

Running head: WELL-BEING OF TEENAGE MOTHERS

Schoon, I., & Polek, E. (2011). Pathways to economic wellbeing among teenage mothers in Great Britain *European Psychologist, 16*, 11-20.

Pathways to Economic Well-being among Teenage Mothers in Great Britain

Ingrid Schoon and Elzbieta Polek
Institute of Education, University of London
The United Kingdom

Corresponding author:

Prof. Ingrid Schoon

Institute of Education

University of London

Gordon Square 55

London WC1H 0NT

UK

Email: i.schoon@ioe.ac.uk

Abstract

The present study examined pathways to financial independence from social welfare among 738 teenage mothers, participants of the 1970 British Cohort Study. Using a longitudinal design, a pathway model was tested, examining linkages and causal relations between family social background, cognitive ability, school motivation, and individual investments in education, as well as work-, and family related roles. The data suggests that financial independence from social welfare is a significant factor contributing to life satisfaction by age 30 among women who were adolescent mothers. The most important factors associated with financial independence are continued attachment to the labour market as well as a stable relationship with a partner (not necessarily the father of the child). Pathways to financial independence, in turn, are predicted through own cognitive resources, school motivation, and family cohesion. Implications of findings for policy making are discussed.

Keywords: economic and psychological well-being, teenage mothers, longitudinal study

Pathways to Economic Well-being among Teenage Mothers in Great Britain

Adolescent motherhood is commonly identified as a social problem, and is assumed to lead to psychological distress, welfare dependence and socioeconomic disadvantage (Furstenberg, 2003; Lee & Gramotnev, 2006). Studies showed that becoming a teenage mother limits a woman's educational and employment opportunities and is related to depression, insecure attachment styles, external locus of control, and low self-efficacy (Figueiredo, Bifulco, Pacheco, Costa, & Magarinho, 2006). Moreover, there is evidence that parental stress is negatively related to a quality of parenting, and that children of teenage mothers are likely to suffer numerous health and psychosocial disadvantages (Dearing, McCartney, & Taylor, 2006; Jaffee, Moffitt, Belsky, Silva, 2001; Miller & Miceli, 1996; Moffitt, 2002). Teenage mothers themselves are more likely to come from disadvantaged households, have experienced difficulties at school, and have lower expectations regarding further education than their peers (Bonell et al., 2005; Bonell et al., 2003; Kiernan, 1997). It appears that the well-being of teenage mothers is a particularly complex issue conditioned by past experience in the family of origin and influencing the future of their offspring. Doubtless, the wellbeing of this vulnerable group is a relevant research topic, especially the study of pathways enabling young mothers to break the vicious cycle of intergenerational adversity. However, most studies on teenage mothers have focused on factors preceding teenage pregnancy and/or the negative adult outcomes of early childbirth (Geronimus, 2003; Kiernan, 1997; Moffitt, 2002; Tomal, 1999), while aspects that facilitate successful transitions among adolescent mothers later on in life have received little attention.

Evidence from previous research suggests that teenage pregnancy does not relegate all adolescent mothers, even those coming from a disadvantaged background, to a life of destitution and disappointment (Furstenberg, 2003). In this paper we thus do not focus on deficits, but on the strengths inherent in teenage mothers, and examine the pathways leading to thriving in the face of adversity. We adopt a longitudinal approach to examine how family background, individual characteristics, as well as transition experiences after early childbirth influence the way teenage mothers cope with early motherhood in the long run. The aims of this study are twofold. First we investigate pathways enabling

teenage mothers to break the intergenerational cycle of disadvantage, and to achieve financial independence by their early 30's. Secondly, we assess the link between financial independence and indicators of psychological wellbeing (including indicators of life satisfaction and absence of depression) to establish the contribution of independence from social welfare to the psychological well-being of young mothers.

It has been demonstrated that personal and social costs associated with teenage parenthood are mainly a consequence of a long-term exclusion from paid labour (Chevalier & Viitanen, 2003; Social-Exclusion-Unit, 1999) and there is evidence for the relation between socio-economic status and psychological well-being of teenage mothers (Hobcraft & Kiernan, 2001; Maughan & Lindelow, 1997). Therefore, it seems important to study factors that facilitate teenage mothers' occupational activity, which can be considered as the main predictor of their ability to break the vicious cycle of social exclusion.

Teenage Motherhood in Great Britain

Despite governmental policies and campaigns towards its reduction, teenage pregnancy has remained a public concern, not only in developing but also in affluent countries (Bonell, 2004). In Western Europe, the United Kingdom has the highest teenage birth rate, and the proportion of women becoming teenage mothers has not changed much amongst cohorts born since the 1960s (Kiernan, 1997). Wilkinson et al. (2006) reports that between 1994 and 1998 the birthrate among women aged 15-17 years in the UK was as high as 26% per 1000 women in that age band.

For many adolescent mothers the step into early parenthood turns out to be a repetition of the intergenerational scenario, and there is consistent evidence that poverty and social disadvantage in the family of origin is associated with high rates of adolescent pregnancy (Bonell et al., 2003; Kiernan, 1997; Moffitt, 2002). Evidence from the British longitudinal cohort studies show that girls from less privileged backgrounds are more likely to become teenage mothers than their privileged peers, and that the risk of teenage pregnancy in the less well-off social classes has increased among later born cohorts (Hobcraft & Kiernan, 2001; Schoon & Martin, 2005). Currently, around half of all

pregnancies under the age of 18 years occur among the most deprived social groups, compared to only 14% among the least deprived (Uren, Sheers, & Dattani, 2007).

