Department for Work & Pensions

Improving Lives: Helping Workless Families

An evidence resource on family disadvantage and its impact on children

April 2017

About the evidence resource

Straight to the evidence resource

Click to enter

Introduction

This evidence resource accompanies the *Improving Lives: Helping Workless Families* publication. It provides an **overview of key milestones of child development** from pre-conception to early adulthood, and sets out **how child development is influenced by multiple disadvantages affecting workless families**. The resource has been developed as a prototype in conjunction with Professor Gordon Harold, with valuable inputs from Ruth Sellers, Amelia Smith and Victoria Simcock (School of Psychology, University of Sussex).

The key value of the resource is that it shows (i) how child development can be influenced by multiple disadvantages affecting families, (ii) how disadvantages can accumulate over the life course, and (iii) how disadvantages can be interrelated (for example, parental worklessness may be associated with parental conflict as well as poor parental mental health).

Summary

The purpose of the evidence resource is to chart key milestones for children across different ages and stages of development, up to and including the transition to adulthood. It is increasingly recognised that child development is affected by multiple factors including experiences during pregnancy, early childhood, middle childhood and adolescence, and that these experiences set the stage for long-term outcomes and future life chances (e.g. education, employment and mental health). There are numerous factors that can help to promote – or hinder – a child's development before they are born, during childhood, adolescence and in transition to adulthood. These factors can persist, interacting with each other in complex ways, to influence key outcomes and developmental milestones.

Scope of the evidence

The evidence shows how parental and family factors can impact on specific areas of child development. The scope of the resource is described in further detail below:

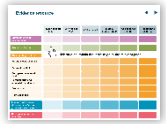
- We recommend that this resource is interpreted as a prototype that can be expanded upon in the future to incorporate multiple spheres of interrelated influences on child development;[1]
- We have considered child development outcomes across a range of physical health, mental health and attainment domains (e.g. education and future employability), however, the tool has natural limitations in that it does not cover all of the other possible outcome areas;
- While it thoroughly reviews the impacts of specified parental and family factors on child development, the resource does not fully consider the impacts of wider contextual and structural factors on child development (e.g. extended family, occupational class, ethnicity, school, communities, institutions, geographic location and local infrastructure, housing quality, the labour market, economic climate, poverty and low income).[2, 3, 4, 5, 6]

1. Bronfenbrenner, U. (2009) .The Ecology of Human Development. Harvard University Press.
2. Berrington, A., Roberts, S., and Tammes, P. (2016) Educational aspirations among UK Young Teenagers: Exploring the role of gender, class and ethnicity. British Educational Research Journal, 42(5), 729–755.
3. Luthar, S. S. (Ed.) (2003). Resilience and vulnerability: adaptation in the context of childhood adversities. Cambridge, UK, New York: Cambridge University Press.
4. Belfield, C., et al. (2015). Living standards, poverty and inequality in the UK: 2015. Institute for Fiscal Studies.
5. Duncan, G. J., & Brooks-Gunn, J. (2000). Family poverty, welfare reform, and child development. Child Development, 71(1), 188–196.
6. Yoshikawa, H., Aber, J. L., & Beardslee, W. R. (2012). The Effects of Poverty on the Mental, Emotional, and Behavioral Health of Children and Youth Implications for Prevention. American Psychologist, 67(4), 272–284. doi:10.1037/a0028015
7. Siegler, R. S., Eisenberg, N., DeLoache, J. S., & Saffran, J. R. (2014). How children develop: Fourth edition. New York: Macmillan

Use of the evidence

The prototype will be further developed and tested with users, with a view to assisting those working with children, parents and families to improve outcomes and long-term life chances. The evidence resource has the potential to hold a growing evidence base building on *Improving Lives: Helping Workless Families*, and it could be expanded to capture examples of interventions at different levels (national/regional/local/ organisational). **We will engage others to develop the resource and to co-produce practical tools that will enable commissioners and a wide range of front-line practitioners to better understand multiple disadvantages and make better-informed decisions about what action could be taken.** Through this approach, we will explore the potential for this evidence resource to inform the development of new interventions to minimise the impacts of disadvantage factors, and therefore reduce the likelihood of these children becoming disadvantaged adults and parents in the future.

Overview – Summary of child development



The evidence resource outlines how children will typically develop at each stage across the key areas of development.

The earliest stages of child development (between conception and age 2.5/3) are crucial and fundamental to later outcomes. During this period, important foundations are established for physical, social, language and cognitive development, which can then affect later stages of child development and longer-term life chances. As a child reaches school age, there is a further stage of rapid progression in language skills, as well as intellectual and social development.

As the child becomes more independent, external influences become more important as the child starts school, makes friends and engages with the wider world. At the same time, the child's own personality develops and influences their attitudes and behaviours.

Overview – Protective factors

The evidence resource covers some of the most important factors which can help to ensure that the child develops well.

During pregnancy and early child development, the mother's mental and physical health is of vital importance. Additional protective factors include parent-to-child attachment (i.e. loving, secure and reliable relationships with parents), relationships between parents themselves, child nutrition, exercise and learning environment (both within the home and outside of it, through good quality pre-school and childcare).

In later childhood, a stable and supportive home environment and positive parent-to-child relationships remain key protective factors. In addition, engagement with school/college influences attainment and future employability. Children from disadvantaged backgrounds are less likely to experience these protective factors, but some can achieve against the odds, depending on their own temperament and the support available from their family and the wider community.

Overview – Disadvantage factors

The evidence resource illustrates how significant disadvantages (parental worklessness, conflict, poor mental health, drug or alcohol dependency, problem debt and homelessness) impact on child development. It shows the persistent effects of key disadvantage factors, as well as the complex inter-relationships between them.

During pregnancy and the early years of a child's life, most of the disadvantage factors are associated with negative impacts on their physical, social, language and/or cognitive development.

Disadvantages experienced during early childhood continue to be evident at later stages. In addition, problems affecting the parents can have negative impacts on older children and young adults – for example leading to poor mental health, regular risky behaviour including substance abuse, and difficulties in forming positive relationships. If children who have experienced multiple disadvantages become parents themselves, they are less likely to be able to provide positive support to their own children, and so the cycle of disadvantage can continue.

How to use the evidence resource

The table on the next page represents a summary of child development, protective and disadvantage factors, interaction between disadvantage factors and recognition of poorer outcomes, across six stages of development. To go to this table from another page, click on the table icon at the top right of the page.

If you click on a cell within the table, it will take you to the relevant page for that cell.

If you click on the arrows at the top-right corner of a page, they will take you through the grid. Going from left to right will take you through the stages of development for a factor. Going up and down will take you through the factors for each stage of development.

Evidence resource

	Preconception to birth	Birth to age 2.5/3	2.5/3 to age 5	Middle childhood(5-11)	Adolescence (11–16)	Transition to adulthood
Summary of child development						
Protective factors						
Disadvantage factors:						
Parental worklessness						
Parental conflict						
Poor parental mental health						
Parental drug and alcohol dependency						
Problem debt						
Homelessness						
Interaction between disadvantage factors (and wider risk factors)						
Recognising poorer outcomes						

Click on a cell within the table to go to the relevant page

Preconception to birth

Summary of child development

This stage covers foetal development from conception to birth (also taking into account the mother's pre-conception health). It is a stage of rapid physical and brain development that begins in the prenatal period and continues after birth.

- **First trimester (weeks 1–12)**: At 4 weeks, a primitive heart should be distinguishable, and by 8.5 weeks facial features (eyes, nose and mouth) should have developed.[1] By 12 weeks, foetal movements will occur, but the mother will not be able to feel them.[2]
- **Second trimester (weeks 13–27)**: At this stage, the growth of the lower body (arms, legs etc.) accelerates so that by 16 weeks, the foetus can kick, and the foetus' sex can be identified. By 20 weeks, facial expressions can be distinguished.[3]
- **Third trimester (weeks 28–37)**: At this point, the foetus' brain and lungs are sufficiently developed for a chance of survival in the case of premature birth. The foetus can hear and react to sounds, and can also open its eyes. In this trimester, the foetus will grow rapidly, tripling its weight.[4] Babies born before 37 weeks are considered premature and may require neonatal intensive care.[5]
- **Birth**: Most birth weights range from 5.5–10 pounds. A baby weighing below 5.5 pounds is considered to have a 'low birth weight'.[6] Low birth weight is associated with multiple poor child development outcomes.[7]

1. Siegler, R. S., Eisenberg, N., DeLoache, J. S., & Saffran, J. R. (2014). How children develop: Fourth edition. New York: Macmillan.
2. De Vries, J. I., Visser, G. H., & Prechtl, H. F. (1982). The emergence of fetal behaviour. I. Qualitative aspects. Early human development, 7(4), 301–322.
3. Siegler, R. S., Eisenberg, N., DeLoache, J. S., & Saffran, J. R. (2014). How children develop: Fourth edition. New York: Macmillan.
4. Siegler, R. S., Eisenberg, N., DeLoache, J. S., & Saffran, J. R. (2014). How children develop: Fourth edition. New York: Macmillan.
5. Saigal, S., & Doyle, L. W. (2008). An overview of mortality and sequelae of preterm birth from infancy to adulthood. The Lancet, 371(9608), 261–269.
6. Kramer, M. S. (1987). Determinants of low birth weight: methodological assessment and meta-analysis. Bulletin of the World Health Organization, 65(5), 663.
7. Hack, M. et al. (2005) Chronic conditions, functional limitations, and special health care needs of school-aged children born with extremely low birth weight in the 1990s. JAMA, 294, 318–325.

