THE UNIVERSITY OF HULL

Repeat Pregnancies in Teenage Mothers

being a Thesis submitted for the degree of Doctor of Clinical Psychology

by

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Overview

This portfolio thesis comprises three main parts. Part one presents a paper entitled, 'Factors associated with repeat pregnancies in teenage mothers: A systematic review of the literature', written up for publication in the Journal of Adolescent Health. A comprehensive search using Academic Search Elite, Cinahl, PsycINFO and Medline was conducted. Inclusion and exclusion criteria were then used to refine the studies to be reviewed. The methodology checklists used by the National Institute of Health and Clinical Excellence (NICE, 2007) when reviewing research were utilized to assess the quality of the studies. A total of 17 studies reporting factors associated with repeat pregnancies in teenage mothers were reviewed. The findings were presented using Social Ecological Theory (Bronfenbrenner, 1979) to provide a framework to organise these. The factors most frequently cited were age, prior poor obstetric outcome, contraception, marriage or being in a 'stable relationship' and school, though some findings were conflicting. The reviewed literature was varied in terms of its purpose, methodology and findings. This review highlighted the current scarcity of research into repeat pregnancies in teenage mothers. As well as underlining the current lack of clarity regarding factors associated with repeat pregnancies in this population, this review emphasized the need for further research.

Part two presents an empirical paper based on the research project that I designed and carried out. This, titled, 'The experience of second pregnancies in teenage mothers: An exploratory study', was written up for publication in the Journal of Reproductive and Infant

Psychology. The purpose of this study was to explore the experiences of pregnant teenage mothers who were expecting their second child. Six pregnant teenage mothers were interviewed and asked to complete a number of questionnaires. Interpretative phenomenological analysis (IPA) of the interview transcripts demonstrated the following four super-ordinate themes; *'Being a good mum'*, *'It's not easy but it's a case of having to cope'*, *'Perceptions and misjudgements'*, and, *'Building my life'*. A number of theories are presented that may help us understand the experience of second pregnancies in teenage mothers. It is hoped that the findings of this study will help us to begin to understand more about the experiences of this population from their perspective and facilitate professionals to be in a better position to provide teenage mothers and their children with appropriate support. Further research needs to be completed in order to gain a deeper understanding of the issues pertinent to pregnant teenage mothers and encourage them to tell us how we can best support them.

Part three comprises the appendixes, which present further documentation that was important to the research. This includes the authors' guidelines for the journals the papers were written for and documents used in carrying out the research, along with details of data collected and a reflective diary.

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PART ONE: SYSTEMATIC LITERATURE REVIEW

(This paper is written in the format ready for submission to the Journal of Adolescent Health. Please see Appendix 1 for the Authors' Guidelines)

Review article

Factors associated with repeat pregnancies in teenage mothers: A systematic review of the literature

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Abstract This systematic review provides a discussion of the factors associated with repeat pregnancies in teenage mothers. Age, prior poor obstetric outcome, contraception, marriage/stable relationship and school were the most frequently cited factors in the literature, although there were some conflicting findings between studies. The need for further research is emphasised.

Keywords: Repeat pregnancies; Teenage mothers; Teenage pregnancy; Factors; Systematic literature review

Introduction

Teenage pregnancy has received much public attention over the last few decades, with the phenomenon widely being viewed as a societal 'problem' in the developed world. This attention has been emphasized because of the effects teenage pregnancy has on the health system and society more broadly [1-3]. It has also caused concern due to the adverse outcomes for both teenage mothers and their children [4-7].

The UK holds the highest birth rate to teenagers in Europe [8]. The government and health organisations have made a number of efforts to reduce the rate of teenage pregnancy and support teenage parents [2]. However, a number of teenage mothers have been shown to go on to the have a second pregnancy within 24 months of the resolution of the first, which has been commonly referred to in the literature as rapid repeat pregnancy (RRP) [9-10]. Figures show that around 20% of the births conceived to women under that age of 18 are to teenagers who are already mothers [11-12].

Second pregnancy has been described to multiply the adverse effects associated with teenage pregnancy [13-15]. Smith and Pell [16] found that teenage mothers who go on to have a second baby have an almost threefold risk of preterm delivery and stillbirths when compared to second births to older women. Additionally, research by Akinbami, Schoendorf and Keily [17] suggests that with each additional birth to teenagers comes an increased likelihood of inadequate prenatal care, premature birth, low birth weight, school discontinuation, unemployment and welfare dependence. However, a review by Klerman [18] presented contradictory evidence both in favour of and in opposition to poorer pregnancy outcomes in second births in teenagers.

So which factors are associated with repeat pregnancies in teenage mothers? Nelson [19] conducted a narrative review of the former research in an attempt to answer this question. This yielded four major variables associated with multiple pregnancies: inconsistent contraceptive practices, marital status, level of educational achievement, and weak parental relationships [19]. Furthermore, a paper by Rigsby et al. [10] reviewed risk factors for RRP among adolescents, which indicated that younger age, low socioeconomic status, low education of a teenager's mother or head of household, marriage, intended or desired first pregnancy and use of contraceptive method other than Norplant postpartum were significant predictors [10].

This paper presents a systematic review of the literature regarding factors associated with repeat pregnancies in teenage mothers. To the author's knowledge, no systematic literature review regarding this topic has been done before. It is hoped that this paper will provide an up-to-date comprehensive review of this literature. From initial examination, the associated research seems quite varied and it is hoped that this review will bring together the relevant studies in order to consider the collective literature regarding factors relating to repeat pregnancies in teenage mothers.

Method

A systematic review was conducted. Electronic databases were chosen in order to search a broad range of academic areas, including health, humanities, medicine, nursing, psychology and social sciences. Only peer-reviewed journals written in the English language were reviewed. The databases chosen were: Academic Search Elite, Cinahl,

Medline and PsycINFO. The Teenage Pregnancy Report [2] highlights that in the 1970s the UK teenage birth rates were similar to other European countries, yet during the 1980s and 1990s, whilst the teenage birth rates of other European countries fell, those of the UK remained high. For this reason, the database searches were limited to articles published from January 1980 onwards. Medline was additionally limited to human research only. The literature search was carried out on 6th March 2008. All four databases were used to search the literature, specifically searching the abstracts of papers for all possible combinations of keywords, presented in Table 1. A keyword from the first column combined with one from the second column and one from the third column. Keywords were connected with the Boolean operator 'AND'. Truncation was applied to some of the keywords, reducing them to the stem of the word, followed by * in order to search the literature for all words beginning with that stem.

Table 1. Keywords used in searching the electronic databases.

Keyword 1	**Keyword 2**	**Keyword 3**
Teen*	Pregnan*	Repeat
Adolescen*		Second
		Multip*
		Subsequent
		Gravida 2

Results

Study Selection Strategy

Initially, 2006 papers were identified when the four databases were searched; 301 from Academic Search Elite, 303 from Cinahl, 1054 from Medline and 348 from PsycINFO. This was reduced to 980 papers when duplicates (from searches of different databases or using a different combination of search terms) were removed. To begin with, all retrieved papers were examined on the basis of their title alone to determine whether they were related to teenage pregnancy, which allowed for the exclusion of those that were clearly irrelevant.

Following this, there were 292 studies remaining, which were then examined on the basis of their title and abstract. A further 234 studies were excluded for the following reasons, Not studying human participants (n=3), not being primary research (n=38), not being textual items (n=1), studies not about teenagers who had already carried at least one child to term, hence were mothers, and specifically studying repeat pregnancies in teenage mothers (n=192). There seemed to be some confusion about the precise use of the terms parity and gravida in the literature. Hence, in this review, the following were used. 'Parity is defined as the number of times that [a woman] has given birth to a fetus with a gestational age of 24 weeks or more, regardless of whether the child was born alive or was stillborn' (p.75) [20]. 'Gravida is defined as the number of times that a woman has been pregnant' (p.75) [20]. A further 33 studies were excluded due to them not specifically reporting factors associated with repeat pregnancy in teenage mothers, including predictors

and/or risk factors. Additionally, some studies discussed factors related to repeat births rather than pregnancies but these were included because a birth inevitably follows a pregnancy.

A total of 25 papers remained, the full printed articles of which were retrieved. In reading these articles, one further paper was found not to be primary research, whilst another was a synopsis rather than a full article and for these reasons, these were then excluded.

It also became apparent that the vast majority of the research papers retrieved had been conducted in the USA with only a small number of papers conducted outside of the USA being identified. These included studies performed in Jamaica [21], Kenya [22] and Mexico [23], an overview of which can be seen in Table 2. Atkin & Alatorre-Rico [23] found that living in a consensual union was associated with repeat pregnancy and similarly, Taffa et al. [22] showed that being married was associated with repeat adolescent pregnancies. Whilst Drayton et al. [21] found that not using birth control at last intercourse was associated with repeat pregnancy, Atkin & Alatorre-Rico [23] showed that it was the contraceptive method used postpartum. In briefly considering these papers, a number of important issues were raised concerning potential cultural and societal issues; infant mortality, polygamy, prevalence of malaria/anaemia/HIV/AIDS, sex education in school, access to reproductive health services, the mothering role, decision-making and power dynamics of adolescents' sexual encounters. For the purposes of this review, a decision was made to exclude studies not conducted in the USA due to the existence of possible

confounding cultural and societal factors in relation to the matter of repeat pregnancies in teenage mothers that may make these studies incomparable (n=3).

Table 2. Summary of studies conducted outside of the USA.

Author	Country	Summary	Factors associated with 2nd/repeat pregnancy/birth
Atkin & Alatorre-Rico (1992)	Mexico	Cohort study; From a larger longitudinal study; Single <18 years at 1st pregnancy (n=172 at enrolment; n=137 at follow-up); Interviews based on structured questionnaires developed for this study administered twice during 3rd trimester & at 5,12,18 and 24 months	Repeat pregnancy by 24 months postpartum: Living in consensual union; Not studying (homemaker or paid worker); Contraceptive method used postpartum; Adolescent's school aspirations prior to pregnancy; Adolescent's mother had been an adolescent mother
Drayton et al. (2002)	Jamaica	Cohort study; Primiparous 15-21 year old mothers; 1st live birth in 1994 when ≤16 years (n=650 in original study cohort through random sample of birth records; n=266 were located and contacted; final sample of n=260); Interviewed in 1998 (4 year follow-up)	Repeat pregnancy by 4 years postpartum: Weaker perceived severity (of the impact of one or more repeat pregnancies); Weaker perceived benefits (of taking action to avoid the occurrence of one or more repeat pregnancies); Weaker self efficacy (the likelihood that one has the skills to avoid the occurrence of one or more repeat pregnancies); Stronger perceived susceptibility (to experiencing one or more repeat pregnancies); Stronger perceived barriers (to taking action that can prevent the occurrence of one or more repeat pregnancies); Non-participation in WCJF program; Mother not main wage earner of household at time of survey and 1st live birth; Not using birth control at last intercourse
Taffa et al. (2003)	Kenya	Cross-sectional survey; Part of a larger project funded by the World Health Organisation; Adolescent girls aged 12-19 years (n=1349 identified; n=1247 participated); In-depth and structured interview questionnaire	Repeat pregnancy before 20 years of age: Being married

There was a general difficulty in defining this population. Unlike others, where one word can be used to clearly indicate the population being investigated, teenage mothers experiencing repeat pregnancies were a difficult group to define. This affected the sensitivity of the search strategy, because in order to identify relevant studies the search was made as wide as possible and then the specificity was achieved through the inclusion criteria applied later [24].

A total of 20 papers were identified that met all inclusion criteria for this systematic review. The full search and study selection strategy is presented in Figure 1.

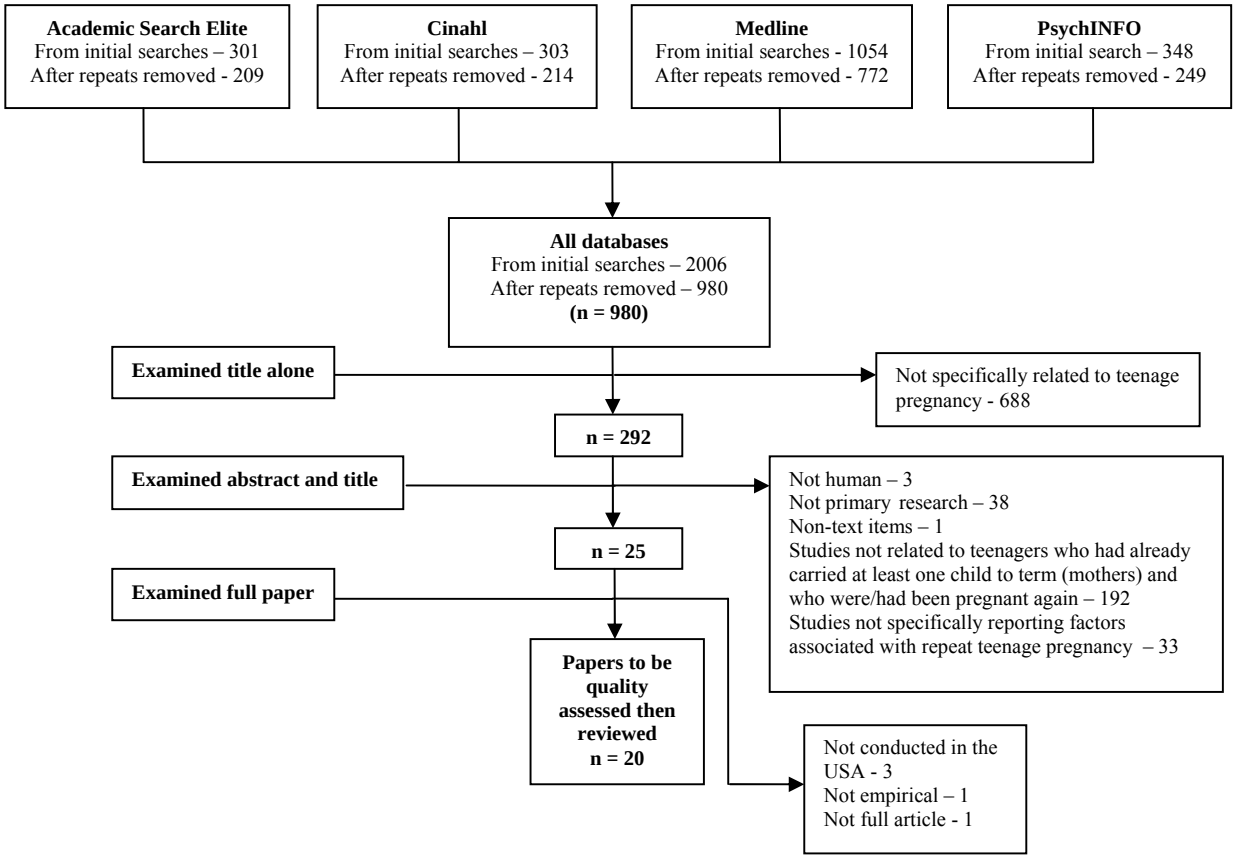

Figure 1. Flow chart of full search and study selection strategy.

Quality Assessment

The quality of each of the studies meeting all of the inclusion criteria for the systematic review was assessed by means of the methodology checklists used by the National Institute for Health and Clinical Excellence (NICE) when reviewing research. A number of these checklists were used in assessing the quality of the studies included in this

review. These included methodology checklists for case-control, cohort and qualitative studies as well as randomized controlled trials. In papers that specifically reported their study design, this defined the checklist that was used. In papers that did not specifically report the study design, the principal reviewer examined the study and then decided on the methodology checklist that was most appropriate to the study design. A number of studies included in the review were cross-sectional surveys, for which no specific NICE methodology checklist was available. The principal reviewer decided that for these papers it was most appropriate to use the NICE methodology checklist for cohort studies [24], due to both cohort studies and cross-sectional surveys being observational and unlike case-control studies, not usually being retrospective in nature. Furthermore, the methodology checklist for cohort studies looked like the best fit for cross-sectional surveys and although this meant that the checklist used was not specifically designed to assess the quality of cross-sectional surveys, it was deemed that this would allow for some measure of the quality of these studies that was somewhat comparable to that used for the other studies under review. All of the methodology checklists aimed to establish the internal validity of the studies, checking that they had been carried out carefully and that the outcomes were likely to be attributable to the variables being claimed. The methodology checklists allowed for an overall rating to be awarded to each study; '++' indicating all or most of the criteria had been fulfilled, '+' indicating some of the criteria had been fulfilled, and '-' indicating that few or no criteria had been fulfilled [24].