Factors and pathways facilitating successful transition to adulthood

For many teenage mothers the transition into parenthood poses a disruption in the usual sequence of life events such as finishing education, attaining a stable occupational and marital status, which are all associated with a higher family income and life satisfaction. Still, a sizable number of teenage mothers, although encountering more difficulties in making these life course transitions compared to their classmates who avoided early parenthood, are capable to successfully achieve their life goals (Furstenberg, Brooks-Gunn, & Morgan, 1987). Those who managed to beat the odds included young mothers who returned to education, became attached to the labour market, and became ‘capable mates’ - although not necessarily in a relationship with the fathers of their children, who are not always appealing marriage partners (Furstenberg, 2003). It thus can be argued that educational and occupational participation, in addition to relationship status are key predictors of adolescent mothers’ economic and psychological well-being.

Despite the identification of key factors associated with thriving against the odds, there is still little understanding of the pathways leading to successful transition experiences. In the following we will test a pathway model specifying the links between experiences in early life to later outcomes. Drawing on data collected for a nationally representative cohort study, we follow the lives of women who became early mothers from birth to adulthood. We focus in particular on pathways leading to economic well-being at age 30, which we define as independence from social welfare. The model, shown in figure 1, suggests causal relations (depicted by unilateral arrows) between characteristics of the family of origin, variables measured in childhood and adolescence, and later outcomes.

Figure 1 about here

Ample evidence suggests that family background exerts profound influence on a child’s social and cognitive skills, and consequently, on their school career. For example,

parental education and family status have been found to be related to later educational and occupational attainment (Duncan & Brooks-Gunn, 1997; Hobcraft, 2002; Rutter, 1989; Schoon, 2006). To test whether or not, daughters of adolescent mothers perpetuate the scenario of teenage motherhood, variables related to mothers' characteristics, in particular maternal education and mother's own experience of teenage parenthood, were taken into account in the present model. Mothers' characteristics were incorporated as predictors of general cognitive abilities and school motivation of their child. There is evidence to suggest that a stable and supportive family environment is beneficial for individual development despite the experience of socio-economic adversity (Flouri, 2004; Furstenberg, 2003; Schoon, 2006). In the model proposed here, we thus included family cohesion - encompassing the climate in the family of origin, as well as information on family structure. In the literature family cohesion has been defined as the emotional bonding that family members feel toward one another, which is expressed by joined activities, shared interests or the time family members spend together (Olson, Russell, & Sprenkle, 1983). Many studies (Johnson, 1983; Nagoshi, Johnson & Honbo, 1993) have shown a positive role of parental engagement and family activities for child development. Events such as a parental divorce, on the other hand, pose a risk for family cohesion as well as for school attainment (Amato & Booth, 2001). We therefore specified in the model a link between family stability and family cohesion, expecting that events such as parental divorce are likely to reduce family cohesion, as well as aggravate school motivation.

Further, we suppose that educational attainment is predicted by general cognitive abilities, and by school motivation. While numerous studies showed a positive relation between general cognitive abilities and educational and vocational attainment (e.g., Nyborg & Jensen, 2001) only few studies examined the role of school motivation in vocational and educational accomplishment (Eccles, Wigfield & Schiefele, 1998; Schoon, Ross, & Martin, 2007). Here school motivation is included as an antecedent of educational attainment and time spend in the labour force. Time spend in the labour force, in turn, was found to be related to economic well-being, i.e. independence from social welfare (Harris, 1991). Therefore, we included in the model time spend in part time and full-time employment as a predictor of the independence from social welfare.

Regarding the transition to adulthood, it is noteworthy that earlier studies largely focused on the sole importance of employment and occupational status (Chevalier & Viitanen, 2003; Mendes & Moslehuddin, 2006); ignoring the role of relationship status in attaining financial independence from social welfare by teenage mothers. Yet, previous studies also suggest that in the case of women with children the reliance on state benefits and material well-being depends on financial support of their partners, and that labour market participation of mothers within a stable relationship is higher than those of single mothers (Walter, 2002). Probably sharing parental responsibilities with her partner makes it easier for a woman to retain a job after having a child. For that reason, the present model includes antecedents of employment and relationship status as predictors of the independence from welfare, and assumes that time spent in employment and stable relationship of a cohort member are correlated.

We furthermore utilize the longitudinal data to address the question of whether family structure and cohesion in the family of origin predicts stability of romantic relationships in adulthood. Arguably, family cohesion, as expressed by the time parents spend with a child, might have even more influence on the stability of adult relationships than stability of the family of origin. Some studies suggest that divorce of parents has less negative effect on emotional development of children, if parents show attention to and spend time with their children (Farber, Felner, & Primavera, 1985). However, there is also evidence that children of divorced parents are more likely to get divorced themselves (Amato & Booth, 2001). The model thus assumes that entry into a stable relationship is predicted positively by family cohesion and stability, and negatively by a variable indicating whether the respondent was born to a teenage mother.

In summary, the study has two aims. First, we assess the pathways leading to economic well-being, following a sample of teenage mothers into their early 30's. The model combines a focus on educational, occupational, as well as family related transitions and their antecedents, expanding existing theories focusing on one transition only. This is one of the few, if not the first study to utilize longitudinal data to address questions regarding the interlinkages between family background, cognitive ability, motivation, family transitions, and educational and occupational attainment. In addition

we assess the role of economic well-being in shaping psychological well-being among teenage mothers.

Method

Respondents

This study used data from the 1970 British Cohort Study, a continuing longitudinal study, which followed children born in a week in April 1970 from birth through to adulthood (Elliott et al., 2006). Data sweeps have taken place at birth, at age 5, 10, 16, 26, 30, and most recently at age 34. From the total number of 5738 female cohort members participating in the survey at age 30, 738 women gave birth to a child before age 20 (13 per cent). The following analysis is based on this sample of 738 female cohort members and their mothers. Five percent of women in the sample gave birth to a child before age 16, 33% between ages 16 and 17, and 62% between ages 18 and 19. One third of cohort members were born to teenage mothers themselves. Three percent of the sample had left school by age 16. By the age of 30 as many as 24% of a sample had no qualifications, 13% attained some vocational or academic qualifications, 39% completed their O-levels (completion of secondary education), 11% attained A-levels (qualifications for entry to University), and 12% gained degree level qualifications. The reader can find further information about the National Vocational Qualifications (NVQ) in the next section, point 4.

