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A positive psychology approach to understanding psychological experiences of

adolescent mothers; what effect does intervention have and how does resilience

contribute to their psychological wellbeing

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Part Three: Appendices

Overview

This portfolio thesis has three parts: a systematic literature review, an empirical paper, and appendices.

Part one is a systematic literature review in which the empirical literature relating to interventions to improve psychological wellbeing in teenage mothers is reviewed. A systematic search identified sixteen papers that matched the inclusion and exclusion criteria and methodological quality was assessed. Narrative synthesis was used to analyse the findings and the clinical implications are discussed.

Part two is an empirical paper which explores professionals' experiences of resilience in teenage mothers from a positive psychology stance. Inductive thematic analysis was used to analyse interviews conducted with staff working with teenage mothers to explore their experiences of resilience in this population.

Part three comprises the appendices of parts one and two. This includes guidelines for publication for both parts and documentation used in the empirical research. A reflective statement regarding the process of the empirical research and an epistemological statement are also included.

Total word count: 13,852 (excluding tables, references and appendices)

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Part One: Systematic Literature Review

Part Two: Empirical Study

Part 1: Systematic Literature Review

A Review of the Impact of Interventions on Psychological Wellbeing in Teenage Mothers

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Abstract

A wide range of interventions have been developed for teenage mothers with the majority focusing on physical and social outcomes. A key element that affects these is psychological wellbeing; including mood, self-confidence, stress and perceived competence. This review aimed to evaluate the effectiveness of interventions in improving psychological outcomes for teenage mothers. The review included papers from 1998 to January 2017 and evaluated the factors from each study that may have led to positive outcomes. The review highlighted the positive effects of intervention length and focus, flexibility in adapting the intervention to participants' needs, and the therapeutic relationship between the mother and worker. The review also commented on how psychological wellbeing was defined and measured, the methodological quality of the included studies and highlighted the potential biases and the effect of political context on this area of literature. Further research is needed to identify the specific qualities of studies that lead to improvement in psychological wellbeing and more holistic research is required to address psychological wellbeing alongside health outcomes.

1. Introduction

Teenage pregnancy and parenting is associated with a wide range of negative outcomes for both mother and child. There are greater risks of pre-term delivery, low birth weight and neonatal death in teenage parent populations (Chen et al., 2007). Additionally, children of teenage mothers display poorer numeracy and literacy skills at four years of age than children born to adult mothers (Fagan & Lee, 2013). Teenage mothers tend to come from more disadvantaged backgrounds, experiencing greater levels of abuse, lower socio-economic status and poorer educational attainment (Harrison, Weinstangel, Dalziel, & Moreau, 2014) with teenagers who become mothers receiving an average of 0.7 years fewer in education compared to non-parenting counterparts (Kane, Morgan, Harris, & Guilkey, 2013).

Teenage mothers are also at risk of poorer mental health (Hodgkinson, Beers, Southammakosane, & Lewin, 2014). The most commonly researched mental health problem in this population is depression. Teenage mothers present a greater risk of depression during pregnancy and the postnatal period compared to older mothers (Harrison et al., 2014). Conversely, the presence of mental health problems is a risk factor that increases the likelihood of teenage parenting (Kessler et al., 1997). Whilst the prevalence of depressive symptoms amongst mothers of any age is estimated to be between 12 and 21% (Teeters et al., 2016), the occurrence of depression amongst teenage mothers is higher, between 16 and 44% (Hodgkinson et al., 2014). Higher levels of depression and stress in mothers of any age are associated with greater risk of adverse childhood events for their children (Ethier, Lacharite, & Couture, 1995). This highlights the importance of psychological wellbeing in this population.

Psychological wellness is multifaceted and can be divided into six areas: self-acceptance, environmental mastery, purpose, positive relationships, growth, and

autonomy (Ryff & Keyes, 1995). This model is helpful in defining broader concepts related with wellbeing and has been applied in research studying development, ageing, family experiences and clinical intervention studies (Ryff, 2014). There are reliable scales to measure wellbeing using this six factor model, (Ryff, 1989), however, many studies measures single elements of wellbeing, rather than wellbeing as a whole. The individual components of the Ryff and Keyes (1995) model are more difficult to measure reliably due to broad number of constructs contained within each domain, and their subjectivity. Studies typically measure psychological wellbeing using a mental health perspective, measuring constructs like depression, self-esteem and stress as indicators of psychological wellbeing. There is evidence that the two constructs of wellbeing overlap and research has found that changes in measures of mental health are paralleled by similar changes in measures of psychological wellbeing (Ryff, 2014).

Poor psychological wellbeing during the perinatal period can have a significant impact on both mother and child. Teenage mothers who experience symptoms of depression and suicidal ideation have babies with lower birth weight (Hodgkinson, Colantuoni, Roberts, Berg-Cross, & Belcher, 2010). Depression in pregnant teenagers is also associated with an increased risk of pre-term delivery and poorer attachment security between the mother and infant (Recto and Champion, 2016). Experiencing depression as a parent of any age can decrease sensitivity in responding to the child (Hodgkinson et al., 2014) and is a risk factor for the child's poorer social, cognitive and emotional development (Ginsburg et al., 2008). Children of depressed and anxious teenage parents also exhibit higher levels of disruptive behaviour at preschool age (Spieker, Larson, Lewis, Keller, & Gilchrist, 1999). Finally, children of depressed mothers show poorer behavioural and emotional regulation through their development (Field, 1998) and into adolescence (Shaw, Lawlor, & Najman, 2006) regardless of maternal age.

Depression is not alone in causing obstacles to development. Higher levels of parenting stress for any mother are related to greater behavioural problems and poorer attachment security in children (Crnic & Low, 2002). Mothers of any age with low self-esteem communicate less effectively with their children and perceive their children as being less independent (Small, 1988). Mercer (1995) found that mothers of all ages with higher self-esteem show more supportive behaviour and better facilitate emotional development in the child.

Despite a range of identified factors contributing to poorer outcomes in teenage parenting, little research is available evaluating how to reduce these problems in the vital period of early childhood. A recent systematic literature review identified psychological risk factors associated with higher levels of depression in the postnatal period, which include: prior history of depression, lower self-esteem, lower self-efficacy, parental stress and anxiety (Recto and Champion, 2016). Furthermore, more resilient parenting in teenage mothers is related to greater self-esteem, maturity and better relationships between the teenage parent and their mother, however the direction of causality is not known (Hess, Papas, & Black, 2002). It is important to understand what can be done to improve these factors to strengthen parent-child relationships and increase wellbeing for both teenage mothers and their children.

The aims of this review were to investigate the effects of interventions with teenage mothers on psychological wellbeing based on the model by Ryff and Keyes (1995), and factors identified by Recto and Champion (2016) and Hess, Papas and Black (2002). The research questions were:

(1) How is psychological wellbeing defined in interventions for teenage mothers?

(2) How is psychological wellbeing measured in teenage mothers and does this impact on the effectiveness of the intervention?

(3) What components of interventions lead to improvements in psychological wellbeing?

2. Method

2.1. Data Sources and Search Strategy

The following electronic databases were searched: Web of Science, Academic Search Premier, CINAHL, MEDLINE and PsycINFO. The search terms used to search for papers relating to teenage mothers were (teen* OR adolescen* OR "young adult*" OR youth OR juvenile*) N2 (mother* OR maternal OR m?m OR parent*), AND intervention* OR program* OR project* AND community OR home AND depress* OR anxi* OR well#being OR wellness OR stress* OR self-esteem OR self-efficacy OR confiden* OR "mental health" OR psychosocial (* denotes a truncation, ? indicates an unknown letter and # denotes that a character may be present). The search terms related to psychological wellbeing were generated through an iterative process of literature searching. The term 'psychological wellbeing' was not used in studies; therefore this needed to be broken down into specific areas once these were identified. Initial search terms were generated from Hess, Papas and Black (2002) and Recto and Champion (2016) and based on the results, search terms like "mental health" were added to encompass a wider range of studies.

2.2. Study Selection

The papers reviewed were limited to academic journal articles, written in English and published since 1998. This was a key point in teenage parent research due to UNICEF publishing international statistics from 1998 about teenage parenting that prompted an increase in research (UNICEF, 2001).

Studies were selected based on the following inclusion criteria: (1) intervention offering support to pregnant and/or parenting teenagers, (2) valid and reliable quantitative measures of maternal psychological wellbeing, including depression, self-esteem, self-efficacy, parenting stress, confidence, locus of control, (3) measures taken at least pre- and post-intervention, (4) conducted in countries with high levels of teenage pregnancy and whose government regards teenage pregnancy as a concerning problem and introduces policies aiming to reduce it (UNICEF, 2001). This criterion was added to increase the homogeneity of included studies and enable more reliable comparisons to be made between them. Although teenage pregnancy occurs in many countries worldwide; attitudes towards it vary. In some countries, teenage pregnancy is common and more culturally acceptable, and therefore the support offered may differ compared to countries where teenage parenting is seen as a societal challenge.

Studies were excluded if they met the following criteria: (1) not all participants were either pregnant or parenting as teenagers (for example, if an intervention was six weeks long but the age range of participants was 18 to 22, the 22 year old participants would not have been teenage mothers), (2) no defined intervention, (3) only qualitative data, (4) outcome measure scores not reported, (5) case studies. Case studies were excluded due to the lack of generalisability and difficulty integrating findings of case studies with more rigorous studies, such as randomised control trials (Edinger & Cohen, 2013).

2.3. Data Extraction and Synthesis

Data relevant to the review were extracted using a specifically designed data extraction form (see Appendix B). A narrative synthesis approach (Mays, Pope, & Popay, 2005) was utilised for conducting data analysis in this review. Narrative synthesis is a four stage process which first involves developing an understanding of the existing literature to develop research questions, and then identifying patterns in the findings and effects

of the included studies and considering the factors and qualities of the studies that may explain the findings (Popay et al., 2006). The process ends with assessing the quality of the review and critical application of the findings beyond the scope of the review (Popay et al., 2006). A meta-analysis was not appropriate due to the wide range of characteristics in the studies' samples and the range of different methodologies (Haidich, 2010). Narrative synthesis provides a way of reviewing quantitative results with a qualitative evaluation of the studies, and thus allowed for an in-depth review of interventions to improve psychological wellbeing in teenage parents. The following data were extracted from each study: the country in which it was conducted, sample age and size, intake characteristics of participants, aims, interventions used, what control groups were used, randomisation, measures used and results of the study.

2.4. Methodological Quality Assessment

The quality of papers studied in this review was assessed using the Down's and Black Checklist (1998; see Appendix C). This checklist was chosen as it can be used to evaluate intervention studies and has been validated for use with randomised and non-randomised studies (Down & Black, 1998). One amendment was made to question 27, which was refined to a yes or no response if the paper conducted power calculation. A random sample of studies in in this review was assessed by an independent researcher after which the ratings were compared to check the reliability of the methodological quality assessment. Any discrepancies were discussed and a score was agreed.

3. Results

3.1. Identification of Relevant Studies

An initial search retrieved 3931 papers. Following searching titles and reading abstracts, 33 papers were reviewed in full. Of this number, 16 were selected for the

review (see Figure 1) and 17 were excluded (see Appendix D for a list of excluded papers and reasons for exclusion).

Fourteen of the sixteen papers studied unique interventions in different locations. Two studies evaluated the same intervention, the Family Spirit Programme, but at different time points (Barlow et al., 2013; Barlow et al., 2015) and using different measures.
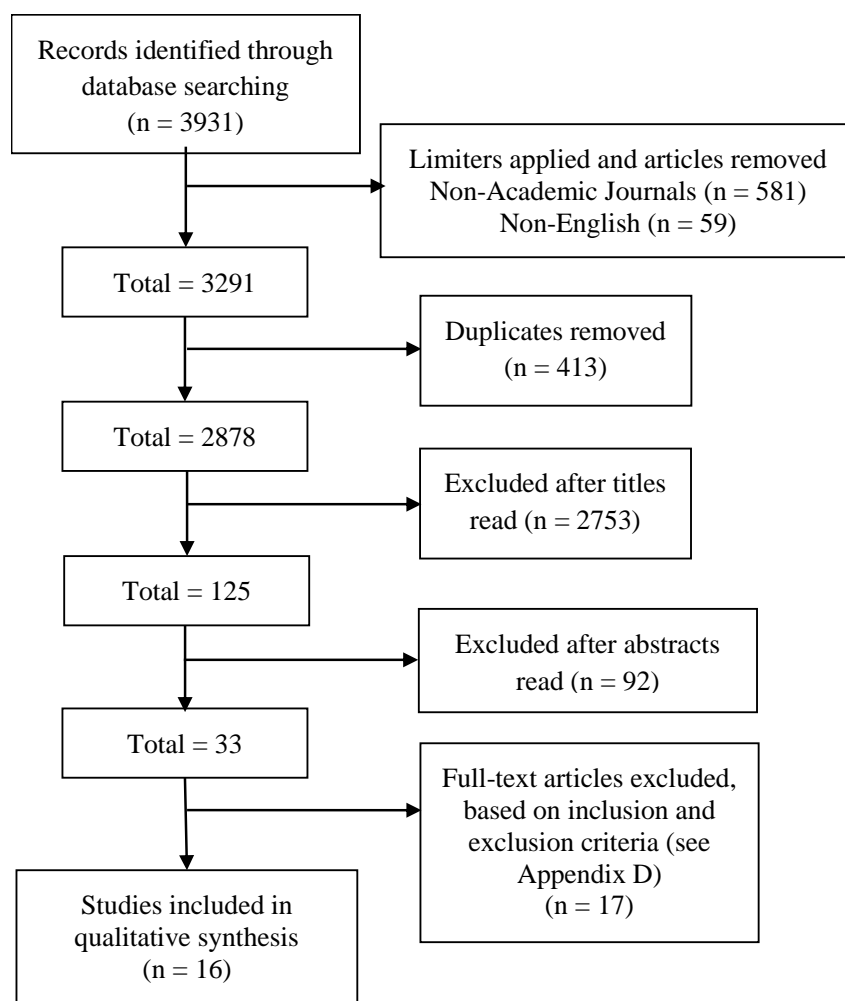
Figure 1. PRISMA flowchart representing the selection of articles (Moher, Liberati, Tetzlaff & Altman, 2009),

3.2. Methodological Quality

The quality of each study was assessed using the modified Down's and Black (1998) checklist (see Appendix C). A sample of 25% of the papers was rated by an independent researcher to check the reliability of the methodological quality assessment

and there was 78% agreement. Cohen's kappa (κ) was calculated to assess agreement (McHugh, 2012) and moderate agreement was achieved ($\kappa = .49$, $p < .001$). This indicated that the agreement was true and not due to chance, and suggested that the assessment conducted by the researcher was reliable. Based on this checklist, a score above 20 was good, between 15 and 19 was fair and below 14 was poor (Kennelly, 2011). Accordingly, four studies were poor, eight were fair and four were good quality. Quality scores as a percentage ranged from 86% (Barlow et al., 2013) to 43% (Mayers, Hager-Budny, & Buckner, 2008). This indicates the variability of methodological quality in this body of literature. The scores were calculated to assess the quality of this area of literature as a whole and scores for individual papers were not influential in the analysis of the findings.

The different studies all had areas of strength and weakness (see Appendix E). All studies reported aims, objectives and main outcomes, and most reported participant and intervention characteristics. Numerical data were well-reported and statistical analyses were planned at the outset using appropriate tests. Outcome measures used were valid and reliable, and participants were recruited over the same time period.

There were also areas of methodological weakness. Few studies reported whether participants and interventions were representative of the rest of the population. There was little data on compliance to intervention or adverse events. Few studies adjusted for confounding factors or losses at follow up in analyses, or used a power calculation. There was limited use of blinding to intervention and concealment to condition was rare for participants.

Table 1: *Details of papers included in the review*

Author and Country of Study	Participant Characteristics	Length of Intervention	Intervention	Measures	Results	Methodological Quality
Barlow et al. (2013) USA	Intervention Group (N=159) inclusion criteria: •Pregnant American-Indian teenagers •Aged 12 - 19 •<32 weeks pregnant •Recruited from four local American-Indian community areas. Control Group (N=163) inclusion criteria •Same as intervention group	12 months Measures taken:12 months after birth	RCT *Intervention* Family Spirit programme plus standard care. 43 lessons covering parenting skills, drug abuse prevention, psychosocial development and life skills. Visits occurred weekly through pregnancy, biweekly until child was 4 months old, then monthly visits until the child was one year old *Controls* Standard Care alone included transporting mothers to clinic visits, providing information leaflets about child care and community resources, and making referrals to local services for mothers.	PLOC scale	Intervention group had higher locus of control scores compared to controls.	86
Barlow et al. (2015) USA	Intervention Group (N=159) inclusion criteria: •Pregnant teenagers •Aged 12 - 19 •<32 weeks pregnant. •Recruited from four local American-Indian community areas	12 months Measures taken:36 months after birth	RCT *Intervention* Family Spirit programme plus standard care. 43 lessons covering parenting skills, drug abuse prevention, psychosocial development and life skills. Visits occurred weekly through pregnancy, biweekly until child was 4 months old, then monthly visits	CES-D, PLOC, PSI short form	Intervention participants had significantly higher locus of control scores. No significant differences in parenting stress scores. Intervention group had significantly lower depression scores post-intervention.	82

	Control Group (N=163) inclusion criteria: •Same as intervention group		until child was one year old and bimonthly visits until the child was three years old. *Controls* Standard Care alone included transporting mothers to clinic visits, providing information leaflets about child care and community resources, and making referrals to local services for mothers.			
Barnet, Duggan, Devoe & Burrell (2002) USA	Intervention Group (N=118) inclusion criteria: •Teenagers aged 12-18 •Attending a school for teen mums •Either in third trimester or had given birth in last 6 months Control Group (N=114) inclusion criteria: •Same as intervention group	3.5 years	RCT *Intervention* Sessions to improve positive child development by encouraging nurturing, empathic parenting plus usual care. *Controls* Both groups received usual services at school including lessons, parenting classes, day care, and health care support.	MHI-5, PSI short form	The intervention group had significantly better scores on parent-child dysfunctional interaction subscale compared to controls. Intervention had no significant effect on mental health symptoms.	54
Cox, Buman, Woods, Famakinwa & Harris (2012) USA	Intervention Group (N=181) inclusion criteria: •Teenage mothers •Aged 14 - 18 •Recruited within first week of giving birth	2 years Measures taken at baseline and post-intervention	*Intervention* Raising Teenage Families Together intervention used a medical home where participants were required to visit for regular appointments in a medical setting. Staff members worked as a comprehensive care team on-site. During appointments,	CES-DC	No significant changes in depression scores post-intervention.	54

	from the local hospital			medical staff provided health and social support.		
Herrmann, Van Cleve & Levisen (1998) USA	Intervention Group (N=56) inclusion Criteria: •First time teenage parents •Aged 12 - 17 •Given birth in past 8 weeks. •Recruited from the county health department caseload	18 months Measures taken at baseline and after 6 months	*Intervention* Participants were visited at home at least once a month. Visits were health-focused and included assessment, education, diet support, family planning, monitoring health problems, informing participants about childcare, promoting safe home environment, providing transportation to appointments and promoting school attendance.	RSES, PSOC	Significant drop in self-esteem in first 6 months. Small increase in parental perceived competence scores but not significant.	50
Hudson, Campbell-Grossman & Hertzog (2012) USA	Intervention Group (N=21) inclusion criteria: •Aged 16 - 21 •9 months pregnant •First time mothers •Not living with the child's father. •Recruited from prenatal health clinics Control Group (N=21) inclusion criteria: •Same as intervention group	6 months from first week after birth	RCT *Intervention The New Mother's Network* Mothers could read information online about caring for themselves and their children with discussion forum. Participants could e-mail nurses too. Participants were visited at home 1 week, 1 month, 3 months and 6 months after giving birth. *Controls* Usual care - providing resources and information	CES-D, RSES, Loneliness scale, PSS	Self-esteem levels in the intervention group decreased after 3 and 6 months. Self-esteem scores for controls decreased but significantly above baseline at six months. No significant difference in other outcomes.	54