Table 3. Summary of studies excluded following quality assessment.

Author	Summary	Factors associated with 2nd/repeat pregnancy/birth	Reason(s) for exclusion
Sims & Luster (2002)	Randomized controlled trial; Pregnant teenagers expecting their 1st child; Randomly allocated to either the home visited group (n=72 at enrolment; n=48 at 24 months postpartum) or the standard program (n=70 at enrolment; n=51 at 24 months postpartum); Interviews and questionnaires completed at enrolment, 6 and 24 months postpartum.	2nd pregnancy by 24 months postpartum: Viewed by advocate as poor problem solvers; lower in self-esteem; less likely to complete high school and viewed as having less support from their mothers; More likely to have been retained in school grade; Mothers with lower levels of education; Younger age in Caucasian subsample; More external in their locus of control orientation and younger; Lower levels of self esteem (approached significance). 2nd births by 24 months postpartum: Viewed themselves as having less control over events in their lives	States that participants were randomly assigned to one of 2 treatment groups but no information on randomisation process given; No mention about why participants dropped out; Advocates' ratings were only provided if the advocatre felt they had enough information to do this and no information was given on the number of cases this was provided for in each group
Stevens-Simon et al. (1997)	Randomized controlled trial; Primiparous; Under 18s; Infants were <5 months; Randomized to four interventions: 1) monetary incentive and peer-support group (n=107 at enrolment; n=97 at 24 months postpartum), 2) peer-support group (n=24 at enrolment; n=23 at 24 months postpartum), 3) monetary incentive group (n=101 at enrolment; n=84 at 24 months postpartum) and, 4) no intervention group (n=54 at enrolment; n=44 at 24 months postpartum); Multiple choice questionnaires at enrolment, 6, 12, 18 and 24 months postpartum; Urine pregnancy tests	Subsequent conception by 24 months postpartum: Racial or ethnic minority; School dropout; Lower educational attainment; Older boyfriend; >5 psycho-social risk factors (young maternal age, school failure, school dropout, no plans to return to school, no future career plans, large family, not living with parents, married, poor social support, no plans for day care, depression, new boyfriend, older boyfriend)	Participants told they would be randomly assigned to one of 4 group; Set up like a competition with the group having the most nonpregnant members by the end of 2 years winning a prize; Participation was so low that one of the groups was terminated and randomization was discontinued; Number and characteristics of eligible subjects who declined to participate were not reported; Interviewer was aware of group assignment; Even though in most groups the majority of participants received none of the intervention, intention-to-treat design was employed and analysis was completed
Stevens-Simon et al. (1986)	Cohort study; 29 young mothers; Followed up for 6-24 months.	2nd pregnancy by 24 months postpartum: Married	Small number of participants; Only 48 % (n=14) of participants followed up to 24 months postpartum; Comparison between full participants and those lost to follow up not reported; Predominantly summary statistics

Studies Excluded based on Quality Assessment

Studies that received a negative quality rating ('-' rating) on the NICE methodology checklist were excluded from the full review [24], a summary of which are presented in Table 3. Despite receiving low quality assessment ratings, these studies presented some interesting findings. Whilst Stevens-Simon, Parsons and Montgomery [25] found that being

married was associated with second pregnancies, Stevens-Simon, Dolgan, Kelly et al. [26] reported having >5 psycho-social risk factors, which included being married with an increased likelihood of subsequent conception. Stevens-Simon et al. [26] also noted school dropout to be associated with subsequent conception whilst along similar lines, the study by Sims and Luster [27] reported being viewed as less likely to complete high school by an advocate to be associated with second pregnancy. However, amongst these three studies, this was where the similarities ended.

Included Studies

Only studies that received a positive quality rating ('++'/'+') were fully reviewed [24]. This left a total of 17 studies, 15 of which were quantitative in nature, with just one qualitative study. Of the remaining quantitative studies, eight were case-control studies, six were cohort studies and two were cross-sectional surveys. Data extraction of the included studies was conducted by the principal reviewer. The main characteristics of all the studies included in this review are presented in alphabetical order in Table 4.

The findings of the studies included in this review suggest a number of different factors that were found to be associated with repeat pregnancies in teenage mothers. As in some other studies of factors related to teenage pregnancy or repeat pregnancy [28-30], the findings are presented using Social Ecological Theory [31] to provide a framework to organize them. This theory emphasizes that development and behaviour are influenced by a range of factors from those close to the individual to more peripheral ones [30]. It allows for a comprehensive examination of an issue by exploring the individual, dyad, family,

Table 4. Summary of characteristics of included studies.

Authors	Design	Aims	Participants	Factors associated with 2nd/repeat pregnancy/birth
Boardman et al. (2006)	Quantitative; Case-control study	To access both established and hypothetical risk factors in the context of the intendedness of the repeat pregnancy	Total n=1117; Adolescents and women ≤ 30 years interviewed ≥24 months since resolution of 1st pregnancy; ≥1 pregnancy ≤19 years; 1st pregnancies ended in miscarriage, elective abortion, preterm/term stillbirth or preterm/term live birth Intended RRP group: n=180; 6% 15-19 years, 37% 20-24 years, 57% 25-30 years; 44% Non-Hispanic White, 21% Non-Hispanic Black, 27% Hispanic, 8% Non-Hispanic other Unintended RRP group: n=354; 7% 15-19 years, 35% 20-24 years, 58% 25-30 years; 47% Non-Hispanic White, 26% Non-Hispanic Black, 23% Hispanic, 4% Non-Hispanic other Comparison group (pregnancy but not RRP as adolescent): n=583; 11% 15-19 years, 35% 20-24 years, 54% 25-30 years; 50% Non-Hispanic White, 20% Non-Hispanic Black, 24% Hispanic, 6% Non-Hispanic other	Intended and unintended 2nd pregnancy by 24 months of resolution of 1st pregnancy: Not living in two parent household as a teen; Prior poor obstetrical outcome; Not Roman Catholic Intended 2nd pregnancy by 24 months of resolution of 1st pregnancy: Intended 1st pregnancy; Partner who desired an RRP; Not a household of no identified religious affiliation (other than Roman Catholic) Unintended 2nd pregnancy by 24 months of resolution of 1st pregnancy: Older age (>15 years) at 1st conception; Not married at 2nd conception; Partner did not intend RRP
Bull & Hogue (1998)	Qualitative; Content analysis on transcripts from focus groups	To explore factors associated with repeat childbearing among teens	Total n=64 Teenage mothers: n=40; 5 focus groups; 14-19 years; 34 with 1 child, 5 with 2 children, 1 with 3 children; 29 African American, 9 White, 2 Hispanic Guardians of teenage mothers: n=24; 4 focus groups of guardians of teenage mothers; 30-67 years; 18 African-American, 6 White; Only 1 male	Subsequent childbearing: Parents who exacerbate already problematic communication with their teens because of anger over childbearing leading to heightened feelings of alienation that exist between parents and daughter; Teen mothers who believe that completing their families is more attractive than finishing school/developing a vocation; If academic options are unattractive and they continue to fail academically; If pregnancy/parenting programs provide positive reinforcement Subsequent unintended pregnancy: Parents who assume their children already know about contraception
Coard et al. (2000)	Quantitative; Cohort study	To examine sociodemographic, family, and health factors associated with repeat pregnancy in a clinic sample of urban, 1st time adolescent mothers	Total n=80; 1st time adolescent mothers; 13-17 years; 92.5% African-American, 7.5% Caucasian 12 months postpartum: n=80 (Repeat pregnancy- n=14: 17.5%) 24 months postpartum: n=66 (Repeat pregnancy- n=23: 34.8%)	Repeat pregnancy by 12 months postpartum: Choosing oral contraceptives and condoms as postpartum contraceptive method (compared to long-acting contraception) Repeat pregnancy by 24 months postpartum: Choosing oral contraceptives and condoms as postpartum contraceptive method (compared to long-acting contraception); Inconsistent contraceptive use 1-16 weeks postpartum; Young maternal age at interview (1-16 weeks postpartum ≥16 years); ≥1 miscarriage
Covington et al. (1991)	Quantitative; Case-control study	1) To document the problem of RRP's among adolescents who deliver in a large community hospital in North Carolina; 2) To characterize those who have RRP's; 3) To describe an intervention program designed to reduce RRP's	Total n=237; 1st pregnancy resulted in live birth; 13-17 years; 50.2% White, 49.8% Nonwhite Repeat pregnancy by 24 months postpartum and before teenage mother reached 20 years: n=98 (41.4%)	Repeat pregnancy by 24 months postpartum and before teenage mother reached 20 years: Teens receiving prenatal care from a public obstetric clinic (compared to private adolescent patients); Teens married at 1st birth

Table 4. *Continued.*

Authors	Design	Aims	Participants	Factors associated with 2nd/repeat pregnancy/birth
Gray et al. (2006)	Quantitative; Cohort study	To identify ways to increase the impact of a well-known home-based intervention, the Nurse Family Partnership, has on conception rates among teenage mothers	Total n=111; Primiparas; 13-19 years; 25.2% White, 18% Black, 54.1% Hispanic, 2.7% Native American 6 months postpartum: n=108 (Repeat conception- n=9: 8.3%) 12 months postpartum: n=98 (Repeat conception- n=18: 18.4% 24 months postpartum: n=89 (Repeat conception- n=25: 28.1%)	Repeat conceptions: Less likely to report contraceptive use during the previous 6-12 months; Less likely to have formulated a prenatal contraception plan Repeat conception within 6 months postpartum: Less likely to be in school/graduates; Less likely to have taken steps to accomplish their goals Repeat conception within 7-12 months postpartum: Less likely to be in school/graduates and to have taken steps to accomplish their long-term goals; More likely to be married
Jones & Mondy (1994)	Quantitative; Case-control study	To describe the birth patterns over a 5 year period of 3 groups of adolescent mothers who had a 1st birth in 1984 - 1985 and who received various amounts of prenatal intervention for the index birth	Total n=216; 100% African-American (Overall repeat births: 2nd in 5 years- n=88: 41%; 3rd in 5 years- n=51: 24%; 4th in 5 years- n=19: 8%) Lifespan program: n=37; Mean age of 17.69 years (Repeat birth: 2nd in 5 years- n=16: 43%; 3rd in 5 years n=8: 22%) Special School program: n=71; Mean age of 16.56 years (Repeat birth: 2nd in 5 years- n=27: 38%; 3rd in 5 years- n=15: 21%; 4th in 5 years n=11: 16%) Comparison group: n=108; Mean age of 17.47 years (Repeat birth: 2nd in 5 years- n=45: 42%; 3rd in 5 years- n=28: 26%; 4th in 5 years- n=8: 7%)	Subsequent number of births in 5 years postpartum: Earlier age at 1st birth; Less likely to graduate
Linares et al. (1992)	Quantitative; Cohort study	To investigate predictors of repeat pregnancies by 12 months after the delivery of a first child and their outcomes in inner-city adolescent mothers and also assessed the relative contribution of these predictors	Total n=120 at recruitment (n=111 at 12 months postpartum: 92.5%); Primiparous adolescent mothers; Mean age of 17.13 years at birth of 1st child; 52% Black, 44% Puerto Rican Repeat pregnancy by 12 months postpartum: n=44: 39.6%) Therapeutic abortions group: n=17: 15.3% Miscarriages group: n=7: 6.3% Full-term deliveries group: n=20: 18.1% No repeat pregnancy group: n=67: 60.3%	Repeat pregnancy by 12 months postpartum: Delayed grade placement (difference between last grade competed and expected grade for age) Full-term delivery by 12 months postpartum: Lower educational attainment by teenage mothers mother; Lower reading achievement scores; Greater delay in grade placement; Less likely to be attending school at 6-7 months postpartum
Mims & Biordi (2001)	Quantitative; Cross-sectional survey	Is there a difference between African-American adolescents' perception of their communication patterns with their parents and the occurrence of pregnancy and the live birth of one child compared to those adolescents with repeat adolescent pregnancies and live children?	Total n=99; 100% had 1st child at 16 years; 44 had 2nd child at 18 years; 4 had 3rd child by age 18 years; 18-21 years; 100% African-American	Multiple live births: More negative views of their mothers' reasoning and problem solving; Less likely to graduate from high school; Mother of adolescent having lower education; More difficulties in mother-daughter problem solving and a lower quality of mother-daughter communication (i.e. insulting and unclear); Adolescent with worse communication (i.e. more barriers) and reasoning; More negative views of their mothers interactions; Correlated with conflict situations that were not resolved well

Table 4. *Continued.*

Authors	Design	Aims	Participants	Factors associated with 2nd/repeat pregnancy/birth
Pfitzner et al. (2003)	Quantitative; Case-control study	To describe repeat pregnancy among adolescents and to compare those who experienced a repeat pregnancy and those who did not	Total n=1838; Pregnant teenagers; 1st pregnancies resulted in 1734 singletons, 7 sets of twins, 97 stillbirths/ miscarriages Repeat pregnancy/births: 2nd pregnancy- n=194: 10.6% (n-175: 92% of these resulted in births, 2 were twin births); 3rd pregnancy- n=4	Repeat pregnancy: Younger at entry and older at exit from program; Spent more time in the program; Younger at delivery; Hispanic or had a Hispanic partner; Miscarriage or stillbirth with their 1st pregnancy; Stable relationship with the baby's father (cohabiting/ married/ engaged); Self-report suicide thoughts/ gestures/ attempts and had a significant psychiatric history; Not have placed their 1st child for adoption
Polit & Kahn (1986)	Quantitative; Cohort study	1) To examine the incidence of early repeat pregnancy among those teenagers whose poverty and family circumstances make them especially susceptible to early pregnancy and to adverse long-term educational and occupational outcomes; 2) To examine factors that might be determinants of an early subsequent pregnancy and short-term consequences of it	Total n=789 at baseline (program entry); 60% pregnant/not a parent; Mean age of 16.4 years at baseline; 46.2% Black, 24.3% Mexican-American, 17.6% Puerto Rican, 8.7% White 24 months post-baseline: n=675 (Repeat pregnancy- n=315: 56% [≥2 pregnancies])	Repeat pregnancy by 24 months post-baseline: Longer time since a previous pregnancy termination; Not in school at baseline; Higher school dropout record
Raneri & Wiemann (2007)	Quantitative; Case-control study	To evaluate the incidence of repeat pregnancy within 24 months of delivery in a large, multiethnic sample of adolescent mothers who were followed prospectively for 4 years and to identify multilevel predictors of subsequent pregnancy	Total n=581; Primiparous teenage mothers; 12% had abortion/miscarriage prior to 1st birth; 12-18 years; Mexican-Americans and Blacks Repeat pregnancy by 24 months after discharge from labour and delivery unit: n=245: 42%	Repeat pregnancy by 24 months after discharge from labour and delivery unit: Planning another baby within 5 years; Not using long-active contraceptives within 3 months of delivery; Not being in a relationship with the father of the 1st child 3 months after delivery; >3 years younger than 1st child's father; Intimate partner violence ≤3 months after delivery; Not being in school at 3 months postpartum; Many adolescent parents as friends
Rubin & East (1999)	Quantitative; Case-control study	To explore if and how adolescents' pregnancy intentions relate to life situations and health-related behaviours prenatally and up to 2 years postpartum	Total n= 208 at initial recruitment (n=154 after group assignment); Pregnant teens; 'Most' nulliparous; 14-19 years; 42% Hispanic, 31% Black 'Just happened' group: n=79 (Repeat pregnancy by 18 months postpartum- n=33: 42%) 'Wanted' group: n=75 (Repeat pregnancy by 18 months postpartum- n=28: 37%)	Repeat pregnancy by 18 months postpartum in 'wanted' group: Living with father of 1st child; Married to father of repeat pregnancy; Same father for the previous pregnancy Repeat pregnancy by 18 month postpartum in 'just happened' group: Resolved more of their repeat pregnancy with a therapeutic abortion
Stevens-Simon et al. (2001)	Quantitative; Case-control study	To determine which components of a comprehensive, multidisciplinary, adolescent-oriented maternity program (CAMP) are associated with childbearing delays and which are underused or not associated with positive changes in reproductive behaviour	Total n=373; 91% Primiparous; 13-19 years; 41% White, 33% Black, 24% Hispanic, 2% Other; Recruited from CAMP (n=280) and adult-oriented obstetric settings (n=93) 6 months postpartum: n=350 (Repeat pregnancy- n=24: 14%) 12 months postpartum: n=329 (Repeat pregnancy- n=47: 14%) 24 months postpartum: n=286 (Repeat pregnancy- n=99: 35%)	Repeat pregnancy by 24 months postpartum: Failure to use Norplant during the puerperium; Exhibiting ≥9 repeat pregnancy risk factors; Not using Depo-Provera

