	145 (30.9)	13 (54.2)	31 (55.4)	$\chi^2_1=17.68$, P<0.001

Table 7: Univariate logistic regression coefficients for ‘causes’ and ‘consequences’ of teenage motherhood, by dataset

Causes of teenage motherhood – baseline									
SSFH dataset					SSPO dataset				
Variable	Comparison	N in model	Log odds ratio	95% CI for log odds ratio	Variable	Comparison	N in model	Log odds ratio	95% CI for log odds ratio
Poverty	Income above poverty level vs. income below	680	-1.24	-1.70 - -0.79	Poverty	Income above poverty level vs. income below	438	-1.58	-2.03 - -1.12
Age at leaving school	16 or over vs. under 16	728	-1.16	-1.69 - -0.62	Age at leaving school	16 or over vs. under 16	458	-0.99	-1.56 - -0.52
Housing tenure	Owner or private renter vs. other	731	-2.85	-3.86 - -1.84	Housing tenure	Owner or private renter vs. other	461	-1.87	-2.23 - -1.42
Ethnic group	BME ¹ vs. White	729	0.59	0.20 – 0.97	Ethnic group	BME ¹ vs. White	457	-0.07	-1.10 – 0.97
Consequences of teenage motherhood – baseline									
SSFH dataset					SSPO dataset				
Outcome ('risk' factor is teenage motherhood)	Comparison	N in model	Log odds ratio for teenage motherhood	95% CI for log odds ratio	Outcome ('risk' factor is teenage motherhood)	Comparison	N in model	Log odds ratio for teenage motherhood	95% CI for log odds ratio
Depressed in past few weeks	Depressed vs. not depressed	728	0.34	-0.08 – 0.76	Depressed in past few weeks	Depressed vs. not depressed	463	1.17	0.58 – 1.75
Last year easy or difficult	Rather or very difficult vs. easy	726	0.21	-0.19 – 0.60	Last year easy or difficult	Rather or very difficult vs. easy	451	0.47	0.001 – 0.93
Partner helps around house	Rare or never vs. regularly or sometimes	609	0.56	0.10 – 1.03	Partner helps around the house	Rare or never vs. regularly or sometimes	421	-0.18	-0.66 – 0.31
Mother is a smoker	Smoker vs non-smoker	730	1.3	0.63 – 1.43	Mother is a smoker	Smoker vs. non-smoker	463	0.98	0.56 – 1.41
Mother is a lone parent	Lone parent vs. not lone parent	731	0.93	0.53 – 1.34	Mother is a lone parent	Lone parent vs. not lone parent	463	0.13	-1.05 – 1.31
Poverty	Income above poverty level vs. income below	680	-1.24	-1.70 - -0.79	Poverty	Income above poverty level vs. income below	438	-1.58	-2.03 - -1.12
Age at leaving school	16 or over vs. under 16	728	-1.16	-1.69 - -0.62	Age at leaving school	16 or over vs. under 16	458	-0.99	-1.46 - -0.52
Consequences of teenage motherhood – 1 year follow up									
SSFH dataset					SSPO dataset				
Outcome ('risk' factor is teenage motherhood)	Comparison	N in model	Log odds ratio for teenage motherhood	95% CI for log odds ratio	Outcome ('risk' factor is teenage motherhood)	Comparison	N in model	Log odds ratio for teenage motherhood	95% CI for log odds ratio
Depressed in past few weeks	Depressed vs. not depressed	652	0.46	0.04 – 0.88	Depressed in past few weeks	Depressed vs. not depressed	343	0.36	-0.51 – 1.23
Last year easy or difficult	Rather or very difficult vs. easy	646	0.11	-0.32 – 0.54	Last year easy or difficult	Rather or very difficult vs. easy	357	0.28	-0.24 – 0.81
Lone parent	Lone parent vs. not lone parent	652	0.99	0.55 – 1.43	Lone parent	Lone parent vs. not lone parent	359	1.10	0.12 – 2.09
Mother's health	Not very good vs. good	649	0.36	-0.12 – 0.83	Mother's health	Not very good vs good	357	0.56	-0.13 – 1.26

¹ BME = Black or minority ethnic group

Table 8: Results of a multivariate logistic regression model examining possible ‘causes’ of teenage motherhood for the combined SSPO and SSFH datasets. Based on n=1112

Variable	Comparison	Log odds ratio (95% CI for log odds)	P
Poverty	Income below poverty level for those who left school at 16 or over and live in private housing	1.67 (0.94 – 2.40)	<0.001
Age at leaving school	Under 16 vs. 16 or over (for the non-poor)	1.50 (0.87 – 2.12)	<0.001
Interaction between school age and poverty	Additional effect of being under 16 for the poor	-1.03 (-1.83 - -0.24)	0.01
Housing tenure	Social vs. private housing (for the non- poor)	2.19 (1.62 – 2.76)	<0.001
Interaction between tenure and poverty	Additional effect of being in social housing for the poor	-1.09 (-1.89 - -0.28)	0.009
Dataset	SSPO vs. SSFH	1.29 (0.92 – 1.66)	<0.001

Table 9: Possible ‘consequences’ of teenage motherhood from the multivariate logistic regression model in the combined SSPO and SSFH datasets: ‘non-material’ variables