Jacobs et al. (2016) USA	Intervention Group (N=417) inclusion criteria •First time mothers •Aged 16 - 19; •Either pregnant or parenting. •Participants self-referred Control Group (N=267) inclusion criteria •Same as intervention group	4 years	RCT *Intervention* Home visits based on goal setting, lessons and support. During pregnancy, biweekly visits, moving to weekly visits for first six months after birth. *Controls* Given routine health information	PSI (short form)	Participants in intervention group reported significantly fewer difficulties with children at 12 months of age and less parenting distress at 24 months of age.	57
Koniak-Griffin, Anderson, Verzemnieks & Brecht (2000) USA	Intervention Group (N=62) inclusion criteria •First time mothers •<26 weeks pregnant •Aged 14 - 19. •Recruited from community health services Control Group (N=59) inclusion criteria •Same as intervention group	21 weeks gestation to six weeks after birth	RCT *Intervention* 17 home visits and four pregnancy classes covering life skills, social support, health, family planning and maternal role *Controls -* Standard public health nursing including 2 visits during pregnancy, assessment and counselling plus one visit in first 6 weeks after birth	Internal Social Competence measure designed by the researchers - combination of RSES, CES-D, SMS, PSS	Both groups increased in overall social competence but there was no significant difference between groups.	75

Logsdon, Birkimer, Simpson & Looney (2005) USA	Intervention Group (N=85) inclusion criteria •32-36 weeks pregnant •Aged 13 - 18. •Recruited from school for teenage mothers Control Group (N=24) inclusion criteria •Same as intervention group	From pregnancy up to 6 weeks post-partum	RCT *Intervention* Participants were assigned to three treatment groups and were given information in assigned format (video (N=27), leaflet (N-26) or both (N-32)); also given Information about social support. *Controls* Received standard information.	CES-D, RSES	Self-esteem scores improved post- intervention but this was not significant. Depression scores were lower after intervention in both groups with no significant differences in scores between treatment groups	71
Logsdon, Foltz, Stein, Usui & Josephson (2010) USA	Intervention Group (N=20) inclusion criteria •First time mothers •4 - 6 weeks post-birth •Aged 13 - 18. •Scored above cut off on CES-D or had a diagnosis of depression •Recruited from parenting group Control Group (N= not reported) inclusion criteria •People screened who did not take part •Same as intervention group	Six months	*Intervention* Eleven 15-20 minutes telephone calls weekly for four weeks focusing on barriers to accessing mental health support. Calls were then fortnightly for two months, then monthly for two months. *Controls* Were screened for the study but did not take part, measures were repeated 6 months post-screening.	CES-D	Intervention group were more depressed at baseline, but scores increased to control levels post-intervention.	50

Mayers, Hager-Budny and Buckner (2008) USA	Intervention Group (N=52) inclusion criteria •First time mothers •4 - 6 weeks post-birth •Aged 12 - 22. •Recruited from local schools Control Group (N=33) inclusion criteria •Same as intervention group	6 - 20 months	*Intervention* Delivered in three formats depending on the needs of participant, either education and guidance, social supportive or psychotherapy. Participants also attended parenting groups. *Controls* No intervention	PSI short form	No significant differences between groups in parenting stress. After removing participants who scored high on defensive responding scale, the intervention group improved significantly on Parent–Child Dysfunctional Interaction scale.	43
McDonell, Limber & Connor-Godbey (2007) USA	Intervention Group (N=107) inclusion criteria •Pregnant or parenting •Aged <18 •Low income backgrounds •Recruited from community Control Group (N=90) inclusion criteria •Same as intervention group	2 years	RCT *Intervention* The intervention involved identifying needs and goals of each participant and engaging them in services appropriate for meeting those. *Controls* Standard community services	Self-Efficacy Scale	Intervention group had higher self-efficacy scores following intervention compared to control groups.	64

Samankasikorn, Pierce, Ivany, Gwon, Schminkey & Bullock (2016) USA	Intervention Group (N=83) inclusion criteria •Pregnant teenagers •Attending Resource Mothers Programme Control Group (N=67) inclusion criteria •Pregnant teenagers •Attending Resource Mothers Program	From pregnancy to three months after birth	RCT *Intervention* Twice monthly visits during pregnancy and monthly in child's first year. *Comparison* Telephone support group. Participants received calls every month from pregnancy to a year after birth.	EPDS, PPP	The intervention group self-esteem scores improved significantly following intervention. There were no significant differences between groups' depression scores after the intervention.	54
Smith-Battle, Lorenz & Leander (2013) USA	Intervention Group (N=9) inclusion criteria •Third trimester of pregnancy •Aged 15-19. •First time mothers •Referred by other professionals Control Group (N=10) inclusion criteria •Same as intervention group	From third trimester of pregnancy to six months after birth	RCT *Intervention* Nurses were trained in intervention using narrative and therapeutic techniques to improve relationship between nurse and teenage mother. Techniques included letter writing, a baby journal and 'speaking for the baby'. *Controls* Nurses completed usual care of two home visits during pregnancy, two visits in first month after birth and monthly visits for six months. Each visit included assessments and health education on self-care, nutrition, family planning, infant safety and development, childcare, and community resources.	CES-D	Both groups' depression scores decreased but this was not significant.	46

Thomas & Looney (2004)	Intervention Group (N=41) inclusion criteria •First time mothers •Pregnant or parenting •Aged 14-20. •Recruited from a residential treatment home	12 - 26 weeks	*Intervention* 12 week nurturing programme focusing on relational aspects of parenting plus 12 - 14 weeks of psychoeducational and counselling group.	CES-D, RSES	Depression scores increased at post-intervention for residential home participants but not significantly. No significant difference between self-esteem scores for either site over time.	57
Vorhies et al. (2009) USA	Intervention Group (N=25). Inclusion Criteria: •Aged 12-21 •Living in transitional home •Had been in care. •Axis 1 disorder* and experienced childhood maltreatment.	10 months	*Intervention* Participants living in the home receiving 24-hour staff support, employment and education services, mental health support and drop-in service providing health care, child development classes, life coaching, and Theraplay®.	BSI and PSI	No significant difference in BSI or PSI scores post-intervention	54

Axis 1 Disorder is a classification of mental health problems used in the Diagnostic and Statistics Manual - Fourth Edition (DSM-IV; American Psychiatric Association, 2000). Axis 1 includes any mental health problems excluding personality disorders, and these problems tend to be the most common in the public. This incorporates anxiety, mood, eating, psychotic, dissociative and substance use disorders.

Abbreviations of Measures Used: BSI = Brief Symptom Inventory, CES-D = Center for Epidemiological Studies Depression Scale, CES-DC = Center for Epidemiological Studies Depression Scale - Child Version, EPDS = Edinburgh Postnatal Depression Scale, MHI-5 = Mental Health Inventory Sort Version, PLOC = Parental Locus of Control Scale, PSOC = Parenting Sense of Competency Scale, PSI = Parenting Stress Index, PSS = Perceived Stress Scale, PPP = Prenatal Psychosocial Profile, RULS = Revised UCLA Loneliness Scale, RSES = Rosenberg Self Esteem Scale, SES = Self-Efficacy Scale, SMS = Sense of Mastery Scale.

3.3. Characteristics of Included Studies

3.3.1. Location

All of the studies included in the review were conducted in the United States of America.

3.3.2. Recruitment

Seven studies recruited participants during pregnancy (Barlow et al., 2013; Barlow et al., 2015; Hudson, Campbell-Grossman, & Hertzog, 2012; Koniak-Griffin, Anderson, Verzemnieks, & Brecht, 2000; Logsdon, Birkimer, Simpson, & Looney, 2005; Samankasikorn et al., 2016; Smith-Battle, Lorenz, & Leander, 2013). Three studies recruited participants after giving birth (Cox, Buman, Woods, Famakinwa, & Harris, 2012; Herrmann, Van Cleve, & Levisen, 1998; Logsdon, Foltz, Stein, Usui, & Josephson, 2010). Six studies recruited participants who were either pregnant or had given birth (Barnet, Duggan, Devoe, & Burrell, 2002; Jacobs et al., 2016; Mayers et al., 2008; McDonell, Limber, & Connor-Godbey, 2007; Thomas & Looney, 2004; Vorhies et al., 2009).

3.3.3. Comparison Groups

One study compared the intervention group to another intervention that was above what would be offered as routine care which was a telephone-based supportive intervention (Samankasikorn et al., 2016). Nine studies compared the intervention group to routine care provided in the area (Barlow et al., 2013; Barlow et al., 2015; Barnet et al., 2002; Hudson et al., 2012; Jacobs et al., 2016; Koniak-Griffin et al., 2000; Logsdon et al., 2005; McDonell et al., 2007; Smith-Battle et al., 2013). Three studies compared the intervention group to a control group who received no specific intervention (Logsdon et al., 2010; Mayers et al., 2008; Thomas & Looney, 2004). Three studies had no control

groups and compared the intervention group pre- and post-measure scores (Cox et al., 2012; Herrmann et al., 1998; Vorhies et al., 2009).

3.3.4. Length of study

The studies varied in length from twelve weeks to three years.

3.3.5. Measures

The studies included did not exclusively measure the outcomes of interest in this review. The majority of studies in this field looked at health-related and child development outcomes. The studies tended to include measures of mood as part of a bundle of maternal outcome measures; therefore, the data taken from each paper were the outcomes of interest for this review. For a comprehensive list of the measures used by each study and a description, see Table 2. Across the studies a range of different measures were used, some of which were used by many studies and are well researched, validated and reliable, such as the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977). Other studies used measures based on less research or with poorer psychometric properties, such as the Sense of Mastery Scale (SMS; Pearlin & Schooler, 1978). Some of the measures have been validated for use with teenagers and have normative data whereas others have not been widely used or validated with this population.

Table 2: *Characteristics of outcome measures used in the included studies*

Measure, Author and Study	Description
Brief Symptom Inventory (BSI; Derogatis, 1993) (Vorhies et al., 2009)	The BSI is a 53-item scale used to measure a range of mental health symptoms and is appropriate for a clinical population. Items are rated on a 5-point scale to assess symptom intensity. The BSI has been normed using a

teenage population and has good psychometric properties (Derogatis, 1993).

Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977)

(Barlow et al., 2015; Hudson et al., 2012; Koniak-Griffin et al., 2000; Logsdon et al., 2005; Smith-Battle et al., 2013; Thomas & Looney, 2004)

A 20-item questionnaire where respondents rate the frequency they experienced symptoms of depression in the past week, such as loneliness, appetite changes and sleep problems. Each item is rated on a scale from 0 to 3, (0 = Rarely or None of the Time, 1 = Some or Little of the Time, 2 = Moderately or Much of the time, 3 = Most or Almost All the Time). Scores range from 0 to 60 and scores above 16 indicate clinical risk of depression, with good sensitivity and internal consistency (Lewinsohn, Seeley, Roberts, & Allen, 1997). The CES-D has been validated for use with teenagers but there is discrepancy about the appropriate cut-off in this population (Garrison, Addy, Jackson, McKeown, & Waller, 1991; Radloff, 1991).

Center for Epidemiological Studies Depression Scale - Child Version (CES-DC; Faulstich, Carey, Ruggiero, Enyart, & Gresham, 1986)

 (Cox et al., 2012)

The CES-DC is similar to the CES-D above, using the same question structure but modified for age. A score of 15 or above is considered a cut off for clinical risk of depression. The measure has good reliability and validity when used with teenagers (Faulstich et al., 1986).

Edinburgh Postnatal Depression Scale (EPDS; Cox, Holden, & Sagovsky, 1987)

(Samankasikorn et al., 2016)

The EPDS is a 10-item scale consisting of statements relating to symptoms of post-natal depression, including whether respondents can 'see the funny side of things' or 'have been anxious and worried for no reason'. Each item is rated on a four-point scale for level of severity in

the past week. The EPDS has good sensitivity to measure change over repeated presentations (Cox, et al., 1987). The EPDS has also been validated for use with teenagers, demonstrating good psychometric properties (Logsdon, Usui, & Nering, 2009).

Mental Health Inventory - Short Version (MHI-5; Berwick et al., 1991; Veit & Ware, 1983)

(Barnet et al., 2002)

The MHI-5 is a five-item scale that asks respondents to rate how much each item applied to them in the last month. Items are rated on a six point scale from 'none of the time' to 'all of the time'. The items are 'a very nervous person', 'downhearted', 'calm and peaceful', 'so down in the dumps that nothing could cheer you up' and 'happy'. Higher scores on the MHI-5 identify better mental health (Cuijpers, Smits, Donker, ten Have, & de Graaf, 2009). The MHI-5 is a shortened version of the Mental Health Inventory containing five of the original items. The five item version is as good at identifying poorer mental health as the full version (Berwick et al., 1991). Whilst the MHI-5 is not validated for teenagers, the full version is (Ostroff, Woolverton, Berry, & Lesko, 1996) which provides some support for its use.

Parental Locus of Control Scale (PLOC; Campis, Lyman, & Prenticedunn, 1986)

(Barlow et al., 2013; Barlow et al., 2015)

The PLOC scale consists of 48 items and respondents rate their agreement with each item on a 5 point Likert scale from strongly disagree to strongly agree. The scale assesses parental efficacy, belief in fate, perceived responsibility, ability to control their child's behaviour and how much the child controls the parent's life. The PLOC scale has good validity in an adult population

(Campis et al., 1986), but has not been validated for use with teenage mothers.

Parenting Sense of Competence Scale (PSOC; Gibaud-Wallston & Wandersman, 1978)

(Herrmann et al., 1998)

The PSOC is a 17 item scale asking respondents to rate how much they agree with each statement on a six point scale ranging from strongly disagree to strongly agree. The scale measures competence on two dimensions, efficacy and satisfaction, with nine items loading on to the satisfaction dimension and seven for efficacy. The PSOC demonstrates validity amongst adult respondents (Ohan, Leung, & Johnston, 2000) but this has not been assessed in teenage parents.

Parenting Stress Index (PSI; Abidin, 1995)

Short Form (Barlow et al., 2015; Barnet et al., 2002; Jacobs et al., 2016; Mayers et al., 2008)

Full Version (Vorhies et al., 2009)

The PSI is a 120-item scale that assesses stress levels in the parent-child relationship based on both personal and situational factors. The items load onto seven dimensions of parental competence (competence, isolation, attachment, health, role restriction, depression, and spouse) and six dimensions relating to child factors (distractibility/hyperactivity, adaptability, reinforces parent, demanding behaviour, mood, and acceptability). There is also a 36-item short form version of the PSI. The items load onto three dimensions: parental distress, parent–child dysfunctional interaction and difficult child. A total stress scale can be obtained by combining child and parent dimension scores. Both versions of the PSI are well-validated with adult populations (Abidin, 2012) but there are no validation studies with teenage parents.

Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983) (Hudson et al., 2012; Koniak-Griffin et al., 2000)	The PSS is a ten item scale where respondents rate the frequency they have experienced certain feelings in the last month. Items are rated on a five point scale from 'never to 'very often'. The measure has good psychometric properties (Roberti, Harrington & Storch, 2006) but has not been normed with teenagers.
Prenatal Psychosocial Profile (PPP; Curry, Burton, & Fields, 1998) (Samankasikorn et al., 2016)	The PPP is consists of a measure of stress developed by the authors, the Support Behaviours Inventory (Brown, 1986), and the Rosenberg Self-Esteem Scale (1965). The PPP has 11 items which respondents rate based on the amount of stress they perceive each item to cause, from no stress to severe stress. The PPP also measures assessment of support which is divided into two scales; partner support and support from other people. Both scales have 11 items and respondents rate each one with a level of satisfaction from 'very dissatisfied' to 'very satisfied'. The PPP also includes an assessment of self-esteem containing 11 items that respondents rate from strongly agree to strongly disagree. The PPP is well validated and has been used with teenage parents (Curry et al., 1998; Curry, Campbell, & Christian, 1994).
Revised UCLA Loneliness Scale (RULS; Russell, Peplau, & Ferguson, 1978) (Hudson et al., 2012)	The RULS is a 20 item scale that measures loneliness and social isolation. Respondents rate each item on a scale from 'never' to 'often' as to how frequently they experience each statement. The measure had good reliability and validity (Russell, 1996) and has been validated for use with teenagers (Mahon, Yarcheski, &

Yarcheski, 1995).

Rosenberg Self Esteem Scale (RSES; Rosenberg, 1965) (Herrmann et al., 1998; Hudson et al., 2012; Koniak-Griffin et al., 2000; Thomas & Looney, 2004)	The RSES is a 10-item scale made up of 4-point Likert scales linked to statements measuring positive and negative feelings of self-worth. Participants rate their outlook from strongly disagree to strongly agree for each statement. The RSES shows good validity for students of a similar age to this population (Martin-Albo, Nunez, Navarro, & Grijalvo, 2007).
Self-Efficacy Scale (SES; Sherer et al., 1982) (McDonell et al., 2007)	The SES is a 23 item scale where respondents rate statements on a five-point scale from "disagree strongly" to "agree strongly". The measure has some limited evidence of validity (Sherer et al., 1982) but has not been validated for use with teenagers.
Sense of Mastery Scale (SMS; Pearlin & Schooler, 1978) (Koniak-Griffin et al., 2000)	The SMS is a seven-item scale comprising of statements about the amount of control people have over aspects of their life; examples include 'there is really no way I can solve some of the problems I have in my life'. Each item is rated from strongly disagree to strongly agree on a four-point scale. There are no studies investigating the reliability or validity of this measure.

3.4. Overview of Interventions

3.4.1. Interventions Location

These studies used face-to-face methods to deliver their intervention. Seven studies conducted individual home-visits (Barlow et al., 2013; Barlow et al., 2015; Herrmann et al., 1998; Jacobs et al., 2016; McDonell et al., 2007; Samankasikorn et al., 2016; Smith-

Battle et al., 2013). Three studies offered individual home visits plus group support, such as parenting classes or support groups (Barnet et al., 2002; Koniak-Griffin et al., 2000; Mayers et al., 2008). One study conducted a group intervention programme (Thomas & Looney, 2004). Two studies provided wraparound out-of-home interventions providing multidisciplinary support (Cox et al., 2012; Vorhies et al., 2009). Three studies used non face-to-face methods to deliver the intervention. One study used an internet-based intervention programme (Hudson et al., 2012). Another study used telephone calls (Logsdon et al., 2010). A further study used an information-giving approach (Logsdon et al., 2005). There was no relationship between study quality and whether it was delivered through direct or indirect methods.

3.4.2. Objectives

Eleven studies' stated aims were to improve psychological wellbeing (Barlow et al., 2013; Barlow et al., 2015; Barnet et al., 2002; Herrmann et al., 1998; Hudson et al., 2012; Logsdon et al., 2010; Logsdon et al., 2005; Mayers et al., 2008; McDonell et al., 2007; Thomas & Looney, 2004; Vorhies et al., 2009). Five studies aimed to evaluate their programme effectiveness without specific focus on psychological wellbeing (Cox et al., 2012; Jacobs et al., 2016; Koniak-Griffin et al., 2000; Samankasikorn et al., 2016; Smith-Battle et al., 2013).

3.4.3, Intervention Delivery

Four interventions were delivered by health nurses (Herrmann et al., 1998; Hudson et al., 2012; Koniak-Griffin et al., 2000; Smith-Battle et al., 2013) and one by psychiatric nurses (Logsdon et al., 2010). Another was delivered by trained volunteers (Barnet et al., 2002). One intervention was delivered by a therapist; the study did not specify what model of therapy they were trained in (Thomas & Looney, 2004). Two studies were delivered by paraprofessionals, people who were trained to deliver the intervention

without a previous professional qualification (Barlow et al., 2013; Barlow et al., 2015). One study was delivered by community health workers (Samankasikorn et al., 2016). Two studies used a multidisciplinary approach and had different professionals delivering the intervention including nurses, therapists and social workers (Cox et al., 2012; Vorhies et al., 2009). Three studies did not specify who delivered the intervention (Jacobs et al., 2016; Mayers et al., 2008; McDonell et al., 2007). One study did not require a person to deliver the intervention (Logsdon et al., 2005).