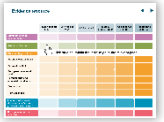
Birth to age 2.5/3

Summary of child development

A child undergoes a remarkable period of brain development between birth and age three. Even before speaking their first words, the child learns a lot about language as they hear people talking. It is a time of rapid cognitive, linguistic, social, emotional and motor development.

- **Motor development**: A child will typically be lifting their head by 6 weeks and their chest from 2–4 months. By around 4 months a child will be able to roll over, and support some weight on their legs by 3–6 months. From 6–10 months a child is usually able to pull themselves to standing position. A child is typically walking using furniture for support from 7–12.5 months, and walking alone easily from 11–14 months.[1]
- **Social development**: A child will pay more attention to people than objects in infancy. They will imitate facial movements, and will exhibit positive social emotions (e.g. smiling) from around 2–3 months.[2] They will express other emotions, such as fear, anger and sadness during their first year of life.[3, 4] From 5.5–12 months, a child starts to be able to identify others' emotions.[5]
- **Language development**: Typically, a child will start babbling from 6–10 months and producing their first words at around 10–15 months. They will be able to combine words into simple sentences by age 2 and then start to produce more complex sentences by 2.5 years.[6, 7]
- **Cognitive development**: Pretend play will begin at around 18 months.[8] By the age of 2, a child will begin to understand concepts such as the relationship between their beliefs and actions.[9]

1. Siegler, R. S., Eisenberg, N., DeLoache, J. S., & Saffran, J. R. (2014). How children develop: Fourth edition. New York: Macmillan.
2. White, B. L. (1993). The first three years of life. Touchstone.
3. Izard, C. E., Hembree, E. A., & Huebner, R. R. (1987). Infants' emotion expressions to acute pain: Developmental change and stability of individual differences. Developmental Psychology, 23(1), 105.
4. Camras, L. A., Malatesta, C. & Izard, C. E. (1991). The development of facial expressions in infancy. In R. Feldman & B. Rimé (Eds.), Fundamentals of nonverbal behavior (pp. 73–105). Cambridge: Cambridge University Press.
5. Campos, J. J., Sorce, J. F., Emde, R. N., & Svejda, M. (2013). Emotions as behavior regulators: Social referencing in infancy. Emotions in early development, 57.
6. Siegler, R. S., Eisenberg, N., DeLoache, J. S., & Saffran, J. R. (2014). How children develop: Fourth edition. New York: Macmillan.
7. Bowerman, M. (1979). The acquisition of complex sentences. In Studies in language acquisition (pp. 285–305). Cambridge University Press.
8. Siegler, R. S., Eisenberg, N., DeLoache, J. S., & Saffran, J. R. (2014). How children develop: Fourth edition. New York: Macmillan.
9. Wellman, H. M., & Woolley, J. D. (1990). From simple desires to ordinary beliefs: The early development of everyday psychology. Cognition, 35(3), 245–275.



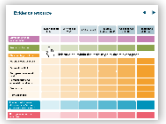
2.5/3 to age 5

Summary of child development

At this stage, children can move around and actively explore their environment. Language development takes major leaps, as the child learns the names of objects of interest, develops their ability to ask for things, and discovers their independent nature. This is also a stage of rapid physical and intellectual development preparing the child for starting school.

- **Language development**: By age 5 a child will typically be mastering the basic structure of their native language, using grammatically correct sentences, and producing narratives.[1]
- **Cognitive development**: A child will usually start to develop a theory of mind (e.g. understanding that other people's thoughts might be different from their own) between ages 3–5.[2]
- **Intellectual development**: Mathematics skills (e.g. counting) begin to develop from age 2–4,[3] and fluent letter recognition begins between ages 2.5–5.[4]
- **Social development**: A child will begin to understand causes of emotions from age 3–4,[5] and friendships may start to develop.[6]

1. Nelson, K. (1993). The psychological and social origins of autobiographical memory. Psychological science, 4(1), 7–14.
2. Callaghan, T., Rochat, P., Lillard, A., Claux, M. L., Odden, H., Itakura, S., ... & Singh, S. (2005). Synchrony in the onset of mental-state reasoning: Evidence from five cultures. Psychological Science, 16(5), 378–384.
3. Gelman, R. & Gallistel, C. (1978). Young children's understanding of numbers. Cambridge, MA: Harvard University Press.
4. Siegler, R. S., Eisenberg, N., DeLoache, J. S., & Saffran, J. R. (2014). How children develop: Fourth edition. New York: Macmillan.
5. Denham, S. A., & Couchoud, E. A. (1990). Young preschoolers' understanding of emotions. Child Study Journal, 20(3), 171–192.
6. Siegler, R. S., Eisenberg, N., DeLoache, J. S., & Saffran, J. R. (2014). How children develop: Fourth edition. New York: Macmillan.



Middle childhood (5–11)

Summary of child development

Physical, social, and cognitive skills develop quickly at this time. This is a critical time for children to develop confidence in all areas of life, such as through friends, schoolwork, and physical activity. It is a time when most children master the basics – numeracy and literacy – as well as learn to navigate the world outside of their home. The gap in educational and behavioural outcomes between poorer and well-off children widens particularly quickly at this stage. Events such as starting school bring children at this age into regular contact with the wider world. Friendships become more important.

- **There are improvements in cognitive processing and long term memory**. This can be seen through the ability to recall facts, use an increased vocabulary, and even navigate to home and school by the end of this life stage. Language ability and writing skills are further developed.
- **By age 8, the child should be able to engage in conversation**, carry out a series of up to three directions, create stories, show an understanding of basic literary devices (such as rhyming and metaphor) and have a clear awareness of humour.
- **Friendship groups will develop**, with evidence that the child wants to spend more time with peers and is more attentive to their friends' needs. Friendships are more likely to be based upon common interests. At age 7 empathy is shown towards strangers and from age 10 children can start to fake their emotions.
- **It is a requirement that most children attend school regularly, and indeed, most children engage in attending school**[1, 2] and most (but not all) pupils reached the expected standard in reading; grammar, punctuation and spelling; and mathematics in 2016.

1. Reid, K. (2010). Management of School Attendance in the UK A Strategic Analysis. Educational Management Administration & Leadership, 38(1), 88–106.
2. Department for Education (2016). A guide to Absence Statistics. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/523637/Guide_to_absence_statistics_12052016.pdf

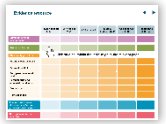
Adolescence (11–16)

Summary of child development

This is the period of developmental transition between childhood and adulthood, involving multiple physical, intellectual, personality, and social changes. Development is influenced by experiences at earlier stages. The gap in educational attainment between poorer and well-off children continues to widen.[1] External factors become more important including peer pressure, bullying,[2] the media and the local neighbourhood/community. The child's own temperament takes on greater significance as they are able to understand other stressors, and have greater agency. Behaviours started at this age can continue throughout life.

- **Prosocial behaviours are seen less frequently** in this developmental stage, and negative emotions and mood swings are relatively common. However, these changes are normally mild/severe emotional instability or anti-social behaviour would still be a concern.
- **Adolescents tend to confide more with close friends** than previously, most noticeably for girls. There can be a change in the parent-child relationship as children become more independent and establish their own identity (this can be associated with increased parent-child relationship conflicts and a decline in closeness). It is quite common for friendship groups to change several times over the course of adolescence, and adolescents may form friendships outside of a friendship group, including with deviant peers.[3] Short-term romantic attachments may start to be formed.
- **It is a requirement for children to attend school regularly**,[4, 5] and more than half of pupils achieved 5+ A*-C GCSEs in 2010–2015.[6]
- **Puberty typically occurs at this stage**, affecting physical and hormonal development and relationships.[7]

1. Fahy, A. E. et al. (2016). Longitudinal Associations Between Cyberbullying Involvement and Adolescent Mental Health, Journal of adolescent health, 59, 5, 502–509.
2. Fergusson, D., Woodward, L. & Horwood, L. (1999). Childhood Peer Relationship Problems & Young People's Involvement with Deviant Peers in Adolescence. Journal of Abnormal Child Psychology, 27(5), 357–369.
3. Fergusson, D.M., Woodward, L.J. & Horwood, L.J. J Abnorm Child Psychol (1999) 27: 357. doi:10.1023/A:1021923917494
4. Reid, K. (2010). Management of School Attendance in the UK A Strategic Analysis. Educational Management Administration & Leadership, 38(1), 88–106.
5. Department for Education. (2015). GCSE and equivalent attainment by pupil characteristics, 2013 to 2014 (Revised). London: Department for Education. https://www.gov.uk/government/statistics/revised-gcse-and-equivalent-results-in-england-2013-to-2014
6. 2015, GCSE and equivalent attainment by pupil characteristics, 2013 to 2014 (Revised) DfE.
7. Steinberg, L. (2017). Adolescence (11th edition). New York: McGraw-Hill.