Measures

1. Mother's education

The questionnaire was administered to mothers of a new-born, in which mothers were asked about their age when leaving full-time education. Responses were dichotomized, differentiation between mothers who left school at the minimum compulsory age (0), and those who remained in education after age 15(1).

2. Cohort member was born to a teenage mother

The mother of a cohort member was asked about her age at her first birth. Based on this information a dichotomous variable was derived indicating teenage motherhood (1) versus mother's who gave birth to their first child at age 20 or older and (0).

3. Family stability (measured at age 10)

This variable pertains to the cohort member's family of origin and was based on the responses given to questions about marital and relationship status of the mothers of cohort members at age 10. Answers were categorised as (0) denoting "non-stable or non-traditional families" (i.e. mothers of cohort members who had never been married and those who are divorced), and (1) denoting "stable families", i.e. mother of a cohort member was married for at least five years.

4. Family cohesion (measured at age 16)

Family cohesion was measured with 15-item scale administered at school to cohort members at age 16. Example items from this scale are: "I do outdoor recreations with parents" or: "I sit down and eat a meal at home with parents". Responses were given on a 4-point scale ranging from (1) rarely/never to (4) more than once a week. Internal consistency of the summary scale, measured with Cronbach Alpha, was satisfactory ($\alpha = .76$).

5. General cognitive abilities (measured at age 10)

General cognitive abilities were assessed with a modified version of the British Ability Scales (BAS), the administration of which was adapted so that it could be carried out by teachers. BAS consisted of four sub-scales: the word definition and word similarities sub-scales were designed to measure verbal ability; recall of digits and matrices sub-scale were designed to measure non-verbal ability (Elliott, Murray, & Pearson, 1978). Principal component analysis of the four subscales was carried out to extract a general cognitive factor, or *g* score. Examination of the scree slope suggested the presence of a single component. The first unrotated factor accounted for 57% of the total variance among the four tests. The first unrotated principal component, which we saved as our *g* score, explained 57% of the total variance. The factor loadings of each of the subtests on the

principal component (our *g* score) was 0.83 for word definitions, 0.84 for word similarities, 0.58 for digit recall, and 0.74 for matrices. We saved scores for each individual based on the first unrotated factor from the factor analysis, as an indicator of *g*. For ease of interpretation, the *g*-score was z-standardised for the whole sample, giving a mean of zero and a standard deviation of one.

6. School motivation (measured at age 16)

A 5-item school motivation scale was administered to cohort members at school to assess their school motivation. A three point response format, ranging from (1) very true, to (3) not true at all was used. An example item from this scale is: "I feel school is largely a waste of time". Internal consistency of the summary scale, as indicated by Cronbach Alpha, was satisfactory ($\alpha = .77$). The validity of the school motivation scale has been established in previous studies, showing significant correlations between school motivation and educational aspirations (Schoon et al., 2007) and time spend in education (Schoon, 2008).

7. Highest academic and vocational qualifications obtained by age 30

At age 30 cohort members were asked about their highest academic or vocational qualifications. Their answers were coded following the six categories of the National Vocational Qualification scheme, ranging from: 0 = no qualifications (NVQ Level 0); 1 = Certificate of Secondary Education Grades 2 to 5 or equivalent (NVQ Level 1); 2 = O level exams and equivalent (NVQ Level 2); 3 = A level exams and equivalent (NVQ Level 3); 4 = postsecondary degree or diploma and equivalent (NVQ Level 4); and 5 = higher post-graduate degrees (NVQ Level 5).

8. Time spend in employment (between age 16 and 29)

Economic activity histories were collected retrospectively at age 30 (Galindo-Rueda, 2002). For the purpose of our analysis, the total number of months spent in part time and full-time employment between ages 16 and 29 was used as an indicator of time spend in employment. The maximum number of months spent in employment was 156 and the minimum was 0.

9. Stable relationship (between age 16 and 29)

Family history data were also collected retrospectively at age 30. Cohort members were asked about their current marital and relationship status, about changes in their marital status, the timing and duration of states. A binary variable was derived to assess stability of the cohort member's relationship history, differentiating between cohort members in an "unstable relationship" (0), i.e. single parents, those who are currently in a relationship with someone other than the first husband, or a relationship lasting shorter than five years; and those who are in a "stable relationship" (1), defined as a relationship with the first husband (not necessarily the father of their child/ren) lasting longer than 5 years.

10. Independence from social welfare

Economic well-being at age 30 was assessed as independence from social welfare (assessed on the basis of a household). Cohort members were asked whether she, or if she was living with a partner, whether her partner has received any social benefit income during the last year. The answers were recoded as (0) economic dependence on welfare (a cohort member or her partner has received social benefits); and (1) economic independence from welfare (neither cohort member nor her partner received social benefits).

11. Psychological well-being was assessed by an indicator of life satisfaction and risk of depression.

11a. *Satisfaction with life* (assessed at age 30)

Life satisfaction was assessed by one item on a 10-point scale, asking the respondents: "All things considered, *how satisfied you are in your life?*". The use of one item questions to assess life satisfaction is not optimal, yet there is evidence from other studies that both concepts can be reliably and validly assessed by one-item measures (Veenhoven, 1993), and for reasons of expediency the typical life satisfaction measure in large-scale surveys is usually based only on a single item (Diener & Suh, 1999). The validity of the satisfaction with life item as an indicator of psychological well-being has been confirmed in previous studies (Schoon, 2006).