3.4.4. Theoretical Basis

Six studies identified specific theoretical models used to inform the intervention. Logsdon et al. (2010) utilised the trans-theoretical model of change (Prochaska & Velicer, 1997). Thomas and Looney (2004) drew on social learning theory to inform their intervention (Bandura, 2000). Herrmann et al. (1998) used Erikson's (1950) psychosocial stages model and Hudson et al. (2012) based their intervention on social support theory (House, 1981). Barnet et al. (2002) also employed social support theory alongside attachment, (Bowlby, 1988), and human ecology theory (Bubolz & Sontag, 2009). Logsdon et al. (2005) based their intervention on dual coding theory - the notion that when information is presented in multiple formats, a person can problem solve more creatively (Clark & Paivio, 1991).

Koniak-Griffin et al. (2000) based their work on another intervention, the Nurse-Family Partnership (Olds, Henderson, Chamberlin, & Tatelbaum, 1986), and Barlow et al. (2013) used a conceptual theory developed by the researchers. The remaining studies did not cite a specific theoretical background (Barlow et al., 2015; Cox et al., 2012; Jacobs et al., 2016; Mayers et al., 2008; McDonell et al., 2007; Samankasikorn et al., 2016; Smith-Battle et al., 2013; Vorhies et al., 2009).

3.4.5. Approach

Some of the studies identified specific therapeutic approaches and techniques used in their interventions. Mayers et al. (2008) used three approaches: a psychodynamic psychotherapy approach (Lieberman & Pawl, 1993), strength-based videotape analysis (McDonough, 2000), and mentalization (Fonagy, Gergely, Jurist, and Target, 2002). Logsdon et al. (2010) employed motivational interviewing (Miller & Rollnick, 2002) and Thomas and Looney (2004) used person-centred experiential therapies, such as Gestalt therapy. Smith-Battle et al. (2013) used a narrative approach, specifically focusing on empathic listening. McDonell et al.'s (2007) approach was strengths-based, focusing on the wider system. Logsdon et al. (2005) used a psychoeducation approach whereas Cox et al. (2012) used a multidisciplinary, compassionate, family-centred method. Vorhies et al. (2009) used dialectal behavioural therapy (Linehan, 2014) and Theraplay™ (Booth & Jenberg, 2010).

The remaining seven studies did not cite a therapeutic approach (Barlow et al., 2013; Barlow et al., 2015; Barnet et al., 2002; Hermann et al., 1998, Hudson et al., 2012; Jacobs et al., 2016; Koniak-Griffin et al., 2000; Samankasikorn et al., 2016).

3.4.6. Summary

The studies in this review employed a range of formats, with the majority opting for an individual approach. Studies were developed from different theoretical backgrounds and used various therapeutic approaches. They had different objectives and focuses, and were delivered by a variety of professional and non-professional teams.

3.5. Outcomes of Interventions

Ten of sixteen studies in this review reported significant improvements, but each impacted only a single aspect of psychological wellbeing. This suggests some

improvement can be achieved through interventions but not global improvement. Interestingly, three of the four high quality studies found significant improvements in psychological wellbeing compared to only one of the poor quality studies. This suggests there may be some relationship between study quality and outcomes, but this was inconsistent in the eight studies that were "fair" quality, as two studies reported worsening psychological wellbeing, two found improvements and the remaining four concluded there was no significant change.

3.5.1. Depression

The studies evaluating depressive symptoms used the EPDS, CES-D or CES-DC, which have all been validated for use with teenagers, suggesting depressive symptoms were reliably measured and was understood based on symptom severity. Methodological quality was variable for depression studies, with scores ranging from 86% to 46%.

The Family Spirit intervention (Barlow et al., 2015) was the only intervention to improve depressive symptoms significantly more in the intervention group compared to controls. Other interventions found improvements in both intervention and control groups, (Logsdon et al., 2005; Smith-Battle et al., 2015). Logsdon et al. (2010) found scores in the intervention group improved to below cut-off and their scores were not significantly different from the control group post-intervention. The mean depression scores in Cox et al. (2012) were above the cut-off for depression (Faulstich et al., 1986) and remained at this level post-intervention, suggesting the medical home model was ineffective at improving psychological wellbeing. Furthermore, Thomas and Looney, (2004) found a non-significant improvement in participants depressive symptoms, but the mean score was still above cut-off and more participants were classed as depressed post-intervention. These findings suggest studies that were conducted in teenage mothers' homes were more effective at improving depression symptoms compared to

out-of-home programmes. Basing the study on a theoretical model or a specific

approach did not affect the likelihood of studies finding significant differences.

Therefore location appears more important than the content or approach of interventions

in reducing depressive symptoms. For example, Smith-Battle at al. (2015), found care

as usual led to improvements in depressive symptoms through home visits, and although

Logsdon et al. (2005) did not have face-to-face contact, their intervention involved

participants accessing supportive materials at home. Intervention length did not relate

to effectiveness, however interventions that were focused on educating teenage mothers

(Barlow et al., 2015; Logsdon et al., 2005) were more effective than studies that were

reactive to problems (Cox et al., 2012).

3.5.2. Self-Esteem

The studies assessing self-esteem were on the borderline between poor and fair in

methodological quality, with scores ranging from 50% to 54% (the cut-off for fair

quality was 53.5%). This area of literature is therefore limited in depth and quality.

All studies measuring self-esteem were based in the home and involved some direct

contact between the participant and professionals. Samankasikorn et al. (2016) found a

significant improvement in self-esteem, whilst Hudson et al. (2012) and Hermann et al.

(1998) found a significant decrease in self-esteem post-intervention. Therefore the

method of intervention was not related to the findings of the studies. Having a specified

theoretical basis or approach also did not relate to the outcome of the study. The main

difference between the three studies was Samankasikorn et al. (2016) was shorter,

suggesting length of intervention may be important for self-esteem. Finally,

Samankasikorn et al. (2016) used the PPP to measure self-esteem which has been

validated for use with teenage mothers, whereas the other studies used the RSES, not

validated with teenagers. This suggests measurement of self-esteem may have some influence on findings.

3.5.3. Locus of Control

Two studies measured locus of control and both found significant improvements in locus of control compared to controls (Barlow et al., 2013; Barlow et al., 2015). Both studies had good methodological quality, were delivered in participants' homes and involved face-to-face contact. Furthermore, these studies were not targeted at improving locus of control specifically, but covered a broad programme and a range of topics relevant to teenage mothers over a long period (up to 3 years).

3.5.4. Self-Efficacy

Only one study measured self-efficacy, and found significant improvements post-intervention (McDonell et al., 2007). The study was individualised to each participant, helping them to identify and reach their own goals through use of other services. One weakness of this study was the measurement of self-efficacy, using the Self-Efficacy Scale (Sherer et al., 1982), which has limited research to validate its' use, especially with teenage mothers.

3.5.5. Stress

The PSI was used across all studies focusing on parenting stress; however this tool is not validated for teenage mothers, but has been well-researched in adult parents. One study measured stress more generically using the Perceived Stress Scale, (Hudson et al., 2012), which is also not validated for teenagers. Study quality was variable, ranging from 43% to 82%, however there was no relationship between quality and effectiveness.

Three studies found a significant improvement in parenting stress (Barnet et al., 2002; Mayers et al., 2008; Jacobs et al., 2016) whereas two did not (Barlow et al., 2015;

Vorhies et al., 2009). There was no relationship between having a specific theoretical rationale or approach and achieving significant outcomes; however studies that were effective were focused on topics related to parenting stress. For example, Barnet et al.'s (2002) intervention focused on empathic parenting and reported improvement in parent-child interaction-related stress. Also, tailoring the intervention to participants needs' was effective as reducing parenting stress in two studies (Jacobs et al., 2010; Mayers et al., 2008). On the other hand, Barlow et al. (2015) delivered a broad intervention focused on education and skill development but did not reduce parenting stress. This was also seen for Hudson et al. (2012) who found no change in stress following an internet-based, informative intervention. Furthermore, residential interventions did not improve parenting stress (Vorhies et al., 2009).

3.5.6. Mental Health

Mental health was measured differently in the two studies, but both focused on symptom frequency and intensity. Vorhies et al. (2009) aimed specifically to improve maternal mental health in a residential setting, but did not achieve this. Barnet et al. (2002) instead focused on parenting approach through home visits, but this did not affect mental health symptoms.

3.5.7. Other

Koniak-Griffin et al. (2000) found significant improvement in social competence in both intervention and control groups. The intervention group had more input and covered broader material compared to controls yet the improvement in both groups was not significantly different. Furthermore, the measure was developed by the researchers by combining existing measures of depression, self-esteem mastery and stress, so it is unclear whether improvement was seen in all areas or whether the results may be skewed by improvements in only one or two areas. Hudson et al. (2012) used an

internet-based intervention to provide information, but this did not have a significant impact on loneliness compared to the control group. No other studies measured loneliness. Hermann et al. (1998) measured parental sense of competence following a health-focused intervention, and found a small but non-significant increase. As there was no control group, it is difficult to measure the validity of the result.

3.6. Summary of Results

Overall, studies that demonstrated some congruence between the element of psychological wellbeing being measured and content delivered in interventions were more likely to find significant results. Specifically for depression, programmes that were delivered at home were more effective. Interventions with a wider focus were more likely to have significant outcomes. Individualising the programme to the needs of participants also led to greater improvements.

4. Discussion

This review aimed to explore the effect of interventions for teenage mothers on psychological wellbeing. The research questions were: how is psychological wellbeing defined in interventions for teenage mothers, how is psychological wellbeing measured in teenage mothers and does this impact on the effectiveness of the intervention, and what components of interventions lead to improvements in psychological wellbeing?

Using a systematic approach, the review identified sixteen studies reporting on fifteen interventions. Studies were categorised as in or out of home and as face-to-face or indirect. The studies varied in methodological quality with a mix of good (n=4), fair (n=8) and poor quality studies (n=4). Most interventions were conducted with individuals but they varied in approach and setting. A range of different outcome

measures were used which meant it was not appropriate to conduct a meta-analysis; therefore, a narrative synthesis approach was used (Popay et al., 2006).

Whilst psychological wellbeing was the identified construct for this review, the majority of the studies did not define psychological wellbeing in the same way. Instead, studies either defined psychological wellbeing as an absence or reduction of mental health symptoms or the reported levels of parenting stress or self-esteem. This suggests psychological wellbeing is poorly defined in studies of teenage mothers, and is reduced to specific symptom presentations and individual constructs. This has been highlighted in research with non-parenting children and adolescents, suggesting that current ways of defining and measuring psychological wellbeing in young people are ineffective and neglect to view the person's experiences as a whole (Flannery, Glew, Brewster & Christie, 2017). More holistic models of psychological wellbeing, such as Ryff and Keyes (1995), were not accounted for in current literature. Doge, Daly, Huyton and Sanders (2012) highlighted that a lack of coherence in defining psychological wellbeing across studies impacts how it is measured. Guidelines for research recommend that outcome measures for clinical trials should be reliable, valid and feasible (Fitzpatrick, Davey, Buxton & Jones, 1998), and as broader measures of psychological wellbeing have fewer studies evaluating their use (Ryff & Singer, 1996), studies are likely to have chosen measures based on their familiarity and evidence-base. Although the gold standard of research studies is randomised controlled trials (RCT's), these are expensive, time-consuming and require large sample sizes and are not always achievable (Bothwell, Greene, Podolsky, & Jones, 2016). In this review, the studies were evaluating existing programmes in-action with limited resources available, which conflicts with research processes as service delivery is the main priority (Altman, 1995). Therefore it is possible that studies selected measures of psychological wellbeing based

on the data being collected by existing services, rather selecting the most appropriate measure for research purposes.

Despite the variable definitions and measurement across studies, the results of this review highlight several key components of interventions that appear to be effective in improving psychological wellbeing. Interestingly, different elements of psychological wellbeing were affected by different study components. First, interventions that demonstrated congruence between the construct of psychological wellbeing measured and the nature and format of intervention were more effective, particularly for parenting stress and self-efficacy. Similar findings have been reported in studies of parenting training programmes, with studies that provided more focus on parent-child interaction, communication skills, and parenting consistency being more effective (Kaminski, Valle, Filene & Boyle, 2008). Furthermore, studies individualised to participants' needs led to greater improvements, particularly for parenting stress and self-efficacy. This suggests the appropriateness of the intervention to the teenage mothers' current needs is important. This is also reflected in studies of teenagers with cancer, suggesting support that is appropriate to developmental level and social context leads to better outcomes (Marris, Morgan & Stark, 2011). For studies evaluating symptoms of depression, location was important, with studies at participants' own homes finding greater improvement. Across the studies in this review, interventions in residential or community facilities were less effective which may relate to other factors, such as having to travel out to services, or the reasons behind mothers being in residential care, such as previous neglect or abuse, or mental health difficulties (Mantovani & Thomas, 2001). Home visits, however, enable the development of a strong, positive therapeutic relationship, with some mothers regarding nurses as friends as well as professionals (Landy et al., 2012). Mothers receiving home visits perceive their care and advice to be better and see their nurses as more able and skilled (Lieu et al., 2000). Research in

residential homes suggest it is difficult to develop therapeutic relationships as attachment patterns are disrupted, and adolescents take time to adapt to new patterns (Zegers, Schuengel, van Ijzendoorn, & Janssens, 2006). Given the importance of the therapeutic relationship on intervention outcomes (Asay & Lambert, 1999), it is unsurprising that interventions involving direct one-to-one contact are more likely to lead to more significant changes.

Interestingly, the Family Spirit model (Barlow et al., 2013; Barlow et al., 2015) was the only intervention to significantly impact two areas of wellbeing: depression and locus of control. One difference between the Family Spirit and non-effective interventions for depression was the length, with the Family Spirit model lasting over three years. Other studies lasting three years also found significant improvements in parenting stress (Barnet et al., 2002; Jacobs et al., 2016); suggesting intervention length is an important factor in improving psychological wellbeing. Psychotherapy literature shows that shorter interventions lead to poorer therapeutic relationships in the general population (Eaton, Abeles, & Gutfreund, 1988). Therefore longer interventions may allow stronger therapeutic relationships to develop between teenage mothers and their workers. The therapeutic relationship accounts for 30% of the success of therapy (Asay & Lambert, 1999), highlighting its importance in intervention work. Furthermore, attachment-based research (Bowlby, 1988) shows that the therapeutic relationship in psychotherapy provides an attachment relationship for the patient (Skourteli & Lennie, 2011). Work with mother-infant pairs provides a strong attachment relationship for the mother, modelling positive behaviour and relationships and offering a consistent figure. This then influences the mother's internal working model of relationships providing a stronger attachment relationship for the child (Erickson, Korfmacher, & Egeland, 1992). Having a named worker and consistent attachment figure for three years who constitutes

a secure base for personal development is a clear benefit of the Family Spirit trial compared to shorter interventions.

The Family Spirit model also matched participants with professionals of the same American-Indian origin. Psychotherapy is more effective when there are common factors between the therapist and the recipient, such as culture (Wampold, 2015). Having a worker of the same origin would also improve congruency in language and communication. Furthermore, social identity theory (Tajfel & Turner, 1979) suggests humans identify themselves within in-groups and out-groups, with strong identity forming in the in-group. Group members compare themselves more positively in the group compared to the out-group, boosting self-esteem. Therefore matching workers and participants would improve the strength of the therapeutic relationship and boost mothers' self-esteem.

4.1. Methodological Issues

All the studies in this review were conducted in the United States, and studies in the United Kingdom, Germany, the Netherlands, Australia and Canada were excluded due to the lack of psychological outcomes. These studies all reported on health outcomes and one reason for this is that health is often the focus of government policies. Furthermore, researchers must also report results to maximise the chance of securing long-term funding (Altman, 1995), so studies need to resonate with the political and social climates. In the UK, the current policy aims to prevent teenage pregnancy by halving the conception rate and improve access to education to promote safer sex and improve housing support for vulnerable young people (Skinner & Marino, 2016). This policy was successful and led to a 51% drop in conception rates (Hadley, Ingham, & Chandra-Mouli, 2016), causing the World Health Organisation to recommend that other countries worldwide follow the UK guidelines. This policy neglects to focus on

psychological wellbeing and therefore it is unsurprising that studies would focus more on health outcomes as this is the political focus and would increase the likelihood of securing government funding. The downside of this is that potentially effective programmes are missed and do not receive funding. The Family Nurse Partnership programme (FNP) in the United Kingdom was evaluated on health outcomes (Robling et al., 2015), yet the programme focuses on building maternal confidence and developing strengths and parenting skills as well. In the USA, the programme has demonstrated effectiveness in a range of areas (Olds et al., 1986; Eckenrode et al., 2010; Thorland, Currie, Wiegand, Walsh & Mader, 2017), yet the UK RCT did not cover the breadth of the FNP programme, and this poor measurement, combined with the political landscape, caused funding to be withdrawn. Ultimately, this led to a reduction of support for teenage mothers and compromised the wellbeing of a vulnerable population. Research often loses focus on the people that are being supported, and future research needs to consider this more, perhaps by asking recipients for their opinions and stories about what interventions mean for them.

Another area of weakness in the reviewed studies was the poor analytical strategies used. The majority of studies compared an intervention to a comparison or control group, and compared the two groups' scores at baseline and post-intervention together. Very few studies reported longitudinal data for each group, and therefore there was no indication of whether scores had improved over time for individual groups. For example, Logsdon et al. (2010) found that at baseline, depression scores were higher in the intervention group compared to controls. Post-intervention, the intervention group depression scores improved to the baseline level of the control group. Therefore in a direct comparison between the groups, there was no significant difference; however, when comparing the intervention group baseline and post-interventions scores, a large improvement was evident. Yet, this analysis was not conducted by the researchers and

significance values were not reported. Therefore, some studies may have not

demonstrated effectiveness through poor measurement. This was also evident in studies

targeting self-esteem, with some studies finding significant decreases and others

reporting improvement. After giving birth, maternal self-esteem in adults increases in

the first six months but then decreases overall for the next few years (Bleidorn et al.,

2016; van Scheppingen, Denissen, Chung, Tambs, & Bleidorn, 2017) which suggests

the contrasting results of these studies may reflect a typical progression of self-esteem

changes in parenthood linked to when measures were taken, rather than because of the

interventions being ineffective. Further research should take this into account when

designing methodological approaches to researching the impact of interventions on self-

esteem in teenage parents.

5. Conclusion and Implications

This review has highlighted the wide range of interventions conducted with teenage

mothers across the United States. There is little consistency in approach, with some

offering home visits, others offering residential care, and others providing indirect

support over the telephone or internet. Some of the factors that this review highlighted

as more likely to lead to significant outcomes were congruency between the nature of

the intervention and the outcomes measures, delivering support in participants' homes,

longer interventions and tailoring interventions to participants' needs. The majority of

studies only improved one aspect of psychological wellbeing with one intervention, so

the implications are that multimodal interventions targeting multiple aspects of

wellbeing are not likely to be effective. Currently this is a commonly used approach,

with services for teenage mothers attempting to improve a range of outcomes at once,

such as health, social and psychological outcomes. This review suggests it would be

better for services to focus on one or two specific areas, and perhaps referring teenage

mothers to other sources of support may be more appropriate in improving wellbeing in more areas. Conversely, the most effective intervention with the strongest quality was the Family Spirit model, a longer programme focused on developing a strong relationship between workers and teenage mothers. Perhaps it is the quality of this therapeutic relationship that makes the biggest difference in improving outcomes. This review suggests that residential approaches are not likely to significantly improve psychological wellbeing. More research is needed to determine the impact of the relationships between provider and teenager, and future studies should look to include a measure of relationship quality to understand this further. More holistic research is needed to evaluate the impact of interventions on both physical health and psychological wellbeing, as the two are intrinsically linked. Some of the barriers to this include the mismatch between intervention and measurement, and the political context in which research is embedded. More funding is needed to allow researchers to conduct methodologically sound studies that also reflect the reality of the socioeconomic pressures on intervention programmes and keep the focus on the impact on the participants who benefit from these programmes.

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Part 2: Empirical Research Study

Professionals' Experiences of Resilience in Teenage Mothers

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Abstract

This study aimed to explore resilience in teenage mothers from professionals' perspectives using a positive psychology approach. Participants were eight professionals working with teenage mothers in health and local authority services in the North East of England. Data was collected through semi-structured interviews. Participants were shown definitions of resilience and were asked to reflect on their experiences and people they had worked with, focusing on positive experiences of resilience. Data were analysed using inductive thematic analysis. The findings indicated that professionals see resilience in teenage mothers as a relational process that stems from interactions between the teenage mothers' relationships with themselves, their experiences, their baby and with others. The implications for using a resilience-focused, positive psychology approach in supporting teenage mothers are discussed, highlighting the benefits of strengths-focused intervention and the impact on systems around teenage mothers.