Transition to adulthood

Summary of child development

The transition to adulthood is usually thought of as comprising the following interconnected elements: leaving school and entering work or higher education; leaving one's family (or the equivalent) to set up a new, independent home; becoming involved in intimate relationships, and eventually cohabiting or marrying; becoming a parent; and becoming a full adult consumer, able to purchase commodities which signify adult status.[1, 2, 3, 4] Definitions of adulthood are complex, however, and the boundaries between childhood and different aspects of adulthood are increasingly blurred: it is a complex mixture of continuing dependency on parents, and autonomy in specific areas from the early teenage years.[5] It is more increasingly common for young people to reach markers of adulthood at later stages, and 'emerging adulthood' can be considered to occur from the late teens through to the twenties.[6, 7]

- **Young, or 'emerging', adults are typically expected to make several important decisions** with regards to careers, further education, relationships and living arrangements. It is common for young adults to change their minds about these decisions regularly, exploring several routes of possibilities open to them.[8, 9, 10, 11]
- **Emotional stability** becomes more apparent than in the earlier stage of adolescence; this is accompanied with a decrease in risk-taking behaviours. Prosocial behaviour starts to increase again as individuals enter adulthood.[12, 13, 14, 15, 16]
- **More time can often be seen to be spent with romantic partners**, sometimes at the expense of time spent with friends. Additionally, more time is now spent on individual activities without peers.[17, 18, 19]

1. Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. American psychologist, 55(5), 469.
2. Shanahan, M. J. (2000). Pathways to adulthood in changing societies: Variability and mechanisms in life course perspective. Annual review of sociology, 26(1), 667–692.
3. Arnett, J. J. (2004). Emerging adulthood: The winding road from the late teens through the twenties. Oxford, UK: Oxford University Press.
4. Rindfuss, R. R. (1991). The young-adult years: Diversity, structural change, and fertility. Demography, 28, 4, 493–512.
5. Arnett, J. J. (2004). Emerging adulthood: The winding road from the late teens through the twenties. Oxford, UK: Oxford University Press.
6. Mitchell, B. A. (2006). The boomerang age from childhood to adulthood: Emergent trends and issues for aging families. Canadian Studies in Population, 33(2), 155–178.
7. Arnett, J.J. (2004) Emerging Adulthood: the winding road from the late tweens through the twenties. New York: Oxford University Press.
8. Arnett, J. J. (2004). Adolescence and emerging adulthood: a cultural approach. (Second Edition ed.). Upper Saddle River, N.J.: Pearson Prentice Hall.
9. Furman, W., & Winkles, J. K. (2012). Transformations in heterosexual romantic relationships across the transition into adulthood. Relationship pathways: From adolescence to young adulthood, 191–213.
10. Arnett, J. J. (2004). Emerging adulthood: The winding road from the late teens through the twenties. Oxford, UK: Oxford University Press.
11. Mitchell, B. A. (2006). The boomerang age from childhood to adulthood: Emergent trends and issues for aging families. Canadian Studies in Population, 33(2), 155–178.
12. Siegler, R. S., Eisenberg, N., DeLoache, J. S., & Saffran, J. R. (2014). How children develop: Fourth edition. New York: Macmillan.
13. Arnett, J. J. (2004). Adolescence and emerging adulthood: a cultural approach. (Second Edition ed.). Upper Saddle River, N.J.: Pearson Prentice Hall.
14. Roberts, B. W., Caspi, A., & Moffitt, T. E. (2001). The kids are alright: growth and stability in personality development from adolescence to adulthood. Journal of personality and social psychology, 81(4), 670.
15. Arnett, J. J. (2004). Emerging adulthood: The winding road from the late teens through the twenties. Oxford, UK: Oxford University Press.
16. Roberts, B. W., Walton, K. E., & Viechtbauer, W. (2006). Patterns of mean-level change in personality traits across the life course: a meta-analysis of longitudinal studies. Psychological bulletin, 132(1), 1.
17. Arnett, J. J. (2004). Emerging adulthood: The winding road from the late teens through the twenties. Oxford, UK: Oxford University Press.
18. Zimmer-Gembeck, M. J. (2002). The development of romantic relationships and adaptations in the system of peer relationships. Journal of adolescent health, 31(6), 216–225.
19. Arnett, J. J. (2004). Adolescence and emerging adulthood: a cultural approach. (Second Edition ed.). Upper Saddle River, N.J.: Pearson Prentice Hall.

Preconception to birth

Protective factors

Maternal mental health and physical health (including nutrition) are critical protective factors at this stage. They are associated with foetal growth and brain development outcomes. Postnatal and perinatal mental health care can have an impact on the life chances and wellbeing of the mother, baby and family.[1]

The Department of Health and NICE guidelines recommend women should take 400mg of folic acid every day until the end of the 1st trimester (1st 12 weeks) and 10mg of vitamin D daily throughout pregnancy and while breast feeding.[2]

These recommendations are based on evidence that prenatal vitamins (particularly folic acid and vitamin D) are important for child development. Maternal obesity, gestational diabetes (a woman without diabetes developing high blood sugar levels during pregnancy) and nutrition are also important for child development. These factors are associated with foetal growth and brain development outcomes.[3, 4, 5]

1. The National Maternity Review. (2016). Better Births. Improving outcomes of maternity services in England. A Five Year Forward View for maternity care. https://www.england.nhs.uk/wp-content/uploads/2016/02/national-maternity-review-report.pdf
2. NICE (2014) Maternal and child nutrition. https://www.nice.org.uk/guidance/ph11
3. Scholl, T. O., & Johnson, W. G. (2000). Folic acid: influence on the outcome of pregnancy. The American journal of clinical nutrition, 71(5), 1295s–1303s.
4. Scholl, T. O., Hediger, M. L., Schall, J. I., Khoo, C. S., & Fischer, R. L. (1996). Dietary and serum folate: their influence on the outcome of pregnancy. The American journal of clinical nutrition, 63(4), 520–525.
5. Cox, J. T., & Phelan, S. T. (2008). Nutrition during pregnancy. Obstetrics and gynecology clinics of North America, 35(3), 369–383.

Birth to age 2.5/3

Protective factors

Given rapid development during this stage, alongside the relative dependence of the child on their parents and home environment, the important protective factors are:

- **Child nutrition**: Breastfeeding protects children from a range of later health problems and may also have an impact on neurodevelopmental outcomes as well as promoting attachment between mother and child.
- **Sleep patterns** are a critical feature of children's healthy development (including brain development) during this period.[1]
- **Positive parent-to-child attachment**: Children are affected both by how much stimulation parents provide and how sensitive their care is.[2] Parental sensitivity, engagement and verbal stimulation have been shown to be important in terms of early speech, language and learning.[3, 4, 5] Positive, proactive parenting (e.g. praise, encouragement and affection) is strongly associated with high child self-esteem and social and academic competence, and is protective against later disruptive behaviour and substance misuse.[6]
- **Exposure to a rich home learning environment**: Positive early years settings can enhance language and cognitive development.[7] The home learning environment (e.g. reading to a child and playing together with letters or numbers) has a greater influence on a child's intellectual and social development than parental occupation, education or income. Another important factor is the availability of safe places (e.g. outside or recreational spaces) for the child to exercise and be stimulated by new experiences.
- **Good inter-parental relationship quality**: This factor has a positive impact on child emotional and behavioural development, and may be particularly protective for children living in poverty.[8]
- **The promotion of very young children's emotional wellbeing (sometimes referred to as promoting infant mental health) can be important for their wider and longer term development.**[9]

1. El-Sheikh, M., Kelly, R. J., Buckhalt, J. A., & Hinnant, J. B. (2010). Children's sleep and adjustment over time: The role of socioeconomic context. Child Development, 81, 870–883. doi: 10.1111/j.1467-8624.2010.01439.x
2. Waldfogel, J. (2004). Social mobility, life chances, and the early years. London: London School of Economics.
3. Barlow, J. & Blair, M. (2013). Chapter 6 Life stage: Early years. Annual Report of the Chief Medical Officer 2012 Our Children Deserve Better: Prevention Pays. https://www.gov.uk/government/publications/chief-medical-officers-annual-report-2012-our-children-deserve-better-prevention-pays
4. Landry, S. H., Smith, K. E., Miller-Loncar, C. L., & Swank, P. R. (1997). Predicting cognitive-language and social growth curves from early maternal behaviors in children at varying degrees of biological risk. Developmental psychology, 33(6), 1040.
5. Hoff, E. (2003). The specificity of environmental influence: Socioeconomic status affects early vocabulary development via maternal speech. Child development, 74(5), 1368–1378.
6. Barlow, J. & Blair, M. (2013). Chapter 6 Life stage: Early years. Annual Report of the Chief Medical Officer 2012 Our Children Deserve Better: Prevention Pays. https://www.gov.uk/government/publications/chief-medical-officers-annual-report-2012-our-children-deserve-better-prevention-pays
7. Barlow, J. & Blair, M. (2013). Chapter 6 Life stage: Early years. Annual Report of the Chief Medical Officer 2012 Our Children Deserve Better: Prevention Pays. https://www.gov.uk/government/publications/chief-medical-officers-annual-report-2012-our-children-deserve-better-prevention-pays
8. Garriga, A., & Kiernan, K. (2013). Parents' relationship quality, mother-child relations and children's behaviour problems: evidence from the UK Millennium Cohort Study. Working Paper. http://www.york.ac.uk/media/spsw/documents/research-andpublications/Garriga-and-Kiernan-WP2013.pdf
9. Department for Education/Wave Trust (2013). Conception to age 2 – the age of opportunity. Department for Education / Wave Trust http://www.wavetrust.org/sites/default/files/reports/conception-to-age-2-full-report_0.pdf