Table 4. *Continued.*

Authors	Design	Aims	Participants	Factors associated with 2nd/repeat pregnancy/birth
Stevens-Simon et al. (1996)	Quantitative; Cross-sectional survey	To test the hypothesis that adolescent mothers who conceive again during the 1st postpartum year express more positive attitudes toward childbearing while pregnant than do adolescent mothers who postpone further childbearing	Total n=200; 80.5% Nulliparous; Pregnant 13-18 years; 44.5% White, 29.5% Black, 23.5% Hispanic, 2.5% Other Repeat pregnancy by 12 months postpartum: n=23: 11.5%	Repeat pregnancy by 12 months postpartum: Expressed positive attitudes toward childbearing during the index pregnancy; Miscarriage prior to the index pregnancy; Dropped out of school prior to high school graduation; Used illicit substances; Moved away from home; Reported inadequate family support during the index pregnancy; Less likely to plan to use levonorgesterel implants (Norplant) following delivery
Stevens-Simon et al. (1999)	Quantitative; Cohort study	To determine the impact of implant use on the repeat pregnancy rate in a comprehensive adolescent oriented maternity program (CAMP)	Total n=309 (n=285 by 24 months postpartum); 84% had just had their 1st birth; 13-18 years; 50% White, 27%, Black, 22%, Hispanic; 1% Other Implant group: n=171 (n=161 by 24 months postpartum) (Repeat pregnancy: 12 months postpartum- n=1: 0.6%; 24 months postpartum- n=20: 12%) Other/No method group: n=138 (n=124 by 24 months postpartum) (Repeat pregnancy: 12 months postpartum- n=26: 20%; 24 months postpartum- n=57: 46%)	Repeat pregnancy by 12 months postpartum: Chose contraceptive method (including no method) other than early implant use Repeat pregnancy by 24 months postpartum: Chose contraceptive method (including no method) other than early implant use <6 months after birth; Those who had other children; >5 risk factors for repeat pregnancy; Dropped out of school
Stevens-Simon et al. (1998)	Quantitative; Case-control study	To determine which of the reasons teen mothers give for not using contraceptives consistently before their 1st pregnancy are addressed least effectively by the counselling offered in a typical clinic-based, comprehensive, multidisciplinary, adolescent-oriented maternity program (CAMP)	Total n=198 (n=165 by 18 months postpartum); 87% Primigravida; 13-18 years; 49% White/Non-Hispanic, 27% Black, 21% Hispanic, 3% Other Easier to modify group: n=138 (Repeat pregnancy: 6 months postpartum- n=8: 6%; 12 months postpartum- n=14: 10%; 18 months postpartum- n=18: 13%) Harder to modify group: n=27 (Repeat pregnancy: 6 months postpartum- n=6: 23%; 12 months postpartum- n=11: 410%; 18 months postpartum- n=18: 13%)	Repeat pregnancy by 18 months postpartum: Not being enrolled in school; Citing only harder to modify reasons for not using contraceptives before the index pregnancy (Side-effect concerns and lack of motivation to postpone childbearing); Least likely to use hormonal contraceptive
Thurman et al. (2007)	Quantitative; Cohort study	To compare repeat pregnancy rates among adolescents selecting the patch, Depot medroxyprogesterone acetate (DMPA), or oral contraceptive pills (OCPs) for postpartum contraception	Total n=252 (n=187 by 12 months postpartum); Primipara live births; 11-19 years; 72% African-American Contraceptive patch: n=55 (n=44 by 12 months postpartum) (Repeat pregnancy at 12 months postpartum- n=14: 31.8%) DMPA: n=142 (n=106 by 12 months postpartum) (Repeat pregnancy: 12 months postpartum- n=15: 14.2%) OCP: n=55 (n=37 by 12 months postpartum) (Repeat pregnancy: 12 months postpartum- n=11: 29.7%)	Repeat pregnancy by 12 months postpartum: OCP and contraceptive patch users compared to DMPA; Older teens

peer/community and social systems level factors. In addition, two papers reported that teenage mothers who exhibit a number of risk factors were more likely to have a repeat pregnancy [32-33].

Individual

Age was a commonly cited factor to be associated with repeat pregnancies and births to teenagers, however studies yielded somewhat contradictory results. A number of studies reported that younger age was associated with repeat pregnancy [14,28,34]. In contrast, Thurman, Hammond, Brown et al. [35] reported that older age was associated with repeat pregnancy by 12 months postpartum. Additionally, a study by Boardman et al. [9] described that being older, defined as more than 15 years at first conception, was associated with unintended second pregnancies by 24 months postpartum.

The study by Boardman et al. [9] demonstrated that prior poor obstetric outcome was associated with second pregnancies by 24 months following the resolution of the first pregnancy. It was reported that young women who experienced one or more miscarriages [28,36] and still births [34] was associated with repeat pregnancy.

Contraception was another widely documented factor, reported in a variety of ways to be associated with repeat pregnancy. A collection of studies have shown that short-term contraceptives (e.g. condoms and hormonal methods) as opposed to long-term hormonal contraceptive use are associated with higher rates of repeat pregnancies [28,30,32-33,35-36]. Those who were less likely to have formulated a prenatal contraception plan were more likely to have experienced repeat conception [37]. Inconsistent contraceptive use at 1-

16 weeks postpartum was associated with repeat pregnancy by 24 months postpartum [28]. Additionally, those less likely to report contraceptive use during the previous 6-12 months had an increased likelihood of experiencing a repeat conception [37].

There were several further individual level factors that were reported, however each of the remaining individual level factors was reported in a single paper only. A number of these factors centred around feelings and reactions to previous and future pregnancies. These included having an intended first pregnancy [9], not having placed their first child for adoption [34], experiencing a longer duration since the previous pregnancy termination [38], planning to have another baby within 5 years [30], having resolved more repeat pregnancies with therapeutic abortions [39], having expressed positive attitudes toward childbearing during the index pregnancy [36] and having other children [32]. Other individual level factors included being less likely to have taken steps to accomplish their goals [37], exhibiting poorer communication and reasoning [40], experiencing conflict situations that that were not resolved well [40], self-reporting suicidal thoughts/gestures/attempts [34], having a significant psychiatric history [34], having used illicit substances [36], having moved away from home [36] and citing only harder to modify reasons for not using contraceptives before the index pregnancy [41].

Dyad

Being married, engaged or cohabiting with the father of either the first or second baby was found in a number of studies to be associated with repeat pregnancy [13,34,37]. Rubin and East [39] identified that teenagers were more likely to be married to fathers of

first or repeat ‘wanted’ pregnancies. However, Raneri and Weimann [30] found that not being in a relationship with the father of the first child three months after delivery was an important factor associated with repeat pregnancy by 24 months. Furthermore, Boardman et al. [9] also suggested that not being married at second conception was associated with unintended second pregnancy.

Domestic violence has also been found to be associated with repeat pregnancy [30]. A teen mother being three years younger than first child’s father was associated with repeat pregnancy by 24 months [30]. Also, Rubin and East [39] found that repeat pregnancy by 18 months postpartum was associated with teenagers classifying their first pregnancy as ‘wanted’ and being with the same father for the second pregnancy as for the previous pregnancy, as well as having a partner who desired an RRP were associated with intended second pregnancies whilst having a partner who did not intend an RRP was associated with unintended second pregnancies at 24 months after resolution of the first.

Family

A number of different family factors were identified as being associated with repeat pregnancy. Bull and Hogue [42] suggested that parents who exacerbate already problematic communication with their teens because of anger over childbearing leading to heightened feelings of alienation that exist between parents and daughter was associated with subsequent childbearing. Teenagers who possessed more negative views of their mother’s interactions, reasoning and problem-solving were more likely to experience multiple live births and additionally more difficulties in mother-daughter problem solving and a lower

quality of mother-daughter communication (i.e. insulting and unclear) was also linked [40]. Steven-Simon et al. [36] reported that perceived inadequate family support during the index pregnancy was also a factor associated with repeat pregnancy. Bull and Hogue [42] stated that for parents who assume their children already know about contraception, their teenagers ran an increased risk of subsequent unintended pregnancy. The findings by Boardman and colleagues [9] suggested that not living in a two parent household as a teenager was associated with repeat pregnancy by 24 months since resolution of first pregnancy. In addition, in the study by Mims and Biordi [40] and that by Linares et al. [43], multiple live births deliveries were shown to be more prominent in teenagers whose mothers had a lower education.

Peer/Community

A number of associations were found between school and repeat pregnancies and deliveries; Not being enrolled in school [41], not attending school [30,37-38,43] or to have dropped out of school [32,36,38], not being a graduate [37] or being less likely to graduate [14,40]. Linares et al [43] also revealed that lower reading achievement scores was associated with repeat pregnancy and delayed grade placement was associated with repeat pregnancy and full-term deliveries by 12 months postpartum. Bull and Hogue [42] reported subsequent childbearing to be higher in teen mothers who believe that completing their families is more attractive than finishing school or developing a vocation.

A number of factors that specifically related to pregnancy and parenting programs emerged. Covington et al. [13] found that teenagers receiving prenatal care from a public

obstetric clinic compared to private adolescent patients were more likely to experience repeat pregnancies. The study by Pfitzner et al. [34] reported that younger age at entry and older age at exit from a program for pregnant and parenting teens and their children was associated with repeat pregnancy as well as those that spent more time in the program. This may fit with the findings by Bull and Hogue [42] who report that subsequent childbearing was more likely if pregnancy/parenting programs provided positive reinforcement.

Boardman et al. [9] reported that not being Roman Catholic was associated with second pregnancies by 24 months since the resolution of the first pregnancy as well as being from a household of identified religious affiliation (other than Roman Catholic) being associated with intended second pregnancies. On a different note, having many friends who were adolescent parents was demonstrated to be associated with repeat pregnancy [30].

Social system

Social systems factors were reported in one study only. Pfitzner et al. [34] reported that a teenager being Hispanic or having a Hispanic partner was associated with repeat pregnancy.

Discussion

This paper presents a systematic review of the literature regarding factors associated with repeat pregnancies in teenage mothers. The results show that the most frequently cited factors were age, prior poor obstetric outcome, contraception, marriage or being in a ‘stable relationship’ and school. However, the search demonstrated that the findings for age were

contradictory with some studies suggesting that younger age was associated with repeat pregnancy [14,28,34] whilst conversely others reported older age [9,35]. In comparing the findings of this review against those of previous reviews, Rigsby et al. [10] found age to be a significant predictor for RRP. Prior poor obstetrics outcome was shown to be associated with repeat pregnancy [9,28,34,36] in this paper, but this was not echoed by the findings of the previous reviews. In this review, the findings relating to contraception were somewhat mixed, but a group of studies found that short-term contraceptive use as opposed to long-term hormonal contraceptive use was associated with higher rates of repeat pregnancy [28,30,32-33,35-36]. This was somewhat echoed by Rigsby et al. [10] who suggested that the use of a contraceptive method other than Norplant postpartum significantly predicted RRP, whereas Nelson's review [19] suggested that it was inconsistent contraceptive practices that did so. In this study, being married or being in a 'stable relationship', often specified as with the father of their child or unborn child, was quoted a number of times as being associated with repeat pregnancy [13,34,37,39], whilst a small number of studies suggested that the reverse was a factor [9,30]. Marital status was also found to be associated with repeat pregnancy by the other two reviews [10,19]. Whilst Nelson [19] reported that level of educational achievement was associated with multiple pregnancies, this review found that school more generally was an associated factor, including not being enrolled in school [41], not attending school [30,37-38,43], to have dropped out of school [32,36,38], not being a graduate [37] or being less likely to graduate [14,40]. Additionally, one paper in this review [43] outlined lower educational attainment in the teenagers mother as a factor, which was also discovered by Rigsby et al. [10] whilst the reviews by both

Nelson [19] and Rigsby et al. [10] cited one or more factors that were not found in any other review.

Although the majority of the most frequently cited factors in this review overlap somewhat with findings of the two previous narrative reviews, there are still some disparities. A wide range of other factors were also discovered by this review but these mostly consisted of those presented by one study only and were felt to bear less weight than the more frequently cited factors. In considering the studies excluded from the full review due to not being conducted in the USA, a number of their results were consistent with the most frequently cited factors in this review; marriage or being in a 'stable relationship' [22-23], contraception [21,23] and school [23]. Furthermore, several other less commonly cited factors in the main review were reported in the studies conducted outside of the USA alongside a number of novel ones not found in any of the studies included in this review.

A number of psychological perspectives may be relevant to the findings of this review. According to the family lifecycle model, describing the developmental stages a person passes through in their life as a member of a family, pregnant teenage mothers have undeniably entered the fifth stage of the model; family with young children [44]. However, it may be that as these women have become mothers at such a young age, they have not had time to successfully complete the tasks of the previous stages, such as completing school, selecting a partner and deciding to marry and taking responsibility for safe sex practice. Alternatively, the cognitive model may be relevant to the findings of this review, which assumes that one or more cognitive deficits, including poor school functioning [45-46] and lack of contraceptive knowledge [47-48], lead to pregnancies in the teenage years.

However, several aspects of the research need to be taken into account when interpreting the findings of this review. A number of methodological issues are important to consider. Firstly, it is important to contemplate the purpose of the studies under review. Of the 17 papers reviewed, only seven specifically aimed to examine factors associated with repeat pregnancies in teenage mothers. A further four set out to compare or try to find a difference on a certain variable between teenagers who did and did not become pregnant again. However, although the remaining six studies did not specifically plan to investigate factors associated with repeat pregnancies in teenage mothers, factors were found along the way and hence reported.

The quality of the reviewed papers was assessed using the NICE methodology checklists [24], which revealed the included studies differed in terms of their quality. Initial searches had revealed papers receiving the highest ('++') through to the lowest ('-') quality assessment ratings. Papers receiving negative ratings were excluded from being fully reviewed due to the questionability of the meaning of the results due to their low quality rating.

The design of the reviewed studies, reported previously, included case-control studies, cohort studies and cross-sectional surveys as well as one qualitative study using content analysis to evaluate transcripts from focus groups. The design of the studies should be taken into account alongside the quality assessment rating to tell us more about the overall quality of the studies.

Recruitment of participants in the reviewed studies was a complicated issue. The majority of the studies recruited participants from pregnancy, maternity and parenting

programs; nine from those aimed specifically at teenage mothers and six from those not specifically aimed at teenagers. One additional study used a convenience sample to recruit participants using advertisements, through other adolescents, direct contact and via community agencies with the final study using data from the National Survey of Family Growth. It should be noted that of the 17 studies, four of these were written by the same principal author and that this author contributed, albeit to a lesser extent, to another study under review. Other members of this research team also contributed to multiple papers. The four studies whose principal author was Catherine Stevens-Simon all recruited participants from the Colorado Adolescent Maternity Program (CAMP) in Denver.

Total numbers partaking in each study ranged from 64 to 1838 participants. Age and ethnicity were variable across the studies. Studies were included in this review, which when examined on the basis of their title and abstract alone, implied they studied teenagers who had already carried at least one child to term, hence were mothers, and specifically investigated repeat pregnancies. However, when examined further, only half of the studies solely comprised of participants who were teenage mothers who had experienced a live birth with their first pregnancy. The remainder included some participants whose first pregnancy had not terminated in a live birth or who had previously experienced more than one pregnancy or birth. In all studies under review, the majority of the participants were teenage mothers and consequently, all of these studies were included in the review. Additionally, one study also included guardians of teenage mothers.

The reviewed studies also varied in terms of their procedure and method of data collection. In total, six of the studies presented analyses of data collected as part of larger-

scale studies. Most studies relied on medical notes or clinic records either entirely or partially. A variety of other data collection techniques were employed including interviews, questionnaires, written instruments, pregnancy tests and focus groups.

In taking all of the above into account, it was very difficult to determine any firm conclusions regarding factors associated with repeat pregnancy in teenage mothers. On top of the discrepancies in findings, the methodological variations compounded the difficulties in directly comparing the studies under review. Overall, age, prior poor obstetric outcome, contraception, marriage or being in a 'stable relationship' and school were found to be the most frequently cited factors, and hence to our knowledge the most important ones.