11 b. Risk of Depression (assessed at age 30). The Rutter Malaise Inventory (Rutter et al., 1970) has been used to measure levels of emotional distress, or depression. The items of the inventory cover emotional disturbance and associated somatic symptoms. The inventory has been used in both general population studies (Rutter et al, 1970; McGee et al., 1986) and in investigations of high-risk groups, notably informal carers supporting people with dependency needs, such as spouses caring for partners or parents caring for disabled children (Grant et al., 1990). The internal consistency of the 24-item scale has shown to be acceptable and validity of the inventory shown to hold in different socio-economic groups (Rodgers, 1999). Rutter et al. (1970) affirms that 'the inventory differentiates moderately well between individuals with and without psychiatric disorder' (p. 160). Individuals scoring affirmatively on eight or more of the twenty-four items of the inventory are considered to be at risk of depression.

Analytic Strategy

The pathway analysis was carried out using the statistical package Mplus 5 (Muthén & Muthén, 2007). As some of the variables were ordered categorical (such as highest qualifications), we used probit regressions based on robust weighted least squares estimation. Because some of the ordered categorical variables functioned as both independent and dependent variables in our conceptual model, the theta parameterization was necessary. This method allows analysis of cases with missing data under the assumption that the data are missing at random, which means that 'missingness' is permissible even when it is related to covariates or outcomes, so long as covariate status does not determine presence or absence of data (Little & Rubin, 2002). Estimation is based on the many covariance matrices between observed variables for all patterns of missing data in the other observed variables. Regression estimates convert probit estimates for ordinal dependent variables to a common metric that allows comparison with standardised linear regression estimates for the continuous variables.

In line with current practice, several criteria were used to assess the fit of the data to the model. The χ^2 statistic is overly sensitive to model misspecification when sample sizes are large or the observed variables are non-normally distributed. The root mean square error of approximation (RMSEA) gives a measure of the discrepancy in fit per

degrees of freedom ($<.05$ indicates a good fit). The final index of choice is the comparative fit index (CFI), indicating if the model provides significantly better explanation of the relations between variables than the null hypothesis-model with no relations between variables. Values above .95 indicate an acceptable fit (Bentler, 1990).

It is generally recommended to report correlations, means and standard deviations of observed variables included in a structural model along with path estimates for the model (Boomsma, 2000). Therefore, in a first step, Pearson's correlations between variables were calculated. Table 1 shows means, standard deviations and correlations between variables under study. Remarkably, the mean for general cognitive ability was -0.66 ($SD = 1.47$), indicating a lower general ability level in the sample of teenage mothers than in the general population sample.

Insert Table 1

In the next step we investigated pathways to financial independence among teenage mothers, as specified in Figure 1. Variables pertaining to mother's characteristics and family of origin, as well as variables measured at an earlier stage in life are considered as predictors of variables measured later in life. All measured paths are shown; parameter estimates are given only for paths that were significant at $p < 0.05$, and the non-significant paths are shown as dotted lines. The final model described in Figure 2 has a good fit to the data, as suggested by the goodness of fit indicators: $\chi^2 = 27.13$, $df = 16$, $p = 0.04$; CFI = 0.969, RMSA = 0.031.

Insert Figure 2

Figure 2 gives the significant estimated standardized path coefficients, which are squared multiple correlations, denoting the percentage of variance accounted for in a predicted variable (Boomsma, 2000). As expected, mothers' education related positively to general cognitive abilities of her child. Being born to a teenage mother is negatively associated with cognitive abilities. Mother's education and being born to a teenage mother had only

a rather small influence on cognitive abilities. Surprisingly, general cognitive ability assessed at age 10 was found to be negatively associated with school motivation at age 16. Furthermore, school motivation was not associated with mother's education, nor did we find an association between school motivation and the fact that one's own mother was a teenager mother herself, or by a family stability. School motivation was, however, associated with family cohesion. Family cohesion was influenced by family stability, but was not dependent on whether or not the mother of a cohort member was a teenage mother herself. Neither did we find the predicted direct influence of being born to a teenage mother on own relationship stability. It appears that being born to a teenage mother is negatively associated with stability within the family of origin, which, in turn, influences cohesion of the family of origin. Family cohesion in the family of origin, in turn, appears to play a central role in the intergenerational transmission of positive behaviour, as it significantly influences school motivation as well as the quality or stability in the relationships entered by the teenage mothers in our sample.

In accordance to expectations, highest educational qualifications obtained by age 30 depended on general cognitive ability levels at age 10 and school motivation assessed at age 16. Educational qualifications, as hypothesised, were correlated with the time spent in employment. Time spent in employment between age 16 and 29 was determined by general cognitive ability at age 10 and school motivation at age 16, and was correlated with the stability of the relationship cohort members had with their partners. In agreement with the model three key variables – educational qualifications, time spent in employment and stable relationship predicted economic well-being, as indicated by independence from social welfare.

In order to test of our assumption that economic well-being is a significant factor contributing to life satisfaction we compared life satisfaction of teenage mothers who depended on social welfare ($n = 395$) and life satisfaction of teenage mothers who were independent from social welfare ($n = 328$). Univariate analysis of variance showed that the group of teenage mothers who were independent from social welfare scored 0.86 points higher on the 10-point satisfaction with life scale ($F(1, 722) = 30.49, p < .000, \eta^2$

= .041) compared to the group of teenage mothers who received social welfare. They also showed significantly lower levels of psychological distress.

Discussion

The main goal of the present study was to examine pathways to economic well-being among teenaged mothers. The findings show, that 45 per cent of the teenage mothers in our sample succeeded to reach financial independence from social welfare. Economic well-being among teenage mothers is mainly influenced through attachment to the labour market, as well as being in a stable relationship lasting more than five years. Both variables show a significant direct effect to avoiding dependence on social benefits. The findings highlight the importance of both employment as well as the quality of intimate relationships in shaping successful adult transitions. The two factors could work independently, where teenage mothers either succeed to establish themselves in the labour market, or in finding a supportive partner - or the two factors operate in conjunction, where early mothers share responsibility with their partner in providing economic and emotional support for their family. In our sample of teenage mothers we found 29% single mothers; 9% of mothers living in a relationship where no partner was employed; 22 % were in a single breadwinner household; and 39% living in a household where both partners were working.