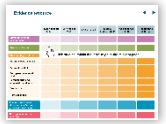
2.5/3 to age 5

Protective factors

Protective factors from earlier stages continue to be important for child development at this stage. Additional protective factors relevant to this stage are:

- Good quality pre-school and formal and informal childcare (particularly for children from disadvantaged backgrounds). These factors can support a child to make the vital social transition into school.[1] A child with little or no experience of pre-school is more likely to have Special Educational Needs, and each month of attendance is associated with reduction in this 'risk' at age 6.[2] Children growing up with disadvantaged backgrounds who experience both formal and informal childcare at age 3 show higher levels of general cognitive ability than those in similar circumstances who experienced no out-of-home care at all. Formal and informal care at age 3 can therefore be an important protective factor for children exposed to high socio-economic adversity.[3]
- Maternal and paternal mental health and warm inter-parental and parent-child relationships, have shown evidence of protective effects against poor outcomes throughout childhood.[4, 5, 6, 7, 8]
- An extensive body of evidence highlights how physical exercise in childhood has beneficial effects on multiple areas of child development, including cognitive ability, depression and academic attainment. Correspondingly, reduced opportunity for play and physical exercise during childhood is linked to poorer physical and mental health outcomes.[9, 10]

1. Magnuson, K. A., Meyers, M. K., Ruhm, C. J., & Waldfogel, J. (2004). Inequality in preschool education and school readiness. American educational research journal, 41(1), 115–157.
2. Sylva, K., Melhuish, E., Sammons, P. et al. (2004), The Effective Provision of Pre-School Education (EPPE) Project: The Final Report. London: DfES / Institute of Education, University of London.
3. Schoon, I., Cheng, H., Jones, E & Maughan, B. (2013). Wellbeing of Children. Early Influences. London: Institute of Education.
4. Masten, A. S., Best, K. M., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. Development and psychopathology, 2(04), 425–444.
5. Levendosky, A. A., Leahy, K. L., Bogat, G. A., Davidson, W. S., & von Eye, A. (2006). Domestic violence, maternal parenting, maternal mental health, and infant externalizing behavior. Journal of Family Psychology, 20(4), 544.
6. Flouri, E., Midouhas, E., Joshi, H. & Tzavidis, N. (2015) Emotional and behavioural resilience to multiple risk exposure in early life: The role of parenting. European child & adolescent psychiatry 24, no. 7, 745–755.
7. Belsky, J., Bell, B., Bradley, R. H., Stallard, N., & Stewart-Brown, S. L. (2007). Socioeconomic risk, parenting during the preschool years and child health age 6 years. The European Journal of Public Health, 17(5), 508–513.
8. Harold, G.T., Elam, K.K., Lewis, G., Rice, F., Thapar, A. (2012) Interparental conflict, parent psychopathology, hostile parenting, and child antisocial behaviour: Examining the role of maternal versus paternal influences using a novel genetically sensitive research design. Development and Psychopathology, 24 (4), 1283 – 1295.
9. Pontifex, M. B., Saliba, B. J., Raine, L. B. et al. (2013). Exercise improves behavioral, neurocognitive, and scholastic performance in children with attention-deficit/hyperactivity disorder. The journal of pediatrics, 162, 543–551.
10. Toseeb, U., Brage, S., Corder, K., Dunn, V. J., Jones, P. B., Owens, M., St Clair, M.C., van Sluijs, E.M. & Goodyer, I.M., (2014). Exercise and depressive symptoms in adolescents: a longitudinal cohort study. JAMA pediatrics, 168(12), 1093–1100.



Middle childhood (5–11)

Protective factors

A stable and supportive home environment is important at this stage. Poorer parental and child attitudes, aspirations and behaviours explain about one-third of the slower progress made by disadvantaged pupils during primary school.[1] Child physical and mental health are also important.[2, 3, 4, 5]

School readiness, a positive school experience and ability to learn become more important during middle childhood.[6, 7, 8, 9, 10] Positive friendships are also important.[11, 12, 13] Other protective factors include:

- Child characteristics (temperament, sense of agency, ability to form friendships, self-regulation, and self-esteem). For example, a key predictor of later developmental outcomes over and above cognitive ability is the level of self-regulation a child manifests as early as age 5.[14] Non-cognitive (social) skills at age 7 are important for a wide range of outcomes in later life, from educational attainment, employment and wages to health, smoking, truancy, teenage pregnancy and even involvement in crime.[15]

(continued on next page)

1. Gregg, P. & Washbrook, E. (2011). The role of attitudes and behaviours in explaining socio-economic differences in attainment at age 11. Longitudinal and Life Course Studies, 2(1), 41–58.
2. Carlson, S. A., Fulton, J. E., Lee, S. M., Maynard, L. M., Brown, D. R., Kohl III, H. W. & Dietz, W. H. (2008). Physical education and academic achievement in elementary school: data from the early childhood longitudinal study. American journal of public health, 98(4), 721–727.
3. Ortega, F. B., Ruiz, J. R., Castillo, M. J., & Sjöström, M. (2008). Physical fitness in childhood and adolescence: a powerful marker of health. International journal of obesity, 32(1), 1–11.
4. Castelli, D. M., Hillman, C. H., Buck, S. M., & Erwin, H. E. (2007). Physical fitness and academic achievement in third- and fifth-grade students. Journal of Sport and Exercise Psychology, 29(2), 239–252.
5. Patel, V., Flisher, A. J., Hetrick, S., & McGorry, P. (2007). Mental health of young people: a global public-health challenge. The Lancet, 369(9569), 1302–1313.
6. Duncan, G. J., Dowsett, C. J., Claessens, A., Magnuson, K., Huston, A. C., Klebanov, P., ... & Sexton, H. (2007). School readiness and later achievement. Developmental psychology, 43(6), 1428.
7. Hair, E., Halle, T., Terry-Humen, E., Lavelle, B., & Calkins, J. (2006). Children's school readiness in the ECLS-K: Predictions to academic, health, and social outcomes in first grade. Early Childhood Research Quarterly, 21(4), 431–454.
8. Roeser, R. W., Midgley, C., & Urdan, T. C. (1996). Perceptions of the school psychological environment and early adolescents' psychological and behavioral functioning in school: The mediating role of goals and belonging. Journal of educational psychology, 88(3), 408.
9. Hamre, B. K., & Pianta, R. C. (2001). Early teacher–child relationships and the trajectory of children's school outcomes through eighth grade. Child development, 72(2), 625–638.
10. Ashby, J. S., & Schoon, I. (2010). Career success: The role of teenage career aspirations, ambition value and gender in predicting adult social status and earnings. Journal of Vocational Behavior, 77(3), 350–360.
11. Ryan, A. M. (2000). Peer groups as a context for the socialization of adolescents' motivation, engagement, and achievement in school. Educational Psychologist, 35(2), 101–111.
12. Wentzel, K. R. (1998). Social relationships and motivation in middle school: The role of parents, teachers, and peers. Journal of educational psychology, 90(2), 202.
13. Harris, D. N. (2010). How Do School Peers Influence Student Educational Outcomes? Theory and Evidence from Economics and Other Social Sciences. Teachers College Record, 112(4), 1163–1197.
14. Schoon, I., Nasim, B., Shemi, R., & Cook, R. (2015). The impact of early life skills on later outcomes. Report for the OECD (Early Childhood Education and Care).
15. Carneiro, P., Crawford, C. & Goodman, A. (2011). The impact of early cognitive and non-cognitive skills on later outcomes.