However, this review also allowed some more general conclusions to be made. In total, 17 studies were fully reviewed. This small number of studies highlights that currently the literature in this area is thus far very limited. This is especially notable when comparing this to the gargantuan of research into teenage pregnancy as a whole. Of particular note, the research that was available was conducted extensively in the USA. Given the high rate of repeat pregnancy to teenage mothers in the USA [49], it seems logical that research into this phenomenon would be more substantial there. However, given the correspondingly high rate of repeat pregnancies in England [11-12], the void of research is surprising and unacceptable.

Summary and Implications

In summary, the factors most frequently cited to be associated with repeat pregnancies in teenage mothers were age, prior poor obstetric outcome, contraception,

marriage or being in a ‘stable relationship’ and school, although some findings were conflicting. A wide range of other factors were also presented but these mostly consisted of those presented in a single study only. Although the majority of the most frequently cited factors in this review overlap somewhat with findings in narrative reviews by Nelson [19] and Rigsby et al. [10], there are still some disparities. This review has also highlighted the methodological variations in this research in terms of aims, quality, design, recruitment, participants and procedure. Given the variation in the findings and indeed those in the methodology, it was difficult to come to any firm conclusions about the factors associated with repeat pregnancies in teenage mothers.

This review also revealed the current scarcity of research into this issue and underlines the need for further research particularly aiming to study factors associated with repeat pregnancies in teenage mothers. This is required in order to gain a deeper understanding of the experience of pregnant teenage mothers. This is important because of the negative consequences of teenage pregnancy and the compounding effect on this that having a second child as a teenage mother can have. More research in general is needed to find out more about repeat pregnancies in teenage mothers and the associated factors but future research needs to place particular emphasis on initiating research into this phenomenon in the UK and other countries beside the USA, where a void currently exists. From the findings of this review, given the limited knowledge we have about factors associated with repeat pregnancies to teenage mothers, it would appear that firstly, research needs to focus on finding out more about the experiences of teenage mothers who are pregnant for the second time.

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(*indicates studies reviewed in this systematic literature review)

TOTAL WORD COUNT FOR SYSTEMATIC LITERATURE REVIEW: 4959

Journal of Reproductive and Infant Psychology

PART TWO: EMPIRICAL PAPER

(This paper is written in the format ready for submission to the Journal of Reproductive and Infant Psychology. Please see Appendix 2 for the Authors' Guidelines)

RESEARCH ARTICLE

The experience of second pregnancies in teenage mothers: An exploratory study

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Abstract There has been very little research into repeat pregnancy in teenage mothers. Therefore, the purpose of this study was to explore the experiences of pregnant teenage mothers who were expecting their second child. Six pregnant teenage mothers were interviewed and asked to complete a number of questionnaires. Interpretative phenomenological analysis (IPA) of the interview transcripts demonstrated the four following super-ordinate themes: *'Being a good mum'*, *'It's not easy but it's a case of having to cope'*, '*Perceptions and misjudgements'*, and, *'Building my life'*. A number of theories are presented that may help us understand the

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experience of second pregnancies in teenage mothers. It is hoped that the findings of this study will help us to begin to understand more about the experiences of this population from their perspective and facilitate professionals to be in a better position to provide teenage mothers and their children with appropriate support.

Keywords: second pregnancies; teenage mothers; teenage pregnancy; experience; qualitative research; interpretative phenomenological analysis; IPA; British

Introduction

Teenage pregnancy has received much public attention over the last few decades, with the phenomenon widely being viewed as a societal 'problem' in the developed world. The UK still holds the highest birth rate to teenagers in Europe (United Nations Children's Fund [UNICEF], 2001). The Social Exclusion Unit (SEU) was instructed to study the reasons for Britain's high rate of teenage pregnancies as well as to formulate an approach to reduce the numbers of teenage parents. The Teenage Pregnancy Report (Social Exclusion Unit [SEU], 1999) presents their findings and established a specific aim to halve the rate of conceptions among under 18's by 2010 (SEU, 1999). Steady progress has been made since, with this now at its lowest rate for 20 years, having fallen by 11.8% since the Teenage Pregnancy Strategy began (Department for Children, Schools & Families [DCSF], 2007).

One reason that teenage pregnancy has received so much attention is that it has caused concern due to the adverse outcomes for both teenage mothers and their children (Chandra, Schivello, Ravi, Weinstein, & Hook, 2002; Coley & Chase-Lansdale, 1998; Scholl, Hediger & Belsky, 1994; Shaw, Lawlor & Najman, 2006; SEU, 1999). Additionally, it is proving costly for both the NHS and society more widely (SEU, 1999;

Teenage Pregnancy Strategy Evaluation Team, 2003). Consequently, there has been a vast amount of research into teenage pregnancy and its prevention, with the government investing a great deal of funding into teenage pregnancy prevention along with supporting teenage parents and their children (SEU, 1999).

In comparison, repeat pregnancy in teenage mothers has received very limited attention. However, significant numbers of teenage mothers have a second baby, often closely following the birth of their first child. Approximately 20% of all births to under 18's are to young women who are already teenage mothers (DCSF, 2007; Department for Education & Skills [DfES], 2006). A Scottish study by Smith and Pell (2001) demonstrated that teenage mothers who have a second baby have an almost threefold risk of preterm delivery and stillbirth when comparing second births to older women. Additionally, Akinbami, Schoendorf and Keily (2000) suggested that with each additional birth to teenagers comes an increased likelihood of inadequate prenatal care, premature birth and low birth weight. However, in reviewing Smith and Pell's (2001) paper, alongside a number of American papers, Klerman (2006) reported that when teenage mothers having a second birth were compared against those having a first birth, those with second births had poorer pregnancy outcomes. However, when first and second births to the same teenage mother were compared, second births usually had better pregnancy outcomes.

Despite the mixed findings regarding birth outcomes for repeat pregnancies in teenage mothers, a number of studies have suggested that repeat pregnancy to teenage mothers is a more substantial problem than first-time teenage pregnancy. Nelson described that adolescent mothers who experience a repeat pregnancy are, 'at risk for overwhelming

social, economical, educational, health and personal consequences' (1990, p. 28). Likewise, Rigsby, Macones and Driscoll (1998) reported that repeat births to teenage mothers predict even worse medical, financial, educational and psychosocial outcomes than first births to teenage mothers.

A review of the literature revealed a clear lack of research into repeat pregnancies to teenage mothers in the UK and worldwide. Of the limited research that does exist, the large majority of studies into repeat teenage pregnancy were conducted in the USA. It is impossible to generalize the findings of those studies due to societal and cultural differences, as well as public views on teenage pregnancy.

It has also been identified that the literature on repeat teenage pregnancies is mainly concerned with four issues: 1) statistics and incidence, 2) birth outcomes, 3) success of prevention programs, and 4) risk factors, predictors or correlates of repeat teenage pregnancy. The majority of this has been quantitative in nature. Consequently, not only is there a shortage of qualitative research into repeat pregnancies to teenage mothers, but there is also insufficient research that explored the teenage mother's perspective. A recent study by Herrman (2006) conducted in the USA, set out to explore the insights of pregnant young mothers with regard to their life aspirations, the changes in their lives as a result of parenting, and their beliefs of the impact regarding repeat pregnancy on their aspirations and life course. This study presented some interesting findings, discovering themes of *'Looking for and finding a better life'*, *'Making a hard life harder'* and *'No big difference in my life'*. This was the first study of its kind to use qualitative methods to gain insight into the perspective of pregnant teenage mothers although the sample was heterogeneous.

The phenomenon of second pregnancies to teenage mothers cannot be studied without considering adolescence. Adolescence has been defined as, 'a transitional period in the human life span, linking childhood and adulthood' (Santrock, 1998, p.3), which the World Health Organisation (WHO, 1995) has specified occurs between the ages of 10-19. However, this developmental stage is characterized by a period of rapid development and although this occurs largely within a set time frame, there is some individual variation in the timing of this between individuals (Goodburn & Ross, 1995). Adolescence does not just reflect physical maturation, through puberty, but also encompasses cognitive, social and emotional growth and advancement. Adolescence therefore, simply represents the period of time during which a child matures into an adult (Santrock, 1998). With regards to the current paper, this leaves questions about how having not one but two children during adolescence may affect the teenager.

A number of theories may be useful in explaining the phenomenon of second pregnancies in teenage mothers. Erikson's theory of psychosocial development (1968) describes the conflict 'identity vs identity confusion' where during adolescence, teenagers try to establish who they are in terms of their social and occupational identities. We may hypothesize that in order to relieve this confusion, some teenage girls get pregnant, becoming a mum. As the first baby becomes more independent from the mother, the unresolved conflict re-emerges, therefore leading to a desire to reinstate their identity as a mother.

The psychoanalytic perspective suggests there are a number of inner conflicts that occur during adolescence, which originate from the pre-oedipal phase where little girls

identify with their mothers, learning about the role of a woman. The wish for a baby becomes a part of the so-called 'primary femininity' (Stoller, 1976). From young childhood to adolescence, girls have fantasies about becoming pregnant. Pre-pubescent girls feel undermined by their mothers and insecure because they haven't been able to achieve a positive female identification. These difficulties become apparent once puberty is reached if teenage rebellious actions are met with disapproval and misunderstanding. 'The reassurance they need is not available from the outside, so they try vicariously to manufacture it from within by means of pregnancy fantasies' (Welldon, 1988, p. 47). Girls who feel insecure about their femininity, stop having fantasies about their inner space and instead start using their bodies in a concrete way, becoming pregnant. One could hypothesize that in pregnant teenage mothers, one pregnancy was not enough to fill that inner space and to reinforce a feminine sense of self, and therefore they needed to have a second baby to fulfil their role as a woman (Welldon, 1988).

Conversely, the cognitive model assumes that it is one or more cognitive deficits that can lead to pregnancies in the teenage years (Holden et al., 1993). Cognitive deficits that are accepted could possibly lead to teenage pregnancy include poor school functioning (Cairns & Cairns, 1989; Hansen, Stroh & Whitaker, 1978), lacking contraceptive knowledge (Eisen & Zellman, 1986; Morrison, 1985), inability to plan ahead (Blum & Resnick, 1982; DeAmericis, Klorman, Hess & McAnarney, 1981; Jones & Philliber, 1983; Walters, Walters & McKenry, 1987; Zelnick & Kantner, 1977), inadequate problem-solving ability (Steinlauf, 1979), and external locus of control (Herold, Goodwin & Lero, 1979; Lieberman, 1981; MacDonald, 1970; Pass, 1986; Ralph, Lockman & Thomas, 1984;

Visher,1986). Psychological perspectives that are considered to be relevant to the findings of this study will be considered in the discussion section of this paper.

The principle aim of the current study was to explore the experiences of teenage mothers who were pregnant for the second time. It was hoped that this study would provide an in-depth exploration of the lived experiences of these young women and that the findings may contribute to our understanding of what it is like to be a pregnant teenage mother. Additionally, the study aimed to provide insight into the issues important to this population such as reasons for teenage mothers becoming pregnant for the second time, their sense of identity and expectations for the future.

Method

Participants

A purposive sampling technique was employed. The recruitment process is outlined in the flow chart (Figure 2).

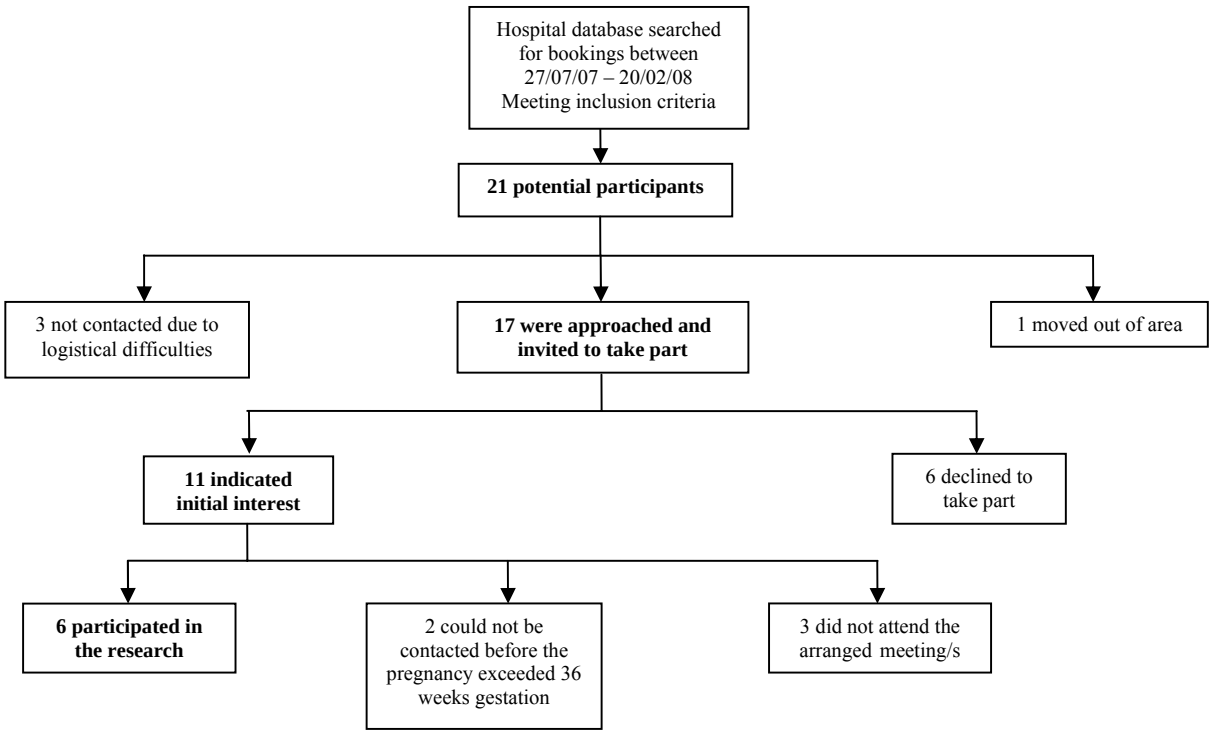

Figure 2. Flow chart of recruitment process.

Pregnant teenage mothers aged 14-19 years were recruited from the Ante-Natal service between 27/07/07 and 20/02/08. Potential participants who met the inclusion criteria were identified using the Ante-Natal services patient database. The following inclusion and exclusion criteria were applied (Table 5).

Table 5. Inclusion and exclusion criteria.

Inclusion criteria	**Exclusion criteria**
-Teenage mothers aged 14-19 years; -Gestation between 20 and 36 weeks when taking part in the research; -Previously had one live birth baby whom they were caring for at home; -Receiving Ante−Natal Midwifery−lead care; -Good command of English.	-High risk pregnancy; -Women older than 19 years; -Girls younger than 14 years; -If a current mental health problem was highlighted by the Health Education Midwife or the potential participants midwife.

Of 21 potential participants eligible for this study, 17 were approached; three were not contacted due to logistical difficulties; one moved out of the area during her pregnancy. Of the 17 potential participants who were approached, 11 (64.7%) indicated interest in participating, whilst six (35.3%) declined. Reasons for non-participation were available for some who declined to take part, including not wishing to be interviewed and taped, not classing herself as a teenage mother and not having time.

Those that indicated interest were contacted by the principal researcher. Two could not be contacted before their pregnancy exceeded 36 weeks gestation. Three potential participants did not attend the arranged research meeting and could not be contacted.

In total, six pregnant teenage mothers participated in this study (35.3% of those invited).

Measures

A number of measures were used in this study to collect descriptive information:

- *Background and Demographic Questionnaire* – This was designed by the researchers and collected information regarding participant's demographics and current circumstances, their current partner, the current pregnancy, their first pregnancy, their health and about information and services they had been offered (Appendix 6).
- *Beck Anxiety Inventory (BAI)* (Beck, Epstein, Brown & Steer, 1988) – This is a well-known self-report measure recommended for use in clinical and research settings (Beck et al., 1988). According to Altemus and Brogan (2004), questionnaire

measures of anxiety symptoms have not been validated for pregnant women, hence it is unclear as to what extent these measures detect anxiety or the physical symptoms of pregnancy (Altemus & Brogan, 2004). Because the measure of anxiety was being used for descriptive purposes only, the BAI was chosen due to it being deemed an acceptable tool for screening purposes in adolescents (Osman et al., 2002).

- *Edinburgh Postnatal Depression Scale (EPD*S) (Cox, Holden & Sagovsky, 1987) – This is a self-rating scale developed to assist in detecting mothers suffering from postnatal depression (Cox et al., 1987). Furthermore, it has also been validated for utilization during pregnancy and cut-offs provided (Murray & Cox, 1990) (Appendix 7).