Generally the findings highlight the importance of intimate relationships in supporting successful development. For example, family cohesion experienced during childhood appears to influence one's ability to maintain a stable relationship with a partner, a finding in agreement with previous studies (Amato & Booth, 2001), suggesting intergenerational cycles of family cohesion and emotional maturity to sustain a committed relationship. Family cohesion is furthermore associated with school motivation, possibly suggesting that parents who invest time and attention for joint activities with their children, are possibly exposing their children to contexts and circumstances that influence their curiosity and motivation to learn, as well as their emotional maturity. To boost positive development among young women, especially those from less privileged family background, it might thus be necessary to create opportunities for young families to engage in joint activities and outings.

In accordance to earlier studies we also found that characteristics of the family of origin, such as mother's education, are associated with educational attainment at later age (Kiernan, 1997; Schoon, 2006). Contradictory to our hypothesis, general cognitive abilities measured at age 10 are negatively associated with school motivation assessed at age 16. There is some evidence from earlier studies suggesting that cognitive abilities and school motivation are not necessarily related (Gagne & Pere, 2002). These studies did, however, not account for the effect of social class, which appears to be an important factor moderating the relation between intelligence and school motivation. An explanation of a negative relation found in the present study between general cognitive abilities and school motivation, which takes into account an effect of a social class, is offered beneath.

Young people from a disadvantaged family background are generally less likely to aspire to continue education after minimum school leaving age (Schoon, 2006). For young women, who are likely to leave school at minimum age, with no real prospects of going to college or university, an untimely birth might not be considered as seriously impairing their life chances and opportunities. Few teenagers plan or desire an early pregnancy (Furstenberg, 2003), yet given generally constrained choices, becoming a young mother may be perceived as a more attractive alternative to continuing education or entering a low-status occupation (Bonell et al., 2005). The step into motherhood might be seen as the marker of adult status and responsibility which has additional rewards, as stated in earlier studies (Hoffman, 1998), such as emotional benefits (happiness, love, companionship, fun, and relief from loneliness), self enrichment and development (becoming more mature, feeling of competence, pride of children, seeing raising children as an accomplishment), and increase of family cohesiveness and continuity (children as bond between families). Furthermore, school disengagement can be found across the spectrum of school achievement and is not necessarily indicative of academic potential (Steedman & Stoney, 2004; Schoon, 2008). Raising interest and engagement in school might be one of the leverages available to open new perspectives and to create new opportunities, as positive school experiences can raise feelings of self-efficacy and lead to planful future orientations (Rutter, 1985).

Current findings have some practical implications for policy makers. The present study showed that family cohesion influenced school motivation and stability of relationship (which, in turn, was related to independence of social welfare). This result was consistent with earlier findings showing that parent-child interactions (such as parents reading to a child) during early childhood are related to later school achievement, and that this relation is even stronger in the case of children from economically disadvantaged families than for children from well-to-do families (Flouri, 2004; Schoon, 2006). Present family policies aiming to increase labour market participation of young mothers seem to overlook the importance of creating opportunities for mothers to spend time with their children, partners, and families. There is generally little attention paid to the emotional needs of young families, who need to find the time and resources to maintain a supportive and stable relationship, especially in the face of economic hardship, and especially in situations where the partner is not the father of the child.

In sum, the findings illustrate a complex interplay of predisposing factors and processes enabling young mothers to beat the odds. Adopting a life course perspective is vital to unravel the influences from the family of origin, as well as own investments in educational, vocational, and relationship commitments. The pattern of results suggests that important potential areas for action to prevent the adverse consequences of early motherhood are in relation to family cohesion, school motivation, family friendly employment policies, as well as opportunities for family recreation and engagement, such as provision of parks, libraries, and sport facilities. Interlinked measures and interventions targeting participation and engagement in education, employment, as well as in active family life could carry a substantial effect in improving the well-being of young mothers and their children.

Acknowledgment:

The analysis and writing of this article were supported by grants from the UK Economic and Social Research Council (ESRC): L32625306, RES-225-25-2001, and RES-594-28-0001. Data from the Cohort Studies were supplied by the ESRC Data Archive. Those who carried out the original collection of the data bear no responsibility for its further analysis and interpretation.