Middle childhood (5–11)

Protective factors

- Family characteristics (stable and supportive home environment and family relationships, warm and nurturing parenting,[1, 2] parental involvement in child's education,[3, 4] socio-economic advantages,[5, 6, 7] and parental education[8, 9, 10]) have been evidenced as protective for a broad range of outcomes include emotional, behavioural and academic.
- Community characteristics (safe neighbourhood with low levels of violence, secure housing, effective schools and recreational resources) have been evidenced as protective for a broad range of outcomes including emotional, behavioural and academic.[11, 12]

1. Benzies, K., & Mychasiuk, R. (2009). Fostering family resiliency: A review of the key protective factors. Child & Family Social Work, 14(1), 103–114.
2. Eamon, M. K. (2005). Social-demographic, school, neighborhood, and parenting influences on the academic achievement of Latino young adolescents. Journal of youth and adolescence, 34(2), 163–174.
3. Flouri, E., & Buchanan, A. (2004). Early father's and mother's involvement and child's later educational outcomes. British Journal of Educational Psychology, 74(2), 141–153.
4. Hill, N. E., & Tyson, D. F. (2009). Parental involvement in middle school: a meta-analytic assessment of the strategies that promote achievement. Developmental psychology, 45(3), 740.
5. Aikens, N. L., & Barbarin, O. (2008). Socioeconomic differences in reading trajectories: The contribution of family, neighborhood, and school contexts. Journal of Educational Psychology, 100(2), 235.
6. Von Rueden, U., Gosch, A., Rajmil, L., Bisegger, C., & Ravens-Sieberer, U. (2006). Socioeconomic determinants of health related quality of life in childhood and adolescence: results from a European study. Journal of epidemiology and community health, 60(2), 130–135.
7. Gershoff, E. T., Aber, J. L., Raver, C. C., & Lennon, M. C. (2007). Income is not enough: Incorporating material hardship into models of income associations with parenting and child development. Child development, 78(1), 70–95.
8. Dubow, E. F., Boxer, P., & Huesmann, L. R. (2009). Long-term effects of parents' education on children's educational and occupational success: Mediation by family interactions, child aggression, and teenage aspirations. Merrill-Palmer quarterly (Wayne State University. Press), 55(3), 224.
9. Guryan, J., Hurst, E., & Kearney, M. (2008). Parental education and parental time with children. The Journal of Economic Perspectives, 22(3), 23.
10. Dickson, M., Gregg, P., & Robinson, H. (2016). Early, late or never? When does parental education impact child outcomes?. The Economic Journal, 126(596).
11. Curtis, L. J., Dooley, M. D., & Phipps, S. A. (2004). Child well-being and neighbourhood quality: evidence from the Canadian National Longitudinal Survey of Children and Youth. Social science & medicine, 58(10), 1917–1927.
12. Leventhal, T., & Brooks-Gunn, J. (2000). The neighborhoods they live in: the effects of neighborhood residence on child and adolescent outcomes. Psychological bulletin, 126(2), 309.

Adolescence (11–16)

Protective factors

As at earlier stages, a stable and supportive home environment is important and can help teenagers to develop resilience and mitigate against external influences that can impact negatively on the transition to adulthood. Child physical and mental health continues to be important. Mental distress in adolescence, especially in the context of youth unemployment, is associated with poorer life chances.[1, 2, 3]

A good-quality school experience is also important. Children who do well at school are more likely to be employed and more likely to have higher incomes in later life.[4] At this age, friendships and possibly girlfriends/ boyfriends become more important, and can have a positive or negative impact.[5]

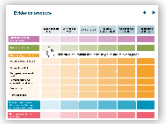
Neighbourhood factors (e.g. deprivation, crime, community values) are important, and are also linked to school quality and friendships.[6]

Some children from disadvantaged backgrounds succeed against the odds. This success is associated with:

- Child's own temperament and sense of agency[7, 8, 9, 10]
- High quality teaching and school experience[11]
- Supportive family relationships[12]
- Positive home learning environment[13, 14]
- Support from wider community[15]

Exercise also benefits adolescent mental and physical health.[16]

1. Landstedt, E., Coffey, J., & Nygren, M. (2016). Mental health in young Australians: a longitudinal study. Journal of Youth Studies, 19(1), 74–86.
2. Bjarnason, T., & Sigurdardottir, T. J. (2003). Psychological distress during unemployment and beyond: social support and material deprivation among youth in six northern European countries. Social Science & Medicine, 56(5), 973–985.
3. Strandh, M., Winefield, A., Nilsson, K., & Hammarström, A. (2014). Unemployment and mental health scarring during the life course. The European Journal of Public Health, 24(3), 440–445.
4. Feinstein, L., & Bynner, J. (2004). The importance of cognitive development in middle childhood for adulthood socioeconomic status, mental health, and problem behavior. Child development, 75(5), 1329–1339.
5. Li, Y., Doyle Lynch, A., Kalvin, C., Liu, J., & Lerner, R. M. (2011). Peer relationships as a context for the development of school engagement during early adolescence. International Journal of Behavioral Development, 35(4), 329–342.
6. McBride Murry, V., Berkel, C., Gaylord-Harden, N. K., Copeland-Linder, N., & Nation, M. (2011). Neighborhood poverty and adolescent development. Journal of Research on Adolescence, 21(1), 114–128.
7. Flores, E., Cicchetti, D., & Rogosch, F. A. (2005). Predictors of resilience in maltreated and nonmaltreated Latino children. Developmental psychology, 41(2), 338.
8. Fergusson, D. M., & Lynskey, M. T. (1996). Adolescent resiliency to family adversity. Journal of child psychology and psychiatry, 37(3), 281–292.
9. Masten, A. S., Best, K. M., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. Development and psychopathology, 2(04), 425–444.
10. Davey, M., Eaker, D. G., & Walters, L. H. (2003). Resilience processes in adolescents: Personality profiles, self-worth, and coping. Journal of adolescent research, 18(4), 347–362.
11. Hay, I., Ashman, A. F., & Van Kraayenoord, C. E. (1998). Educational characteristics of students with high or low self-concept. Psychology in the Schools, 35(4), 391–400.
12. Oliva, A., Jiménez, J. M., & Parra, A. (2009). Protective effect of supportive family relationships and the influence of stressful life events on adolescent adjustment. Anxiety, Stress, & Coping, 22(2), 137–152.
13. Ryan, A. M., & Patrick, H. (2001). The classroom social environment and changes in adolescents' motivation and engagement during middle school. American Educational Research Journal, 38(2), 437–460.
14. Wang, M. T., & Holcombe, R. (2010). Adolescents' perceptions of school environment, engagement, and academic achievement in middle school. American Educational Research Journal, 47(3), 633–662.
15. Sylva, K. et al. (2012). Effective Pre-school, Primary and Secondary Education 3–14 Project (EPPSE 3–14) Final Report from the Key Stage 3 Phase: Influences on Students' Development From age 11–14. London: Department for Education.
16. Toseeb, U., Brage, S., Corder, K., Dunn, V. J., Jones, P. B., Owens, M., St Clair, M.C., van Sluijs, E.M. & Goodyer, I.M. (2014). Exercise and depressive symptoms in adolescents: a longitudinal cohort study. JAMA pediatrics, 168(12), 1093–1100.



Transition to adulthood

Protective factors

A stable and supportive home environment continues to be important as the adolescent makes the transition to adulthood, as does their physical and mental health. Lower childhood wellbeing may affect the ability of children to work and earn as adults.[1] Parental support (including financial support) may be important to facilitate a successful transition to adulthood (e.g. in terms of career development).[2]

Individual factors such as educational engagement and aspirations are important at this stage.[3, 4] Prior educational attainment is positively associated with future employability/prospects at this stage. Work experience and career education/guidance can also be important.[5]

Social support/positive social networks (including parents) appear to benefit young adults through faster access to jobs.[6]

Location and neighbourhood factors are also important as these are linked to social norms.[7]

Importantly, not all young people show the same response to exposure to disadvantage, and some go on to achieve against the odds, maintaining a positive achievement orientation and outlook to the future.[8, 9, 10, 11, 12]

1. Friedland, D.S. and Price, R.H. (2003). Underemployment: Consequences for the health and well-being of workers. American Journal of Community Psychology, 32 (Nos. 1/2), 33–45.
2. Keller, B. K., & Whiston, S. C. (2008). The role of parental influences on young adolescents' career development. Journal of Career Assessment.198–217.
3. Schoon, I. (2006). Risk and Resilience: Adaptations in Changing Times Cambridge: Cambridge University Press.
4. Schoon, I. (2017). Making it against the odds: diverse strategies and successful adaptation. In A. C. Peterson, S. H. Koller, F. Motti-Stefanidi, & S. Verma (Eds.), Positive youth development in global contexts of social and economic change. New York: Routledge.
5. Ng, T. W., Eby, L. T., Sorensen, K. L., & Feldman, D. C. (2005). Predictors of objective and subjective career success: A meta-analysis. Personnel psychology, 58(2), 367–408.
6. Kramarz, F., & Skans, O. N. (2014). When strong ties are strong: Networks and youth labour market entry. The Review of Economic Studies, 81(3), 1164–1200.
7. McBride Murry, V., Berkel, C., Gaylord-Harden, N. K., Copeland-Linder, N., & Nation, M. (2011). Neighborhood poverty and adolescent development. Journal of Research on Adolescence, 21(1), 114–128.
8. Condly, S. J. (2006). Resilience in children a review of literature with implications for education. Urban education, 41(3), 211–236. McCormick, M. P., O'Connor, E. E., Cappella, E., & McClowry, S. G. (2013). Teacher–child relationships and academic achievement: A multilevel propensity score model approach. Journal of School Psychology, 51(5), 611–624.
9. Rothbart, M. K., & Jones, L. B. (1998). Temperament, self-regulation, and education. School Psychology Review, 27(4), 479.
10. Viljaranta, J., Aunola, K., Mullola, S., Virkkala, J., Hirvonen, R., Pakarinen, E., & Nurmi, J. E. (2015). Children's temperament and academic skill development during first grade: Teachers' interaction styles as mediators. Child development, 86(4), 1191–1209.
11. Hopson, L. M., & Lee, E. (2011). Mitigating the effect of family poverty on academic and behavioral outcomes: The role of school climate in middle and high school. Children and Youth Services Review, 33(11), 2221–2229.
12. Oliva, A., Jiménez, J. M., & Parra, A. (2009). Protective effect of supportive family relationships and the influence of stressful life events on adolescent adjustment. Anxiety, Stress, & Coping, 22(2), 137–152.