Outcome (n in model)	Explanatory Variable	Comparison	Log odds ratio of outcome	95% CI for log odds	z, P
Depression in the last few weeks (n=1174)	Last year	Rather or very difficult vs. easy	1.03	0.72 – 1.35	z=6.42, P<0.001
	Teenage motherhood	Teenage mother vs. not a teenage mother	0.52	0.17 – 0.88	z=2.90, P=0.004
	Lone parent at baseline	Lone parent vs. not lone parent	0.45	0.57 – 0.79	z=2.26, P=0.024
	Dataset	SSPO vs. SSFH	-0.67	-1.04 - -0.29	z=-3.51, P<0.001
Smoker at baseline (n=1193)	Teenage motherhood	Teenage mother vs. not a teenage mother	0.93	0.64 – 1.23	z=6.20, P<0.001
	Lone parent at baseline	Lone parent vs. not lone parent	0.82	0.48 – 1.17	z=4.68, P<0.001
	Dataset	SSPO vs. SSFH	0.89	0.61 – 1.16	z=6.32, P<0.001

Table 10: Possible ‘consequences’ of teenage motherhood from the multivariate logistic regression model in the combined SSPO and SSFH datasets: ‘material’ variables

Outcome (n in model)	Explanatory Variable	Comparison	Log odds ratio of outcome	95% CI for log odds	z, P
Poverty at baseline (n=1112)	Lone parent at baseline	Lone parent vs. not lone parent (for non-teenage parents)	2.13	1.63 - 2.63	z=8.43, P<0.001
	Teenage motherhood	Teenage mother vs. not a teenage mother (for non-lone parents)	1.31	0.94 - 1.68	z=6.96, P<0.001
	Lone parent *teenage mother	Additional effect of being a lone mother in the teenage mother category	-1.09	-2.08 - -0.10	z=-2.16, P=0.031
	Smoker at baseline	Current smoker vs. non-current smoker	0.32	0.01 - 0.62	z=2.06, P=0.039
	Age at leaving school	Under 16 vs. 16 or over	0.56	-0.17 – 0.95	z=2.81, P=0.005
	Dataset	SSPO vs. SSFH	-0.79	-1.09 - -0.49	z=-5.11, P<0.001
Leaving school before 16 (n=1113)	Teenage motherhood	Teenage mother vs. not a teenage mother (for the non-poor)	1.51	0.92 – 2.10	z=5.00, P<0.001
	Being poor	Not being poor vs. being poor (for non-teenagers)	0.97	0.53 – 1.42	z=4.26, P<0.001
	Poverty * teenage mother	Additional effect of being poor in teenage mothers	-1.03	-1.79 - -0.27	z=-2.66, P=0.008
	Dataset	SSPO vs. SSFH	1.02	0.66 - 1.39	z=5.46, P<0.001
Smoker at baseline (n=1117)	Teenage motherhood	Teenage mother vs. not a teenage mother	0.87	0.55 – 1.19	z=5.39, P<0.001
	Lone parent at baseline	Lone parent vs. not lone parent	0.82	0.44 – 1.20	z=4.21, P<0.001
	Being poor	Not being poor vs. being poor	0.36	0.07 - 0.66	z=2.40, P=0.017
	Dataset	SSPO vs. SSFH	1.02	0.72 – 1.31	z=6.73, P<0.001

Table 11: Possible ‘consequences’ of teenage motherhood from the multivariate logistic regression model in the combined SSPO and SSFH datasets: 1-year follow-up

Outcome (n in model)	Explanatory Variable	Comparison	Log odds of outcome	95% CI for log odds	z, P
Lone parent (n=990)	Teenage motherhood	Teenage mother vs. not a teenage mother	0.96	0.56 – 1.37	z=4.70, P<0.001
	Depressed in the last few weeks	Depressed vs. cheerful	0.40	0.043 – 0.76	z=2.20, P=0.028
	Dataset	SSPO vs. SSFH	-1.91	-2.45 - -1.37	z=-6.91, P<0.001

2.3 Tables from new data: TPSE dataset

Table 12: Univariate analysis of TPSE dataset (2003) by teenage *motherhood* status. Numbers are n (column percent) unless stated otherwise