Procedure

Ethical approval for this study was granted by the Local Research and Ethics Committee. Potential participants were approached at one of their standard Ante-natal appointments, subsequent to the booking appointment, by the midwife and provided with invitation information about this study (Appendix 3). Potential participants who indicated initial interest and consented were then contacted by the principal researcher. After further information was provided, a time and location convenient to the participant was set up to conduct the research. All participants opted for the research to be conducted in their homes. Every effort was made to carry out the research in a space that was quiet and private.

However, due to difficulties in arranging child care, two of the participants took part in the research in the presence of their children, both very young.

The principal researcher provided an information sheet (Appendix 4) and written consent (Appendix 5) was obtained from each participant prior to them partaking in the research. Participants completed three short questionnaires: Background and Demographic Questionnaire (Appendix 6), BAI and EPDS (Appendix 7).

The principal researcher used an interview schedule (Appendix 8) to conduct semi-structured interviews with the participants individually. The interview schedule was designed specifically for this study using the procedure detailed by Smith (1995). The schedule outlined areas of interest to be discussed in the interviews, informed by previous research into teenage pregnancy and repeat pregnancies in teenagers. Questions were open-ended and non-leading in order to find out about the experiences of pregnant teenage mothers. The semi-structured interview schedule was used as an aide memoire, with the aim of opening up discussion whilst also maintaining discussion within the areas of interest. The interviewer used prompts to break down questions for further exploration and to encourage a more detailed response. The sequencing or inclusion of the topics depended on the progress of the interview and on individual responses. If participants raised important points, which had not been addressed in preceding interviews, these were added to subsequent interviews. The interviews lasted approximately 40-90 minutes in duration. All interviews were taped with the participants' permission and then later transcribed verbatim and checked for accuracy.

Analysis

The transcripts from the semi-structured interviews were analysed using interpretative phenomenological analysis (IPA) (Smith, Jarman & Osborn, 1999). IPA is an approach to analysing qualitative research aiming to, 'explore in detail individual personal and lived experiences and to examine how participants are making sense of their personal and social worlds' (Smith & Eatough, 2007, p. 35). Double hermeneutics refers to the process of the researcher trying to make sense of the participant trying to make sense of his/her world. IPA involves a double hermeneutic process, highlighting the dynamic role of the researcher in the research process (Smith & Eatough, 2007).

The method presented by Storey (2007) was used in conducting the IPA in this study. The first stage of the analysis involved listening to the tapes and reading and re-reading the transcripts a number of times to get an overall sense of the interviews, whilst making some notes and comments that arose in response to the text. The next stage of the analysis encompassed returning to the transcripts using the notes to tentatively identify and label emergent themes. Then the initial themes were studied more closely for connections and relationships between them and organised into clusters. Super-ordinate themes and the constituent sub-themes were initially identified. Finally, the super-ordinate themes, sub-themes and illustrative quotations from the transcripts were arranged into a comprehensive list.

The first author conducted the analysis as described above using all six transcripts. A discussion group was attended by the initial researcher where other researchers conducting IPA read through short abstracts of the transcripts and discussed their comments

and ideas about emerging themes. Additionally, the second and third authors independently conducted the initial analysis on two and three transcripts respectively. Following this, discussion was held in order to check on the credibility of the researcher's interpretation of the transcripts before the final themes were decided.

Results

Participant demographic details, collected using the Background and Demographic Questionnaire (Appendix 6), are presented in table 6 below. Participants were aged 17-19 years, with one living with her husband , two with their partners, one with her parents, one with other family and one lived alone with her child. Four out of the six second pregnancies were not planned. Except for ethnicity and employment status, the demographic details indicate the sample was fairly heterogeneous, perhaps illustrative of pregnant teenage mothers more widely. Furthermore, due to this study using qualitative methodology, and hence having a relatively small sample size, the representativeness of the data, particularly outside of the geographical location in which the study was conducted, could be questioned. Further detailed descriptive information will be fed back in greater detail to services locally, where it will be useful in describing the local population of pregnant teenage mothers. Additionally, this full range of information was gathered in order to provide services with observations regarding service delivery as well as what pregnant teenage mothers require from services. Furthermore, according to the other measures used in this study, none of the participants showed evidence of minor/major depression and all fell within the low range for anxiety.

Table 6. Participant characteristics.

	P1	P2	P3	P4	P5	P6
Age	19	19	17	19	18	19
Ethnicity	White	White	White	White	White	White
Qualifications	A-levels	No qualifications	GCSEs	Diploma	A-levels	GCSEs
Employment status	Unemployed	Unemployed	Unemployed	Unemployed	Unemployed	Unemployed
Live with	Husband	Partner	Parents	Alone	Family	Partner
Relationship status	Married	Relationship	Relationship	Relationship	Relationship	Relationship
Relationship length	2 ½ years	3 years	9-12 months	12-18 months	6-9 months	4 years
Partners age	23	32	17	43	24	21
Planned 2nd pregnancy	Yes	Yes	No	No	No	No
Contraception at conception	None	None	Condoms	Morning after pill	Contraceptive pills	None

Four super-ordinate themes, each encompassing a number of sub-themes were identified from analysing the interview transcripts (Appendix 10). These themes are presented below alongside illustrative quotations shown in italics.

Super-ordinate theme 1: Being a good mum

Being a good mum refers to the participants aspiration to take care of their children in the best way they can. The emphasis seemed to be on the child/children and fulfilling their needs with the participants appearing to place great importance on doing this well.

Sub-theme 1.1- Putting my child/children first

Participants discussed the realisation that they now needed to look after their child as well as themselves. There was a strong sense of the mothers putting their children before everything else, including before themselves. Participant 1 described:

> *'...you're just so determined, about them, because obviously your family has, they have to come first, don't they, no matter what so.., it's realising how's that going to work but you know, there's positives and negatives but it's also good to set your mind on the children and just think well yeah but I'll have more time with them', (P1; lines 310-313).*

Sub-theme 1.2- How will this affect my child?

Young mothers questioned and tried to evaluate how certain situations and actions may affect their child/children. This included external situations and their own actions. Participants also wondered about how their child would react to the new baby, with the majority of the mothers expressing concern that their child would be jealous. For example:

> *'And the thought about my daughter is and how my daughter's going to react, with, the new baby?' (P3; lines 578-579).*

Sub-theme 1.3- Providing for and supporting my child/children

Participants expressed a desire to be able to provide for and support both of their children. This included supplying basic requirements such as food, housing and education as well as more luxurious items such as holidays. The more emotional aspects such as time together and love had also been contemplated. In fact, several mothers described a fear of not being able to provide for their children both financially and emotionally. Participant 1 reports:

> *'..I just get scared about like not being able to, you know love the second one as much as you love the first, just because you give all that love to your first, (mumble), you know, ..', (P1; lines 87-89).*

Sub-theme 1.4- Wanting the best for my child/children

Overall, it was clear that participants wanted the best for their children, including wanting them to do well at school, gain qualifications, get a good job and be happy. A couple of participants spoke about wanting their children to have better what they had, whereas others wanted their children to have as good as them. This seemed to depend on their contentment with their own upbringing and life. For example:

> *'It's just talking about how you want your kids to turn out and stuff. And my Mum, she didn't exactly do much for me. That's why I want to give a lot to my kids .. [It sounds like that's really important to you] Yeah. It is real important. I want better for my kids definitely' (P2; lines 258-262).*

Super-ordinate theme 2: It's not easy, but it's a case of having to cope

The young women expressed that their lives were 'hard' and described the features that made them 'harder'. Despite these difficulties, they possessed a sense of resilience and a spirit of determination that they would cope.

Sub-theme 2.1- Barriers and constraints

Participants discussed obstacles that got in the way, making things harder for them. These seemed to include practicalities, policies, and their own personal circumstances. Participant 4 expressed:

> *'..You see the thing is, is like (educational institution) and stuff like that, I can't go there to a course, because they won't, take on pregnant students,' (P4; lines 866-867).*

Sub-theme 2.2- Risks and threats

Risks and threats were described as making life harder for these girls. Examples included failed contraception, possible/actual complications in pregnancies and threats to other aspects of their lives associated with pregnancy or having children. Participant 5 explained:

> *'And the labour with my first child I had third degree tearing [Uh hu] She, got stuck on the way out and had shoulder dystocia and she ended up breaking her collar bone. [Right, oh dear] ..so, and I was erm, nearly ended up, having an emergency caesarean, but afterwards everything was alright, and she was fine and she was healthy.' (P5; lines 226-233).*

Sub-theme 2.3- Uncertainty and worry

The lives of the participants were steeped with a lot of uncertainty, giving rise to associated worries. This was often understandably associated with new experiences, which one may imagine this population experience a lot of compared to others of a similar age. For example:

> *'Erm, because, when I found out like the first time.. [Uh hu] ..with my first one .. [Uh hu] .. I was only, fourteen so I was scared.' (P3; lines 72-76).*

Sub-theme 2.4- Being prepared

Being prepared was used both to prepare for unknown events as well as approaching times that the young women knew may be difficult. This encompassed planning, getting ready and getting things in place. For instance:

> *'I've got him walking, .. [Uh hu] ....and bottle feeding and stuff like that, it's gonna be a lot easier, than what I thought it would have been, at first.' (P3; lines 93-96).*

Sub-theme 2.5- Knowing what to expect

Participants seemed to value knowing what to expect and having been through a similar situation in the past. This was particularly pertinent to their current experience of being pregnant for the second time, with them feeling they had learnt from the first time, hence currently feeling better prepared. For example:

> *'Yeah. Well I think the positives are obviously that you know what to expect.' (P1; line 73).*

Sub-theme 2.6- Support is nice when you have it

Support was highly valued by participants but was available for different people to different extents, being largely granted by family members. But participants also valued support from midwives and other services. There was a sense that although support was much appreciated; participants seemed to strive to be able to manage on their own.

> *'Although it's nice to have support, if it ain't there then, I like to stand on me own two feet [Right] And just get on with it [Uh hu] So, obviously, like, me daughter and that, I look after her, by myself mainly anyway. But, if the sup.., if I need the support then it's there but if the support weren't there I'd just, obviously you just get on with it ..' (P5; lines 647-654).*

Sub-theme 2.7- Getting on with it

This seemed to reflect an attitude towards approaching situations, reflecting a certain hardiness and resilience. Participant 5 stated:

> *'I think coping is probably going to be the main aspect of it. I mean it's not a case of not coping, it's a case of having to cope.' (P4; lines 236-237).*

Super-ordinate theme 3: Perceptions and misjudgements

This theme related to the views of other people towards this population and their circumstances. As well as the reactions of family and friends to their circumstances, young women had to face negative stigmatisation by society more widely. This was countered by trying to prove the stereotypes wrong and distancing oneself by 'being different'.

Sub-theme 3.1- What people think

There was a general awareness that the majority of people did not have a high opinion of teenage mothers. Some participants were curious about what people thought about them and said behind their back, whereas others seemed to possess an attitude of not caring what others thought. For example:

> *'...the one thing that bothered me when I got pregnant with my first child was, what people think [Right] And people, erm, criticise ya,.. [Right] .. for being young and having a baby,' (P5; lines 921-926).*

Sub-theme 3.2- Proving them wrong

Because the opinions of others seemed to matter to these young women, it was important to them to prove the stereotypes wrong. However, they also highlighted how hard it was to get people to change their opinions. There was a sense that participants wanted to abolish the stereotype regarding teenage mums. As described by participant 4:

> *'..I think it's hard to, to actually prove yourself. That you are a good Mum and that you are, want to be a family, you know, you're not just a teenage mum, living in a cou... You know what*

I mean. You know, we pay our way, you know like, So it's important the every, people know that teenagers aren't just, you know. It's strange but it's, important.' (P1; lines 1048-1052).

Super-ordinate theme 4: Building my life

The young women seemed to be trying to build their lives with their own family both for the present and the future. They were trying to get things in place and settle down whilst also thinking about their future.

Sub-theme 4.1- Seeking stability

They seemed to be trying to establish security, both in terms of bringing their own family together and living independently.

'Erm, I just want everything to be alright really and, obviously me kids are alright, and me house is alright and things like that, and just everything to go to plan and not, so chaotic any more. Just get into a rou.., a proper routine, and be able to relax a bit more, now.' (P5; lines 580-583).

Sub-theme 4.2- Wanted to have a second child anyway

Even when their current pregnancy had occurred earlier than expected, the participant conveyed a strong message that they had been planning to have a second child anyway. There was a general feeling that although this had happened a little early, it was in fact a positive event, as participant 5 explains:

'Erm, well although it wasn't planned it was a bit unexpected at first then, obviously once everything had settled down I got used to the idea of, of another baby,.. [Uh hu]..then it was

positive cause I, I wanted a second child anyway, although it wasn't planned for as soon as it was now but.. [Right, uh hu] I wanted another child..' (P5; lines 40-46).

Sub-theme 4.3- Children first then career

As well as recognizing the importance of being a Mum, all participants intended to have their children first and then get to working or a career afterwards. For instance:

'...why not have em early? You know, and then have your working life after them in my eyes. In my eyes I think that's better.' (P1; lines 1086-1088).

Sub-theme 4.4- Hoping for happiness

Given the pessimism often surrounding the issues of teenage pregnancy, the participants were hoping and indeed expecting a happy future for them and their families.

'Erm. A nice environment. I hope, that, it wi.., it will be like how I expect it to be, like, all, happy, and stuff like that,' (P3; lines 606-607).

Discussion

This study set out to explore the experiences of teenage mothers who were pregnant for the second time. This population has received very limited previous research attention. Consequently, this qualitative study is the first of its kind to be carried out in the UK. Demographic information revealed that the sample in this study was fairly heterogeneous. Analysis revealed the following four super-ordinate themes. The theme, *'Being a good mum'*, was concerned with wanting the best for and taking care of their child/children. The theme, *'It's not easy but it's a case of having to cope'*, described the difficult lives that

pregnant teenage mothers have, things that make it more difficult and how they cope with these difficulties. '*Perceptions and misjudgements',* refers to the stigmatisation that these teenagers face, simply because they are mothers, as well as a desire to prove these stereotypes wrong. Lastly, *'Building my life',* refers to getting things in place and settling down together as a family as well as hoping for a happy future.

It is difficult to compare the findings of this study against previous research because of the very limited research into this area, as well as this study being the first of its kind in the UK. This means that this area of research is completely new, as are the findings. The study by Herrman (2006) was similar in that it used qualitative techniques to explore the insights of young mothers. However, Herrman's (2006) study differed in the fact that it used a heterogeneous sample encompassing teenagers who were pregnant for the first and second time as well as mothers with one or two children already. Despite this, some similarities were identified between that study and this. Herrman (2006) presented an emerging theme of '*Made a hard life harder'*, reporting participants frequently using of the word 'hard' in describing their lives, which was mirrored in this study, and the theme, *'It's not easy but it's a case of having to cope'*.

A number of psychological perspectives may be relevant to the findings of this study. The first super-ordinate theme, *'Being a good Mum',* appeared to form the central part of the pregnant teenage mother's identities. None of the other themes suggested any other points related to identity and moreover all other themes appeared to centre around *'Being a good Mum'* and the consequences and practicalities associated with this identity. This is consistent with the theory proposed by Erikson (1968), which proposes that these

young women may have become pregnant for the first time in order to relieve the confusion of the conflict 'identity vs identity confusion' and they may have become pregnant again in order to reinstate their identity as a mother. Alternatively, the psychoanalytic perspective also corresponds to the theme *'Being a good Mum'*. Instead of identity, this theory would view *'Being a good Mum'* as being an integral part of the role of a woman and that little girls have learnt about this role from their mothers whilst they were growing up. The theory proposes that girls who feel insecure about their femininity and don't receive reassurance in response to rebellious teenage behaviour can stop fantasising about pregnancy and start using their body in a physical way, becoming pregnant. One can hypothesise that for the participants of this study, one pregnancy was not enough to reinforce their feminine sense of self and therefore they went on to have a second baby (Welldon, 1988). The associated sub-themes and other super-ordinate themes could be understood to reflect key aspects of the role of a mother.

The second super-ordinate theme *'It's not easy but it's a case of having to cope'* seems to talk about managing with difficult circumstances. The cognitive model assumes that inadequate problem-solving ability is one cognitive factor that could lead or contribute to teenage pregnancy (Steinlauf, 1979). However, this theory does not appear to fit with these findings. Weiten & Lloyd (2006) proposed that in coping with difficult circumstances people tend to use one of three coping strategies; appraisal-focussed, problem-focussed and emotion-focussed coping. This theme appears to be consistent with problem-focussed coping, which encompasses finding out information, learning new skills to manage and rearranging one's life around the situation.