Preconception to birth

Disadvantage factors: Parental worklessness

Parental worklessness is often associated with other disadvantage factors that impact negatively on child outcomes. Poorer outcomes for children are not generally caused by worklessness *per se*, but rather its combination with a range of interlinked disadvantage factors.[1] In comparison to their peers, it has been shown that children who live in workless households have significantly poorer outcomes across a range of academic, behavioural, cognitive and future employment measures.[2, 3, 4]

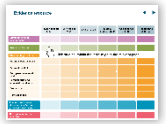
1. Schoon, I., Barnes, M., Brown, V., Parsons, S., Ross, A. & Vignoles, A. (2012). Intergenerational transmission of worklessness: Evidence from the Millennium Cohort and the Longitudinal Study of Young People In England. Research Report DFE-RR234. London: Department for Education. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183328/DFE-RR234.pdf
2. Vaz, S., Parsons, R., Falkmer, T., Passmore, A. E., & Falkmer, M. (2014). The impact of personal background and school contextual factors on academic competence and mental health functioning across the primary-secondary school transition. PloS one, 9(3), e89874.
3. Schoon, I., & Cheng, H. (2011). Determinants of political trust: a lifetime learning model. Developmental psychology, 47(3), 619.
4. Schoon, I., Barnes, M., Brown, V., Parsons, S., Ross, A. & Vignoles, A. (2012) Intergenerational transmission of worklessness: Evidence from the Millennium Cohort and the Longitudinal Study of Young People In England. Research Report DFE-RR234. London: Department for Education. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183328/DFE-RR234.pdf

Birth to age 2.5/3

Disadvantage factors: Parental worklessness

As at the previous stage, parental worklessness is often associated with other disadvantage factors that impact negatively on child outcomes. Poorer outcomes for children are not generally caused by worklessness *per se*, but rather its combination with a range of interlinked disadvantage factors.[1] In comparison to their peers, it has been shown that children who live in workless households have significantly poorer outcomes across a range of academic, behavioural, cognitive and future employment measures.[2, 3, 4]

1. Schoon, I., Barnes, M., Brown, V., Parsons, S., Ross, A. and Vignoles, A. (2012) Intergenerational transmission of worklessness: Evidence from the Millennium Cohort and the Longitudinal Study of Young People In England. Research Report DFE-RR234. London: Department for Education https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183328/DFE-RR234.pdf
2. Vaz, S., Parsons, R., Falkmer, T., Passmore, A. E., & Falkmer, M. (2014). The impact of personal background and school contextual factors on academic competence and mental health functioning across the primary-secondary school transition. PloS one, 9(3), e89874.
3. Schoon, I., & Cheng, H. (2011). Determinants of political trust: a lifetime learning model. Developmental psychology, 47(3), 619.
4. Schoon, I., Barnes, M., Brown, V., Parsons, S., Ross, A. and Vignoles, A. (2012) Intergenerational transmission of worklessness: Evidence from the Millennium Cohort and the Longitudinal Study of Young People In England. Research Report DFE-RR234. London: Department for Education https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183328/DFE-RR234.pdf



2.5/3 to age 5

Disadvantage factors: Parental worklessness

As at the previous stages, parental worklessness is often associated with other disadvantage factors that impact negatively on child outcomes. Poorer outcomes for children are not generally caused by worklessness *per se*, but rather its combination with a range of interlinked disadvantage factors.[1] In comparison to their peers, it has been shown that children who live in workless households have significantly poorer outcomes across a range of academic, behavioural, cognitive and future employment measures.[2, 3, 4]

1. Schoon, I., Barnes, M., Brown, V., Parsons, S., Ross, A. and Vignoles, A. (2012) Intergenerational transmission of worklessness: Evidence from the Millennium Cohort and the Longitudinal Study of Young People In England. Research Report DFE-RR234. London: Department for Education https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183328/DFE-RR234.pdf
2. Vaz, S., Parsons, R., Falkmer, T., Passmore, A. E., & Falkmer, M. (2014). The impact of personal background and school contextual factors on academic competence and mental health functioning across the primary-secondary school transition. PloS one, 9(3), e89874.
3. Schoon, I., & Cheng, H. (2011). Determinants of political trust: a lifetime learning model. Developmental psychology, 47(3), 619.
4. Schoon, I., Barnes, M., Brown, V., Parsons, S., Ross, A. and Vignoles, A. (2012) Intergenerational transmission of worklessness: Evidence from the Millennium Cohort and the Longitudinal Study of Young People In England. Research Report DFE-RR234. London: Department for Education https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183328/DFE-RR234.pdf

Middle childhood (5–11)

Disadvantage factors: Parental worklessness

As at the previous stages, parental worklessness is often associated with other disadvantage factors that impact negatively on child outcomes. Poorer outcomes for children are not generally caused by worklessness *per se*, but rather its combination with a range of interlinked disadvantage factors.[1] In comparison to their peers, it has been shown that children who live in workless households have significantly poorer outcomes across a range of academic, behavioural, cognitive and future employment measures.[2, 3, 4]

Parents who are workless are less likely to display positive attitudes and behaviours, engage with school or provide a supportive home learning environment which may in turn impact on educational attainment.[5]

Disadvantage has also been associated with poor diet and nutrition, which has been associated with obesity and poor cognitive development.[6, 7, 8, 9]

1. Schoon, I., Barnes, M., Brown, V., Parsons, S., Ross, A. and Vignoles, A. (2012) Intergenerational transmission of worklessness: Evidence from the Millennium Cohort and the Longitudinal Study of Young People In England. Research Report DFE-RR234. London: Department for Education https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183328/DFE-RR234.pdf
2. Vaz, S., Parsons, R., Falkmer, T., Passmore, A. E., & Falkmer, M. (2014). The impact of personal background and school contextual factors on academic competence and mental health functioning across the primary-secondary school transition. PloS one, 9(3), e89874.
3. Schoon, I. & Cheng, H. (2011). Determinants of political trust: a lifetime learning model. Developmental psychology, 47(3), 619.
4. Schoon, I., Barnes, M., Brown, V., Parsons, S., Ross, A. and Vignoles, A. (2012) Intergenerational transmission of worklessness: Evidence from the Millennium Cohort and the Longitudinal Study of Young People In England. Research Report DFE-RR234. London: Department for Education https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183328/DFE-RR234.pdf
5. McBride Murry, V., Berkel, C., Gaylord-Harden, N. K., Copeland-Linder, N., & Nation, M. (2011). Neighborhood poverty and adolescent development. Journal of Research on Adolescence, 21(1), 114–128.
6. Keita, A. D., Casazza, K., Thomas, O., & Fernandez, J. R. (2009). Neighborhood-level disadvantage is associated with reduced dietary quality in children. Journal of the American Dietetic Association, 109(9), 1612–1616.
7. Brown, J. L., & Pollitt, E. (1996). Malnutrition, poverty and intellectual development. Scientific American, 274(2), 38–43.
8. Tanumihardjo, S. A., Anderson, C., Kaufer-Horwitz, M., Bode, L., Emenaker, N. J., Haqq, A. M., ... & Stadler, D. D. (2007). Poverty, obesity, and malnutrition: an international perspective recognizing the paradox. Journal of the American Dietetic Association, 107(11), 1966–1972.
9. Drewnowski, A., & Specter, S. E. (2004). Poverty and obesity: the role of energy density and energy costs. The American journal of clinical nutrition, 79(1), 6–16.