	Non teenage mother	Previous teenage mother	χ^2 or Z, P
Background			
Woman's current age (<i>at time of TPSE questionnaire</i>) (years) mean, sd (n) (<i>missing=3</i>)	38, 6.9 (395)	31, 8.0 (61)	t=6.01, P<0.001
Woman's age at birth of eldest child (years) mean, sd (n) (<i>missing=11</i>)	28, 5.3 (388)	18, 1.2 (60)	t=31.2, P<0.001
Age of the father at birth of eldest child (years) mean, sd (n) (<i>missing=23</i>)	31, 13.5 (379)	23, 5.0 (57)	z=8.68, P<0.001
Current age of eldest child (years) median, IQR (n) (<i>missing=0</i>)	6, 4-16 (396)	10.5, 4-19 (62)	t=-2.96, P=.004
Woman has more than 3 children (<i>missing=0</i>)	36 (9.1)	16 (25.8)	$\chi^2_1=14.95$, P<0.001
Ethnicity – Black or minority ethnic (<i>missing=1</i>)	93 (23.5)	23 (37.1)	$\chi^2_1=5.20$, P=0.022
English not first language (<i>missing=0</i>)	86 (21.7)	16 (25.8)	$\chi^2_1=0.53$, P=0.47
First pregnancy * (see table 13 for comparison of first pregnant as teenager vs. first pregnant older)			
Age when became pregnant for the first time (<i>regardless of pregnancy outcome</i>) (<i>missing=11</i>)	26, 5.5 (396)	18, 1.4 (62)	t=26.0, P<0.001
Unhappy about first pregnancy (<i>missing=6</i>)	43 (11.0)	5 (8.2)	$\chi^2_1=0.44$, P=0.51
First pregnancy unplanned (<i>missing=11</i>)	206 (53.0)	52 (88.1)	$\chi^2_1=25.96$, P<0.001
First pregnancy ended in termination (<i>missing=5</i>)	47 (12.0)	2 (3.3)	$\chi^2_2=7.55$, P=0.023
First pregnancy ended in miscarriage/stillbirth (<i>missing=5</i>)	46 (11.7)	3 (4.9)	
Life during pregnancy and in the year after giving birth to eldest child			
Not living with the father of eldest child while pregnant (<i>missing=0</i>)	83 (21.0)	38 (61.3)	$\chi^2_1=45.05$, P<0.001
Social housing in pregnancy (<i>missing=15</i>)	135 (35.2)	43 (71.7)	$\chi^2_1=28.80$, P<0.001
No practical support during pregnancy but needed it Had some practical support, needed more (<i>missing=11</i>)	21 (5.4) 74 (19.1)	4 (6.8) 15 (25.4)	P=0.36 (Fisher's test)
No emotional support during pregnancy but needed it Had some emotional support, needed more (<i>missing=15</i>)	26 (6.8) 74 (19.2)	8 (14.04) 22 (38.6)	$\chi^2_2=17.0$, P<0.001
Being pregnant/becoming a mother had bad effects on education, training, work (<i>missing=35</i>)	151 (41.4)	31 (53.5)	$\chi^2_1=2.98$, P=0.08
Social housing = main housing in year after birth of eldest child (<i>missing=14</i>)	157 (40.6)	48 (82.8)	$\chi^2_1=36.13$, P<0.001
Living with relatives /friends in year after birth of eldest child (<i>missing=18</i>)	31 (8.1)	15 (26.3)	$\chi^2_1=17.6$, P<0.001
Moved more than once in year after birth of eldest child (<i>missing=220</i>)	26 (13.4)	8 (17.8)	$\chi^2_1=0.57$, P=0.45
Did not live with father of eldest child in the first year (<i>missing=14</i>)	59 (15.3)	24 (40.7)	$\chi^2_1=21.74$, P<0.001
Lone parent during first year (<i>missing=10</i>)	76 (19.5)	24 (40.0)	$\chi^2_1=12.57$, P<0.001
No practical support in year after birth but needed it Had some practical support, needed more (<i>missing=12</i>)	30 (7.7) 106 (27.3)	5 (8.5) 16 (27.1)	$\chi^2_2=0.039$, P=0.98
No emotional support in year after birth but needed it Had some emotional support, needed more (<i>missing=21</i>)	37 (9.7) 107 (28.1)	9 (15.8) 19 (33.3)	$\chi^2_2=0.327$, P=0.20
Not happy if any of own children became a parent for first time at age respondent became one (<i>missing=14</i>)	26 (6.7)	24 (40.7)	$\chi^2_1=59.11$, P<0.001

	Non teenage mother	Previous teenage mother	χ^2 or Z, P
Childcare for eldest child			
Eldest child regularly looked after by someone else when aged <5 years (<i>missing=46</i>)	200 (55.3)	23 (45.1)	$\chi^2_1=1.85$, P=0.17
Unhappy about childcare arrangements (<i>missing=216</i>)	14 (6.5)	0 (0)	$\chi^2_1=1.78$, P=0.18
Very/fairly difficult finding childcare for eldest child (<i>missing=182</i>)	123 (49.4)	14 (50.0)	$\chi^2_1=0.004$, P=0.95
Current maternal outcomes			
Poor/not very good physical health (<i>missing=7</i>)	39 (10.0)	12 (20.0)	$\chi^2_1=5.2$, P=0.022
Last year very difficult/rather difficult (<i>missing=24</i>)	160 (42.8)	26 (42.6)	$\chi^2_1=0.001$, P=0.98
Not coped well with life over last year (<i>missing=6</i>)	28 (7.2)	5 (8.1)	$\chi^2_1=0.065$, P=0.80
Most/fairly unsatisfied with life (<i>missing=10</i>)	46 (11.9)	7 (11.5)	$\chi^2_1=0.007$, P=0.93
Has a disability (<i>missing=6</i>)	23 (5.9)	4 (6.6)	$\chi^2_1=0.045$, P=0.83
Inadequate practical support in the past year (<i>missing=9</i>)	141 (36.2)	23 (38.3)	$\chi^2_1=0.107$, P=0.74
Inadequate emotional support in the past year (<i>missing=14</i>)	144 (37.2)	19 (32.8)	$\chi^2_1=0.43$, P=0.51
Would have liked more support (either practical or emotional) in the past year (<i>missing=5</i>)	188 (47.7)	29 (48.3)	$\chi^2_1=0.008$, P=0.93
Partner helps 'rarely'/'never' with household tasks (<i>missing=87</i>)	53 (16.4)	16 (32.7)	$\chi^2_1=7.43$, P=0.006
Had children with ex-partner (no longer together) (<i>missing=20</i>)	71 (18.7)	27 (45.8)	$\chi^2_1=21.59$, P<0.001
No support from ex partner/s (father of child/ren) (<i>missing=362</i>)	37 (50.7)	16 (69.6)	$\chi^2_1=2.52$, P=0.11
Depressed/low spirited in last few weeks (<i>missing=8</i>)	106 (27.2)	17 (27.9)	$\chi^2_1=0.01$, P=0.91
Work/education – longer term maternal outcomes			
Currently studying/on training scheme (<i>missing=16</i>)	76 (19.9)	15 (24.6)	$\chi^2_1=0.71$, P=0.40
Years in full time work since birth of eldest child mean, sd (n)	5, 4.4 (138)	7, 6.5 (19)	t=-0.90, P=0.38
Years in part time work since birth of eldest child mean, sd (n)	6, 5.4 (168)	7, 3.7(17)	t=-0.51, P=0.61
Years in casual work since birth of eldest child	5, 5.9 (33)	3, 1.9 (6)	t=1.93, P=0.06
Proportion of time spent in full or part time work since birth of eldest child (<i>years spent in full or part time work divided by years since birth of eldest child</i>) mean proportion, IQR, n	0.4, 0.4 (337)	0.2, 0.3 (59)	t=3.8, P<0.001
Would like to have pursued more education/training since eldest child born (<i>missing=14</i>)	163 (42.5)	33 (54.1)	$\chi^2_1=2.90$, P=0.09
Was in paid work in the past month (<i>missing=98</i>)	215 (56.0)	16 (25.8)	$\chi^2_1=19.48$, P<0.001
Not working and unhappy about this (<i>missing=248</i>)	62 (37.4)	17 (37.8)	$\chi^2_1=0.003$, P=0.96
Currently doing unpaid work (<i>missing=68</i>)	51 (15.0)	5 (9.8)	$\chi^2_1=0.98$, P=0.32
Socio-economic status – current			
Living in social housing (<i>includes council, housing association, temporary accommodation</i>) (<i>missing=17</i>)	141 (37.1)	44 (72.1)	$\chi^2_1=26.65$, P<0.001
Living in other's accommodation (<i>vs. her own/ her partner's accommodation</i>) (<i>missing=21</i>)	15 (3.9)	2 (3.6)	$\chi^2_1=0.017$, P=0.90