The third super-ordinate theme *'Perceptions and misjudgements'* encompassed the stigmatisation that these teenagers face, simply because they are mothers. Becoming a teenage mother may represent what Erikson (1968) termed 'negative identity', by which he described that some young people consider it better to become something that people are not supposed to be, rather than having no identity at all, and hence participants in this study have gone on to reinstate their identity as a teenage mother by becoming pregnant again. This corresponds with this model because the identity of teenage mothers is generally perceived in a negative way and hence, could be seen as undesirable. Harter (1983) conceptualised personal identity as being made up of three primary components; self-knowledge, self-evaluation and self-regulation, which he termed the 'self-system'. Self-esteem integrates self-evaluative opinions and associated feelings. During adolescence individuals develop an increased ability to envisage how others judge her. Hence, we may envisage that as girls are aware of the negative perceptions of others, they could develop difficulties with their self-esteem. However, the super-ordinate theme of *'Perceptions and misjudgements'* additionally encompassed the teenagers desire to prove the opinions and stereotypes about them wrong. This seems to relate to the previous theme regarding the ability to cope in difficult circumstances (Weiten & Lloyd (2006) and does not seem to fit with the hypothesis regarding low self-esteem.

The final super-ordinate theme *'Building my life'* again appears to fit with Erikson's theory (1968) and the idea that part of identity formation is about grappling with questions about where we are heading and what we want for our lives. In contrast, the cognitive model suggests that an inability to plan ahead can lead to pregnancies in the teenage years

(Blum & Resnick, 1982; DeAmericis, Klorman, Hess & McAnarney, 1981; Jones & Philliber, 1983; Walters, Walters & McKenry, 1987; Zelnick & Kantner, 1977). However, this did not seem to fit with the model, because according to this super-ordinate theme, pregnant teenage mothers were thinking about their own future and that of their children.

This study's biggest limitation was the low recruitment rate, routinely endured when recruiting pregnant teenagers (Kaiser & Hays, 2006). However, the small number of participants was sufficient for the purpose of this study, yet the generalisability of the findings more widely is questionable, which is only deepened by the heterogeneity amongst participants. Regardless of its weaknesses, this, being the first study to explore the experiences of pregnant teenage mothers in the UK, has taken an important step towards furthering the research into repeat pregnancies in teenage mothers.

Given that one of the principle aims of the Teenage Pregnancy Report (SEU, 1999) was to support teenage parents, attention needs to focus on how to best support teenage mothers and their children. The findings of this study suggest that support was appreciated by the pregnant teenage mothers, although this was also balanced with participants striving to cope independently as a family. Although the majority of support was received from families, a number of participants regarded midwives as a source of support. It is important that we examine how health professionals working with this population can be most supportive. Additionally, simply providing space for these women to express uncertainty and worries and seek advice could be extremely valuable. However, the issue of teenage pregnancy and motherhood is multi-dimensional, encompassing both positive and negative

aspects. Hence, it is important for professionals to be informed by psychological theory to understand pregnant teenage mums better.

Further research is needed in order to gain a deeper understanding of the issues and challenges pertinent to teenage mothers pregnant for the second time. Future work needs to focus on continuing to research this population directly. Future research should focus on finding out how we can best support this population in being 'good mums' and coping with difficult circumstances. This will help professionals be in a better position to provide teenage mothers and their children with appropriate care.

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TOTAL WORD COUNT FOR EMPIRICAL PAPER: 6023

TOTAL WORD COUNT FOR RESEARCH PORTFOLIO (Systematic Literature Review and Empirical Paper [excluding references]): 10982

APPENDIXES

Appendix 1 - Authors' Guidelines for the Systematic Literature Review

JOURNAL OF ADOLESCENT HEALTH

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In addition, Tables and Figures should be included as separate, individual files.

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Title Page/Acknowledgements: The title page should contain a concise but informative title; a short running head or footline of no more than 45 characters, including spaces, identified and placed at the bottom of the title page; first name, middle initial, and last name of each author with the highest academic degree(s) of each; name of the department(s) and institution(s) to which the work should be attributed: name, address, telephone number, and fax number of author to whom requests for reprints and correspondence should be addressed; the source(s) of support such as grants, equipment, or drugs; and any acknowledgements of persons who have made a substantive contribution to the study.

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The document should not include any author identifiers whatsoever and should include a copy of the abstract at the beginning. References should be included at the end of the document.

The text of original observational and experimental articles and brief scientific reports should usually--but not necessarily--be divided into the following sections: introduction, methods, results, and discussion.

The Introduction should clearly state the purpose(s) of the article and summarize the rationale for the study of observation. Only pertinent references should be used. Note that when reporting experiments utilizing human subjects, approval of the protocol by the sponsoring Institution's Committee on Human Subjects or its equivalent must be stated explicitly within the body of the manuscript. In addition, the protocol of obtaining informed consent should be briefly described.

The selection of observational or experimental subjects (patients or experimental animals, including controls) should be clearly described in the Methods section. The methods, apparatus, and procedures used should be described in enough detail to allow other workers to reproduce the results. References should be provided for established methods, including statistical methods. Methods that are not well known should be concisely described with appropriate references. Any new or substantially modified method(s) should be carefully described, reasons given for its use, and an evaluation made of its known or potential limitations. All drugs and chemicals used should be identified by generic name(s), dosage(s), and route(s) of administration. The numbers of observations and the statistical significance of findings should be included when appropriate. Patients' names, initials, or hospital numbers should not be used.

Results should be presented in a logical sequence in the text, table(s), and illustration(s). Only critical data from the table(s) and/or illustrations(s) should be repeated in the text.

Emphasis in the Discussion section should be placed on the new and important aspects of the study and the conclusions that can be drawn. Detailed data from the results section should not be repeated in the discussion. The discussion should include the implications and limitations of the findings and should relate the observations to other relevant studies. The link between the conclusion(s) and the goal(s) of the study should be carefully stated, avoiding unqualified statements and conclusions not completely supported by the data. The author(s) should avoid claiming priority and alluding to work that has not yet been completed. New hypotheses, when stated, should be clearly identified as such. Recommendations, when appropriate, may be included.

References should be numbered consecutively in the order in which they are first mentioned in the text. References in the text, tables, and legends should be identified by Arabic numerals in square brackets. References cited only in tables or legends to

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Reference should list all authors when three or fewer; when four or more, only the first three should be listed, followed by et al.

Ford CA, Jaccard J, Millstein SG, et al. Young Adults' Attitudes, Beliefs, and Feelings About Testing for Curable STDs Outside of Clinic Settings. J Adolesc Health 2004;34:266-269.

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Center for Health Promotion and Education: Guidelines for effective school health education to prevent the spread of AIDS. J Sch Health 1988;58:142-8.

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Marcell AV, Irwin CE Jr. Adolescent Substance Use and Abuse. In: Finberg L, Kleinman RE, eds. Saunders Manual of Pediatric Practice, 2nd edition. Philadelphia: WB Saunders, 2002:127-139.

4. *Agency Publication:* America's Children: Key National Indicators of Well-Being 2003. Washington, DC: Federal Interagency Forum on Child and Family Statistics,

2003.

Web site

Bearman PS, Jones J, Udry JR. The National Longitudinal Study of Adolescent Health: Research design [Online]. Available at: http://www.cpc.unc.edu/projects/addhealth/design.html. Accessed February 14, 2000.

An effort should be made to avoid using abstracts as references. Unpublished observations and personal communications are not acceptable as references, although references to written, not verbal, communications may be inserted into the text in parentheses. References to manuscripts accepted but not yet published should designate the journal followed by (in press). Information from manuscripts submitted but not yet accepted for publication may be cited in the text as (unpublished observations). All references must be verified by the authors against the original documents.

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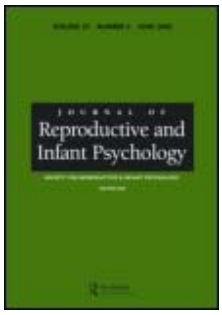

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Topics of interest to the journal include psychological, behavioural, cognitive, affective, dynamic, medical, societal and social aspects of: fertility and infertility; menstruation and menopause; pregnancy and childbirth; antenatal preparation; motherhood and fatherhood; early infancy; infant feeding; early parent-child relationships; postnatal psychological disturbance and psychiatric illness; obstetrics and gynaecology including preparation for medical procedures; psychology of women; nursing, midwifery, neonatal care, health visiting, health promotion and health psychology.

The journal also publishes brief reports, comment articles and special issues dealing with innovative and controversial topics. A review section reports on new books and training material.

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Authors should prepare and upload two versions of their manuscript. One should be a complete text, while in the second all document information identifying the author should be removed from files to allow it to be sent anonymously to referees. When uploading files authors will then be able to define the non-anonymous version as “File not for review”.

Contributions should be as concise as possible and should not normally exceed 5000 words (3000 words for short reports) or the equivalent lineage including tables and figures. The title should not exceed 50 words. Each paper should be accompanied by an abstract of not more than 200 words.

Papers are refereed anonymously. Criteria for review include: importance of topic, theoretical and practical relevance, contribution to knowledge, quality of research design and effective interpretation of results.

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Tables should be typed double spaced on separate pages, or spaced sufficiently to be distinct in the case of small tables. They should be numbered in sequence in arabic numerals and referred to in the text as 'Table 1' etc. Large tables of more than six lines should be titled in order to make the contents comprehensible independently of the text.

Diagrams, graphs, drawings and half-tone illustrations should be on a separate sheet labelled 'Figure. 1' and so forth. Where possible they should be submitted as artwork ready for photographic reproduction, larger than the intended size. Where more than one figure is submitted, they should as far as possible be to the same scale.

SI units should be used for all measurements. Imperial measurements may be quoted in brackets. Where studies involve small numbers of subjects, both numbers and percentages of groups should be given.

Authors are advised to avoid sexist sentiments and language, except insofar as these form part of a study.

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Journal article	Author, A.A., Author, B.B., & Author, C.C. (Year). Title of article. *Title of Periodical, volume number*(issue number), pages.
	Harris, M., Karper, E., Stacks, G., Hoffman, D., DeNiro, R., Cruz, P., et al. (2001). Writing labs and the Hollywood connection. *Journal of Film and Writing, 44*(3), 213–245.
Book	Author, A.A. (Year). *Title of work: Capital letter also for subtitle*. Place of publication: Publisher.
	Helfer, M.E., Keme, R.S., & Drugman, R.D. (1997). *The battered child* (5th ed.). Chicago: University of Chicago Press.
Chapter	Author, A.A., & Author, B.B. (Year). Title of chapter. In A. Editor & B. Editor (Eds.), *Title of book* (pages of chapter). Place of publication: Publisher.

	O'Neil, J.M., & Egan, J. (1992). Men's and women's gender role journeys: Metaphor for healing, transition, and transformation. In B.R. Wainrib (Ed.), *Gender issues across the life cycle* (pp. 107–123). New York: Springer.
Internet document	Author, A.A., & Author, B.B. (Date of publication). *Title of document*. Retrieved month date, year, from http://Web address
	Chou, L., McClintock, R., Moretti, F., & Nix, D.H. (1993). *Technology and education: New wine in new bottles: Choosing pasts and imagining educational futures*. Retrieved August 24, 2000, from Columbia University, Institute for Learning Technologies Web site: http://www.ilt.columbia.edu/publications/papers/newwine1.html
Newspaper article	Author, A. (Year, Month day). Title of article. *Title of Newspaper, Vol*, pages.
	Schultz, S. (2005, December 28). Calls made to strengthen state energy policies. *The Country Today*, pp. 1A, 2A.
Thesis	Author, A. (Year). Title of thesis (Type of thesis, University, year). *Dissertation Abstracts International*, *Vol*, pages.
	Bower, D.L. (1993). Employee assistant programs supervisory referrals (Doctoral dissertation, Cornell University, 1990). *Dissertation Abstracts International, 54*, 417.
Conference paper	Author, A. (Year, Month). *Title of paper*. Paper presented at the meeting of the Society, City, State.
	Lanktree, C. (1991, February). *Early data on the Trauma Symptom Checklist for Children (TSC-C)*. Paper presented at the meeting of the American Professional Society on the Abuse of Children, San Diego, CA.

Appendix 3 - Invitation for Potential Participants

RESEARCH PROJECT

An Exploration of Factors Contributing to Second Pregnancies in Teenage Mothers

We would like to invite you to take part in a research study. There has been lots of research into teenage pregnancy. However, there is an absence of research into second pregnancies in teenage mothers. The main purpose of the study is to explore the experiences of young mothers pregnant with their second child. The research will also explore why young mothers want to have more children and become pregnant for a second time.

If you decide to take part in this study, the researcher will ask you to sign a consent form. If you are below 16 years old, your parent or guardian will also need to sign their consent before you can take part. You will be asked to complete three short questionnaires. These will include questions about your pregnancy, your child, health, feelings and services you have accessed. You will then be interviewed by the researcher, which will be audio-taped and then transcribed. All data from the research will be analysed by the researcher and the supervisors. You will only need to meet with the researcher on one occasion for up to an hour and twenty minutes and the meeting will be arranged at a time and location convenient to you.

Thank you for taking the time to read this information.

Researcher: Miss Karen Tomlinson, BSc. (Hons) Psychology
Supervisors: Dr Nadya Bedenko, BSc. (Hons), MA, ClinPsyD.
Dr Nick Hutchinson, BSc. (Hons), ClinPsyD.
Mrs Jacqui Powell, RN, RM

……

I agree that my contact details can be passed to the researcher. I understand that the researcher will contact me to provide more information about the research and to see if I am willing to take part in the research. ☐

Name: ……..
Address: ……..
……. Telephone Number: …….
Signature: ……..Date: ……..

Only required if participant is under 16 years:
Name of Parent:……..
Signature: …….. Date: ……..

Version number – 1
Date – 30/05/07

Appendix 4 – Participant Information Sheet

Participant Information Sheet

Title of Project: An exploration of factors contributing to second pregnancies in teenage mothers

Name of Researchers: Miss Karen Tomlinson, BSc. (Hons)
Dr Nadya Bedenko, BSc. (Hons), MA, ClinPsyD.
Dr Nick Hutchinson, BSc. (Hons), ClinPsyD.
Mrs Jacqui Powell, RN, RM

Invitation

We would like to invite you to take part in a research study. Before you decide you need to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully. Ask us if there is anything that is not clear or if you would like more information.

What is the purpose of the study?

There has been lots of research into teenage pregnancy. However, it has been identified that there is an absence of research into second pregnancies in teenage mothers. The main purpose of the study is to understand the experiences of young mothers pregnant with their second child. The research will also explore why young mothers want to have more children and become pregnant for a second time.

What will the study involve?

It is up to you to decide whether you would like to take part in this study. Teenage mothers who are pregnant with their second child who are receiving Antenatal Care from Hull and East Yorkshire Hospitals NHS Trust will be approached to take part in this study. We will describe the study and go through this participant information sheet, which we will then give to you. If you decide to take part in this study, we will then ask you to sign a consent form to show you have agreed to take part. If you are below 16 years old, your parent or guardian will also need to sign their consent before you can take part. You will be asked to complete three short questionnaires. These will include questions about your pregnancy, your child, health, feelings and services you have accessed. You will then be interviewed by the researcher, which will be audio-taped and then transcribed. All data from the research will be analysed by the researcher and the Academic Supervisors. You will only need to meet with the researcher on one occasion for up to an hour and twenty minutes and the meeting will be arranged at a time and location convenient to yourself. You are free to withdraw from the study at any time, without giving a reason. This would not affect the standard of care you and your child receive.

What are the possible benefits of taking part in this research?

By taking part in this research, participants will help to provide valuable information that will contribute to the understanding of the experiences of teenage mothers who are pregnant with their second baby. The information we get from this study will help to improve the services for teenage mothers and their babies. Participation in this study could also be an interesting and valuable experience for participants.

What are the possible disadvantages of taking part in this research?
When filling in the questionnaires or during the course of the interview, participants may raise or wish to discuss some sensitive issues. Should you become distressed during the course of the interview, you would have the opportunity to speak about this with the researcher, who is a Trainee Clinical Psychologist. Should you require any further professional help, you would be advised to contact your G.P. or midwife for a referral to the appropriate services.