Adolescence (11–16)

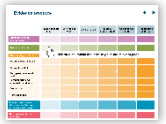
Disadvantage factors: Parental worklessness

As at the previous stages, parental worklessness is often associated with other disadvantage factors that impact negatively on child outcomes. Poorer outcomes for children are not generally caused by worklessness *per se*, but rather its combination with a range of interlinked disadvantage factors.[1] In comparison to their peers, it has been shown that children who live in workless households have significantly poorer outcomes across a range of academic, behavioural, cognitive and future employment measures.[2, 3, 4]

Parents who are workless are less likely to display positive attitudes and behaviours, engage with school or provide a supportive home learning environment which may in turn impact on educational attainment.[5]

Disadvantage has also been associated with poor diet and nutrition, which has been associated with obesity and poor cognitive development.[6, 7, 8, 9]

1. Schoon, I., Barnes, M., Brown, V., Parsons, S., Ross, A. and Vignoles, A. (2012) Intergenerational transmission of worklessness: Evidence from the Millennium Cohort and the Longitudinal Study of Young People In England. Research Report DFE-RR234. London: Department for Education https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183328/DFE-RR234.pdf
2. Vaz, S., Parsons, R., Falkmer, T., Passmore, A. E., & Falkmer, M. (2014). The impact of personal background and school contextual factors on academic competence and mental health functioning across the primary-secondary school transition. PloS one, 9(3), e89874.
3. Schoon et al, 2011 – Schoon, I., & Cheng, H. (2011). Determinants of political trust: a lifetime learning model. Developmental psychology, 47(3), 619.
4. Schoon, I., Barnes, M., Brown, V., Parsons, S., Ross, A. and Vignoles, A. (2012) Intergenerational transmission of worklessness: Evidence from the Millennium Cohort and the Longitudinal Study of Young People In England. Research Report DFE-RR234. London: Department for Education https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183328/DFE-RR234.pdf
5. McBride Murry, V., Berkel, C., Gaylord-Harden, N. K., Copeland-Linder, N., & Nation, M. (2011). Neighborhood poverty and adolescent development. Journal of Research on Adolescence, 21(1), 114–128.
6. Keita, A. D., Casazza, K., Thomas, O., & Fernandez, J. R. (2009). Neighborhood-level disadvantage is associated with reduced dietary quality in children. Journal of the American Dietetic Association, 109(9), 1612–1616.
7. Brown, J. L., & Pollitt, E. (1996). Malnutrition, poverty and intellectual development. Scientific American, 274(2), 38–43.
8. Tanumihardjo, S. A., Anderson, C., Kaufer-Horwitz, M., Bode, L., Emenaker, N. J., Haqq, A. M., ... & Stadler, D. D. (2007). Poverty, obesity, and malnutrition: an international perspective recognizing the paradox. Journal of the American Dietetic Association, 107(11), 1966–1972.
9. Drewnowski, A., & Specter, S. E. (2004). Poverty and obesity: the role of energy density and energy costs. The American journal of clinical nutrition, 79(1), 6–16.

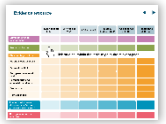


Transition to adulthood

Disadvantage factors: Parental worklessness

Parental worklessness can affect the young adult's transition to employment at this stage. In the UK, evidence suggests that worklessness can be transmitted from one generation to the next.[1, 2] This has been termed 'intergenerational transmission of worklessness'. Youth unemployment reduces capacity to achieve diverse markers of adulthood, potentially undermining the young adult's sense of confidence and independence. Dependency on parental (financial) support can have negative consequences for the young adult's self-efficacy.[3] Parents may not be able support the young person financially (if the young person is unemployed, between jobs, looking for a new job, or has a job that does not pay a sufficient income) if they do not earn any money themselves.

1. Macmillan, L. (2010). The Intergenerational Transmission of Worklessness in the UK. CMPO Working Paper Series No. 10/231. Bristol: Centre for Market and Public Organisation (CMPO).
2. Schoon, I., Barnes, M., Brown, V., Parsons, S., Ross, A. and Vignoles, A. (2012) Intergenerational transmission of worklessness: Evidence from the Millennium Cohort and the Longitudinal Study of Young People In England. Research Report DFE-RR234. London: Department for Education https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183328/DFE-RR234.pdf
3. Mortimer, J. T., Kim, M., Staff, J., & Vuolo, M. (2016). Unemployment, parental help, and self-efficacy during the transition to adulthood. Work and Occupations, 43(4), 434–465.



Preconception to birth

Disadvantage factors: Parental conflict

Parental conflict is likely to impact on maternal mental health,[1] and can also increase the risk of inter-parental violence.[2] This can result in maternal stress and foetal cortisol exposure,[3] resulting in low birth weight.[4]

1. Harold, G. T., Elam, K. K., Lewis, G., Rice, F., & Thapar, A. (2012). Interparental conflict, parent psychopathology, hostile parenting, and child antisocial behavior: Examining the role of maternal versus paternal influences using a novel genetically sensitive research design. Development and Psychopathology, 24(04), 1283–1295.
2. Burch, R. L., & Gallup Jr, G. G. (2004). Pregnancy as a stimulus for domestic violence. Journal of Family Violence, 19(4), 243–247.
3. Bergman, K., Sarkar, P., Glover, V., & O'Connor, T. G. (2010). Maternal prenatal cortisol and infant cognitive development: moderation by infant–mother attachment. Biological psychiatry, 67(11), 1026–1032.
4. Mulder, E. J., De Medina, P. R., Huizink, A. C., Van den Bergh, B. R., Buitelaar, J. K., & Visser, G. H. (2002). Prenatal maternal stress: effects on pregnancy and the (unborn) child. Early human development, 70(1), 3–14.

Birth to age 2.5/3

Disadvantage factors: Parental conflict

Immediately after a child's birth, and during their pre-school years and transition to school, the inter-parental relationship can become strained.[1] This is associated with an increased risk of parental separation.[2]

Parental absence (e.g. via separation) can have negative impacts on a child's emotional and behavioural outcomes.[3] The father's absence in early childhood can impact on child problem behaviours in middle childhood.[4] Positive and negative sibling relationships can also impact on child adjustment.[5]

Parental conflict impacts on a child's sleep which is crucial for brain and cognitive development.[6] It also has an impact on early peer relations and behavioural problems at ages 3 and 5 years (which is partly explained by the quality of the parent-child relationship).[7] Poor parent-to-child attachment, particularly a failure to prevent abuse or neglect, at this stage can have a lifelong adverse impact on outcomes.[8]

1. Huston, T. L., & Vangelisti, A. L. (1995). How parenthood affects marriage. Explaining family interactions, 147–176.
2. Cowan, P. A., Cowan, C. P., Ablow, J. C., Johnson, V. K., & Measelle, J. R. (Eds.). (2005). The family context of parenting in children's adaptation to elementary school. Routledge.
3. Jaffee, S. R., Moffitt, T. E., Caspi, A., & Taylor, A. (2003). Life with (or without) father: The benefits of living with two biological parents depend on the father's antisocial behavior. Child development, 74(1), 109–126.
4. Flouri, E., Narayanan, M.K., and Midouhas, E. (2015). The cross-lagged relationship between father absence and child problem behaviour in the early years. *Child: Care, Health & Development*, 41(6), 1090.
5. Pike, A., Coldwell, J., & Dunn, J. F. (2005). Sibling relationships in early/middle childhood: links with individual adjustment. Journal of Family Psychology, 19(4), 523.
6. Mannering, M. et al. (2011). Longitudinal associations between marital instability and child sleep problems across infancy and toddlerhood in adoptive families. Child Development, 82(4), 1252 –1266.
7. Garriga, A., & Kiernan, K. (2013). Parents' relationship quality, mother-child relations and children's behaviour problems: evidence from the UK Millennium Cohort Study. Working Paper. http://www.york.ac.uk/media/spsw/documents/research-andpublications/Garriga-and-Kiernan-WP2013.pdf
8. Department for Education/Wave Trust (2013). Conception to age 2 – the age of opportunity. Department for Education / Wave Trust http://www.wavetrust.org/sites/default/files/reports/conception-to-age-2-full-report_0.pdf

Disadvantage factors: Parental conflict

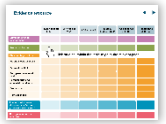
2.5/3 to age 5

During their pre-school years and transition to school, the inter-parental relationship can become strained.[1] This is associated with an increased risk of parental separation.[2]

Parental absence (e.g. via separation) can have negative impacts on a child's emotional and behavioural outcomes.[3] The father's absence in early childhood can impact on child problem behaviours in middle childhood.[4] Positive and negative sibling relationships can also impact on child adjustment.[5]

Parental conflict impacts on a child's sleep which is crucial for brain and cognitive development.[6] It also has an impact on early peer relations and behavioural problems at ages 3 and 5 years (which is partly explained by the quality of the parent-child relationship).[7] Poor parent-to-child attachment, particularly a failure to prevent abuse or neglect, at this stage can have a lifelong adverse impact on outcomes.[8]

1. Huston, T. L., & Vangelisti, A. L. (1995). How parenthood affects marriage. Explaining family interactions, 147–176.
2. Cowan, P. A., Cowan, C. P., Ablow, J. C., Johnson, V. K., & Measelle, J. R. (Eds.). (2005). The family context of parenting in children's adaptation to elementary school. Routledge.
3. Jaffee, S. R., Moffitt, T. E., Caspi, A., & Taylor, A. (2003). Life with (or without) father: The benefits of living with two biological parents depend on the father's antisocial behavior. Child development, 74(1), 109–126.
4. Flouri, E., Narayanan, M.K., and Midouhas, E. (2015). The cross-lagged relationship between father absence and child problem behaviour in the early years. *Child: Care, Health & Development*, 41(6), 1090.
5. Pike, A., Coldwell, J., & Dunn, J. F. (2005). Sibling relationships in early/middle childhood: links with individual adjustment. Journal of Family Psychology, 19(4), 523.
6. Mannering, M., et al., Longitudinal associations between marital instability and child sleep problems across infancy and toddlerhood in adoptive families. Child Development, 2011. 82(4): p. 1252–1266.
7. Garriga, A., & Kiernan, K. (2013). Parents' relationship quality, mother-child relations and children's behaviour problems: evidence from the UK Millennium Cohort Study. Working Paper. http://www.york.ac.uk/media/spsw/documents/research-andpublications/Garriga-and-Kiernan-WP2013.pdf
8. Department for Education/Wave Trust (2013). Conception to age 2 – the age of opportunity. Department for Education / Wave Trust http://www.wavetrust.org/sites/default/files/reports/conception-to-age-2-full-report_0.pdf