	Non teenage mother	Previous teenage mother	χ^2 or Z, P
Satisfied with current housing arrangements (<i>missing=8</i>)	319 (82.0)	39 (62.9)	$\chi^2_1=11.84$, P=0.001
Has educational qualifications (<i>missing=19</i>)	332 (87.6)	43 (70.5)	$\chi^2_1=12.21$, P<0.001
Currently receiving means-tested benefits (<i>missing=0</i>)	143 (36.0)	46 (74.2)	$\chi^2_1=32.26$, P<0.001
Never or most of time felt not enough money to provide for children (<i>missing=9</i>)	52 (13.4)	19 (30.7)	$\chi^2_1=11.96$, P=0.001
Currently worries about money most of the time (<i>missing=9</i>)	72 (18.6)	16 (25.8)	$\chi^2_1=1.79$, P=0.18
Considers herself currently to be a lone parent (<i>missing=36</i>)	90 (24.7)	23 (39.7)	$\chi^2_1=5.75$, P=0.016
Respondent currently smokes (<i>missing=26</i>)	86 (23.0)	25 (42.4)	$\chi^2_1=10.04$, P=0.002
Others in household currently smoke (<i>missing=32</i>)	90 (24.4)	28 (48.3)	$\chi^2_1=14.3$, P<0.001
Eldest child – current outcomes			
Current age of eldest child (years) median, IQR (n) (<i>missing=0</i>)	6, 4-16 (396)	10.5, 4-19 (62)	z=-3.43, P<0.001
Father of the child not still husband/partner (<i>missing=6</i>)	79 (20.2)	23 (37.1)	$\chi^2_2=12.12$, P=0.002
Father of child never was husband/partner (<i>missing=6</i>)	15 (3.8)	5 (8.1)	
Health of child not good/mixed since birth (<i>missing=4</i>)	24 (6.1)	6 (9.7)	$\chi^2_1=1.10$, P=0.29
Borderline or abnormal behaviour score on Strengths and Difficulties scale ¹ (SSFH only -eldest child aged 4 - 16) (<i>missing=172</i>)	52 (20.2)	9 (30.0)	$\chi^2_1=1.53$, P=0.22
Seen psychiatrist, psychologist, counsellor, social worker in the past year (<i>missing=13</i>)	60 (15.6)	9 (14.5)	$\chi^2_1=0.05$, P=0.82
Eldest child under 5, n=212			
Has had injuries in last year for which got help from health worker (<i>missing=7</i>)	21 (11.2)	2 (11.8)	P>1.0 (Fisher's exact test)
Eldest child 12 and over, n=147			
Respondent has particular worries about eldest child now (<i>young children excluded</i>) (<i>missing=220</i>)	67 (34.4)	16 (36.4)	$\chi^2_1=0.063$, P=0.80
If eldest child is a girl – had pregnancy/s (<i>missing=73</i>)	6 (10.3)	3 (18.8)	
If eldest child is a girl - age at first pregnancy median, IQR (n) (<i>missing=138</i>)	20, 15-26 (7)	21, 17-25 (2)	
If eldest child is a boy – has fathered child/ren (<i>missing=81</i>)	1 (1.8)	0 (0)	
Eldest child 15 and over, n=126			
Eldest child has no educational qualifications (<i>missing=0</i>)	7 (6.7)	5 (22.7)	P=0.035 (Fisher's exact test)
Definite/severe difficulties with emotions, concentration, behaviour or ability to get on with others (SSPO only eldest child aged 16+) (<i>missing=22</i>)	12 (13.3)	1 (7.1)	P>1.0 (Fisher's exact test)