Well-being of Teenage Mothers

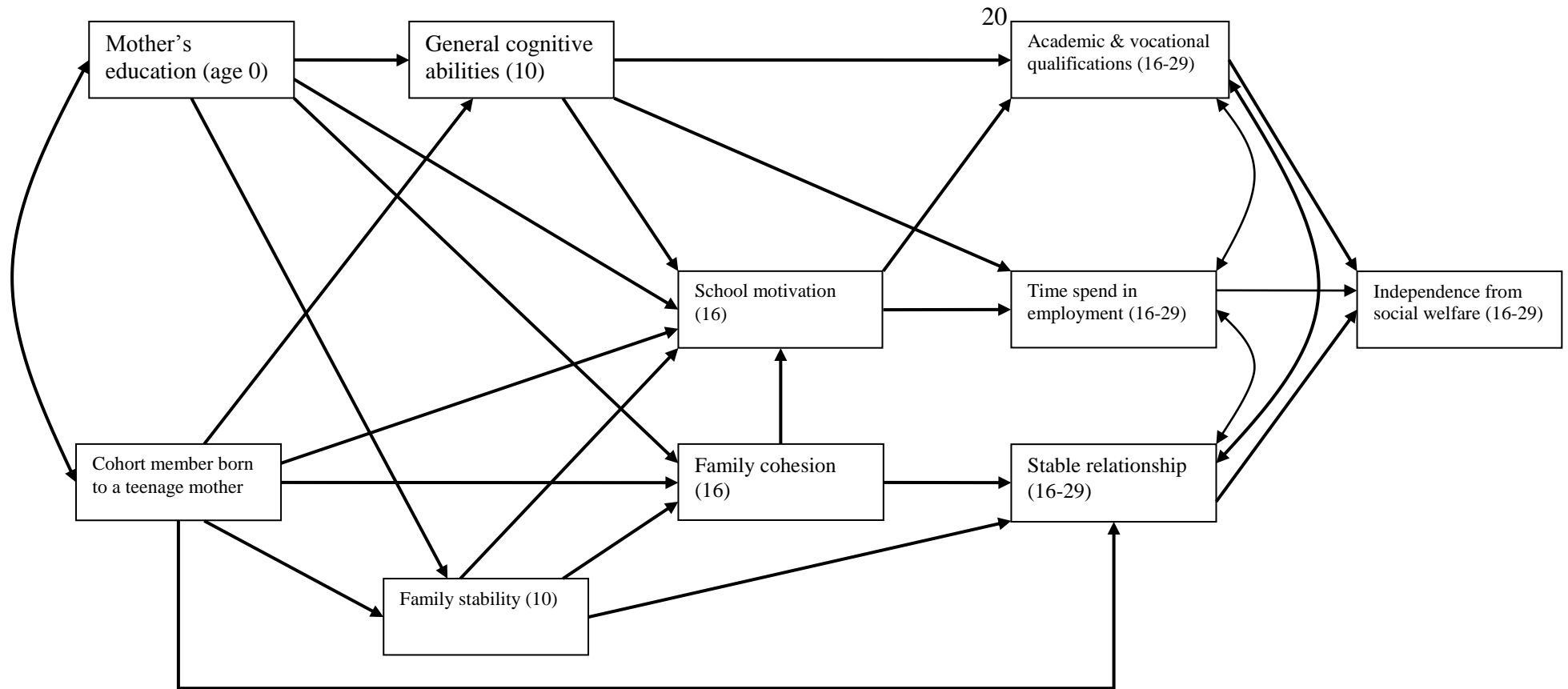


Figure 1. Model Tested in the Study.

Unilateral arrows depict presumed by the model causal relations and bilateral arrows depict correlations between variables.

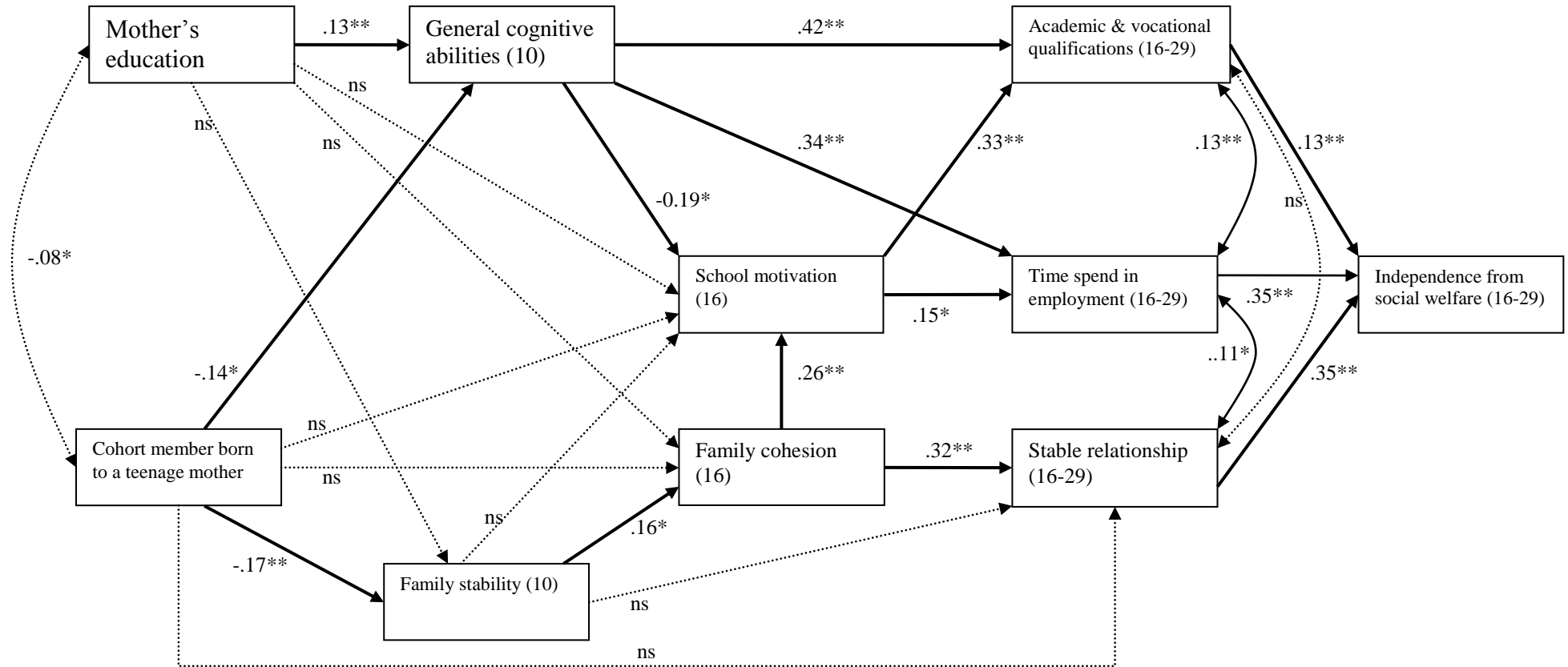


Figure 2. Estimated Standardized Coefficients in the Model.

Significance level: ** $p < .001$, * $p < .05$

Note. Significance level: ** $p < .001$, * $p < .05$.

^a for ease of interpretation, the scores on the scale measuring general cognitive abilities were ²² transformed to obtained standardised scores with a mean of zero and a standard deviation of one in a general sample of 12050 respondents.