Introduction

In 2001, the United Kingdom had the highest teenage pregnancy rate in Europe (UNICEF, 2001), sparking a widespread interest in research and society. The UK government developed a ten-year teenage pregnancy strategy, aiming to improve education and reduce the conception rate (Skinner & Marino, 2016; Social Exclusion Unit, 1999). This led to funding for services for preventing and supporting teenage mothers (Paton & Wright, 2017) and resulted in a 51% national reduction in the teenage conception rate (Hadley, Ingham, & Chandra-Mouli, 2016). Protected government funding was devolved to local authorities in 2008 due to the financial crash worldwide, and because authorities had to make savings; services for teenage pregnancy were vulnerable, and many cuts were made (Paton & Wright, 2017). Unfortunately, this led to the removal of support for teenage mothers, presenting them with a challenging loss of support.

In 2014, North East Lincolnshire and Kingston Upon Hull had the 4th and 5th highest teenage conception rates in England and Wales with 40.8 and 39.3 conceptions per thousand women aged 15 to 17 respectively (ONS, 2016). Furthermore, Yorkshire and the Humber have the strongest correlation between teenage conceptions and deprivation in the UK (Humby, 2013). Key factors associated with teenage pregnancy include social deprivation, poor educational achievement, being in care, sexual and domestic abuse, poor emotional health, self-harm, substance abuse, underage sexual activity and youth offending (Humby, 2013). Often teenage mothers are exposed to many of these factors (Zolkoski & Bullock, 2012). Despite these risk factors, services provided for teenage mothers are stretched and cannot offer levels of support previously available.

The political interest in teenage parenting led to an abundance of research; however the majority of this focused on outcomes of teenage parenting, painting a negative picture

of poor outcomes and challenging circumstances. In the UK, teenage mothers suffer poor physical and mental health and are more likely to live in social housing, be on benefits and experience relationship breakdowns (Berrington et al., 2005). Children of teenage mothers are more likely to suffer accidental injuries and demonstrate more emotional and behavioural problems (Berrington et al., 2005). Despite research highlighting such poor outcomes, many teenage mothers are successful parents and navigate the challenges of motherhood well, yet no research has explored how this happens. One potential way of understanding this is by studying resilience. Poor resilience in adolescence is associated with poorer mental health and risk of teenage pregnancy (Wille, Bettge, Ravens-Sieberer, & Grp, 2008), highlighting its importance.

Resilience has multiple definitions from different conceptual backgrounds (Davydov, Stewart, Ritchie, & Chaudieu, 2010) Resilience is understood differently in adults, adolescents and parents. For the purposes of this review, the concepts of resilience that are agreed on will be used. Resilience is a person's ability to cope and adapt to maintain healthy functioning despite adverse circumstances (Feder, Charney and Collins, 2011). It acknowledges that negative events can happen, and resilience is the process of overcoming adversity to continue with life. Masten (2001) argued that resilience is not static and changes over time depending on personal context.

In adolescence, resilience is conceptualised as the presence and strength of protective factors buffering against adverse life events (Black & Ford-Gilboe, 2004). Carr (2011) identified factors that contribute to resilience in adolescents and grouped them into coping skills, self-evaluative beliefs, psychological traits, family factors and community factors. Research suggests adolescents who utilise more of these factors develop into adults with fewer difficulties, regardless of experiencing adversity (Carr, 2011). However, this contradicts research by Humby (2013), which identifies poor coping

skills, poor family relationships and poor psychological wellbeing as risk factors for teenage parenting. Therefore factors available to most adolescents may not be available to teenage mothers, and resilience may mean something different for this population.

In adults, resilience is seen as a personal quality that enables people to carry on despite adversity (Black & Ford-Gilboe, 2004). Teenage mothers are in between these two life stages, being the age of adolescents, and still developing emotionally, but living in adult situations. Teenagers experience a significant period of social and emotional development, often striving for independence and intimate relationships (World Health Organisation, 2001); however the impact of becoming parents on teenage mothers' own development is unclear. No research has focused on how resilience is experienced in this unique position. A model of resilience has been developed in adolescents with cancer, see Figure 1 (Woodgate, 1999b) and suggests resilience results when personal factors are protective and negate against external stressors. Stressors are events that cause emotional reactions and protective factors include personality features, family factors and external support systems (Woodgate, 1999b). Resilience impacts on a person's response to stress, leading to adaptive responses in resilient adolescents (Woodgate, 1999a).
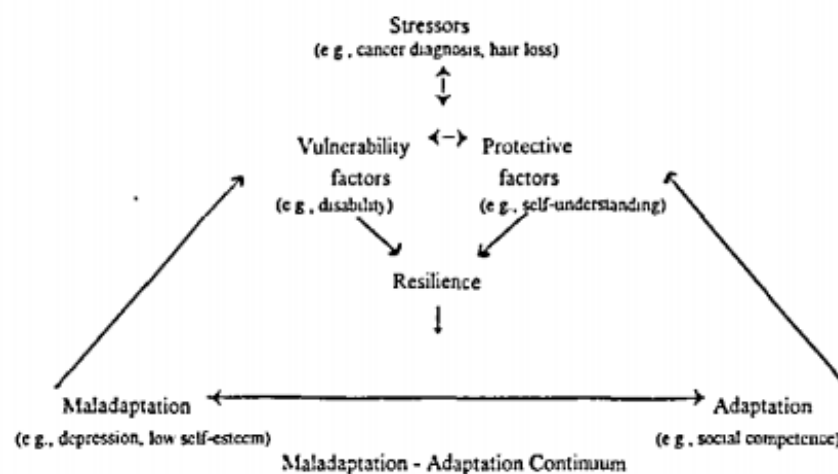

Figure 1. Model of resilience in adolescents with cancer *(Woodgate, 1999b)*

Another way to understand resilience in teenage mothers is parental resilience, the process of balancing risk and protective factors to provide good enough care (Brodsky, 1999; Gavidia-Payne, Denny, Davis, Francis, & Jackson, 2015). Gavidia-Payne et al. (2015) theorised that resilient parenting is the result of five factors combining in adequate amounts (see Figure 2). Infants with secure attachments have adolescent mothers who experience less parental stress and better social support (Emery, Paquette, & Bigras, 2008), providing some support for the model.
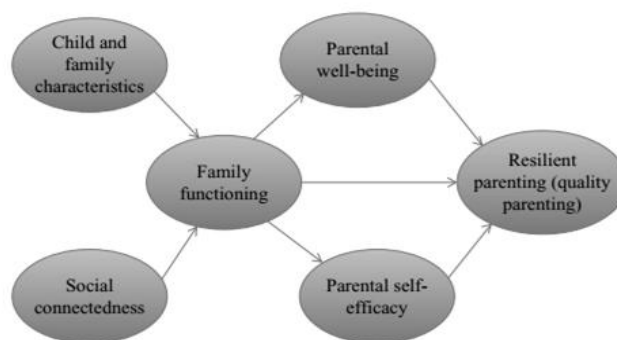
Figure 2. Model of parental resilience (Gavidia-Payne et al., 2015)

These models suggest that resilience is not a linear construct; there are multiple influences on resilience. The model in Gavidia-Payne et al. (2015) incorporates a broader range of factors including characteristics of the adolescent, the child and their context; whereas the model by Woodgate (1999b) is less specific, but acknowledges that protective factors can be individual characteristics and external, contextual factors. Furthermore, the model by Woodgate (1999b) incorporates stressors and sees protective factors as a buffer against stress; whereas Gavidia-Payne et al. (2015) do not include stress in the model by stating each of the domains in the model can be both a positive or negative influence on resilience. Both models suggest resilience is a balance between protective factors outweighing any stressors. The main difference between these models is that Woodgate (1999b) was developed through research and working with

adolescents, whereas Gavidia-Payne at al. (2015) model is theoretically based, without research validation.

Few studies exist that explore resilience in teenage mothers. One study on adolescent mothers' experiences of overcoming domestic violence identified three key contributors to resilience: developing an identity as a mother and bonding with the child, being active in dealing with the violence and taking a proactive approach to adjusting to being a mother (Lévesque & Chamberland, 2016). Research in single adolescent mothers found that resilience was related to motivation, having and being proud of aspirations and achievements, moving forward by using past experiences and seeing themselves in a larger context (Collins, 2010). Brodsky (1999) interviewed mothers from deprived backgrounds, not all teenagers, and found eight factors that contribute to resilience: neighbourhood, parenting, money, family, friends, men, personal characteristics and activities and spirituality (Brodksy, 1999). Whilst all of the mothers mentioned at least three factors, there was no combination shared across the participants (Brodksy, 1999). The study also identified three abilities that contributed to the development of resilience: the ability to (a) reframe stressors so they are motivating, (b) to appreciate resources and (c) to use resources that are supportive (Brodksy, 1999). Mantovani and Thomas (2015) found that black teenage mothers who were brought up in care were able to cope with motherhood by developing a new identity. Another study identified factors which may contribute to resilience, such as self-esteem, maturity and a good relationship with the grandmother, and found these factors were linked to more positive parenting (Hess, Papas, & Black, 2002). Overall, the literature is small and limited in usefulness. Studies have either focused narrowly on specific difficulties, populations or elements of resilience and no research has examined resilience as a whole by exploring both internal and external factors. There is very little research defining what resilience is and what it means for teenage mothers to be resilient. Finally, there is no research

into resilience in teenage mothers in the UK. Therefore more research is needed to understand resilience in this population.

This study aimed to develop resilience literature further by exploring resilience in teenage mothers from a holistic perspective, by interviewing professionals who work with teenage mothers. Furthermore, this study conceptualised resilience from a positive psychology perspective, using an approach identifying and drawing on strengths. Seligman (1998) recommended research should focus on developing methods for interventions to draw on existing strengths, including both internal, personal strengths and external factors that protect against adversity. There is a lack of positive psychology research with teenage mothers, with the majority of studies studying the challenging and negative aspects of teenage parenting. Whilst this is important to understand to know what support needs to be in place, a positive psychology approach could potentially provide an alternative understanding that may give services working with teenage mothers alternative ways of providing that support. This study therefore looked at resilience in teenage mothers through a positive psychology approach, from the perspective of professionals who work with them. Teenage mothers are often stigmatised and their life stories are perceived as problem saturated. Services to support teenage mothers are being cut due to funding withdrawal, meaning they have less time and resources to support resilience and wellbeing. Therefore this research used a positive psychology approach to challenge problem-focused narratives by encouraging staff to reflect differently on their work. A qualitative approach was used as the study aimed to engage staff participants in speaking about their experiences and reflecting on them from a different perspective. Inductive thematic analysis was used to analyse the data as this method enables the researcher to identify patterns across participants' stories, which is necessary to begin to define resilience in teenage mothers.

The aims were to explore professionals' perceptions of resilience in teenage mothers and to challenge problem-saturated narratives using a positive psychology approach. The research questions were (1) how do professionals understand 'resilience' in teenage mothers, (2) how can this understanding be used to shape services, and (3) how useful is positive psychology in understanding this population.

Method

Recruitment

Once ethical approval was received from the NHS Research and Ethics Committee and the Health Research Authority (see Appendix G), local services providing support for teenage mothers were approached. The research was discussed with team managers who distributed information sheets to staff members eligible to take part. Inclusion criteria were that staff members were either currently working with at least one teenage mother or had worked with a teenage mother in the past year on a one-to-one basis. A teenage mother was defined as anyone who had given birth before the age of 19 but was currently either still a teenager or was eligible for services supporting teenagers over a longer period of time.

Participants

A sample of eight staff members who had experienced working individually with teenage mothers were recruited from services in the North East of England. In total, sixteen eligible professionals in four services were approached, and the first eight that volunteered to participate were interviewed. Research recommends that between 6 and 12 participants are needed in small projects to reach data saturation (Braun & Clarke, 2006; Guest, Bunce & Johnson, 2006), therefore eight was within this range and appropriate for the scope of the research. As there was a strong bias towards female

participants, information about gender is not provided. All participants were assigned a gender-neutral pseudonym to protect their anonymity. Participants had worked mainly with teenage mothers from nine months to nineteen years. All participants were working in NHS or local authority services at the time of the study. One participant was a midwife, two were support workers (one had a background in social work), and five participants were health visitors (with backgrounds in nursing and midwifery). All of the participants worked with teenage mothers in the community, one was mainly hospital based, five mainly worked in participants' own homes, and two mainly worked in community centres, such as children's centres. Six participants worked exclusively with teenage mothers in specialist services, whereas two participants worked with "vulnerable mothers", which included teenage mothers, and their caseloads were approximately half teenage mothers. All participants had completed professional qualifications, such as university degrees, in relation to their jobs. Two participants held more senior posts, such as managerial or supervisory roles.

Design

In order to gather information about participants' experiences of resilience in teenage mothers, a qualitative design was implemented. This enabled the researcher to gather rich, personal accounts. Semi-structured interviews provided participants with an opportunity to reflect on their experiences but also offered the researcher an opportunity to study resilience as a holistic construct because different aspects of resilience could be explored depending on participants' contributions (see Appendix L for an epistemological statement).

Prior to commencing the interview, participants were presented with the following definitions of resilience:

Resilience is a person's ability to cope and adapt to maintain healthy functioning despite adverse circumstances (Feder, Charney and Collins, 2011).

Resilience is the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress — such as family and relationship problems, serious health problems or workplace and financial stressors. It means "bouncing back" from difficult experiences. Research has shown that resilience is ordinary, not extraordinary. People commonly demonstrate resilience. Being resilient does not mean that a person doesn't experience difficulty or distress. Resilience is not a trait that people either have or do not have. It involves behaviours, thoughts and actions that can be learned and developed in anyone. (American Psychological Association, n.d.)

The definitions were based on concepts of resilience that are most widely used in the literature. Definitions were provided as the researcher approached this study from a critical realist social constructionist epistemology (Elder-Vass, 2012). This stance suggests that qualitative research is bound by social and cultural understandings of topics, and that participants will be limited in what they say based on these social norms (Harper, 2011). As teenage pregnancy is perceived negatively in society, positive discourses around teenage pregnancy and resilience may not be readily accessible for the participants. By providing definitions of resilience, this encouraged participants to access a different discourse and to reflect on their experiences from a positive psychology perspective.

Procedure

Participants were interviewed in their places of work in a quiet room. Prior to the interview, participants read an information sheet, completed a consent form and were given the opportunity to ask questions. Recording started when participants were asked questions about their job roles which enabled participants to talk freely about their role and provided the researcher with an understanding of their work. Next, participants

were shown the resilience definitions, after which the interview focused on resilience, referring to different stages of teenage mothers' lives (see Appendix J for an interview schedule). Participants were encouraged to consider people they had worked with to illustrate their ideas. The interviews ranged from 39 to 72 minutes (average length = 51 minutes) and were recorded on an encrypted and password protected laptop.

Analysis

Each interview recording was transcribed verbatim and anonymised to remove material that could identify the participants or their clients. Data were analysed using inductive thematic analysis (Braun and Clarke, 2006). This method allows qualitative data to be analysed using patterns across individual interviews (Braun & Clarke, 2006), which was appropriate to the study design. Thematic analysis is a flexible method and allows the researcher to broaden the analysis beyond the research question if the data suggests this (Braun & Clarke, 2006). As the research was exploratory, this flexibility to adapt to the data was essential. Inductive thematic analysis is a six stage, bottom-up process that derives themes and understanding from the data, rather than through top-down processes, which use existing literature as a basis for analysis (Braun & Clarke, 2006). The first two stages of thematic analysis are familiarisation with the data through transcription and repeatedly reading through each transcript individually, noting areas of interest, and generating initial codes. Once all the transcripts had been read and annotated, an initial code was developed for each transcript (see Appendix K for a worked example). The codes were then compared for similarities and were grouped together into broad themes that represented patterns in the data and answered the research questions. The transcripts were then re-read with the themes to check the validity of the code and to identify whether this represented the whole data set. Changes were made to the organisation of the themes as necessary.

Researcher's Position

As the data were analysed using an inductive method, the researcher's position in relation to this subject should be minimised in order for bottom-up processes to be the driver for analysis (Braun & Clarke, 2006). However, it is not possible to remove all influences of the researcher in this process (Haynes, 2012). Reflexivity considers how the researcher engages with the participants' accounts of their experiences, and how this influences their interpretation. (Haynes, 2012) It is crucial for the researcher to critically evaluate the dynamic interaction between the meaning generated from participants' accounts and the researchers' interpretations. The researcher was born and raised in an area of deprivation with a high rate of teenage pregnancy. Many people they knew from school, social circles and friends became teenage parents, and the social response was generally negative. A few years later, many of these had more children and were good mothers. The researcher found this surprising seeing how much their peers had matured, and this inspired the research into the positive aspects of teenage parenting. These experiences, beliefs and attitudes will have been part of the data analysis and different results may have been obtained from another researcher with a different perspective. In order to draw attention to the influence of the researcher's position on the research, a reflective diary was used, as well as regular research supervision. The researcher also attended a peer supervision group to reflect on the process of qualitative research and on their epistemological stance (for a full epistemological statement of the researcher, see Appendix L). These processes supported the researcher to be more aware of their influences on the research, and to enable them to be more reflexive through the analysis.

Participants' experiences and understanding of resilience suggested that staff working with teenage mothers believe that resilience in this population is built on, and supported by, relationships. Resilience was not seen as a static construct, but one that was changeable based on teenagers' social circumstances. The professionals' accounts reflected four main relational themes of resilience for teenage mothers (see Table 1.) The results suggest that participants felt that not all themes need to be present for teenage mothers to develop resilience, and that a positive influence from just one relationship may be sufficient.

Table 1. *Organisation of the themes and subthemes generated from participants' accounts of resilience in teenage mothers.*

Themes	Subthemes
1. Relationship with Self	1.1. Relationship with self as an individual
	1.2. Relationship with past self
	1.3. Relationship with future self
2. Mother-Baby Relationship	2.1. Relationship with motherhood
	2.2. Love
3. Relationship with Others	3.1. Support from the network
	3.2. Relationship with stigma
4. Relationship with Professionals	

From participants' accounts, it was identified that the four themes overlapped, placing the teenage mother at the centre of the relational contexts (see Figure 3). This representation provides insight into the dynamics of the relationships around a teenage mother from which professionals' perceived resilience to come from. One example of this is the subtheme "relationship with past self" which was grouped within the "relationship with self theme"; however teenage mothers' past experiences occur within

the context of their relationships with family and friends, and not in isolation, therefore this interaction is important.
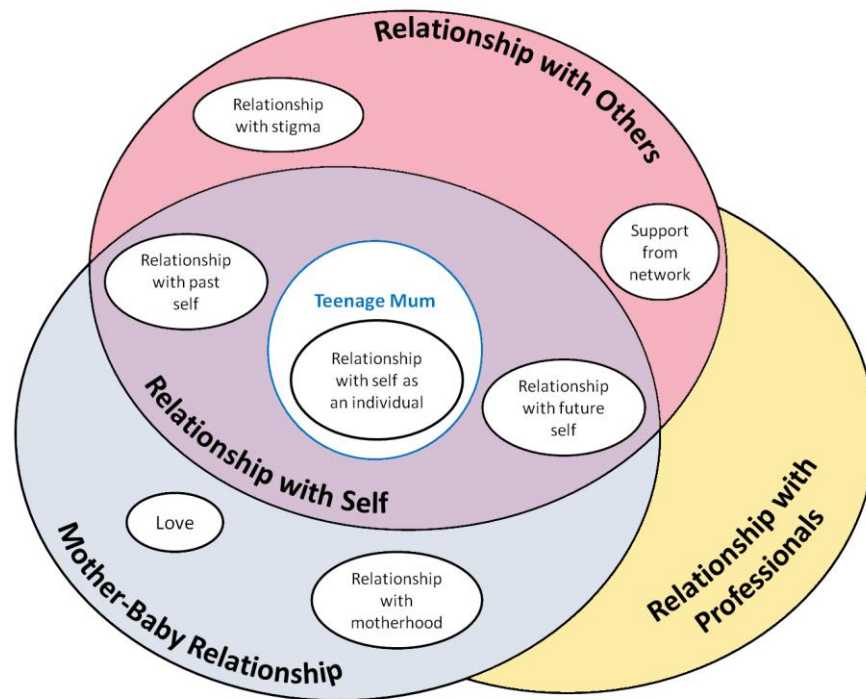
Figure 3. Diagrammatic representation of themes (larger colour circles), subthemes (smaller white circles) and how they interact around the teenage mother (outline and text in blue)

Theme 1. Relationship with Self

Participants' accounts suggested a teenage mother's relationship with herself was a key component of resilience, and professionals' experiences identified four subthemes within the "relationship with self" theme.