¹The Strengths and Difficulties Questionnaire is a brief behavioural screening questionnaire about 3 –16 year olds completed by parents or teachers. It has questions on emotions, conduct, attention, peer relationships and social behaviours. The composite score can give an indication of abnormal behaviour. (Goodman 1997, 1999)

Table 13. Univariate analysis of TPSE dataset (2003) by teenage pregnancy status. Numbers are n(column percent) unless stated otherwise

	First pregnancy ≥20 years	First pregnancy as a teenager	χ^2 or Z, P
Background			
Woman's current age (at time of TPSE questionnaire) (years) mean, sd (n) (missing=4)	38, 6.9 (359)	33, 8.0(96)	t=5.12, P<0.001
Age when became pregnant for the first time mean, sd (n) (missing= 1)	27, 5.0 (361)	17, 1.4 (97)	t=33.0, P<0.001
Woman's age at birth of eldest child ¹ (years) mean, sd (n) (missing=9)	29, 5.1 (354)	21, 4.6 (96)	t=14.6, P<0.001
Age of the father at birth of eldest child ¹ (years) mean, sd (n) (missing=23)	32, 13.9 (346)	25, 5.8 (90)	t=7.4, P<0.001
Current age of eldest child ¹ (years) median, IQR (n) (missing=1)	9, 6.9 (361)	13, 8.6 (97)	t=-3.6, P<0.001
Woman has more than 3 children (missing=1)	24 (6.7)	27 (27.8)	$\chi^2_1=34.68$, P<0.001
Ethnicity – Black or minority ethnic (missing=2)	84 (23.3)	31 (32.0)	$\chi^2_1=3.02$, P=0.082
English not first language (missing=1)	82 (22.7)	19 (19.6)	$\chi^2_1=0.43$, P=0.510
First pregnancy			
Happy about first pregnancy (missing=6)Change to happy – to match text)	250 (70.0)	31 (32.6)	$\chi^2_1=44.8$, P<0.001
First pregnancy unplanned (missing=11)	176 (49.7)	82 (88.2)	$\chi^2_1=44.62$, P<0.001
First pregnancy ended in termination (missing=5)	31 (8.7)	18 (19.0)	$\chi^2_2=10.12$, P=0.006
First pregnancy ended in miscarriage/stillbirth (missing=5)	36 (10.1)	13 (13.7)	

Table 14: Results from a multivariate logistic regression model identifying possible 'causes' of teenage motherhood identified from TPSE data (n=448)

Variable	Comparison	Log odds ratio	95% CI for log odds	z, P
Living with the father during pregnancy	Living with the father vs. not living with the father	-1.38	-1.99 - -0.77	z=-4.45, P<0.001
Pregnancy planned	Pregnancy was unplanned vs. planned	1.40	0.54 - 2.25	z=3.21, P=0.001

Table 15: Results from a multivariate logistic regression model examining possible ‘consequences’ of teenage motherhood identified in TPSE data: health-related outcomes

Outcome (<i>n in model</i>)	Explanatory Variable	Comparison	Log odds ratio of outcome	95% CI for log odds ratio	z, P
First pregnancy ended in stillbirth, miscarriage or termination (<i>n=453</i>)	Teenage mother	Being a teenage mother vs. not being a teenage mother	-1.12	-2.18 - -0.29	z=-2.56, P=0.01
Currently a smoker (<i>n=425</i>)	Others in the household smoke	Smokers vs. non-smokers	1.27	0.79 – 1.74	z=5.19, P<0.001
	Teenage mother	Teenage mother vs. non teenage mother	0.65	0.04 – 1.26	z=2.10, P=0.036
Others in the household smoke (<i>n=419</i>)	Respondent is a smoker	Smoker vs. non-smoker	1.34	0.85 – 1.83	z=5.41, P<0.001
	Teenage mother	Teenage mother vs. non teenage mother	0.78	0.17 – 1.39	z=2.50, P=0.012
	Current health	Poor health vs. not poor health	0.69	0.03 – 1.35	z=2.04, P=0.042

Table 16: Results from a multivariate logistic regression model examining possible ‘consequences’ of teenage motherhood identified in TPSE data: housing outcomes

Outcome (<i>n in model</i>)	Explanatory Variable	Comparison	Log odds ratio of outcome	95% CI for log odds	z, P
Living with the father during pregnancy (<i>n=443</i>)	Housing tenure during pregnancy	Owning or private renting if not a teenage mother	1.70	1.16 – 2.25	z=6.10, P<0.001
	Teenage motherhood	Being a teenage mother if not an owner or private renter	-1.05	-1.76 – -0.34	z=-2.91, P=0.004
	Tenure*teenage motherhood	Owning or private renting if a teenage mother	-1.30	-2.56 – -0.04	z=-2.02, P=0.04
Being an owner or private renter when pregnant (<i>n=443</i>)	Living with father during pregnancy	Living with the father during pregnancy if not a teenager mother	1.70	1.16 – 2.25	z=6.10, P<0.001
	Teenage motherhood	Being a teenage mother if not living with father during pregnancy	-0.36	-1.26 – 0.53	z=-0.8, P=0.43
	Living with father*teenage motherhood	Living with the father during pregnancy if a teenage mother	-1.30	-2.56 – -0.04	z=-2.02, P=0.04
Living with friends or relatives in the first year (<i>n=435</i>)	Living with father in the first year	Living with father in the first year if not a teenage mother	-2.37	-3.15 – -1.58	z=-5.9, P<0.001
	Teenage motherhood	Being a teenage mother if not living with father in the first year	0.31	-0.73 – 1.35	z=0.59, P=0.56
	Living with father*teenage motherhood	Living with father in the first year if a teenage mother	1.47	0.02 – 2.91	z=1.99, P=0.046