Variables 1, 2, 3, 9 and 10 were measured on the binary scale from 0 to 1. Therefore, the mean merely indicates the percentage of respondents who scored 1 on these variables.

Table 1 Means, Standard Deviations, and Pearson Correlations between Variables included in ²³ the model

	<i>M</i>	<i>SD</i>	2	3	4	5	6	7	8	9	10
1. Mother's education	0.16	0.46	-.08*	.01	.10	.12**	-.01	.09*	.09*	.05	.05
2. Cohort member born to a teenage mother	0.33	0.47	-	-.11**	-.04	-.11*	-.05	-.09*	-.11**	.05	-.05
3. Family stability (age 10)	0.83	0.37		-	.15*	.08	.01	.05	.03	.04	.05
4. Family cohesion (age 16)	1.76	0.39			-	-.20*	.26**	-.02	.13	.24**	.11
5. General cognitive abilities (age 10)	-0.66 ^a	1.47				-	-.13	.33**	.28**	-.01	.18**
6. School motivation (age 16)	2.06	0.50					-	.25**	.06	.11	.07
7. Academic and vocational qualifications (age 16-29)	1.74	1.30						-	.26**	-.03	.19**
8. Time spent in employment	67.80	49.73							-	.09*	.42**
9. Stable relationship (age 16-29)	0.44	0.49								-	.32**
10. Independence from social welfare (16-29)	0.45	0.50									

Note. Significance level: ** $p < .001$, * $p < .05$.

^a for ease of interpretation, the scores on the scale measuring general cognitive abilities were transformed to obtained standardised scores with a mean of zero and a standard deviation of one in a general sample of 12050 respondents.

Variables 1, 2, 3, 9 and 10 were measured on the binary scale from 0 to 1. Therefore, the mean merely indicates the percentage of respondents who scored 1 on these variables.

References:

- Amato, P. R., & Booth, A. (2001). The legacy of parents' marital discord: Consequences for children's marital quality. *Journal of Personality and Social Psychology*, *81*(4), 627-638.
- Bentler, P. M. (1990). Comparative Fit Indexes in Structural Models. *Psychological Bulletin*, *107*(2), 238-246.
- Bonell, C. (2004). Why is teenage pregnancy conceptualized as a social problem? A review of quantitative research from the USA and UK. *Culture, Health & Sexuality*, *6*(3), 255-272.
- Bonell, C. P., Allen, E., Strange, V. J., Copas, A. J., Oakley, A. R., Stephenson, J. M., et al. (2005). The effect of dislike of school on risk of teenage pregnancy: testing of hypotheses using longitudinal data from a randomised trial of sex education. *Journal of Epidemiology and Community Health*, *59*, 223-230.
- Bonell, C. P., Strange, V. J., Stephenson, J. M., Oakley, A. R., Copas, A. J., Forrest, S. P., et al. (2003). Effect of social exclusion on the risk of teenage pregnancy: development of hypotheses from analysis of baseline data arising from a randomised trial of sex education. *Journal of Epidemiology and Community Health*, *57*, 871-876.
- Boomsma, A. (2000). Reporting Analysis of Covariance Structure. *Structural Equation Modeling*, *7*, 461-483.
- Chevalier, A., & Viitanen, T. K. (2003). The Long-run Labour Market Consequences of Teenage Motherhood in Britain. *Journal of Population Economics*, *16*, 323-343.
- Dearing, E., McCartney, K., & Taylor, B. A. (2006). Within-child associations between family income and externalizing and internalizing problems. *Developmental Psychology*, *42*(2), 237-252.
- Diener, E., & Suh, E. (1999). National differences in subjective well-being. In D. Kahneman, E. Diener, & N. Schwarz, (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 434-450). New York, NY, US: Russell Sage Foundation.
- Duncan, G. J., & Brooks-Gunn, J. (1997). *Consequences of growing up poor*. New York: Russell Sage Foundation Press.
- Eccles, J. S., Wigfield, A., & Schiefele, U. (1998). Motivation to succeed. In W. Damon & N. Eisenberg (Eds.), *Handbook of child psychology (5th ediditon)* (Vol. III, pp. 1017-1095). New York: Wiley.

- Elliott, C., Murray, D., & Pearson, L. (1978). *British Ability Scales* Windsor: National Foundation for Educational Research.
- Elliott, D. S., Menard, S., Rankin, B., Elliott, A., Wilson, W. J., & Huizinga, D. (2006). *Good kids from bad neighborhoods: Successful development in social context*.
- Farber, S. S., Felner, R. D., & Primavera, J. (1985). Parental Separation-divorce and Adolescents: An Examination of Factors Mediating Adaptation. *American Journal of Community Psychology*, 13(2), 171-186.
- Figueiredo, B., Bifulco, A., Pacheco, A., Costa, R., & Magarinho, R. (2006). Teenage pregnancy, attachment style, and depression: A comparison of teenage and adult pregnant women in a Portuguese series. *Attachment & Human Development*, 8(2), 123-138.
- Flouri, E. (2004). Subjective well-being in midlife: the role of involvement and closeness to parents in childhood. *Journal of Happiness Studies*, 5(5), 335-358.
- Furstenberg, F. F. (2003). Teenage Childbearing as a Public Issue and Private Concern. *Annual Review of Sociology*, 29, 23-29.
- Furstenberg, F. F. (2005). Banking on families: How families generate and distribute social capital. *Journal of Marriage and the Family*, 67(4), 809-821.
- Furstenberg, F. F., Brooks-Gunn, J., & Morgan, S. P. (1987). *Adolescent mothers in later life*. Cambridge: Cambridge University Press.
- Gagne, F., & Pere, F. S. (2002). When IQ is controlled, does motivation still predict achievement? *Intelligence*, 30(1), 71-100.
- Galindo-Rueda, F. (2002). *Progression Routes of Cohort Members: NCDS (1974-2000) and BCS70 (1986-2000). Description of the Data Work on British Cohort Surveys*. London: Centre for Economic Performance, London School of Economics.
- Geronimus, A. T. (2003). Damned if you do: culture, identity, privilege, and teenage childbearing in the United States. *Social Science & Medicine*, 57, 881-893.
- Grant, G., Nolan, M., & Ellis, N. (1990). A Reappraisal of the Malaise Inventory. *Social Psychiatry and Psychiatric Epidemiology*, 25(4), 170-178.
- Harris, K. M. (1991). Teenage Mothers and Welfare Dependency. *Journal of Family Issues*, 12(4), 492-518.
- Hobcraft, J. (2002). Social exclusion and the generations. In J. Hills, J. LeGrand & D. Piachaud (Eds.), *Understanding social exclusion* (pp. 62-83). Oxford: Oxford University Press.