Subtheme 1.1. Relationship with self as an individual

The "relationship with self as an individual" subtheme suggested that connection to an individual identity supported resilience in teenage mothers. This was embedded within the mother-baby relationship, as participants felt becoming a mother was a threat to teenagers losing their identity as individuals. The participants felt more resilient

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teenage mothers were those who maintained some aspects of "normal" teenage lives, such as education or going out with friends.

"they go to college or sixth form, or their apprenticeship, and they still feel like they can act like a normal teenage...'cos they lose their identity, when they just become a teenage mum, so them doing that, I feel builds their resilience" (Taylor, pages 23-24, 773-776).

"they both took time out...to do things for themselves...she's very much involved with...[group name] so she loves to do that...she identifies that as a really important thing for her to do" (Ashley, page 10, 390-393).

This subtheme was embedded within the context of the three other themes according to participant's accounts. The mother-baby relationship overlapped as participants felt becoming a mother was a threat to teenagers losing their identity as individuals.

"they're now wearing the hat of parenthood, umm they might also be a partner and a daughter, umm but sometimes they lose themselves within that role" (Ashley, page 10, 355-356).

Subtheme 1.2. Relationship with past self

The participants accounts suggested the way teenage mothers' related to their past experiences, both positive and negative, influenced resilience. Some participants felt that for teenage mothers who had experienced difficult childhoods, their past experiences supported their resilience as they had lived experience of overcoming adversity to relate back to.

"teenage mums when we get them have already had those kind of experiences their selves growing up, umm, possibly come from poverty, poor housing, umm, not highly educated, so they do have that kind of, have that about them already. Instilled in them, which I guess does stand them in good stead for being a teen mum, because those are

the issues that they're going to have to deal with and overcome" (Ellis, page 6, 160-

164)

"But she has the most massive resilience of mostly all of the teenage mums I've worked

with and I just think, I do feel that is because she's had to cope on her own, so she's

used to it." (Taylor, page 10, 291-294)

Furthermore, positive past experiences were seen by professionals as a positive

influence on teenage mothers resilience through role-modelling.

"her older sister actually has got a little girl...and I think maybe she's had those models

in her life...that have helped her adjust" (Ashley, page 11, 411-414).

Finally, participants suggested that resilience developed as mothers reflected on their

past experiences, and used this as a driver to do things differently.

"she was looking at her beautiful daughter, thinking how could you do this to me, when

I was like that, so...she's taken that and thought I'm never doing this to my daughter"

(Taylor, page 19, 610-613)

"she didn't want her child to experience those things, that she wanted to show that she

cares... and she knows she wants to do things in a different way... which I think is part

of her resilience" (Drew, page 3, 91-98)

Subtheme 1.3. Relationship with future self

Participants felt that the mothers' outlook and how they perceived life may be different

in the future was also important for resilience, and suggested having a positive outlook

on the future improved resilience.

"she's applied to go to uni, and you know, she's really thought about the future and what she wants to do... she continued her work in pregnancy and went back to college quite soon after baby was born" (Alex, pages 7-8, 246-248).

Theme 2. Mother-Baby Relationship

Participants' accounts suggested the relationship between a teenage mother and their baby was a significant factor in supporting resilience.

Subtheme 2.1. Relationship with motherhood

This subtheme suggested that, from participants' experiences, teenage mothers who were considered to have a stronger connection or more positive attitude towards motherhood were seen as more resilient.

"we were talking about her feelings about the pregnancy and you know she was saying I didn't want this, and you know I am going to miss out on things my friends [are doing] but actually, I'm going to be a young mum and I'm going to be able to have...the energy to keep up with my toddler" (Ashley, page 9, 315-319).

Participants' accounts suggested the relationship with the baby influenced the teenage mothers' resilience by motivating them to be the best parents they could be.

"when they become parents, they suddenly think, I want to do this with my life, I want to be a good role model, and a good parent, and a good mum" (Ellis, page 16, 527-530)

"[teenage mothers have a] different outlook and think actually, you know, I' don't wanna be living on benefits...I want to be able to work, have a good job, you know, provide, and, and gives the best to my child" (Jordan, page 18, 577-581)

Subtheme 2.1. Love

Love within the mother-baby relationship was also felt to build resilience based on participants' accounts. They suggested maternal feelings for the baby enabled mothers to keep going and overcome challenges.

"she was teetering on giving up basically...and it's just the fact that she just fell in love with her baby, that's all she had in the forefront of her mind, so that's what kept her going" (Taylor, page 11, 325-328)

"it's all about the baby. I think she's so in love with her baby, and wants to make, wants to maintain the changes for her baby that she's doing it all for him" (Chris, page 4, 112-113)

Theme 3. Relationship with Others

Participants' accounts all reflected the importance of a teenage mothers' relationships with their wider network, however participants also made some distinctions between their role and the role of others, such as family and friends. They also acknowledged that the support of others is not available for all teenage mothers.

Subtheme 3.1. Support from the network

Participants suggested that when teenage mothers have positive relationships with a wider network, such as family, friends and partners, this can support resilience by providing teenage mothers with people to turn to for support when needed.

"her resilience around that was that she had good family support, you know so there was somebody that could support her and give her lots of encouragement, you know yeah you can do it, off you go and do it, and I think, I think they really need that" (Charlie, pages 18-19, 554-558)

"I've got a few clients actually...that have babies... they meet up quite regularly...I think they like getting out, they like that socialisation, umm, it's good" (Ashley, page 12, 449-450).

Subtheme 3.2. Relationship with stigma

Participants reflected on the stigma that teenage mothers perceived and experienced.

"teenagers don't wanna go and mix with older people, I don't blame them... 'cos they all feel they get looked down on" (Taylor, page 15, 470-474)

Professionals believed mothers who felt able to counteract this stigma they perceived and use this in a positive way, such as wanting to prove they can be good mothers, had greater resilience.

"they say, you know what, I'm determined to show people this is what I can do...I'm determined, I'm resilient, I can do this and I'm going to show you all I'll do it, but I won't just do it, I'll do it really well" (Ellis, page 12, 372-378).

Theme 4. Relationship with professionals

As described above, participants differentiated between the role of the family in teenage mothers' resilience from their own. Participants perceived themselves as supportive and collaborative, but also highlighted the varied support they can offer to support teenage mothers resilience.

"we try and work with them to understand for them what the challenges are and help them to think about the way forward" (Alex, page 4, 113-116)

"it's about listening, affirming what they're doing well, looking at their strengths" (Charlie, page 14, 412)

Discussion

This study is one of few qualitative contributions to resilience research in teenage mothers and is unique in its' approach of asking professionals who work with this typically disadvantaged and stigmatised population to reflect on their strengths and positive qualities. The research aimed to explore professionals' positive perceptions of resilience in teenage mothers, and the striking underlying experience of participants was that resilience was regarded as a relational construct. The analysis identified four main broad relationship themes and seven subthemes focusing on specific relational aspects of teenage mothers' lives. These themes were interlinked; however not all the themes were necessary for resilience to exist. Participants' accounts suggested quality of relationships over quantity was more important for building resilience.

The participants all felt that the relationship a teenage mother had with themselves was important for resilience. Those mothers who relate to their identity as an individual, but also as a mother were seen as more resilient. Furthermore, having a positive relationship with their past experiences and their future promoted resilience. This relates to self-concept, which is a person's perception of themselves (Patten, 1981). Previous research has studied the relationship between self-esteem and resilience, and found adolescents who are more resilient have higher self-esteem (Dumont & Provost, 1999). However, the definition of self-concept goes beyond self-esteem which is as a person's perceptions of how others feel about them (Patten, 1981). This study suggests that for teenage mothers, the self-concept is more significant for resilience than self-esteem, and that it is how teenage mothers see themselves individually that matters, rather than how they feel others perceive them. Wiemann, Rickert, Berenson and Volk, (2005) found teenage mothers who have lower self-esteem report more stigma, however in this study, fighting against stigma was felt to support resilience, therefore self-esteem

is not seen as relating to resilience. Instead, research suggests that for stigmatised groups, self-concept is more important, and is achieved through protective strategies, such as attributing the stigma to a problem within the source of the stigma, and comparing themselves to others within the stigmatised group rather than to non-stigmatised others (Crocker & Major, 1989). This supports the notion that resilience is developed through self-concept and how teenage mothers see themselves as people. Swann Jr., Chang-Schneider & McClarty, (2007) identified that self-concept is related to their social context and behaviour, so positive self-concept leads to better interactions with others. This supports the findings of this study, suggesting, in participants' experiences, resilience develops from a strong self-relationship and through the social contexts around teenage mothers.

Participants' experiences suggested that teenage mothers' relationships with motherhood and with their child promoted resilience. They spoke of the love the teenage mothers felt which motivated them to be a good mum, and enabled them to reflect on their pasts and provide a stable relationship for their child. Participants felt teenagers who were more positive towards motherhood and its' impact on their lives were more resilient, which is supported by Johnson et al. (2017) in an adult mother population. The findings here suggest this impacts furthers into motherhood and drives teenagers to achieve things for themselves and fosters independence. This is echoed by Collins (2010) who found teenage mothers in New Zealand were encouraged to change their lifestyles by having a baby, highlighting how motherhood can be a new beginning of resilience in teenage mothers.

The study expanded further on existing literature by highlighting the relational nature of resilience. This provides support for the model proposed by Gavidia-Payne et al. (2015) who theorised that resilient parenting was the result of a sufficient and positive

combination of child and family characteristics, parental wellbeing, social connectedness, family functioning and parental self-efficacy (see Figure 2). The results of this study have similarities; the parental self-efficacy factor relates to the "relationship with self" theme and the social connectedness factor links with the "relationships with others" theme. The two studies differ however as Gavidia-Payne et al. (2015) suggest resilience is achieved from adequate amounts of each factor, whereas this study suggests any theme alone can be sufficient for resilience. Furthermore, this study identified that not all teenage mothers have access to support from family; however an absence of this does not lead to a lack of resilience. Another difference is that Gavidia-Payne et al. (2015) propose that their factors are related to resilience in a specific way, with social connectedness linking to family functioning and then to resilience. This study would propose instead that resilience can develop through any of the themes identified in this study, and that the model of parental resilience could be modified to place resilience in the centre with the factors each contributing directly.

All participants identified that the social network was important in supporting resilience in teenage mothers. Participants experienced the family, in particular, as a safe base for teenage mothers, providing reassurance and encouragement. For teenage mothers who did not have families, the participants experienced themselves as providing this support. This links with attachment theory (Bowlby, 1988), that through secure relationships with parental figures, children explore their world, leading to learning and emotional development. Resilience and attachment are closely related as factors linked to resilience such as self-efficacy, social connectedness and supportive families are developed through good quality attachments, through a secure base and fostering of feelings of self-worth (Atwool, 2006). Teenagers undergo rapid physical and emotional development which challenges their self-esteem and social relationships, and a secure attachment and emotional connection to a maternal figure can support teenagers to

navigate these challenges (Moretti & Peled, 2004). Adolescence is also when people start to develop their identity (Erikson, 1968), which is supported by attachment relationships; however this is more complex for teenage mothers as developing an identity as a mother involves s loss of self-identity (Laney et al., 2015). Participants' experiences in this study identified that they felt the relationship a teenage mother has with herself and with motherhood contributes to resilience and this was embedded within the different social contexts. Previous research suggests that teenagers who are supported by an attachment figure such as a mother or professional (Brown & Wright, 2001), were more resilient in developing this identity as a mother, supporting this study.

These findings indicate the main sources of resilience for teenage mothers, reported by staff working with them, are their relationships with themselves and with immediate social networks. This contrasts with Carr (2011) who identified community factors as a key component of adolescent resilience. This study implies that wider societal and community support is not a source of resilience for teenage mothers, perhaps due to stigma and political attitudes towards teenage parenting. McDermott and Graham, (2005) mirror these findings, reporting that teenage mothers, unlike older mothers, are subject to social inequality through stigmatisation and socio-economic difficulties (McDermott & Graham, 2005). The researchers identified that these social inequalities can constrain teenage mothers' approach to motherhood as they have less access to social support such as parenting groups. McDermott and Graham (2005) also found teenage mothers' resilience develops in response to their social challenges and they use the limited resources they have to do their best as parents. Similarly, participants' accounts reflected that a positive attitude towards motherhood enables resilience through wanting to combat stigma and prove themselves.

Clinical Implications

Negative and stigmatising socio-political attitudes towards teenage pregnancy result in calls for its reduction (Public Health England, 2018). The UK government suggests support for teenage mothers should be offered earlier through a multiagency approach from antenatal to post-natal care (Public Health England, 2016). The main targets are to improve health and educational outcomes, with little focus on psychological wellbeing or personal outcomes, such as resilience. This study highlights the importance of psychological wellbeing however, as participants accounts reflected resilient teenage mothers were more able to cope with motherhood. Positive relationships between professionals and teenage mothers supports development of self-confidence and self-efficacy (Public Health England, 2015), which in turn develops resilience. Early and longer lasting intervention is important to maximise the strength of the relationships professionals can build with teenage mothers, yet services often cannot provide this level of relational support due to time and financial pressures. This study highlights the importance of relationship with others in building resilience, yet teenagers do not have many opportunities to connect. They are reluctant to engage in services with adults due to the stigma around teenage parenting creating a barrier to developing a support network (De Jonge, 2001). There is a need for teenage-friendly services providing a nurturing environment for teenagers that allow them to develop wider relationships, as this promotes resilient parenting (Graham and McDermott, 2010). Participants felt that, especially in stretched services, they were unable to provide as much support as they needed, and had to prioritise complex cases. This study suggests that focusing more on building relationships develops more resilient teenage mothers, which research shows enables them to cope with crises more successfully and independently through drawing on support networks (McDermott & Graham, 2005) rather than professionals. This

would enable services to offer more rounded support to all in their care rather than just those in crisis.

One interesting finding of the study was the lack of a relationship with the wider society in participants' accounts of teenage mothers' resilience, which contrasts with Carr (2011) who identified community factors such as high socioeconomic status and positive educational experiences were important for resilience to adolescents. Participants' experiences were instead that teenage mothers were victims of social inequality, offered poor housing, with limited financial support which is supported by literature (Graham & McDermott, 2005). Teenage mothers are required to draw on other sources for resilience, such as family and services, thus reinforcing the societal stigma that teenage mothers experience. Developing more flexible and supportive systems around teenage mothers would enable them to cope more resiliently and focus on developing themselves and gaining independence. Participants viewed returning to education as building resilience in teenage mothers; however it is challenging to balance this with motherhood. For example, breastfeeding is difficult if teenagers attend school due to having limited access to their child and lack of facilities at school, yet the government targets are to improving breastfeeding in teenage mothers (Public Health England, 2016). Teenage mothers are therefore caught in a double negative, as they are stigmatised for becoming pregnant and for not engaging in positive parenting practices, such as breastfeeding, yet the systems around them currently cannot support this (Graham & McDermott, 2005) The lack of positive relationships between teenage mothers and the wider system is not conducive to promoting resilience; yet this study shows resilience is important for this population. A more positive, resilience-focused approach would allow services to support teenage mothers to build on existing strengths and therefore reduce the impact of social inequalities on both the mother and the child.

However, in order to achieve this and promote resilience, a cultural shift is required to develop relationship-focused services and systems around teenage mothers.

Methodological Limitations and Further Research

Data came from professionals, who may have less access to the internal experiences of resilience in teenagers. Prince-Embury (2006) developed a resilience measure with adolescents, and identified three measureable components: sense of relatedness, sense of mastery and emotional reactivity. Participants in this study identified resilience factors similar to the relatedness and mastery scales. For example, having positive relationships with external support and the baby is akin to the sense of relatedness scale, and teenagers' positive approaches to motherhood chime with the mastery scale. However, participants show limited understanding of the emotional component of resilience identified by Prince-Embury (2006), which subdivided emotional reactivity into sensitivity, recovery and impairment. This suggests resilience is higher when teenagers are able to recover from emotional distress, have less extreme reactions to emotional distress and when emotional arousal does not cause impairment to their functioning (Prince-Embury, 2006). Participants alluded to emotions impacting on resilience such as positive reactions to pregnancy and love; however professionals experienced resilience in these situations coming from the relationship with the baby and with motherhood, not from the mothers' own emotions. Further research with teenage mothers directly is therefore needed to explore the influence of emotional reactivity on resilience in motherhood and to compare whether teenage mothers' accounts of resilience relate to the accounts of professionals

Conclusion

Overall, this study provides some support for existing literature, but goes beyond this to identify that from staff experiences, the main element underlying resilience in teenage

mothers is relationships. Participants' accounts revealed that they believe that resilience is developed through four main relationships: with the self, with the baby, with others and with professionals. This study provides new insights into how professionals experience resilience and highlights the usefulness of a positive psychology approach with teenage mothers, as talking about positive aspects of teenage mothers and focusing on strengths and resilience is empowering and has the potential to reduce stigma and the social inequalities experienced by this population.

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<u>**Appendices**</u>

Appendix A: Guidelines of Publication for Child and Youth Services Review

PREPARATION GUIDELINES

NEW SUBMISSIONS

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As part of the Your Paper Your Way service, you may choose to submit your manuscript as a single file to be used in the refereeing process. This can be a PDF file or a Word document, in any format or lay-out that can be used by referees to evaluate your manuscript. It should contain high enough quality figures for refereeing. If you prefer to do so, you may still provide all or some of the source files at the initial submission. Please note that individual figure files larger than 10 MB must be uploaded separately.

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There are no strict requirements on reference formatting at submission. References can be in any style or format as long as the style is consistent. Where applicable, author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the pagination must be present. Use of DOI is highly encouraged. The reference style used by the journal will be applied to the accepted article by Elsevier at the proof stage. Note that missing data will be highlighted at proof stage for the author to correct.

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Regardless of the file format of the original submission, at revision you must provide us with an editable file of the entire article. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier). See also the section on Electronic artwork.

To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

Article structure

Subdivision - numbered sections

Divide your article into clearly defined and numbered sections. Subsections should be numbered 1.1 (then 1.1.1, 1.1.2, ...), 1.2, etc. (the abstract is not included in section numbering). Use this numbering also for internal cross-referencing: do not just refer to 'the text'. Any subsection may be given a brief heading. Each heading should appear on its own separate line.

Introduction

State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

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Provide sufficient details to allow the work to be reproduced by an independent researcher. Methods that are already published should be summarized, and indicated by a reference. If quoting directly from a previously published method, use quotation marks and also cite the source. Any modifications to existing methods should also be described.

Theory/calculation

A Theory section should extend, not repeat, the background to the article already dealt with in the Introduction and lay the foundation for further work. In contrast, a Calculation section represents a practical development from a theoretical basis.

Results

Results should be clear and concise.

Discussion

This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

Conclusions

The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

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If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

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Abstract

A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

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Highlights are mandatory for this journal. They consist of a short collection of bullet points that convey the core findings of the article and should be submitted in a separate editable file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point). You can view example Highlights on our information site.

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Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

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Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

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Reference to a conference paper or poster presentation:

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This journal supports Mendeley Data, enabling you to deposit any research data (including raw and processed data, video, code, software, algorithms, protocols, and methods) associated with your manuscript in a free-to-use, open access repository. During the submission process, after uploading your manuscript, you will have the opportunity to upload your relevant datasets directly to Mendeley Data. The datasets will be listed and directly accessible to readers next to your published article online.