Table 17: Results from a multivariate logistic regression model examining possible ‘consequences’ of teenage motherhood identified in TPSE data: work and education outcomes

Outcome (<i>n in model</i>)	Explanatory Variable	Comparison	Log odds ratio of outcome	95% CI for log odds	z, P
Paid work in the last month (<i>n=360</i>)	Means-tested benefits	On benefits if not a teenage mother	-0.99	-1.51 – -0.47	z=-3.74, P<0.001
	Teenage motherhood	Teenage mother if not on benefits	0.35	-0.99 – 1.69	z=0.52, P=0.61
	Benefits*teenage mother	On benefits if a teenage mother	-2.01	-3.72 – -0.31	z=-2.32, P=0.02
	Qualifications	Any qualifications vs. none	0.74	0.15 – 1.32	z=2.48, P=0.013
Any qualifications at all (<i>n=458</i>)	Teenage mother	Being a teenage mother vs. not being a teenage mum	-0.85	-1.42 – -0.29	z=-2.96, P=0.003
Currently on benefits (<i>n=347</i>)	Paid work in the last month	Paid work if not a teenage mother	-1.03	-1.57 – -0.49	z=-3.76, P<0.001
	Teenage mother	Being a teenage mother if no recent work	1.98	0.68 – 3.27	z=2.99, P=0.003
	Paid work * teenage mother	Paid work if a teenage mother	-1.95	-3.69 – -0.21	z=-2.19, P=0.028
	School or university qualifications	Qualifications vs. no qualifications	-1.30	-2.03 – -0.56	z=-3.45, P=0.001
	Not enough money available	Feels not enough vs. feels enough money is available	1.29	0.56 – 2.02	z=3.46, P=0.001

Table 18: Results from a multivariate logistic regression model examining possible ‘consequences’ of teenage motherhood identified in TPSE data: perceptions of teenage pregnancy

Outcome (n in model)	Explanatory Variable	Comparison	Log odds ratio of outcome	95% CI for log odds ratio	z, P
Did not get enough emotional support in pregnancy (n=432)	Pregnancy unplanned	Unplanned vs. planned	1.14	0.65 – 1.63	z=4.58, P<0.001
	Teenage mother	Teenage mother vs. non-teenage mother	0.95	0.34 – 1.55	z=3.08, P=0.002
First pregnancy was unplanned (n=432)	Emotional support in pregnancy	Not enough vs. enough	1.14	0.65 – 1.63	z=4.58, P<0.001
	Teenage mother	Teenage mother vs. non-teenage mother	1.70	0.81 – 2.59	z=3.75, P<0.001
Unhappy if child became a parent at the same age (n=440)	Teenage mother	Teenage mother vs. non-teenage mother	2.04	1.35 – 2.72	z=5.84, P<0.001
	Still with child’s father	Yes vs. no	-1.40	-2.06 - -0.75	z=-4.21, P<0.001

Table 19: Results from a multivariate logistic regression model examining possible “consequences” of teenage motherhood identified in TPSE data. Group 5: selected variables across categories.

Outcome (n in model)	Explanatory Variable	Comparison	Log odds ratio of outcome	95% CI for log odds ratio	z, P
Did not get enough emotional support in pregnancy (n=434)	Teenage mother	Teenage mother vs. non-teenage mother	0.93	0.33 – 1.52	z=3.06, P=0.002
	Housing tenure during pregnancy	Owner or private renter vs. neither	-0.59	-1.03 - -0.15	z=-2.64, P=0.008
Being an owner or private renter during pregnancy (n=434)	Teenage mother	Teenage mother vs. non-teenage mother	-1.49	-2.13 - -0.85	z=-4.58, P<0.001
	Emotional support in pregnancy	Not enough vs. enough	-0.59	-1.03 - -0.15	z=-2.64, P=0.008
Currently on means-tested benefits (n=423)	Housing tenure during pregnancy	Owner or private renter vs. neither	-1.82	-2.30 - -1.34	z=-7.44, P<0.001
	Lone parent during 1 st year	Lone parent vs. not lone parent	0.87	0.31 – 1.43	z=3.04, P=0.002
	Teenage mother	Teenage mother vs. non-teenage mother	0.72	0.16 – 1.43	z=2.01, P=0.045
	Qualifications from school or university	Yes vs. no	-1.45	-2.14 - -0.76	z=-4.13, P<0.001
Qualifications from school or university (n=439)	Means-tested benefits	On benefits vs. not on benefits	-1.39	-2.00 - -0.79	z=-4.53, P<0.001
	Teenage mother	Teenage mother vs. non-teenage mother	-0.67	-1.33 - -0.001	z=-1.96, P=0.049

Table 20: Results of a multivariate logistic regression modelling the log odds of a good composite material outcome (TPSE data) n=407

Variable	Comparison	Odds ratio	95% CI for odds ratio	z, P
Teenage mother	Teenage mother vs. non-teenage mother	1.20	0.57 – 2.51	z=0.48, P=0.63
Housing tenure during pregnancy	Owner or private renter vs. neither	3.12	1.81 – 5.37	z=4.10, P<0.001
Poverty at baseline	Not being poor vs. being poor	3.93	2.25 – 6.87	z=4.81, P<0.001
Lone parent during 1 st year	Lone parent vs. not lone parent	0.19	0.09 – 0.40	z=-4.48, P<0.001
Age at leaving school	16 or over vs. under 16	4.84	2.18 – 10.76	z=3.88, P<0.001
Support in 1 st year	Enough vs. not enough	1.80	1.05 – 3.09	z=2.15, P=0.03