Confidentiality
If you decide to take part in the study, with your permission, parts of your medical records will be looked at by the researcher in order to collect information about your future delivery. All of the information collected about you during the course of the study will be kept strictly confidential and will be anonymized before being analyzed. Your G.P. and Consultant Obstetrician (where applicable) will be informed of your participation in this study if you consent to this. If any issues concerning child protection or any information giving cause for concern were to arise as a result of participation in the study, this would be discussed with yourself and the Health Education Midwife in the first instance. Your midwife may need to be informed and further action may need to be taken. If any issues of child protection were to arise, in relation to participants who are under the age of 16 years, your legal guardian may also need to be informed.

What will happen to the results of the research study?
The results of this research will be reported to the Midwifery Service at the Women's and Children's Hospital, Hull Royal Infirmary. The results will also be written up and published in professional journals. Extracts from the interviews will be included in the write up, but all personal information will be anonymized appropriately to ensure your anonymity. You will be given the opportunity to receive feedback about the findings of the study.

Who is organizing and funding the research?
The research is being conducted in partial fulfillment of the postgraduate Doctorate in Clinical Psychology, at the University of Hull. All research in the NHS is looked at by independent group of people, called a Research Ethics Committee to protect your safety, rights, wellbeing and dignity. This study has been reviewed and given favourable opinion by Hull and East Riding Local Research Ethics Committee.

Contact for further information
Should you require further information about the research, please do not hesitate to contact the researcher using the details below. Alternatively, you may seek independent advice from the local Patient Advisory Liaison Service or the Research & Development offices (Hull and East Yorkshire Hospitals NHS Trust or Humber Mental Health NHS Trust).

Researcher's contact details:
Department of Clinical Psychology
Tel: 01482 464804 (Academic Supervisor - Messages will be passed on at the earliest

Hertford Building
University of Hull
Cottingham Road
Hull
HU6 7RX

convenience)

E-mail: k.tomlinson@psy.hull.ac.uk

Version number – 3
Date – 07/08/07

Appendix 5 - Consent Form

Participant No: _____

CONSENT FORM

Title of Project: An exploration of factors contributing to second pregnancies in teenage mothers

Name of Researchers: Miss Karen Tomlinson, BSc. (Hons) Psychology
Dr Nadya Bedenko, BSc. (Hons), MA, ClinPsyD.
Dr Nick Hutchinson, BSc. (Hons), ClinPsyD.
Mrs Jacqui Powell, RN, RM

Please tick all relevant boxes to which you agree:

1. I confirm that I have read and understand the participant information sheet dated 07/08/07 (Version 3) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected. ☐
3. I understand that relevant sections of my medical notes and data collected during the study, may be looked at by the researcher and other responsible individuals involved in the study. I give permission for these individuals to have access to my records. ☐
4. I agree to my G.P. being informed of my participation in the study. ☐
5. I agree to my Consultant Obstetrician being informed of my participation in the study (where applicable). ☐
6. I agree to take part in the above study. ☐
7. I agree to take part in an interview with the researcher. I understand the interview will be audio-taped and then transcribed. I am aware that anonymized extracts from the interviews will be included in the write up. ☐
8. I understand that all data from the research will be analyzed by the researcher and the academic supervisors. ☐

9. I would like to be informed of the results of the study. ☐

Please print clearly using capital letters:

_____	_____	_____
Name of Participant	Date	Signature
_____	_____	_____
Name of Researcher	Date	Signature
_____	_____	_____
Name of Parent	Date	Signature

(Only required if participant is under 16 years)

If you wish to receive written feedback about the findings of the study, please complete your contact details below:

Name: _____.
Address: _____.
_____.
Postcode: _____.
Telephone Number: _____.

If you agreed overleaf to your GP being informed of your participation in the study, please complete the contact details of your GP below:

G.P.'s Name: _____.
Practice or Surgery Name: _____.
Address (if known): _____.

When completed: 1 for patient; 1 for researcher site file; 1 (original) to be kept in medical notes

Version number – 3
Date - 07/08/07

Appendix 6 - Background and Demographic Questionnaire

Participant No: _____

Title of Project: An exploration of factors contributing to second pregnancies in teenage mothers

Background & Demographic Questionnaire

Please answer the following questions.
Tick the appropriate boxes and/or complete your answers in the spaces provided.

Questions about you:

1) Age:…….

2) Ethnic Background:
   [ ] White
   [ ] Indian
   [ ] Black Caribbean
   [ ] Chinese
   [ ] Mixed
   [ ] Pakistani / Bangladeshi
   [ ] Black African
   [ ] Other
   ……

3) What is the highest qualification you currently have?
   [ ] No qualifications
   [ ] O-Levels / G.C.S.E's
   [ ] A-Levels
   [ ] Diploma
   [ ] Other (please specify)…….

4) Are you currently;
   [ ] Working (please specify occupation)……..
   [ ] In education (please specify where) …….
   [ ] Unemployed
   [ ] Other ……

5) Who do you live with?
   [ ] Parents
   [ ] Family
   [ ] Husband / Partner / Boyfriend
   [ ] Friend
   [ ] Alone
   [ ] Other (please specify) …….

6) Are you;
   [ ] Married

[ ] Separated
[ ] Divorced
[ ] Widowed
[ ] In a relationship
[ ] Single

Questions about your current partner: *(if not applicable please move onto the next section)*

7) What is the age of your current partner? ……

8) How long have you and your current partner been in a relationship?
[ ] Up to 3 months
[ ] 3 - 6 months
[ ] 6 - 9 months
[ ] 9 - 12 months
[ ] 12 - 18 months
[ ] Longer (please specify) ……..

9) Is your partner currently;
[ ] Working (please specify occupation)……..
[ ] In education (please specify where) …….
[ ] Unemployed
[ ] Other ……

Questions about your current pregnancy:

10) Was this pregnancy planned? [ ] Yes [ ] No

11) Were you using contraception at the time? If so, which type;
[ ] Condoms
[ ] Contraceptive pill
[ ] Coil or I.U.D. (Intrauterine device)
[ ] Contraceptive injection
[ ] Cap or diaphragm
[ ] Implant
[ ] I.U.S. (Intrauterine system)
[ ] No contraception was being used

12) How many weeks pregnant are you? ……

13) Is your current partner the father of your baby? [ ] Yes [ ] No

14) Was this second pregnancy conceived with the same partner as your first child? [ ] Yes [ ] No

Questions about your first child:

15) Was the pregnancy with your first child planned? [ ] Yes [ ] No

16) Were you using contraception at the time? If so, which type;
[ ] Condoms
[ ] Contraceptive pill
[ ] Coil or I.U.D. (Intrauterine device)
[ ] Contraceptive injection
[ ] Cap or diaphragm
[ ] Implant
[ ] I.U.S. (Intrauterine system)
[ ] No contraception was being used

17) What type of delivery did you have with your first child?
[ ] Vaginal/Normal Delivery
[ ] Elective/Planned Caesarean Delivery
[ ] Emergency Caesarean Delivery
[ ] Instrumental Assisted Delivery e.g. forceps
[ ] Other (please specify) ……

18) Was your last baby born early (prematurely)? [ ] Yes [ ] No

19) What was the weight of your first child at birth? …….

20) Did your first baby require any special care? [ ] Yes [ ] No

21) How old were you when you gave birth to your first child? …….

22) Did you go back to school / college / work after the birth of your first child?
[ ] Yes [ ] No

Health:

23) Did you breastfeed your first child? [ ] Yes [ ] No

24) How do you plan to feed your second baby?
[ ] Bottle
[ ] Breast
[ ] Unsure / undecided

25) Did you smoke during your first pregnancy? [ ] Yes [ ] No

26) Do you currently smoke? [ ] Yes [ ] No
- If yes, how many cigarettes a day ……..

27) Did you drink alcohol during your first pregnancy? [ ] Yes [ ] No

28) Are you currently drinking alcohol? [ ] Yes [ ] No
- If yes, how much ……

29) Did you take any illegal drugs during your first pregnancy?
[ ] Yes [ ] No

30) Are you currently taking any illegal drugs? [ ] Yes [ ] No
- If yes, what and how much ……

31) Have you ever had a termination? [ ] Yes [ ] No
- If yes, how many terminations have you had? ……...
- When was it / were they? ……

32) Have you ever had a miscarriage? [ ] Yes [ ] No
- If yes, how many miscarriages have you had? …….
- When was it / were they? ……

Information and services:

33) After the birth of your first baby, were you offered a home visit by a contraception / sexual health nurse? [ ] Yes [ ] No
- If yes, did you take up this service? [ ] Yes [ ] No

34) After the birth of your first baby, were you offered the Implanon (Implant) or inauterine device (I.U.D. or Coil)? [ ] Yes [ ] No
- If yes, did you take up this service? [ ] Yes [ ] No

35) If you smoke or have smoked in the past, have you been offered a service by the smoking cessation midwife to help you stop smoking?
[ ] Yes [ ] No
- If yes, did you take up this service? [ ] Yes [ ] No

36) Have you been given information about the ‘Smoke-Free Homes’ scheme?
[ ] Yes [ ] No
- If yes, have you joined this scheme? [ ] Yes [ ] No

37) Have you been provided with information about the 'Care to Learn' programme? [ ] Yes [ ] No
- If yes, have you taken up this service? [ ] Yes [ ] No

38) Have you been given information about your local Children's Centre? [ ] Yes [ ] No
- If yes, do you attend your local Children's Centre? [ ] Yes [ ] No

Thank you for taking time to complete this questionnaire.

Version number – 2
Date – 12/07/07

Appendix 7 - Edinburgh Post-Natal Depression Scale (EPDS)

Participant No: _____

Edinburgh Postnatal Depression Scale (E.P.D.S.)

As you are pregnant or have recently had a baby, we would like to know how you are feeling.

Please check the answer that comes closest to how you have felt **IN THE PAST 7 DAYS**, not just how you feel today.

Here is an example, already completed.
I have felt happy:

- ☐ Yes, all the time
- ☒ Yes, most of the time **This would mean "I have felt happy most of the time" during the past week.**
- ☐ No, not very often **Please complete the other questions in the same way.**
- ☐ No, not at all

In the past 7 days:

1. I have been able to laugh and see the funny side of things
   - ☐ As much as I always could
   - ☐ Not quite so much now
   - ☐ Definitely not so much now
   - ☐ Not at all

2. I have looked forward with enjoyment to things
   - ☐ As much as I always could
   - ☐ Not quite so much now
   - ☐ Definitely not so much now
   - ☐ Not at all

3. I have blamed myself unnecessarily when things went wrong
   - ☐ Yes, most of the time
   - ☐ Yes, some of the time
   - ☐ Not very often
   - ☐ No, never

4. I have been anxious or worried for no good reason
   - ☐ No, not at all
   - ☐ Hardly ever
   - ☐ Yes, sometimes
   - ☐ Yes, very often

5. I have felt scared or panicky for no very good reason
   - ☐ Yes, quite a lot
   - ☐ Yes, sometimes
   - ☐ No, not much
   - ☐ No, not at all

6. Things have been getting on top of me
   - ☐ Yes, most of the time I haven't been able to cope at all
   - ☐ Yes, sometimes I haven't been coping as well as usual
   - ☐ No, most of the time I have coped quite well
   - ☐ No, I have been coping as well as ever

7. I have been so unhappy that I have had difficulty sleeping
   - ☐ Yes, most of the time
   - ☐ Yes, quite often
   - ☐ Not very often
   - ☐ No, not at all

8. I have felt sad or miserable
   - ☐ Yes, most of the time
   - ☐ Yes, quite often
   - ☐ Not very often
   - ☐ No, not at all

9. I have been so unhappy that I have been crying
   - ☐ Yes, most of the time
   - ☐ Yes, quite often
   - ☐ Only occasionally
   - ☐ No, never

10. The thought of harming myself has occurred to me
    - ☐ Yes, quite often
    - ☐ Sometimes
    - ☐ Hardly ever
    - ☐ Never

Administered/Reviewed by _____
Date _____

Source: Cox, J.L., Holden, J.M., and Sagovsky, R. 1987. Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry* 150:782-786.

Version number – 2
Date – 12/07/07

Appendix 8 - Semi-Structured Interview Schedule

Semi-Structured Interview Schedule

The following is to be used as an aide memoire in order to guide the shape of the interview. The interviewer will use prompts (denoted by o) to break down questions for further exploration and to encourage a more detailed response. The shape of the interview will be determined largely by the participant and hence, each interview will differ. If participants raise important points, which have not been addressed in preceding interviews, these may be added to subsequent interviews.

- Can you tell me a bit about yourself?
    - How would you describe your interests?
    - How do you spend your time?
    - How would you describe your personality?

- What has your life been like since you became pregnant for the second time?
    - What changes have you experienced?
    - Which things have stayed the same?

- Can you tell me about what it was like when you first found out you were pregnant with your second child?
    - How did you feel when you found out you were pregnant (with your second child)?
    - What were your thoughts when you found out you were pregnant again?
    - What did you do when you found out you were pregnant again?
    - How did other people in your life respond to the news?
    - How have you been feeling about being pregnant again more recently?

- Before you became pregnant with your second child, what information were you provided with? (e.g. services / support available for yourself / your child, education, nursery, contraception, second pregnancies)
    - Can you tell me about any information you tried to find yourself?
    - Was there any information that you got from more informal sources e.g. meetings with friends, family, other Mum's in hospital e.t.c. that you can tell me about?
    - Can you tell me how satisfied / dissatisfied you have felt about the information you received?

- Can you tell me about what you did with the information you received?
    - Can you tell me anything that you have learnt for yourself?
    - What information would you like to have been provided with, if any?

- What difference do you think this might have made?

- Can you tell me about your experiences of being pregnant with your second child?
  - Tell me about any positive aspects of being pregnant for the second time
  - Tell me about any negative aspects of being pregnant for the second time
  - How are your experiences similar / different to your experiences of being pregnant with your first child?

- On the background questionnaire you said that this pregnancy was planned/ unplanned. Can you say some more about becoming pregnant when you planned / did not plan to have a second child at that time?
  - On the background questionnaire you said (…contraception….) at the time of becoming pregnant. Can you tell me a bit more about that?
  - Can you tell me about how it was that you came to the decision to get pregnant for with your second child / to continue with the pregnancy?

- What are your hopes and expectations for the future?
  - FOR YOU – What hopes and expectations do you have for your education / career / social circumstances (relationships with friends / family / living arrangements / finances) in the future?
  - FOR YOUR CHILDREN (Unborn baby/other child) - What hopes and expectations do you have for the future of your unborn baby / other child?
  - What, if any, concerns do you have for the future?

- What do you think your life will be like when your second child is born?
  - What about in terms of education / job (career) / social circumstances (relationships with family and friends / living arrangements / financial situation)?

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Appendix 9 – GP/Obstetrician's Letter

Dear Dr

Re: (Name; Date of Birth; Address)

Your patient has recently agreed to take part in a research study titled 'An exploration of factors contributing to second pregnancies in teenage mothers'. Details of the study can be found in the enclosed Patient Information Sheet. Individual data regarding your patient will not be obtainable; however, an overview of the research results will be available from August 2008. If you would like to receive this overview or should require any further details regarding the study itself, please do not hesitate to contact me using the details below.

Yours sincerely

Karen Tomlinson
Trainee Clinical Psychologist (Researcher)

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Clinical Psychologist (Academic Supervisor)

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Date – 30/05/07

Appendix 10 – Super-ordinate and Sub-themes from IPA Analysis

Table 7. Super-ordinate and sub-themes from IPA analysis.

Super-ordinate themes	**Sub-themes**
1 Being a good mum	1.1 Putting my child/children first 1.2 How will this affect my child/children? 1.3 Providing for and supporting my child/children? 1.4 Wanting the best for my child/children
2 It's not easy but it's a case of having to cope	2.1 Barriers and constraints 2.2 Risks and threats 2.3 Uncertainty and worry 2.4 Being prepared 2.5 Knowing what to expect 2.6 Support is nice when you have it 2.7 Getting on with it
3 Perceptions and misjudgements	3.1 What people think 3.2 Proving them wrong
4 Building my life	4.1 Seeking stability 4.2 Wanted to have a second child anyway 4.3 Children first then career 4.4 Hoping for happiness

Appendix 11 – Data from Background and Demographic Questionnaire

Table 8. Partners characteristics.

Partners Characteristics	**N**
Current employment status	
• Working	3
• In education	1
• Unemployed	3
Father of second baby	
• Yes	6

Table 9. Current pregnancy information.