Data statement

To foster transparency, we encourage you to state the availability of your data in your submission. This may be a requirement of your funding body or institution. If your data is unavailable to access or unsuitable to post, you will have the opportunity to indicate why during the submission process, for example by stating that the research data is confidential. The statement will appear with your published article on ScienceDirect. For more information, visit the Data Statement page.

Appendix B. Data Extraction Form

Author(s)	
Year of Publication	
Country/State	
Aim(s)	
Study Length	
Participants	
Sample Recruitment (approach, inclusion/exclusion criteria)	
Sample Size	
Demographics (Pregnant or Parenting; Gestation at Intake/Weeks Postpartum at Intake; Age; Ethnicity)	
Study Design	
Is it a randomised control trial?	
Length of Intervention	
Comparison Group (yes/no) and Characteristics	
Nature of Intervention (location, approach, number and frequency of contacts, who delivered the intervention)	
Outcome measures used and frequency of measurement	
Findings	
Key results	
Significant findings of outcome measures	
Were the outcomes reported discussed in the text?	
Conclusions/Implications	

Appendix C: Methodological Quality Checklist (Modified Downs and Black, 1998)

Reporting

1. Is the hypothesis/aim/objective of the study clearly described?

Yes = 1; No = 0

2. Are the main outcomes to be measured clearly described in the Introduction or Methods section?

If the main outcomes are first mentioned in the Results section, the question should be answered no.

Yes = 1; No = 0

3. Are the characteristics of the participants included in the study clearly described?

In cohort studies and trials, inclusion and/or exclusion criteria should be given. In case-control studies, a case-definition and the source for controls should be given.

Yes = 1; No = 0

4. Are the interventions of interest clearly described?

Treatments and placebo (where relevant) that are to be compared should be clearly described.

Yes = 1; No = 0

5. Are the distributions of principal confounders in each group of subjects to be compared clearly described?

A list of principal confounders is provided.

Yes = 2; Partially = 1; No = 0

6. Are the main findings of the study clearly described?

Simple outcome data (including denominators and numerators) should be reported for all major findings so that the reader can check the major analyses and conclusions. (This question does not cover statistical tests which are considered below).

Yes = 1; No = 0

7. Does the study provide estimates of the random variability in the data for the main outcomes?

In non normally distributed data the inter-quartile range of results should be reported. In normally distributed data the standard error, standard deviation or confidence intervals should be reported. If the distribution of the data is not described, it must be

assumed that the estimates used were appropriate and the question should be answered yes.

Yes = 1; No = 0

8. Have all important adverse events that may be a consequence of the intervention been reported?

This should be answered yes if the study demonstrates that there was a comprehensive attempt to measure adverse events. (A list of possible adverse events is provided).

Yes = 1; No = 0

9. Have the characteristics of patients lost to follow-up been described?

This should be answered yes where there were no losses to follow-up or where losses to follow-up were so small that findings would be unaffected by their inclusion. This should be answered no where a study does not report the number of patients lost to follow-up.

Yes = 1; No = 0

10. Have actual probability values been reported (e.g. 0.035 rather than <0.05) for the main outcomes except where the probability value is less than 0.001?

Yes = 1; No = 0

External validity

All the following criteria attempt to address the representativeness of the findings of the study and whether they may be generalised to the population from which the study subjects were derived.

11. Were the subjects asked to participate in the study representative of the entire population from which they were recruited?

The study must identify the source population for patients and describe how the patients were selected. Patients would be representative if they comprised the entire source population, an unselected sample of consecutive patients, or a random sample. Random sampling is only feasible where a list of all members of the relevant population exists. Where a study does not report the proportion of the source population from which the patients are derived, the question should be answered as unable to determine.

Yes = 1; No = 0; Unable to Determine = 0

12. Were those subjects who were prepared to participate representative of the entire population from which they were recruited?

The proportion of those asked who agreed should be stated. Validation that the sample was representative would include demonstrating that the distribution of the main confounding factors was the same in the study sample and the source population.

Yes = 1; No = 0; Unable to Determine = 0

13. Were the staff, places, and facilities where the patients were treated, representative of the treatment the majority of patients receive?

For the question to be answered yes the study should demonstrate that the intervention was representative of that in use in the source population. The question should be answered no if, for example, the intervention was undertaken in a specialist centre unrepresentative of the hospitals most of the source population would attend.

Yes = 1; No = 0; Unable to Determine = 0

Internal Validity - Bias

14. Was an attempt made to blind study subjects to the intervention they have received ?
For studies where the patients would have no way of knowing which intervention they received, this should be answered yes.

Yes = 1; No = 0; Unable to Determine = 0

15. Was an attempt made to blind those measuring the main outcomes of the intervention?

Yes = 1; No = 0; Unable to Determine = 0

16. If any of the results of the study were based on "data dredging", was this made clear?

Any analyses that had not been planned at the outset of the study should be clearly indicated. If no retrospective unplanned subgroup analyses were reported, then answer yes.

Yes = 1; No = 0; Unable to Determine = 0

17. In trials and cohort studies, do the analyses adjust for different lengths of follow-up of patients, or in case-control studies, is the time period between the intervention and outcome the same for cases and controls?

Where follow-up was the same for all study patients the answer should yes. If different lengths of follow-up were adjusted for by, for example, survival analysis the answer should be yes. Studies where differences in follow-up are ignored should be answered no.

Yes = 1; No = 0; Unable to Determine = 0

18. Were the statistical tests used to assess the main outcomes appropriate?

The statistical techniques used must be appropriate to the data. For example nonparametric methods should be used for small sample sizes. Where little statistical analysis has been undertaken but where there is no evidence of bias, the question should be answered yes. If the distribution of the data (normal or not) is not described it

must be assumed that the estimates used were appropriate and the question should be answered yes.

Yes = 1; No = 0; Unable to Determine = 0

19. Was compliance with the intervention/s reliable?

Where there was non-compliance with the allocated treatment or where there was contamination of one group, the question should be answered no. For studies where the effect of any misclassification was likely to bias any association to the null, the question should be answered yes.

Yes = 1; No = 0; Unable to Determine = 0

20. Were the main outcome measures used accurate (valid and reliable)?

For studies where the outcome measures are clearly described, the question should be answered yes. For studies which refer to other work or that demonstrates the outcome measures are accurate, the question should be answered as yes.

Yes = 1; No = 0; Unable to Determine = 0

Internal Validity - Confounding (Selection Bias)

21. Were the patients in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited from the same population?

For example, patients for all comparison groups should be selected from the same hospital. The question should be answered unable to determine for cohort and case control studies where there is no information concerning the source of patients included in the study.

Yes = 1; No = 0; Unable to Determine = 0

22. Were study subjects in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited over the same period of time?

For a study which does not specify the time period over which patients were recruited, the question should be answered as unable to determine.

Yes = 1; No = 0; Unable to Determine = 0

23. Were study subjects randomised to intervention groups?

Studies which state that subjects were randomised should be answered yes except where method of randomisation would not ensure random allocation. For example alternate allocation would score no because it is predictable.

Yes = 1; No = 0; Unable to Determine = 0

24. Was the randomised intervention assignment concealed from both patients and health care staff until recruitment was complete and irrevocable?

All non-randomised studies should be answered no. If assignment was concealed from patients but not from staff, it should be answered no.

Yes = 1; No = 0; Unable to Determine = 0

25. Was there adequate adjustment for confounding in the analyses from which the main findings were drawn?

This question should be answered no for trials if: the main conclusions of the study were based on analyses of treatment rather than intention to treat; the distribution of known confounders in the different treatment groups was not described; or the distribution of known confounders differed between the treatment groups but was not taken into account in the analyses. In nonrandomised studies if the effect of the main confounders was not investigated or confounding was demonstrated but no adjustment was made in the final analyses the question should be answered as no.

Yes = 1; No = 0; Unable to Determine = 0

26. Were losses of patients to follow-up taken into account?

If the numbers of patients lost to follow-up are not reported, the question should be answered as unable to determine. If the proportion lost to follow-up was too small to affect the main findings, the question should be answered yes.

Yes = 1; No = 0; Unable to Determine = 0

Power

27. Did the study use a power calculation to detect whether the probability value for a difference being due to chance is less than 5%?

Yes = 1; No = 0; Unable to Determine = 0

Appendix D: List of Excluded References

Number	Reference	Reason for Exclusion
1	McDonald, L., Conrad, T., Fairtlough, A., Fletcher, J., Green, L., Moore, L., & Lepps, B. (2009). An evaluation of a groupwork intervention for teenage mothers and their families. *Child and Family Social Work*, *14*(1), 45-57.	Not all participants were teenage mothers
2	Stiles, A. S. (2010). Case study of an intervention to enhance maternal sensitivity in adolescent mothers. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, *39*(6),723-33.	Case Study
3	Jungmann, T., Brand, T., Dähne, V., Herrmann, P., Günay, H., Sandner, M., & Sierau, S. (2015). Comprehensive evaluation of the pro kind home visiting program: A summary of results. *Mental Health and Prevention*, *3*(3), 89-97.	Not all participants were teenage mothers
4	Cox, J. E., Buman, M., Valenzuela, J., Joseph, N. P., Mitchell, A., & Woods, E. R. (2008). Depression, parenting attributes, and social support among adolescent mothers attending a teen tot program. *Journal of Pediatric and Adolescent Gynaecology*, *21*(5), 275-281.	Measures were not taken before and after the intervention
5	Suess, G. J., Bohlen, U., Carlson, E. A., Spangler, G., & Frumentia Maier, M. (2016). Effectiveness of attachment based STEEP™ intervention in a German high-risk sample. *Attachment & Human Development*, *18*(5), 443-460.	Not all participants were teenage mothers
6	Drummond, J. E., Letourneau, N., Neufeld, S, M., Stewart, M., & Weir, A. (2008). Effectiveness of teaching an early parenting approach within a community-based support service for adolescent mothers. *Research in Nursing & Health*, *31*(1), 12-22.	Psychological wellbeing measure was used as a demographic variable and not measured as an outcome
7	Olds, D. L., Kitzman, H. J., Cole, R. E., Hanks, C. A., Arcoleo, K. J., Anson, E. A., Luckey, D. W., Knudtson, M. D., Henderson Jr., C. R., Bondy, J., & Stevenson, A. J. (2010). Enduring effects of prenatal and infancy home visiting by nurses on maternal life course and government spending.	No formal measures of psychological wellbeing were used

	Archives of Pediatric and Adolescent Medicine, *164*(5), 419-424.	
8	Bohr, Y,. & BinNoon, N. (2014). Enhancing sensitivity in adolescent mothers: Does a standardised, popular parenting intervention work with teens? *Child Care in Practice*, *20*(3), 286-300.	Not all participants were teenage mothers
9	Mistry, J., Easterbrooks, M. A., Fauth, R. C., Raskin, M., Jacobs, F., & Goldberg, J. (2016). Heterogeneity among adolescent mothers and home visiting program outcomes. *Children and Youth Services Review*, *65*(1), 86-93.	The study did not include an intervention
10	Barnet, B., Liu, J., DeVoe, M., Alperovitz-Bichell, K., & Duggan, A. K. (2007). Home visiting for adolescent mothers: Effects on parenting, maternal life course, and primary care linkage. *Annals of Family Medicine*, *5*(3), 224-232.	Outcome measures were used for classification rather than scores
11	Lecontreau, N. (2001). Improving adolescent parent-infant interactions: A pilot study. *Journal of Pediatric Nursing*, *16*(1), 53-62.	No measures of psychological wellbeing were used as an outcome variable
12	LePlatte, D., Rosenblum, K. L., Stanton, E., Miller, N., & Muzik, M. (2012). Mental health in primary care for adolescent parents. *Mental Health in Family Medicine*, *9*(1), 39-45.	Outcome measures were used for classification rather than scores
13	Sadler, L. S., Slade, A., Close, N., Webb, D. L., Simpson, T., Fennie, K., & Mayes, L. C. (2013). Minding the baby: enhancing reflectiveness to improve early health and relationship outcomes in an interdisciplinary home-visiting program. *Infant Mental Health Journal*, *34*(5), 391-405.	Not all participants were teenage mothers
14	Sadler, L. S., Swartz, M. K., Ryan-Krause, P., Seitz, V., Meadows-Oliver, M., Grey, & M., Clemmens, D. A. (2007). Promising outcomes in teen mothers enrolled in a school-based parent support program and child care centre. *The Journal of School Health*, *77*(3), 121-130.	Measures were not taken before and after the intervention
15	Walkup, J. T., Barlow, A., Mullany, B. C., Pan, W., Goklish, N., Hasting, R., Cowboy, B., Fields, P., Baker, E. V., Speakman, K., Ginsburg, G., & Reid, R. (2009). Randomized controlled trial of a paraprofessional-	Not all participants were teenage mothers

	delivered in-home intervention for young reservation-based American Indian mothers. *Journal of the American Academy of Child and Adolescent Psychiatry*, *48*(6), 591-601.	
16	Beeber, L. S., Holditch-Davis, D., Perreira, K., Schwartz, T. A., Lewis, V., Blanchard, H., Canuso, R., & Goldman, B. D. (2010). Short-term in-home intervention reduces depressive symptoms in early head start Latina mothers of infants and toddlers. *Research in Nursing and Health*, *33*(1), 60-76.	Not all participants were teenage mothers
17	Sadler, L. S., Swartz, M. K., & Ryan-Krause, P. (2003). Supporting adolescent mothers and their children through a high school-based child care center. *Journal of Pediatric Health Care*, *17*(3). 109-117.	Measures were not taken before and after the intervention

Appendix E: Methodological Quality Assessment Grid

Author	Down's & Black Checklist (1998) Item Number																											Total (/28)	Quality %
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
Barlow et al. (2013)	1	1	1	1	2	1	1	0	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	22	86
Barlow et al. (2015)	1	1	1	1	2	1	1	0	0	1	0	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	22	82
Barnet et al. (2002)	1	1	0	1	0	1	0	0	0	1	1	0	0	0	0	1	1	1	0	1	1	1	1	0	1	1	0	15	54
Cox et al. (2012)	1	1	1	1	2	1	1	0	0	1	0	0	0	0	0	1	1	1	0	1	1	1	0	0	0	0	0	15	54
Herrmann et al. (1998)	1	1	0	1	1	1	1	0	0	1	1	1	1	0	0	1	1	1	0	1	1	1	0	0	0	0	0	16	50
Hudson et al. (2012)	1	1	1	0	1	1	1	0	0	1	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	0	15	54
Jacobs et al. (2016)	1	1	1	1	0	1	1	0	0	0	1	0	1	0	0	1	1	1	0	1	1	1	1	0	1	0	0	16	57
Koniak-Griffin et al. (2012)	1	1	1	1	1	1	1	1	1	0	0	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	0	21	75
Logsdon et al. (2010)	1	1	1	1	0	0	0	1	0	1	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	1	0	14	71
Logsdon et al. (2005)	1	1	1	1	0	1	1	0	0	1	0	0	0	0	0	1	1	1	0	1	1	1	1	1	0	0	0	15	50
Mayers et al. (2008)	1	1	1	1	1	1	0	0	0	1	0	0	0	0	1	0	0	1	0	1	1	1	0	0	0	0	0	12	43
McDonell et al. (2007)	1	1	1	1	1	1	1	0	1	0	1	0	1	0	0	1	1	1	0	1	1	1	1	0	1	0	0	18	64
Samankasikorn et al. (2016)	1	1	1	1	1	1	0	0	0	1	1	0	1	0	0	1	1	0	0	1	1	1	0	0	0	0	1	15	54
Smith-Battle et al. (2013)	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	1	1	1	0	1	1	0	0	0	0	0	0	13	46
Thomas & Looney (2004)	1	1	1	0	1	1	1	0	0	1	1	1	0	0	0	1	0	1	1	1	1	1	0	0	0	1	0	16	57
Vorhies et al. (2009)	1	1	0	1	1	1	1	0	1	0	0	0	1	0	0	1	1	1	0	1	1	1	0	0	0	1	0	15	54

Appendix F: Guidelines of Publication of Journal of Adolescent Research

The aim of the Journal of Adolescent Research is to publish informative and dynamic articles from a variety of disciplines that focus on development during adolescence (ages 10 to 18) and early emerging adulthood (18-22). We are particularly interested in papers that use mixed-methods, systematically combining qualitative and quantitative data and analyses. We also seek rigorous qualitative research using a variety of strategies including ethnography, in-depth interviews, case studies, photo elicitation, and the like. Our goal is to expand upon the understanding of a diverse range of experiences of adolescents and emerging adults across a variety of contexts.

This journal is a member of the Committee on Publication Ethics (COPE)

Manuscript Preparation

Manuscripts should be prepared using the *APA Style Guide* (Sixth Edition). All pages must be typed, double-spaced (including references, footnotes, and endnotes). Text must be in 12-point Times Roman. Block quotes may be single-spaced. Must include margins of 1inch on all the four sides and number all pages sequentially. *All research submitted must adhere with guidelines for the protection of human subjects. Please indicate in your cover letter and in your manuscript how you met this standard (e.g., following protocols approved by an institutional review board).*

The manuscript should include four major sections(in this order): Title Page, Abstract, Main Body, and References.

Sections in a manuscript may include the following (in this order): (1) Title page, (2) Abstract, (3) Keywords, (4) Text, (5) Notes, (6) References, (7) Tables, (8) Figures, and (9) Appendices.

1. Title page. Please include the following:

- Full article title
- Acknowledgments and credits
- Each author's complete name and institutional affiliation(s) and biosketch (2-3 sentences about each author)
- Grant numbers and/or funding information
- Corresponding author (name, address, phone/fax, e-mail)

We strongly encourage authors to include the following key points in their Abstract. Feel free to use this as a template. *Note*. The Abstract should not exceed 200 words.

2. Abstract. Print the abstract on a separate page headed by the full article title. Omit author(s)'s names.

• **Aims.** Describe the aims of your study.
• **Demographics.** Provide information about your sample of participants, including age, gender, race/ethnicity, socioeconomic status, immigrant generational status, etc.
• **Settings.** Describe the site or context from which your sample was drawn.

• **Methodology.** Describe the specific qualitative or mixed-method strategy employed for the study (in-depth interviews, case studies, photo elicitation, etc.) ***Note.*** We do NOT accept manuscripts that use only quantitative methods. *Please include in your methodology a statement about how your research ensured the protection of human subjects (i.e., following protocols that have been approved by an Institutional Review Board).*
• **Analysis.** Describe the type of analysis you used (inductive analysis, deductive analysis, chi sq.; logistic regression, etc.)
• **Findings.** Briefly describe key findings.
• **Implications.** Include a concluding sentence regarding implications of study.

3. Text. Begin article text on a new page headed by the full article title.

a. Headings and subheadings. Subheadings should indicate the organization of the content of the manuscript. Generally, three heading levels are sufficient to organize text. Level 1 heading should be Centered, Boldface, Upper & Lowercase, Level 2 heading should be Flush Left, Boldface, Upper & Lowercase, Level 3 heading should be Indented, boldface, lowercase paragraph heading that ends with a period, Level 4 heading should be Indented, boldface, italicized, lowercase paragraph heading that ends with a period*,* and Level 5 heading should be Indented, italicized, lowercase paragraph heading that ends with a period*.*

b. Citations. For each text citation there must be a corresponding citation in the reference list and for each reference list citation there must be a corresponding text citation. Each corresponding citation must have identical spelling and year. Each text citation must include at least two pieces of information, author(s) and year of publication. Following are some examples of text citations:

(i) *Unknown Author*: To cite works that do not have an author, cite the source by its title in the signal phrase or use the first word or two in the parentheses. Eg. The findings are based on the study was done of students learning to format research papers ("Using XXX," 2001)

(ii) *Authors with the Same Last Name*: use first initials with the last names to prevent confusion. Eg.(L. Hughes, 2001; P. Hughes, 1998)

(iii) *Two or More Works by the Same Author in the Same Year*: For two sources by the same author in the same year, use lower-case letters (a, b, c) with the year to order the entries in the reference list. The lower-case letters should follow the year in the in-text citation.Eg.Research by Freud (1981a) illustrated that…

(iv) *Personal Communication*: For letters, e-mails, interviews,and other person-to-person communication, citation should include the communicator's name, the fact that it was personal communication, and the date of the communication. Do not include personal communication in the reference list.Eg.(E. Clark, personal communication, January 4, 2009).