Table 21: Results of a multivariate logistic regression modelling the log odds of a good composite non-material outcome (TPSE data) n=414

Variable	Comparison	Odds ratio	95% CI for odds ratio	z, P
Teenage mother	Teenage mother vs. non-teenage mother	1.17	0.58 – 2.36	z=0.45, P=0.65
Housing tenure during pregnancy	Owner or private renter vs. neither	1.29	0.80 – 2.08	z=1.03, P=0.31
Depression in 1 st year	Depressed vs. not depressed	0.29	0.17 – 0.49	z=-4.67, P<0.001
Support in 1 st year	Enough vs. not enough	3.07	1.90 – 4.98	z=4.57, P<0.001
Previous year difficult in 1 st year	Rather/very difficult vs. easy	0.58	0.36 – 0.94	z=-2.21, P=0.027

Table 22: Within sub group of teenage mothers, descriptive factors influencing good or bad composite outcomes Figures are n (column percent) unless stated otherwise (TPSE data)

Variable	n	Poor outcome	Good outcome	Total	χ^2 , P or P ^a
Material outcomes					
Owner or private renter when pregnant	60	8 (22.9)	9 (36.0)	17 (28.3)	$\chi^2_1=1.24$, P=0.27
Born 1990 or later	62	23 (62.2)	14 (56.0)	37 (59.7)	$\chi^2_1=0.24$, P=0.63
Lone parent at 1 year	59	17 (50.0)	2 (8.0)	19 (32.2)	P=0.001 ^a
Not poor at baseline	56	6 (18.2)	12 (52.2)	18 (32.1)	P=0.010 ^a
Leaving school at 16 or over	62	28 (75.7)	21 (84.0)	49 (79.0)	P=0.53 ^a
Enough support in 1 st year	62	22 (59.5)	18 (72.0)	40 (64.5)	P=0.42 ^a
Happy about current relationship	48	16 (66.7)	20 (83.3)	36 (75.0)	P=0.32 ^a
Non-material outcomes					
Owner or private renter when pregnant	60	5 (26.3)	12 (29.3)	17 (28.3)	P>0.99 ^a
Born 1990 or later	62	12 (57.1)	25 (61.0)	37 (59.7)	$\chi^2_1=0.08$, P=0.77

Variable	n	Poor outcome	Good outcome	Total	χ^2 , P or P ^a
Lone parent at 1 year	59	8 (38.1)	11 (29.0)	19 (32.2)	$\chi^2_1=0.52$, P=0.47
Enough support in 1 st year	62	6 (28.6)	34 (82.9)	40 (64.5)	$\chi^2_1=17.92$, P<0.001
Poor health in 1 st year	58	9 (45.0)	6 (15.8)	15 (25.9)	P=0.026 ^a
Depressed in 1 st year	59	10 (47.6)	8 (21.1)	18 (30.5)	$\chi^2_1=4.50$ P=0.034
Difficult 1 st year	57	13 (65.0)	18 (48.7)	31 (54.4)	$\chi^2_1=1.40$ P=0.24
Happy about current relationship	48	6 (35.3)	30 (96.8)	36 (75.0)	P<0.001 ^a

^a Fisher's exact test

2.4 Tables from new data: supplementary questions for TPSE respondents

Table 23: Univariate analysis of respondents' answers about their lives at age 16 by teenage motherhood status. Figures are n(column percent)

	Non teenage mother	Previous teenage mother	χ^2 , P
Retrospective view of life when aged 16			
Had 'two parent family' at age 16	227 (81.7)	33(68.8)	$\chi^2_1=4.22$, P=0.04
Had 'one parent' family at age 16	51 (18.4)	15 (31.3)	
Family had enough money 'not always' or 'never' at age 16	61 (21.4)	19 (39.6)	$\chi^2_1=7.44$, P=0.006
Disliked school at age 16	73 (26.4)	18 (36.7)	$\chi^2_1=1.68$, P=0.20
More emotional problems at 16 than peers	75 (26.1)	17 (35.7)	$\chi^2_1=1.54$, P=0.21
Not able to speak to parents about personal matters	204 (72.3)	29 (63.0)	$\chi^2_1=1.66$, P=0.20
Desire for the future, when aged 16¹			
Wanted to finish school	131 (45.5)	27 (55.1)	$\chi^2_1=1.61$, P=0.21
Wanted to get a job	115 (39.9)	26 (53.1)	$\chi^2_1=2.84$, P=0.09
Wanted to get married	65 (22.6)	15 (30.6)	$\chi^2_1=1.53$, P=0.22
Wanted to have children	59 (20.5)	15 (30.6)	$\chi^2_1=2.55$, P=0.11
Wanted to travel	138 (47.9)	16 (32.7)	$\chi^2_1=3.85$, P=0.05
Wanted to move out of parents' home	87 (30.2)	22 (44.9)	$\chi^2_1=4.20$, P=0.04
Wanted to be trained for a specific career	92 (31.9)	20 (40.8)	$\chi^2_1=1.40$, P=0.24
Wanted to take A levels	117 (40.6)	9 (18.4)	$\chi^2_1=8.77$, P=0.003
Wanted to go to university	129 (44.8)	14 (28.6)	$\chi^2_1=4.43$, P=0.035
Wanted to spend time with friends	151 (52.4)	20 (40.8)	$\chi^2_1=2.33$ P=0.13
Childbearing age of the mothers of study participants			
Respondent's mother's age when she gave birth to her first child (years) median, IQR (n)	23, 20-26 (255)	20, 17-23 (43)	z=4.33, P<0.001 (Mann-Whitney test)
Mother's age when she gave birth to the respondent (years) median, IQR (n)	27, 23-32 (267)	25, 23-29 (45)	z=2.31, P=0.02 Mann-Whitney test)

¹In this section only the 'yes' answers are given; the denominators for the percentages refer to boxes which were not ticked so could be 'no' or missing.