- Hobcraft, J., & Kiernan, K. (2001). Childhood poverty, early motherhood and adult social exclusion. *British Journal of Sociology*, 52(3), 495-517.
- Hoffman, S. D. (1998). Teenage Childbearing Is Not So Bad After All ... Or Is It? A Review of the New Literature. *Family Planning Perspectives*, 30(5), 236-239.
- Jaffee, S. C., A.; Moffitt, T. E.; Belsky, J.; Silva, P. (2001). Why are children born to teen mothers at risk for adverse outcomes in young adulthood? Results from a 20-year longitudinal study. *Development and Psychopathology*, 13(2), 377-397.
- Johnson, R. C. (1983). Family background, cognitive ability, and personality as predictors of educational and occupational attainment. *Social Biology*, 30(1), 86-100.
- Kiernan, K. (1997). Becoming a young parent: a longitudinal study of associated factors. *British Journal of Sociology*, 48(3), 406-428.
- Lee, C., & Gramotnev, H. (2006). Predictors and correlates of coping well with early motherhood in the Australian Longitudinal Study on Women's Health. *Psychology, Health & Medicine*, 11(4), 411-424.
- Little RJ, Rubin DB. Statistical analysis with missing data. 2nd edition ed. New York: John Wiley; 2002.
- Maughan, B., & Lindelow, M. (1997). Secular changes in psychological risks: the case of teenage motherhood. *Psychological Medicine*, 27, 1129-1144.
- McGee, R., Williams, S., & Silva, P. A. (1986). An Evaluation of the Malaise Inventory. *Journal of Psychosomatic Research*, 30(2), 147-152.
- Mendes, P., & Moslehuddin, B. (2006). From dependence to interdependence: towards better outcomes for young people leaving state care. *Child Abuse Review*, 15(2), 110-126.
- Miller, C. L., & Miceli, P. J. (1996). Cognitive readiness to parent and intellectual-emotional development in children of adolescent. *Developmental Psychology*, 32(3), 533.
- Moffitt, T. E. (2002). Teen-aged motherhood in contemporary Britain. *Journal of Child Psychology and Psychiatry*, 43, 727-742.
- Muthén, L.K., & Muthén, B.O. (2007). Mplus User's Guide. 5th edition ed. Los Angeles: Nagoshi, C. T., Johnson, R. C., & Honbo, K. A. (1993). Family background, cognitive

abilities, and personality as predictors of education and occupational attainment across two generations. *Journal of Biosocial Science*, 25(2), 259-276.

- Nyborg, H., & Jensen, A. R. (2001). Occupation and income related to psychometric g. *Intelligence*, 29(1), 45-55.
- Olson, D. H., Russell, C. S., & Sprenkle, D. H. (1983). Circumplex model of marital and family systems: VI. Theoretical update. *Family Process*, 22(1), 69-83.
- Rodgers, B., Pickles, A., Power, C., Collishaw, S., & Maughan, B. (1999). Validity of the Malaise Inventory in general population samples. *Social Psychiatry and Psychiatric Epidemiology*, 34, 333-341.
- Rutter, M., Tizard, J., & Whitmore, K. (1970). *Education, health and behaviour*. London: Longmans.
- Rutter, M. (1985). Family and school influences on behavioral development. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 26(3), 349-368.
- Rutter, M. (1989). Pathways from childhood to adult life. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 30(1), 23-51.
- Schoon, I. (2006). *Risk and resilience. Adaptations in changing times*. Cambridge: Cambridge University Press.
- Schoon, I., & Martin, P. (2005). Teenage parenthood and social class [Electronic Version]. *Royal Statistical Society*. Retrieved 20 May 2006.
- Schoon, I. . Martin, P. & Ross, A. (2007). Career transitions in times of social change. His and her story. *Journal of Vocational Behaviour*, 70, 78-96
- Schoon, I. (2008). A transgenerational model of status attainment: the potential mediating role of school motivation and education. *National Institute of Economic Research*, 205, 72-82
- Steedman, H., & Stoney, S. (2004). *Disengagement 14-16: Context and Evidence*. London: Centre for Economic Performance.
- Tomal, A. (1999). Determinants of Teenage Birth Rates as an Unpooled Sample. *American Journal of Economics & Sociology*, 58(1), 57-69.
- Uren, Z., Sheers, D., & Dattani, N. (2007). Teenage conceptions by small area deprivation in England and Wales, 2001-2002. *Health Statistics Quarterly* 33, 34-39.

- Veenhoven, R. (1993). *Happiness in nations: Subjective appreciation of life in 56 nations 1946-1992*. Rotterdam: Erasmus University Press.
- Walter, M. (2002). Working their way out of poverty? Sole motherhood, work, welfare and material well-being. *Journal of Sociology*, 38(4), 361-380.
- Wilkinson, P., French, R., Kane, R., Lachowycz, K., Stephenson, J., Grundy, C., et al. (2006). Teenage conceptions, abortions, and births in England, 1994-2003, and the national teenage pregnancy strategy. *Lancet*, 368(9550), 1879-1886.