(v) *Unknown Author and Unknown Date*: For citations with no author or date, use the title in the signal phrase or the first word or two of the title in the parentheses and use the abbreviation "n.d." (for "no date").Eg. The study conducted by of students and research division discovered that students succeeded with tutoring ("Tutoring and APA," n.d.).

5. Notes. If explanatory notes are required for your manuscript, insert a number formatted in superscript following almost any punctuation mark. Footnote numbers should not follow dashes (—), and if they appear in a sentence in parentheses, the footnote number should be inserted within the parentheses. The Footnotes should be added at the bottom of the page after the references. The word "Footnotes" should be centered at the top of the page.

6. References. Basic rules for the reference list:

- The reference list should be arranged in alphabetical order according to the authors' last names.
- If there is more than one work by the same author, order them according to their publication date – oldest to newest (therefore a 2008 publication would appear before a 2009 publication).
- When listing multiple authors of a source use "&" instead of "and".
- Capitalize only the first word of the title and of the subtitle, if there are one, and any proper names – i. e. only those words that are normally capitalized.
- Italicize the title of the book, the title of the journal/serial and the title of the web document.
- Manuscripts submitted to *JAR* should strictly follow the *APA Style Guide* (Sixth Edition).
- Every citation in text must have the detailed reference in the Reference section.
- Every reference listed in the Reference section must be cited in text.
- Do not use "et al." in the Reference list at the end; names of all authors of a publication should be listed there.
- Include the DOI number in the References.

Here are a few examples of commonly found references. For more examples please check *APA*(6th Ed).

Books:

Book with place of publication--Airey, D. (2010). *Logo design love: A guide to creating iconic brand identities*. Berkeley, CA: New Riders.

Book with editors & edition--Collins, C., & Jackson, S. (Eds.). (2007). *Sport in Aotearoa/New Zealand society*. South Melbourne, Australia: Thomson.

Book with author & publisher are the same--MidCentral District Health Board. (2008). District annual plan 2008/09. Palmerston North, New Zealand: Author.

Chapter in an edited book--Dear, J., & Underwood, M. (2007). What is the role of exercise in the prevention of back pain? In D. MacAuley& T. Best (Eds.), *Evidence-based sports medicine* (2nd ed., pp. 257-280). Malden, MA: Blackwell.

Periodicals:

Journal article with more than one author (print)--Gabbett, T., Jenkins, D., & Abernethy, B. (2010). Physical collisions and injury during professional rugby league skills training. *Journal of Science and Medicine in Sport, 13*(6), 578-583.

Journal article – 8 or more authors-- Crooks, C., Ameratunga, R., Brewerton, M., Torok, M., Buetow, S., Brothers, S., … Jorgensen, P. (2010). Adverse reactions to food in New Zealand children aged 0-5 years. *New Zealand Medical Journal, 123*(1327). Retrieved from http://www.nzma.org.nz/journal/123-1327/4469/

Internet Sources:

*Internet – no author, no date--*Pet therapy. (n.d.). Retrieved from htttp://www.holisticonline.com/stress/stress_pet-therapy.htm

Internet – Organisation / Corporate author-- SPCA New Zealand. (2011). Your dog may be dying from the heat [Press release]. Retrieved from

http://www.rnzspca.org.nz/news/press-releases/360-your-dog-may-be-dying-...

- Examples of various types of information sources:

Act (statute / legislation)--Copyright Act 1994. (2011, October 7). Retrieved from http://www.legislation.govt.nz

Blog post-- Liz and Ellory. (2011, January 19). The day of dread(s) [Web log post]. Retrieved from

http://www.travelblog.org/Oceania/Australia/Victoria/Melbourne/St-Kilda/...

Brochure / pamphlet (no author)--Ageing well: How to be the best you can be [Brochure]. (2009). Wellington, New Zealand: Ministry of Health.

*Conference Paper--*Williams, J., &Seary, K. (2010). Bridging the divide: Scaffolding the learning experiences of the mature age student. In J. Terrell (Ed.), *Making the links: Learning, teaching and high quality student outcomes*. Proceedings of the 9th Conference of the New Zealand Association of Bridging Educators (pp. 104-116). Wellington, New Zealand.

*DVD / Video / Motion Picture (including Clickview&Youtube)--*Gardiner, A., Curtis, C., & Michael, E. (Producers), &Waititi, T. (Director). (2010). *Boy: Welcome to my interesting world* [DVD]. New Zealand: Transmission.

*Magazine--*Ng, A. (2011, October-December). Brush with history. *Habitus, 13*, 83-87.

*Newspaper article (no author)--*Little blue penguins homeward bound. (2011, November 23). *Manawatu Standard*, p. 5

*Podcast (audio or video)--*Rozaieski, B. (2011). *Logan cabinet shoppe*: *Episode 37: Entertainment center molding* [Video podcast]. Retrieved from http://blip.tv/xxx

*Software (including apps--*UBM Medica.(2010). iMIMS (Version1.2.0) [Mobile application software].Retrieved from http://itunes.apple.com

*Television programme--*Flanagan, A., &Philipson, A. (Series producers & directors).(2011). *24 hours in A & E* [Television series]. Belfast, Ireland: Channel 4.

Thesis (print)--Smith, T. L. (2008). *Change, choice and difference: The case of RN to BN degree programmes for registered nurses* (Master's thesis). Victoria University of Wellington, Wellington, New Zealand.

Thesis (online)--Mann, D. L. (2010). Vision and expertise for interceptive actions in sport (Doctoral dissertation, The University of New South Wales, Sydney, Australia). Retrieved fromhttp://handle.unsw.edu.au/1959.4/44704

Non-English reference book, title translated in English

Real Academia Espanola. (2001). *Diccionario de la lenguaespanola* [Dictionary of the Spanish Language] (22nded.). Madrid, Spain: Author

IMPORTANT NOTE: To encourage a faster production process of your article, you are requested to closely adhere to the points above for references. Otherwise, it will entail a long process of solving copyeditor's queries and may directly affect the publication time of your article. In case of any question, please contact the journal editor at NDeutschJAR@gmail.com.

7. Tables. They should be structured properly. Each table must have a clear and concise title. When appropriate, use the title to explain an abbreviation parenthetically.Eg.*Comparison of Median Income of Adopted Children (AC) v. Foster Children (FC).*Headings should be clear and brief.

8. Figures. They should be numbered consecutively in the order in which they appear in the text and must include figure captions. Figures will appear in the published article in the order in which they are numbered initially. The figure resolution should be 300dpi at the time of submission.

IMPORTANT: PERMISSION - *The author(s) are responsible for securing permission to reproduce all copyrighted figures or materials before they are published in JAR. A copy of the written permission must be included with the manuscript submission.*

9. Appendices. They should be lettered to distinguish from numbered tables and figures. Include a descriptive title for each appendix (e.g., "Appendix A. Variable Names and Definitions").Cross-check text for accuracy against appendices.

In addition, all articles must show an awareness of the cultural context of the research questions asked, the population studied, and the results of the study. **Each paper submitted MUST include a cover letter indicating how the paper meets at least one of these criteria and the cultural requirement.**

For more on the standards for publication in the *JOURNAL OF ADOLESCENT RESEARCH,* please see:

Arnett, J. J. (2005). *The Vitality Criterion: A new standard of publication for Journal of Adolescent Research. Journal of Adolescent Research,* 20, 3-7.

Suárez-Orozco, C. (2015). Transitional statement from the new Journal of Adolescent Research team. *Journal of Adolescent Research, 30*(1), 3-6.

Some essays may provide a thoughtful critique of a research area while making constructive suggestions for new ways of approaching it. Other essays could analyze a recent event, commenting on the developmental context when adolescents or emerging adults are in the news for involvement in something widely discussed. Policy discussions and advocacy also are welcome in the essays. Scholars interested in writing and submitting an Editorial Essay should query the editor first to confirm the appropriateness of the proposed topic.

The journal accepts **ELECTRONIC SUBMISSIONS ONLY**. Manuscripts should be submitted online at http://mc.manuscriptcentral.com/jar. The editor (or associate editor) will review all manuscripts within 1 month and then inform the lead author whether or not the paper has met the *JOURNAL OF ADOLESCENT RESEARCH* criteria. The manuscript then will be sent out for peer review.

Submission of a manuscript implies commitment to publish in the journal. Authors submitting manuscripts to the journal should not simultaneously submit them to another journal, nor should manuscripts have been published elsewhere in substantially similar form or with substantially similar content. Authors in doubt about what constitutes prior publication should consult the editor.

In general, manuscripts should not exceed 30 typed, double-spaced pages, including references, tables, and figures. Figures and tables should be included as part of the manuscript, not as separate files. Five to six keywords, to be used in archival retrieval systems, should be indicated on the title page. The title page should also include contact information for the lead author, including affiliation, mailing address, e-mail address, and phone and fax numbers. Manuscripts should include three- to four-sentence biographical paragraphs of each author at the bottom of the title page. Following the title page, an abstract of no more than 200 words should be included. Text and references must conform to American Psychological Association style, as stated in the ***Publication Manual of the American Psychological Association (Sixth Edition).*** Permission for use of the copyrighted material is the responsibility of the author. All artwork must be camera ready.

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Appendix G: Ethical Approval Documentation

REMOVED FOR HARD BINDING

Appendix H: Participant Information Sheet

UNIVERSITY OF Hull

Humber NHS
NHS Foundation Trust

Participant information sheet

PROJECT TITLE
Exploring Staff Experiences of Resilience in Teenage Motherhood

INVITATION
Hi, I am a Trainee Clinical Psychologist studying at the University of Hull. I would like to invite you take part in a research study about your experience of resilience in teenage mothers. Before you consent to take part, please read this information sheet to find out more about the study so you can make an informed choice about taking part.

WHAT IS THE STUDY ABOUT?
Resilience in adolescence has been well researched, but a lot of the factors that contribute to resilience in this population are not always accessible for teenage mothers. Conversely, the risk factors for poor resilience in adolescence and the same as the risk factors for early pregnancy. This would suggest that teenage mothers lack resilience, however from personal experience, we know that teenage mothers are able to adapt and succeed in motherhood.   The study wants to find out more about how this happens by asking people who work with teenage mothers for their experiences of resilience in this population. The results from the study will be anonymised and written for publication in a professional journal.

WHY HAVE I BEEN ASKED IF I WANT TO TAKE PART?
This study is looking for staff who work or have worked with teenage mothers who would like to talk about their experiences. This includes staff who worked with anyone who became a parent between the ages of 13 and 19.

DO I HAVE TO PART?
You do not have to take part in the study if you do not want to. You can withdraw from the study up to the point where the results are analysed and written up without giving a reason. Withdrawal from the study will have no adverse consequences.

WHAT WILL I HAVE TO DO?
If you do want to take part, please contact me via email (b.edlington@2015.hull.ac.uk) I will arrange a time with you to complete an interview at a convenient location for you. The interview should last around an hour. On the day of the study you will be asked to sign a consent form to confirm you wish to take part after discussing the study. The information taken from the interview will be anonymised and data will be confidential.

WHERE WILL THE RESEARCH TAKE PLACE?

The interview will take place at a location convenient for you, for example, your place of work.

EXPENSES AND PAYMENTS

Your participation in this study is voluntary and you will not be paid to take part.

WHAT REASONS ARE THERE FOR TAKING PART?

The study will provide a space to talk about your experiences of working with this population and to provide a voice to speak on behalf of teenage mothers.

The study will be published so that we can provide information that may be used to improve services for teenage mothers and provide more insight into what it is like working with this population.

As this population is often stigmatised, this research aims to challenge the negative narrative of teenage parenting by providing a strengths-based perspective.

ARE THERE ANY DOWNSIDES TO TAKING PART?

I appreciate that time is pressured and that it could be difficult taking an hour of your time to take part. I will aim to cause minimal diruption to your working life and will be as flexible as possible in arranging the interview.

WHAT IF I DO NOT WANT TO TAKE PART?

If you say you would like to do the study but then change your mind, you should contact me immediately. You can leave the study at any point until the data is being analysed.

If you decide to not take part before the interview, I will cancel the interview and will delete any information I have about you, such as your name and phone number.

If on the day of the interview, you decide you do not want to take part, you can stop at any time. Any information you provide will not be used in the study, and any information I have about you, I will delete.

If after the interview, you decide you do not want to take part, you need to contact me. If the interviews have all finished and the study is being written up, you will not be able to drop out and your data will still be used, however it will be anonymous.

DATA CONFIDENTIALITY

You will be asked to sign a consent form and give some personal details, but these will be stored in a locked cabinet and away from any other information collected from you. Information is collected by myself only and your name will not be used during the study, and a number will be used. We will follow NHS ethical and legal practice and all information about you will be kept private.

The things you talk about in the interview will be kept confidential and will not be shared with anyone unless the researcher is concerned about risk. If you share something in your interview that causes concern, the researcher will act in line with safeguarding policies and will share this information with appropriate parties. The researcher will inform you if this were to happen.

Information collected from you will be used only for this study. All information is stored securely for 10 years and will then be destroyed.

WHAT WILL HAPPEN WITH THE RESULTS OF THE STUDY?
The results of this study will be written up for a doctoral thesis, submitted for publication in an academic journal and may be presented at conferences. Quotes from interviews may be used in publication but your name or personal details will not be used.

WHO IS ORGANISING THIS STUDY?
This research is carried out as part of a doctorate level training programme in clinical psychology with approval of Humber NHS foundation trust.

WHO HAS REVIEWED THE STUDY?
The study has been peer-reviewed by a group of staff and further reviewed by a member of staff at the University of Hull and has been ethically reviewed by an NHS ethics committee.

WHAT IF THERE IS A PROBLEM?
If you have concerns about any aspects of this study you can contact Dr Annette Schlösser at the University of Hull (A.Schlosser@Hull.ac.uk). You can also contact the local NHS Patient and Advice and Liaison Service (PALS) on telephone number 01482 303 966 or via email: pals@humber.nhs.uk.

WHAT DO I DO NEXT?
If you wish to take part, please contact me (b.edlington@2015.hull.ac.uk) and I will contact you to arrange a time to complete the study.

FOR FURTHER INFORMATION
Miss Bethany Edlington and Dr Annette Schlösser will be happy to answer any questions about this study at any time:

Email: B.Edlington@2015.hull.ac.uk/ A.Schlosser@Hull.ac.uk

Address: Miss Bethany Edlington/Dr Annette Schlösser,
Clinical Psychology Doctorate Programme
School of Health and Social Work
Aire Building, Room 129
School of health and Social Work, University of Hull, Cottingham Road, Hull, HU6 7RX

Thank you for taking the time to read this letter!

Yours Sincerely   **Supervised by**

Bethany Edlington   **Dr Annette Schlösser**
Trainee Clinical Psychologist   **Clinical Psychologist**

Appendix I: Participant Consent Form

UNIVERSITY OF **Hull**   Humber **NHS**
                                NHS Foundation Trust

Participant Identification Number:

CONSENT FORM

Title of Project: **Exploring Staff Experiences of Resilience in Teenage Motherhood**

Name of Researcher: **Bethany Edlington**

Please initial all boxes

1. I confirm that I have read and understand the information sheet dated 05.04.2018 (version 1.1) 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 confirm that direct quotes from the interview may be used in future publications and understand that they will be anonymised.   ☐

4. I understand that data collected during the study may be looked at by individuals from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.   ☐

5. I agree to take part in the study and understand that my interview will be audio recorded.   ☐

_____   _____   _____
Name of Participant   Date   Signature

_____   _____   _____
Name of Person   Date   Signature
taking consent.

When completed: 1 for participant; 1 for researcher site file.

05/04/2018
Version 1.1
IRAS ID 220290

Appendix J: Interview Schedule

<u>Interview Schedule</u>

Generic Questions about their role:

What is your role in working with teenage mothers? Does this differ from other jobs you have worked in? How long have you been doing this?

Are there any particular pressures on your service that you feel are important?

How would you describe your relationship with the teenage mothers you work or have worked with?

Present them with the following definitions:

Resilience is a person's ability to cope and adapt to maintain healthy functioning despite adverse circumstances (Feder, Charney and Collins, 2011).

Resilience is the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress — such as family and relationship problems, serious health problems or workplace and financial stressors. It means "bouncing back" from difficult experiences. Research has shown that resilience is ordinary, not extraordinary. People commonly demonstrate resilience. Being resilient does not mean that a person doesn't experience difficulty or distress. Resilience is not a trait that people either have or do not have. It involves behaviours, thoughts and actions that can be learned and developed in anyone. (American Psychological Association)

Encourage participants to think of specific examples that illustrate their ideas.

Before pregnancy:

What have been your experiences of resilience in teenage mums prior to becoming

pregnant?

What circumstances do young girls find themselves in and what challenges do they have to

cope with? How do they show resilience in this process? Some examples might be

working through challenges at home or at school.

Pregnancy:

What is your perspective on pregnant mums' resilience during pregnancy?

What have been your experiences of how teenage mothers have coped with pregnancy?

Are there specific examples you can think of where young mums have overcome particular

challenges during pregnancy and how did they do this?

Motherhood:

What is your experience of young mums' resilience after becoming mothers?

What challenges have you seen teenage mothers overcome during motherhood and how do

they cope with these challenges? How do they act resiliently in dealing with these?

Becoming a mother involves a large amount of change in a short time, how do teenage

mothers manage this resiliently?

Do the challenges teenage mothers face change over time as their children grow and how

do they manage these transitions successfully?

Can you give examples of positive changes that teenage mothers have made about

themselves or their parenting attitudes and how has resilience been important in this?

The future:

What is your experience of young mothers' resilience in their attitude towards the future?

Can you give examples of fears teenage mothers might have about their future and how do they act resiliently to cope with these fears?

What have been your experiences of hope in teenage mothers and how to do they work towards their goals and plan for the future? How might resilience help with this?

Concluding questions:

From your experiences, would you say teenage mothers are resilient and why?

Is there anything else you would like to tell me about your experiences of resilience from working with teenage mothers?