Table 24: Univariate analysis of respondents' current aims by teenage *motherhood* status. Only the 'yes' answers are given; the denominators for the percentages refer to boxes which were not ticked so could be 'no' or missing. Figures are n(column percent)

Aim	Non teenage mother	Previous teenage mother	Total	z, P
To have a career/employment	57 (20.1)	14 (28.0)	71 (21.3)	$\chi^2_1=1.63, P=0.20$
To have further education or training	31 (10.9)	9 (18.0)	40 (12.0)	$\chi^2_1=2.05, P=0.15$
To stay at home full time	42 (14.8)	12 (24.0)	54 (16.2)	$\chi^2_1=2.70, P=0.10$
To achieve a good home/work balance	134 (47.2)	13 (26.0)	147 (44.0)	$\chi^2_1=7.63, P=0.006$
To be in good health	162 (57.0)	31 (62.0)	193 (57.8)	$\chi^2_1=0.40, P=0.53$
For my children to be in good health	230 (81.0)	42 (84.0)	272 (81.4)	$\chi^2_1=0.25, P=0.62$
To be happy	148 (52.1)	34 (68.0)	182 (54.5)	$\chi^2_1=4.24, P=0.04$
For my children to be happy	213 (75.0)	39 (78.0)	252 (75.5)	$\chi^2_1=0.20, P=0.66$
To have enough money	65 (22.9)	16 (32.0)	81 (24.3)	$\chi^2_1=1.96, P=0.16$
To live in a nice area	32 (11.3)	6 (12.0)	38 (11.4)	$\chi^2_1=0.03, P=0.87$
To be in a stable relationship	131 (46.1)	14 (28.0)	145 (43.4)	$\chi^2_1=5.59, P=0.02$
To be still living with the father of my children	48 (16.9)	5 (10.0)	53 (15.9)	$\chi^2_1=1.50, P=0.22$
Not to be a lone parent	9 (3.2)	3 (6.0)	12 (3.6)	$\chi^2_1=0.99, P=0.32$
To have close friendships	69 (24.3)	8 (16.0)	77 (23.1)	$\chi^2_1=1.62, P=0.20$
To have good family relationships	75 (26.4)	12 (24.0)	87 (26.1)	$\chi^2_1=0.16, P=0.69$
To have time to pursue my own interests	34 (12.0)	8 (16.0)	42 (12.6)	$\chi^2_1=0.64, P=0.42$
Other goals	13 (4.6)	1 (2.0)	14 (4.2)	$\chi^2_1=0.67, P=0.41$

Table 25: Univariate analysis of respondents' answers about their lives at age 16 by teenage pregnancy status Figures are n(column percent)

	First pregnancy ≥ 20 years	First pregnancy as a teenager	χ^2 , P
Retrospective view of life when aged 16			
Had 'two parent family' at age 16	207 (82.5)	53 (71.6)	$\chi^2_1=4.20$, P=0.04
Had 'one parent' family at age 16	44 (17.5)	21 (28.4)	
Family had enough money 'not always' or 'never' at age 16	55 (21.3)	25 (33.8)	$\chi^2_1=4.89$, P=0.027
Disliked school at age 16	69 (26.5)	32 (42.1)	$\chi^2_1=6.78$, P=0.009
More emotional problems at 16 than peers	62 (24.0)	29 (37.7)	$\chi^2_1=5.57$, P=0.018
Not able to speak to parents about personal matters	180 (70.9)	51 (69.9)	$\chi^2_1=0.03$, P=0.87
Desire for the future, when aged 16			
Wanted to finish school	114 (44.0)	44 (57.1)	$\chi^2_1=4.11$, P=0.043
Wanted to get a job	100 (38.6)	41 (53.3)	$\chi^2_1=5.22$, P=0.022
Wanted to get married	51 (19.7)	28 (36.36)	$\chi^2_1=9.17$, P=0.002
Wanted to have children	47 (18.2)	26 (33.8)	$\chi^2_1=8.52$, P=0.004
Wanted to travel	259 (49.8)	25 (32.5)	$\chi^2_1=7.19$, P=0.007
Wanted to move out of parents' home	75 (29.0)	34 (44.2)	$\chi^2_1=6.26$, P=0.012
Wanted to be trained for a specific career	83 (32.1)	30 (39.0)	$\chi^2_1=1.27$, P=0.26
Wanted to take A levels	111 (42.9)	15 (19.5)	$\chi^2_1=13.84$, P<0.001
Wanted to go to university	124 (47.9)	19 (24.7)	$\chi^2_1=13.07$, P<0.001
Wanted to spend time with friends	135 (52.1)	37 (48.1)	$\chi^2_1=0.39$, P=0.53

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