Current Pregnancy (2nd)	**N**
Intendedness	
• Planned	2
• Not planned	4
Contraception at conception	
• Condoms	2
• Morning after pill	1
• No contraception	3
Number of weeks gestation at interview	
• 24 weeks	2
• 30 weeks	1
• 33 weeks	2
• 35 weeks	1

Same partner as conceived 1st baby with • Yes • No	 3 3

Table 10. First pregnancy information.

First Pregnancy	**N**
Intendedness • Planned • Not planned	 1 5
Contraception at conception • Condoms • Contraceptive pill • No contraception	 1 1 4
Delivery • Vaginal/Normal	 6
Premature • Yes • No	 1 5
Baby's weight • 5lb 4oz • 51b 14oz • 6lb 11oz • 6lb 13oz	 1 1 1 1

• 7lb 0oz • 10lb 4oz	1 1
Special care • No	 6
Mothers age at birth • 15 years • 17 years • 18 years	 2 2 2
Mother returned to work/education following birth • Yes • No	 3 3

Table 11. Health information.

Health Information	**N**
Feeding of 1st baby • Bottle • Breast	 4 2
Planned feeding of 2nd baby • Bottle • Breast • Unsure	 3 2 1

Smoked during 1st pregnancy • Yes • No	 3 3
Currently Smoke • Yes • No	 3 3
Alcohol during 1st pregnancy • Yes • No	 1 5
Alcohol during 2nd pregnancy • Yes • No	 1 5
Illegal drugs during 1st pregnancy • No	 6
Illegal drugs currently • No	 6
Previous termination • No	 6
Previous miscarriage • Yes • No	 2 4

Appendix 12 – Data from BAI

Table 12. Data from BAI.

	BAI Score	**Interpretation**
P1	16	Low range
P2	6	Low range
P3	2	Low range
P4	21	Low range
P5	6	Low range
P6	11	Low range
Mean	10.3	-

Appendix 13 – Data from EPDS

Table 13. Data from EPDS.

	EPDS Score	**Interpretation**
P1	5	No evidence of major/minor depression
P2	3	No evidence of major/minor depression
P3	1	No evidence of major/minor depression
P4	10	No evidence of major/minor depression
P5	8	No evidence of major/minor depression
P6	12	No evidence of major/minor depression
Mean	6.5	-

Appendix 14- Reflective Statement

Reflective Statement

A reflective diary was kept throughout the research process. This provided the researcher with a space not only to record issues that emerged in relation to the research, but also to document decisions that were made along the way and the reasons for these. Above all, the reflective diary offered room to note personal feelings and reflections regarding the research. This reflective statement has been written, using the reflective diary as a guide, to record my learning regarding the process of planning and carrying out a large-scale piece of research.

The forming of an idea

I first became interested in this area of research whilst being on placement in Child and Adolescent Mental Health Services, where I enjoyed the challenge of working with children and their families. When course staff presented ideas about their research interests, I began to think about what I might like to do. Although my initial ideas were vague, I thought that I might like to do some research into an aspect of childhood or parenting. My preconceptions about possible difficulties in gaining ethical approval and recruiting children to take part in research branded this immediately unattractive, which filtered my ideas more towards aspects of parenting. At that time, research in the department included studies around pregnancy with previous trainees having carried out research into teenage pregnancy and this all added to the development of my interest. In meeting members of course staff to think about research ideas, discussion with Nadya Bedenko included conversations about her links with Jacqui Powell, Health Education

Midwife. We spoke about teenage pregnancy being well researched but that the Ante-Natal service data suggesting there was a trend towards a number of teenage mothers going on to have more than one baby. Initial searches of the literature revealed the deficit of research into this area. On finding a study by Smith and Pell (2001), this started to raise my awareness of some of the negative factors associated with second pregnancies in teenage mothers. I became interested in finding out about why this group of teenagers were going on to have a second baby and in reviewing the research, I didn't feel that this question had been well addressed, especially in Britain. I also started to think about what the experience of being a teenage mother who was pregnant with her second baby was like. I became interested in the concept of identity in relation to this population.

Although initially it had seemed very daunting to form an idea for this research project, in reality this task was not as difficult as it had at first seemed. In regards to my potential involvement in research in the future, I expect that in clinical settings research ideas will present themselves in a more naturalistic way via clinical questions that have emerged.

Designing a study

I was interested in finding out what it was like to be a teenage mother experiencing a second pregnancy. Because of this approach and additionally, given that this was a new area of research, it seemed highly appropriate to use qualitative research techniques in designing the study. Furthermore, given that in my undergraduate research I had used a quantitative design, I was interested in gaining some experience of using qualitative research techniques. IPA (Smith, Jarman & Osborn, 1999) was chosen

because it is concerned with the experiences and meanings of individuals and would allow me to gain an in depth account from the perspective of the teenage mother. Interviews were deemed the most appropriate method of data collection. I met with Lesley Glover for consultation regarding the use of IPA in my research (11/01/07). Attendance at an IPA workshop at Aston University allowed me to develop my knowledge of both the theoretical underpinnings and practicalities of carrying out IPA (30/03/07).

A Background and Demographic Questionnaire was designed in order to collect some relevant information about participants. It was also decided that it would be useful to use some mood measures, not as an exclusion tool, but simply in order to provide descriptive information about the participants. The EPDS (Cox, Holden & Sagovsky, 1987) was chosen to measure depression because of it has been validated for use both in the postnatal period (Cox et al., 1987) and during pregnancy (Murray & Cox, 1990). According to Altemus and Brogan (2004), questionnaire measures of anxiety symptoms have not been validated for pregnant women, however, because a measure of anxiety was being used for descriptive purposes only , the BAI (Beck, Epstein, Brown & Steer, 1988) was chosen due to it being judged an acceptable tool for screening purposes in adolescents (Osman et al., 2002). Both the EPDS and BAI were also chosen due to being deemed quick and easy self-report measures for the participants to complete. The HADS was also considered but a paper by Jomeen & Martin (2004) suggested that this is not a suitable screening tool for measuring anxiety and depression in pregnancy.

I feel that I have learnt not only about qualitative research techniques to research but also about tailoring the design of the research to both the aims of the research and the population under investigation.

Liaison with the Ante-Natal service

As part of the background work into finding out about the Ante-Natal service that I intended to recruit participants from, I met with Jacqui Powell, Health Education Midwife on a number of occasions to discuss the feasibility of the study. Additionally, I was able to meet and begin to build relationships with relevant staff members. I was able to shadow Jacqui in two booking appointments with teenagers (10/05/07), gaining initial insight into working with pregnant teenagers and the challenges in engaging them.

Presentation of my research proposal to the midwives working in the Ante-Natal service allowed me to collect and take their views into account and provided an opportunity to get them onboard with the study (18/05/08). I was able to learn that midwives felt it was important for them to get written consent from potential participants before passing their details to me, so this was added to the study invitation form. Liaison with the midwives was crucial in allowing me to make the recruitment process as easy as possible for them to assist in without adding much extra work to their already busy workloads.

Ethics approval

The process of seeking ethical approval was very daunting, particularly as my Academic Supervisors were unable to attend the LREC meeting alongside me (18/06/07).

Despite being anxious, I was able to answer the questions and defend my research. My study was awarded ethical approval without amendments, which instilled my confidence in the design of my research. At a later stage, an application was made to the LREC for minor amendments to extend the timescale in which the research could be carried out from 20-30 weeks gestation to 20-36 weeks gestation, in order that potential participants could be approached at their 24, 28, 31 and 34 week Ante-Natal appointments. The application for minor amendments also included informing the participant's Obstetrician (where applicable) of their participation in the study with their consent. These amendments were granted (23/08/07).

Recruitment

In initially searching the Ante-Natal services patient database, I felt excitement as well as anxiety about commencing the data collection stage of the research project. In applying the inclusion and exclusion criteria, I experienced some disappointment regarding the numbers of potential participants, which were significantly lower than originally quoted. The process of recruitment took lots of time and effort in trying to support the midwives in approaching potential participants. This included asking them on an individual basis to approach potential participants at their standard midwifery appointments and providing them with the invitation information with attached written consent (as requested). In total, six participants took part in this study, which at first I was somewhat disillusioned with. However, a paper by Kaiser and Hays (2006) outlines the difficulties in recruiting pregnant adolescents for research. Given that the participants for my study were teenage mothers who were pregnant for the second time, this limited the

number of potential participants further, making the process of recruitment even more challenging. This paper emphasizes that, 'difficulty obtaining a sample is not justification for a failure to research a hard-to-enrol population', (Kaiser & Hays, 2006, p.45) and this strengthened my conviction in my study.

Data collection

A practice run through the interview schedule with a colleague was very useful, particularly in making me think about beginnings, endings and describing the research clearly to participants. I think that a lot of my anxiety in relation to carrying out the interviews came from trying to perform the right style of interview, given the chosen analysis technique. A number of potential participants who had initially agreed to participate in the research were lost, which was again disappointing.

On interviewing the first participant, I felt uncertain regarding the style of the interview but relief at the situation feeling comfortable and how open and honest she had been. Given the success of the first interview, a number of more difficult circumstances arose in carrying out the other interviews. These included childcare issues, finding a quiet and private space, partners being overly interested in the research and interrupting the interviews and participants emotional responses. These matters required me to demonstrate flexibility in my approach in order to deal with situations as effectively as possible as they arose.

A paper by Bassett et al. (2008) outlined several methodological challenges in interviewing teenagers. Although I could certainly relate to most of these, overall I felt that the interviews were successful with the teenage mothers being open in sharing their

experiences with me. Looking back, I think the fact that participants in my study were older teenagers (≥17 years), being old enough to voluntarily consent themselves helped. Additionally, I made every effort to put the participant at ease throughout their participation in the research. This was done by explaining the research process in clear and simple language, encouraging the participant to ask questions and generally trying to create a relaxed atmosphere. I tried to be flexible in the approach, particularly regarding reading of the Participant Information Sheet, completion of the Consent Forms and questionnaires, offering a number of options such as to read forms aloud or go through the forms together, being sensitive that some participants may have had difficulties in reading or understanding the paperwork properly.

In the interviews, I tried to set the scene that the interview was a space for me to learn about what it was like for participants to be pregnant for the second time as a young woman. I tried hard to follow what the participant was saying whilst asking pertinent questions and mirroring their language where appropriate to ensure they felt heard. Some participants were more difficult than others to engage with and open up to giving full answers and descriptions, but all interviews produced a great deal of suitable data.

Transcription

The process of transcription was very time consuming and forced me to employ active listening, taking note of the exact way in which participants spoke. Undertaking the transcription allowed me to gain a deeper comprehension of the transcripts allowing me to begin the analysis. However, the transcription process also increased my awareness

of my own questions, responses and indeed part in the interview, which at times could have been more skilful.

Analysis

The analysis of the transcriptions was a daunting process. I decided to follow the method presented by Storey (2007) to conduct the IPA, in order to provide a loose structure, given that this was my first experience of conducting IPA and indeed qualitative research. Given my initial disappointment regarding the recruitment process and the final number participating in the study, I was absolutely astounded by how much data had been produced by the six participants. Additionally, during the course of conducting this research, my conviction to put forward the stories of this under-researched population grew and this only increased my anxieties about doing the data justice.

As part of the process of analysis, I attended an IPA discussion group, where other researchers conducting IPA and myself read through short abstracts of our transcripts in turn and discussed comments and ideas about emerging themes. I feel this was very helpful in allowing me to learn about the practicalities of IPA amongst colleagues who were also new to this methodology. It helped to be able to relate to other researchers about their feelings and anxiety about conducting this type of analysis. This discussion group was invaluable in having extracts of my transcripts read by others and receiving comments and ideas. As well as being extremely useful, at times I found the experience of attending the group to be almost excruciating when researchers found it hard to hear other people's comments and interpretations of their transcripts. I felt that

this prompted me to think about my relationship with my own research and appreciate the importance of getting outsiders ideas or reflections as well as the importance of supervision.

Both of my Academic Supervisors independently conducted the initial analysis on a number of transcripts. Following this, discussion was held in order to check on the credibility of the researcher's interpretation of the transcripts before the final themes were decided. This was extremely useful in checking that interpretations were grounded in the text.

Writing the empirical paper

Initially, I imagined that writing up my empirical research would be much easier than other parts of the research process. In fact, some parts were quite straightforward, due to the fact that I obviously know what I did and why. However, at times the fact that I did know my research very well hindered me. The restriction of the word limit invoked by writing a paper presented a challenge. The new portfolio thesis format adopted by the course has both its advantages and limitations. I feel that the research I have conducted is important and presents novel findings. Therefore, the challenge of trying to fit three years of work into 5000 words seems unjust. However, the experience of writing an article ready for publication in a journal is something that I value and an important skill to learn.

Systematic literature review

Although I had previously searched and reviewed the literature in forming my ideas and designing this research, the systematic literature was conducted at a later stage

in the research process. For me, the whole experience of conducting and writing up the systematic literature review was overwhelming. On reflection, although I feel that the systematic literature review was extremely challenging, I do feel that I have learnt a lot from this process. I only wish that I had realised how much work this would be and had started it much earlier. In fact with hindsight, it would have been useful to have done this prior to commencing data collection. I feel that the systematic literature review provides a structured way of conducting a review. Overall, conducting and completing the systematic literature review helped me to gain an overview of the existing literature and helped me to realise the importance of my study and its position in comparison with the existing body of research.

Supervision

The use of supervision has allowed me access to advice and guidance regarding methodological and writing up issues. However, more importantly, supervision time has allowed me to think about and reflect on my personal experiences to the research as a whole and to the participants and their situations. It has also allowed me to think about my role in the research process, particularly taking into account my own demographics; that I am a young woman, currently without any children.

Furthermore, supervision has provided me with an essential space to think about the issue of second pregnancies in teenage mothers. Until conducting this research project, I was completely naive to the societal attitudes towards this phenomenon. Although obviously I was aware that teenage pregnancy is not often referred to in a

positive manner, since starting this research I have been extremely surprised by the intensity of people's reactions to this.

Choice of journals

The systematic literature review was written up for publication in the Journal of Adolescent Health. The decision to write for this journal was influenced by a number of factors: 1) It is a multidisciplinary scientific journal seeking to publish new research findings in the field of adolescent medicine and health; 2) It accepts literature reviews for publication; 3) It is ranked 12th out of 78 Pediatrics titles and 25th out of 100 Public, Environmental and Occupational Health titles according to the 2008 Journal Citation Reports and has an impact factor of 2.387. Furthermore, this journal allowed for up to five tables/figures and an unlimited number of references, which I envisaged would be useful in writing up the systematic literature review.

The empirical paper was written up for publication in the Journal of Reproductive and Infant Psychology. The decision to write for this journal was based on the following reasons: 1) It welcomes original research making an original contribution; 2) The journal is interested in amongst others, topics including pregnancy, antenatal preparation and motherhood; 3) The journal is particularly interested in the psychological, behavioural, cognitive, affective, dynamic, medical, societal and social aspects of these topics; 4) The journal is read by psychologists and those concerned with the psychological aspects of midwifery, health visiting and nursing.

Overall reflections

The research process has been challenging, yet also very rewarding and I feel I have learnt a great deal along the way. I have learnt a lot about myself and my approach to research. I have learnt that I like to do things well and at times this merges with striving for perfection, which ultimately causes a lot a stress and at times disappointment. This is something I am working towards learning to balance more. I have also ascertained that I tend to put a lot of work onto myself, but at times I need to be able to learn to delegate tasks to appropriate individuals and let go a little myself.

I also feel that I have also learnt that using a qualitative research technique complements my approach to working with clients therapeutically. In conducting this piece of research, I have been able to learn in a practical way, how to do qualitative research. Given my previous research experience, which has been solely quantitative in design, this has been useful in expanding my skills. I have developed an appreciation for the value and strengths of using qualitative research techniques when aiming to gain an in-depth insight from people who have undergone a particular experience, especially when investigating a topic that has not been researched previously.

I feel that I have also learnt some more general lessons about research. Firstly, that it takes a great deal of time. I feel that I have learnt about the importance of groundwork and making links with a service prior to commencing data collection. Another lesson that I have learnt from this project is to remain sceptical regarding the numbers of potential participants quoted to you and do some groundwork to work out average figures.

Overall I feel pleased with the outcome of my research project. I feel that my empirical study achieved what it set out to do. I also feel that I did well in interacting with

the Ante-Natal service and getting them onboard with this research. I am proud that with support I managed to drive this project through to fruition. Overall, I think that my research project was a worthwhile endeavour and I think that my belief in this grew as I became more involved in the research process.

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