Appendix K: Worked Example of Inductive Thematic Analysis

Comments	Transcript	Emergent Themes
Importance of having <u>support, particularly from mother and family</u> Learning from positive experiences in the pas <u>Resilience can grow</u>, not static	P: Yeah I've think going back to that issue of their experience of being parented, the attachment with their mothers and their ongoing relationships with their mothers and/or families for me, I think, really kind of boost their resilience in pregnancy or in parenthood. I just think it's crucial. R: Ok what about how, so once the baby's born, how do you experience resilience in teenage mums at that point?	Relationships with others
Thoughtful about the interview but may show bias, reflecting on variety of cases used Resilience influenced by systemic factors Importance of past-achievements on self-efficacy? <u>Marinating teenage life/wanting to better self</u> <u>Sharing the care with mother</u> <u>External support and a nurturing environment</u>, able to focus on being a mum <u>Social life important</u> but influenced by the systemic factors, baby comes first Having some teenage life still Saving up money, sharing resources Security blanket – childlike language?	P: Yes, so, umm, I'm just trying to think if I'm thinking diversely enough for you really, and um, (Sighs), Yeah so, I think it's important to draw on other factors as well though, as well, we've got the family, haven't we, but we've also got financial concerns, or issues, we've also got educational aspects, umm, so, umm *pause*, for instance, umm, I've got mums who, umm, have achieved quite significantly at school, umm and have then maybe gone on to do vocational or higher academic qualifications, so I have one client at the moment who she did well with her GCSE's, she did some NVQ work and she wants to go back to college, she's got this clear goal in her mind, umm, she's living in her home environment, so, umm, she's accessing the benefits she can but her mum is also helping umm you know so she hasn't got the issue in terms of you know, if, if, if the, if the benefits for whatever reason are running low, income's not great, you know, she has got that added resource of her mum and the home environment there. You know she doesn't have to worry about bills; partner's also gone back to seasonal work recently, so he's bringing extra money in. So, I think definitely financial issues are going to impact on resilience, their ability to go out and do things with the baby, you know, access umm, you know, social life, so this mum, she's got, she's going to a concert, I think, next month, [artist name], you know she's looking forward to that, she's been able to pay for that, you know, umm, her partner and her, you know, they pool their resources, umm, and as I say, they've got that extra security blanket of living in her mums home. She's also, umm, got this goal of going back to, umm, education, so I think having that positive	Relationship with motherhood Relationships with others Relationship with motherhood/Mother baby relationship promoting positive change Relationship with motherhood

Having a focus other than motherhood	mind set of, you know, I can, umm, move forward, you know, I, I'm a mum, but I'm also going potentially to do other things in my life as well, I think that gives positive focus and structure and umm, I'm sorry just to dip back again, but I've just thought of a client who I've just recruited, she's actually just doing her AS levels now, her pregnancy wasn't expected, she's living at home with her mum, dad and siblings, and her mum has said to her, you know, she'd like her to stay at home 'til she's finished her A levels, so she's planning to go back to school, to college actually, next autumn to complete her A levels and umm she's very focused and positive about that and umm, and we were talking about her feelings about the pregnancy and you know she was saying I didn't want this, and you know I am going to miss out on things my friends, you know they're going on a hen weekend soon, and I can't do that, she said, but actually, I'm going to be a young mum and I'm going to be able to have the, you know, the energy to keep up with my toddler and when they're having their babies, in their thirties, you know, I'm going to be coming up to that age where I can do things more independently, and her Mum was part of that visit and her Mum was really helping her to focus on, you know, future life aspirations and actually what she's doing is she's doing something a different way round to some of her friends, but that's ok, so, you know, she's feeling that she's got umm control. That's what I wanted to say actually, that locus of control, whether they feel, umm, you know, umm, in charge of their destiny, or whether they feel they're not in control at all, and umm one of the assessments we do, data collection when we first start the programme, is umm, I think it's called positive affect, and we look at umm, you know, do they feel they are being pushed around in life, do they feel they can change their circumstances, and then at the end of the programme we review that again, and I've just done that with another client, umm she's just coming up to graduation, and I looked at the data and her positive affect has increased umm, and she obviously feels more in control of what's happening in her life and I think in pregnancy and in motherhood, whether or not they feel they've got any control has a real impact on that resilience as well.	Relationship with motherhood Relationships with others
Resilience in the <u>way they think about motherhood,</u> resilience as <u>growth</u>, being a mother is a <u>new beginning</u>		Relationship with motherhood Relationship with professionals
Parent reinforces ambitions, accepting and willing to support her at home, helps mum to engage in teenage activities but also being a mum Focusing on the positives Accepting of situation despite not being wanted or planned Positive perspective on pregnancy Comparison to other teen/mums		
External support useful in helping to reinforce ideas and acceptance Perceives it as 'different' not wrong Accepting responsibility and feels in control, expectations of self and motherhood Role of the professional in supporting their understanding and development of self-efficacy. Professional pressure of monitoring work Having some sense of control is important, accepting level of control available to them,		

Appendix L: Epistemological Statement

This statement outlines the epistemological stance of the researcher in order to provide transparency about the underlying assumptions made in the empirical research. Epistemology is concerned with how we understand knowledge and how knowledge comes into existence (Willig, 2013). It also considers the relationship between the researcher, participants and the information that can be known through the research (Ponterotto, 2005). Epistemology and research are intrinsically related; epistemology aims to understand knowledge and research aims to generate knowledge. Linked to this is ontology; the reality of knowledge and what is knowable (Lincoln & Guba, 1985).

Given there are multiple valid epistemological viewpoints in existence, it can be difficult to understand, especially for the inexperienced researcher. Epistemology and methodology are closely linked and should complement each other (Carter & Little, 2007). Two processes occurred during this research which led to the development of the researcher's epistemological and methodological stance; the top-down influences of the researcher's own beliefs about knowledge and research, and bottom-up influences of designing research to answer the question in mind. The main bottom-up influence in the empirical research was how to approach the data collection; whether to use a qualitative or quantitative methodology. After reviewing the literature around teenage parents, the area of interest, it became clear that there was a lack of qualitative research in this field, and therefore this seemed like a niche area with good potential for research. At the broadest level, epistemology can be divided into three categories: realist, phenomenological and social constructionist perspectives (Willig, 2012). Realists suggest there is a 'truth' which is achievable through research by an independent observer (Harper, 2011). It seemed impossible that there was one 'truth' about teenage parenting and resilience; given

perspective on motherhood are different in various cultures around the world (Collins, 2015). Therefore realism was rejected as an epistemological stance.

Social constructionism is an idiosyncratic approach to research; the idea that knowledge is a subjective understanding of the world developed through individual social experiences (Burr, 2015). Social constructionists also view that our understanding of the world and our experiences is generated through language (Harper, 2011). It posits that there is no one 'truth' and different understandings of reality can exist together (Harper, 2011). This approach seemed appropriate for studying teenage parenting as social perspectives on teenage pregnancy have changed over time and varies across cultures. For example, white cultures see teenage pregnancy as negative, other cultures, such as American Indians and Africans, perceive it as confirmation of femininity and a blessing (Locoh, 1999). Furthermore, many societies see teenage pregnancy as a problem, when actually it was commonplace during the 1950's (Lappegård, 2000).

A related stance considered was critical realist social constructionism (Elder-Vass, 2012), a position which incorporates social constructionist ideas, but embedding this within an understanding of the historical and social context (Harper, 2011). Critical realist social constructionists take the position that the available social discourses about a subject influence what is said or done within a context (Harper, 2011). The 'critical' influence attempts to identify misleading assumptions in discourses and political policy, and instead creates knowledge that is in the best interest of the people affected (Burr, 2015). This approach fitted with the research context given that the study would be exploring resilience in teenage parents through the experiences of staff working with teenage mothers rather than through direct interviews. Being able to consider the social context was appealing, as the research involved speaking to staff about positive aspects of resilience in teenage

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parents. This was going against the norm of existing research, government policies and the social and cultural attitudes towards teenage mothers.

Furthermore, the researcher approached the research from a positive psychology perspective, wanting to focus on resilience in teenage parenting. Having read relevant literature, there was a striking negativity towards teenage mothers; however some research suggested many teenagers cope well with motherhood which was also reported by professionals working with them. The researcher wanted to understand what influences might support this positive development and this also fitted with a critical realist social constructionist epistemology, wanting to access this unknown process. At no point did the researcher reject the research on negative aspects of teenage pregnancy and acknowledged that some young mothers do struggle. This research was not about dismissing the negative literature; it was about searching for an alternative understanding of how teenage mothers are resilient, how they overcome challenges and how they cope with becoming mothers.

Therefore a critical realist social constructionist epistemology fitted with both the researcher's stance and the nature of the research topic. This epistemology allowed the researcher to explore this seemingly unavailable aspect of teenage parenting and to open up discourses that were less heard in society. This stance also fitted with the positive psychology perspective which was driving the research.

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Appendix M: Reflective Statement

The interesting thing about researching resilience that research really tests your resilience. Three years ago, I embarked naively onto this research journey, dedicating what seemed like a lifetime to it, yet still, a month before the deadline, I found myself with a no data. My literature review was almost finished, I had been offered a job once I qualified, my future was looking bright, however, the upcoming month hung precariously in the balance. I knew that the process I had watched my colleagues go through over the past year months was looming, and I was mixture of scared and excited as I hoped I would finally be able to collect some data. All I could do was have faith in the process and reflect on it.

My research journey began soon after training started. I was approached by my supervisor with a research proposition. At the time, the Family Nurse Partnership team (FNP) near where I lived desperately wanted some help with research. The FNP team worked with teenage mothers, providing long-term, individual support to them and supporting them through their journey into motherhood. This resonated with me as I had spent my final year at undergraduate level working on a project teaching mind-mindedness to teenage mothers. It was not my expectation to be able to carry on in this field, but I couldn't miss the opportunity. Being from a highly socially deprived area, I had witnessed many of my school mates and friends enter this world of teenage pregnancy and motherhood. I was surprised a service was so willing to support them given the way my school mates were treated so negatively. There seemed to be so much stigma around it, and I found myself questioning whether they would cope with e baby at such a young age. To my pleasant surprise, they were fantastic parents, and I admired their courage. When the opportunity arose to do more research with teen parents, I knew this was what I wanted to do for my thesis. I went along for a meeting with the team and after an hour we had ideas for my

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small scale project, and an empirical project for my thesis. I could not believe that two months in, I had found something that matched my interests.

Keen to get started, I met with the team on several occasions, initially for my small scale project. Around this time, there was a controversial publication in the Lancet that scrutinised the FNP, highlighting its' ineffectiveness and recommending it was no longer funded. This angered me. To me, the research was flawed, only looking at a small number of outcomes; birth weight, smoking, repeat pregnancies. I had got to know and understand the FNP project on a deeper level, and I was amazed by the psychological and strengths-focused work involving encouraging attachment and developing a strong mother-infant bond, but also developing the mothers' self-esteem, confidence, plans for the future and encouraging them to develop their own skills. I was angered how a single piece of research could define their success and future. The research had also been commissioned by public health bodies, and in a time of recession and cost-cutting, it made me question the reality of research and whether an ulterior motive was behind the study. The paper was based on a few objective health outcomes, but FNP included more than this, and I was determined to demonstrate another perspective. I designed a qualitative study for my thesis to evaluate the teenage mothers' experiences of the FNP project and to find out first-hand what it was like for them. I desperately wanted to give back something to the project that gave so much to teen mums.

Whilst finishing my research proposal due for peer review, Public Health/NHS England removed funding for the FNP nationally, and stated that local councils would have to fund the project if they wished to keep them. Locally, councils were desperate to keep the FNP; after all, it was doing a fantastic job, evidenced by service user feedback, by local organisations and by my small scale research. However, the FNP was reaching crisis point.

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There were threats of job cuts, changes to the programme and a huge amount of uncertainty loomed over the team and my empirical project. At this point, after a honest discussion with my supervisor, I decided I had to let go of my original idea, as the prospect of it going ahead was slim. I felt lost, after all, I had been working on this project for well over a year. I didn't want to let the idea go, and decided to pursue a different project, but holding on to the values of the FNP, which had inspired me. Having heard about some of the final year students talk about positive psychology, I decided to look into this. It seemed remarkably similar to the ethos of the FNP, promoting hope, resilience, growth and focusing on strengths, not weaknesses. Having read the literature on teenage mothers, I was struck by the negativity. There was many papers showing poorer outcomes for teenage mothers and their children, and so many papers looking at interventions that this population needed. I was also struck how research papers felt they could assess motherhood, a hugely interpersonal experience, based on numbers. My experiences personally were different, and whilst I didn't know the inner world of people I know who were teenage parents, I had seen them become fantastic mothers. This dissonance confused me, so I decided to pursue a positive psychology approach to research. This was not a rejection of the negativity, as this is important; but I wanted to show a different side to a stigmatised group. I decided on resilience as a topic, as I felt this was core to motherhood, a challenging and unsettling time that cannot be predicted.

Between submitting my project for ethical approval and the time approval was granted, the FNP team I had worked so closely with had been decommissioned. Staff had been moved elsewhere or lost their jobs, and I was left feeling heartbroken. The staff were devastated. A similar picture was happening across the country. I initially worried about what this meant for my research - two of my most crucial recruiting services were gone. I felt

abandoned, and that I had lost an opportunity. I remember being told by my supervisor and previous trainees to make good links with services. I was gutted because I'd worked so hard to do it, and I knew the team so well. I began looked into other services, making calls, trying to make contacts with new people. I realised that there was nothing to fill the FNP gap and I worried I would never get any participants. After a few stressful days, I took a step back and revaluated the situation. The whole point of this thesis was not to do a perfect or ground-breaking project, and actually it was rather the opposite. Most importantly, it was a learning experience, and I was certainly learning the hard way. My thoughts turned to the teenage mothers, how must they have felt in this situation. Going from having a specialised service, a named nurse and a strong therapeutic relationship to virtually nothing must have been so difficult. I realised the parallels between my experience and theirs, and felt empathy towards their situation. We were both getting something out of the FNP, and maybe I was too dependent on it. I realised I needed to be more creative in looking for opportunities, and hoped the teenage mothers would do too.

I made links to other services, charities, schools and the remaining services working with teenage mothers, who had themselves been going through a hard time with threats to funding. I was grateful for any help I received from anyone. My perspective had changed, and I realised, I just needed to get through the research journey. I pushed hard to try and recruit some teenage mothers. I cannot explain the sheer joy when I received information about four people who wanted to take part. I was so keen to get to interview and talk to people. I made phone calls, booked people in and prepared myself. However, on the interview days, I rang to check whether the participants were available still; they'd forgotten, they were unwell, their children were unwell. I was gutted. I tried to rearrange the interviews but they rarely answered my communication. I kept trying over several

months with no luck. It seemed that these young women were interested in taking part but just couldn't bring themselves to do it. I was gutted, but I was reaching a 'do or die' moment, so I explored a new avenue. I had made some great connections with local staff who knew teenage mothers well, so I decided to interview staff about their experiences of resilience instead. This meant going through NHS ethics, again. The amendment process was frustrating, I waited a week to be told the paperwork was wrong due to an issue with the electronic system. These delays were heartbreaking, and after pushing to get approval, I finally received it after a month. This left me with one month to get it done, and I was ready for the challenge.

I threw myself into the research, interviewing three people the day after I received approval. I really enjoyed the process of interviewing. I found the staff's stories and ideas really engaging and loved hearing different perspectives. I arrived at one interview to be greeted by a participant who said they 'loved resilience', and I found it hard to keep the interview focused on their experiences when they were also keen to talk about theories of resilience and research. It was lovely to meet someone so interested, and I came out of that interview buzzing with ideas. I felt fortunate to be doing my interviews so close together as I was living the research. I absorbed myself in the process in order to get to know my data quickly. Things were going well and no interviews were the same. I reflected on the relationships between myself the participants and the topic. The majority of my participants were female, and were also mothers. I was not a mother. This created some interesting dynamics in the interviews. Often, the female participants assumed I knew what they were talking about in relation to the challenges motherhood brings, and it felt that there was an expectation that motherhood is understood universally by women. When I asked questions about how teenage mothers cope with adjusting to parenthood, they would

often say that it's hard for anyone, not just teenagers. I accepted this and felt bad that they took it that way; as I was simply wondering how teenagers coped, not saying older mums didn't have any problems. At times, I felt the participants were educating me about motherhood, telling me about the challenges it brings. I wondered if my openness and curiosity had been misinterpreted as naivety, but their answers were still interesting because it gave me some insight into how they worked with teenage mothers. One particularly interesting interview was with a male participant; therefore neither of us were mothers. There was something unique about two non-mothers reflecting on the resilience of people who had experienced something we had not. This interview had a different feel, I came out feeling energised and passionate. This participant brought a different perspective, and whilst they understood motherhood and the challenges, they had a different reflective stance. This participant used much more emotional language, saw the changes teenage mothers made as more positive and described feeling inspired by them. The female participants tended to describe resilience as from their support network, but the male participant saw resilience as more of an inner strength and determination from within the mothers, and had nothing but admiration for them. I felt that not being a mother allowed him this freedom to see the situation differently, and the mothers seemed to think about motherhood from a very maternal perspective, that young people need support and safety from a significant person in their lives. I felt this experience really enriched my research. I wondered if I did this research as a mother myself, how different would it have been? I accepted this question would not be answerable, but this one interview made me think about the research from a new light and I was grateful for this.

Unfortunately I hit another obstacle when one of my recordings didn't work due to a technical malfunction. I could not believe it and I was furious. One colleague asked if I

had broken any mirrors as I had experienced such bad luck. Ironically, after that interview, the participant had shared that when they did some research, they recorded an interview on a cassette tape and it broke, and they lost their data. I was grateful that the participant was empathic towards my experience and agreed to do the interview again. I wasn't sure what effect this would have, and the participant was worried about whether they would say the same things. I reassured them it would be fine whatever they said, and I had to be careful in my questioning to not lead the participant towards things I remembered from the previous interview as I wanted their words and thoughts to come through. During interviews, I felt myself pulled to offer reflections and summaries, but I resisted as much as I could. Occasionally the interviews felt like supervision sessions, with participants discussing their most difficult cases and often the interviews started with problem-saturated narratives, and I had to keep asking questions to get to the positives. This was a challenge, but I had to remind myself of the purpose of the research. In my final interview, I found myself offering more reflections, and had to step back and question why. I realised that actually I had probably reached data saturation and perhaps was using the interview as a chance to get feedback on the themes I had thought about. Doing the interviews so closely together meant it was hard to know when data saturation was reached. I ended up doing two batches of four interviews over two days, and this was exhausting but I was just grateful to have data. I was a little sad to end the interview process as I really enjoyed it, but I also knew I needed the time to transcribe and analyse the data.

The process of transcription was a blur as I needed to get it done quickly but I didn't want to rush it. It helped to be surrounded by the data for a short time because I was able to make connections across the interviews. I enjoyed doing the transcription as it helped me to further develop my ideas, and reading the transcripts in depth gave me great joy because

the data seemed so rich. I said to my supervisor I felt I could write several papers, and her response was 'I'd love you to' . I was not impressed at the time given I hadn't written my first paper up yet! The hardest part was deliberating the themes, and having to cut out some themes. I had to be ruthless though as I didn't have the time to be soft. One of the most interesting parts I didn't get to write about was the last question, when I asked if participants wanted to share any more of their experiences that I didn't ask about. The answers to this were amazing, people started talking about how much they loved their job, how difficult they found the emotional nature of the work, how inspiring it was. I was amazed, but this didn't really tell me much about resilience, and it had to go.

The write up was fairly straightforward once I had my themes sorted. I had so many quotes I wanted to use which was great. One of the hardest challenges was writing about the participants, as the nature of my sample meant that nearly every participant had something unique about them that would make them identifiable to other staff members who took part, such as gender, role, length of service, background and seniority. I thought about giving the participants numbers, but this seemed so impersonal given the nature of my work and their roles working 1-1 with teenagers. Instead I chose gender neutral pseudonyms, but this was harder than it sounded. I was also mindful that all the participants had asked me to share my results with them when I finished, and they were keen for me to attend team meetings. I therefore wanted to make sure they couldn't identify colleagues and their words and perspectives were unidentifiable, but that was a challenge.

After what had been an exhausting few weeks, I was thankful to have finished. I made it, against all the odds. I thought I would feel proud, but instead, I was just relieved.

Reflecting back on my experiences, I realised how much I had overcome. I believe that things are sent to try us, and I think this attitude helped me to keep calm. I knew setbacks were temporary and I could overcome them. I was shocked by people saying they were impressed how calm I was. I was surprised at myself; if this happened a few years ago, I would not have coped so well. The doctorate course has challenged my confidence, my coping and my resilience, but all for the better. I wanted to understand resilience, and throughout this process, I definitely learned about my own resilience. I developed an inner strength and I was motivated to push through the difficulties, rather than hiding from them. This was a new approach for me, and I reflected on the parallels of this research journey and motherhood. Both are focused on growing something of their own. I likened my thesis to two children; the systematic literature review (SLR) being the good child who does as they're told and were under my control. The lack of mention of the SLR in this reflective statement shows how I related to it and how little trouble it really caused. I was able to find a niche topic fairly quickly and I enjoyed the structure of the process. I was also able to get on with this while I was waiting with delays in my empirical paper, so in comparison the SLR seemed easy. On the other hand, the empirical paper was like a naughty toddler, defiant, challenging and wanted to do its own thing. Reflecting on this in research groups helped me to understand that this is the natural process of research. There were many aspects out of my control; the ethical approval and the amendment process, relying on other people to help you recruit and relying on participants to come forward. I like to be in control of things, so accepting this was not possible was a challenge; much like motherhood. You can't control babies, you have to respond to their needs, and I felt like this paralleled with my journey through the empirical research. I had to tend to the empirical when it needed me, and the rest of the time, it looked after itself. I learned I

needed to have faith in the process; and sure enough, it happened in the end, and it was through patience and a calm approach that I made it to the end.

I cannot believe this journey is coming to an end. I don't like endings, but I see this very much as a new beginning. I am eager to embark on the next step of my journey, and will remember fondly the experiences I have had with research, mainly enjoying it, but also remembering that I made it through one of the most challenging things in my life. Most importantly, this experience has taught me that I can overcome things, even when thisseems impossible, and that I am resilient.