Middle childhood (5–11)

Disadvantage factors: Parental conflict

Witnessing inter-parental conflict impacts on the child's emotional and behavioural outcomes, which can affect their ability/willingness to learn – especially if the child blames themself for parents' inter-parental relationship problems.[1, 2] Parenting can also impact on attention traits which are associated with educational attainment.[3, 4] Parental/family conflict can also affect the types of friendships that children form.[5]

1. Shelton, K. H., & Harold, G. T. (2008). Pathways between interparental conflict and adolescent psychological adjustment: Bridging links through children's cognitive appraisals and coping strategies. The Journal of Early Adolescence.
2. Harold, G. T., Aitken, J. J., & Shelton, K. H. (2007). Inter-parental conflict and children's academic attainment: A longitudinal analysis. Journal of Child Psychology and Psychiatry, 48(12), 1223–1232.
3. Duncan, G. J., Dowsett, C. J., Claessens, A., Magnuson, K., Huston, A. C., Klebanov, P., ... & Sexton, H. (2007). School readiness and later achievement. Developmental psychology, 43(6), 1428.
4. Harold, G. T., Leve, L. D., Barrett, D., Elam, K., Neiderhiser, J. M., Natsuaki, M. N., ... & Thapar, A. (2013). Biological and rearing mother influences on child ADHD symptoms: revisiting the developmental interface between nature and nurture. Journal of Child Psychology and Psychiatry, 54(10), 1038–1046.
5. Elam, K. K., Harold, G. T., Neiderhiser, J. M., Reiss, D., Shaw, D. S., Natsuaki, M. N., ... & Leve, L. D. (2014). Adoptive parent hostility and children's peer behavior problems: Examining the role of genetically informed child attributes on adoptive parent behavior. Developmental psychology, 50(5), 1543.

Adolescence (11–16)

Disadvantage factors: Parental conflict

Parental/family conflict is associated with lower educational attainment.[1, 2] There is also an increased risk of adolescents engaging in risky and/or anti-social behaviour.[3, 4,5, 6] A poor relationship between parents is likely to influence the adolescent's relationships with friends (and possibly partners).[7, 8]

1. Dotterer, A. M., Hoffman, L., Crouter, A. C., & McHale, S. M. (2007). A longitudinal examination of the bidirectional links between academic achievement and parent–adolescent conflict. Journal of Family Issues.
2. Harold, G. T., Aitken, J. J., & Shelton, K. H. (2007). Inter-parental conflict and children's academic attainment: A longitudinal analysis. Journal of Child Psychology and Psychiatry, 48(12), 1223–1232.
3. Reid, J. B., & Patterson, G. R. (1989). The development of antisocial behaviour patterns in childhood and adolescence. European Journal of personality, 3(2), 107–119.
4. Collins, W. A., & Laursen, B. (1992). Conflict and relationships during adolescence. In Shantz, C. U. & Hartup, W. W. (Eds.), Conflict in child and adolescent development, (pp. 216–241). Cambridge, MA: Cambridge University Press.
5. Murray, J., & Farrington, D. P. (2010). Risk factors for conduct disorder and delinquency: key findings from longitudinal studies. The Canadian Journal of Psychiatry, 55(10), 633–642.
6. Valois, R. F., MacDonald, J. M., Bretous, L., Fischer, M. A., & Drane, J. W. (2002). Risk factors and behaviors associated with adolescent violence and aggression. American journal of health behavior, 26(6), 454–464.
7. Kinsfogel, K. M., & Grych, J. H. (2004). Interparental conflict and adolescent dating relationships: integrating cognitive, emotional, and peer influences. Journal of family psychology, 18(3), 505.
8. Collins, W. A., & Laursen, B. (1992). Conflict and relationships during adolescence.

Transition to adulthood

Disadvantage factors: Parental conflict

Experience of parental conflict at earlier stages continues to impact on development during the transition to adulthood, particularly if they have been persistent. Parental conflict is also associated with lower employability and heightened interpersonal violence via a cascade of problems throughout childhood.[1]

Parental/family conflict at this stage can also affect relationships between young adults and their families. Parental re-partnering has been associated with lower likelihood of contact and support exchange, and increased likelihood of conflict.[2, 3, 4, 5] This can leave young people more socially isolated, reducing the social ties and networks that can help them to secure jobs.[6]

For young adults who become parents themselves, there can be reduced parenting proficiency and an increased risk of mental health problems.[7]

1. Harold, G., Acquah, D., Sellers, R., Chowdry, H., & Feinstein, L. (2016). What works to enhance inter-parental relationships and improve outcomes for children. London: Early Intervention Foundation. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/509368/what-works-to-enhance-inter-parental-relationships.pdf
2. Richardson, S., & McCabe, M. P. (2001). Parental divorce during adolescence and adjustment in early adulthood. Adolescence, 36(143), 467.
3. Ruschena, E., Prior, M., Sanson, A., & Smart, D. (2005). A longitudinal study of adolescent adjustment following family transitions. Journal of Child Psychology and Psychiatry, 46(4), 353–363.
4. Wilson, G. B. (2006). The non-resident parental role for separated fathers: A review. International Journal of Law, Policy and the Family, 20(3), 286–316.
5. Lucas, N., Nicholson, J. M., & Erbas, B. (2013). Child mental health after parental separation: The impact of resident/non-resident parenting, parent mental health, conflict and socioeconomics. Journal of Family Studies, 19(1), 53–69.
6. Kramarz, F., & Skans, O. N. (2014). When strong ties are strong: Networks and youth labour market entry. The Review of Economic Studies, 81(3), 1164–1200.
7. Harold, G. T., Elam, K. K., Lewis, G., Rice, F., & Thapar, A. (2012). Interparental conflict, parent psychopathology, hostile parenting, and child antisocial behavior: Examining the role of maternal versus paternal influences using a novel genetically sensitive research design. Development and Psychopathology, 24(04), 1283–1295.

Preconception to birth

Disadvantage factors: Poor parental mental health

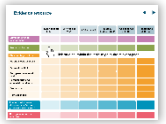
Maternal and paternal mental health (e.g. depression and anti-social behaviour) have been found to impact on child development from infancy through to adolescence. Poor parental mental health can have a negative impact on a child's language development, behaviour, physical health and attachment patterns.[1]

Perinatal mental illness has been shown to impact on emotional, cognitive and physical development.[2, 3] Specifically, maternal depression during pregnancy can impact negatively on foetal development, particularly on brain development.[4]

Maternal anxiety can influence the foetus' stress response system.[5, 6] Maternal anti-social behaviour can increase the likelihood of risky behaviours/environments (e.g. smoking in pregnancy),[7] which can also limit foetal development.[8] Paternal anti-social behaviour (e.g. violence) increases the risk of maternal depression and stress (e.g. release of stress hormone cortisol) that can in turn result in low birth weight.[9]

Depression in fathers in the prenatal and postnatal period is also linked to a greater risk of later emotional and behavioural problems in children aged 3.5.[10]

1. Smith, M. (2004). Parental mental health: disruptions to parenting and outcomes for children. Child & Family Social Work, 9(1), 3–11.
2. Stein, A., Pearson, R. M., Goodman, S. H., Rapa, E., Rahman, A., McCallum, M., ... & Pariante, C. M. (2014). Effects of perinatal mental disorders on the fetus and child. The Lancet, 384(9956), 1800–1819.
3. Brand, S. R., & Brennan, P. A. (2009). Impact of antenatal and postpartum maternal mental illness: how are the children?. Clinical obstetrics and gynecology, 52(3), 441–455.
4. Devlin, A. M., Brain, U., Austin, J., & Oberlander, T. F. (2010). Prenatal exposure to maternal depressed mood and the MTHFR C677T variant affect SLC6A4 methylation in infants at birth. PloS one, 5(8), e12201.
5. Mulder, E. J., De Medina, P. R., Huizink, A. C., Van den Bergh, B. R., Buitelaar, J. K., & Visser, G. H. (2002). Prenatal maternal stress: effects on pregnancy and the (unborn) child. Early human development, 70(1), 3–14.
6. Lupien, S. J., McEwen, B. S., Gunnar, M. R., & Heim, C. (2009). Effects of stress throughout the lifespan on the brain, behaviour and cognition. Nature Reviews Neuroscience, 10(6), 434–445.
7. Langley, K., Holmans, P. A., van den Bree, M. B., & Thapar, A. (2007). Effects of low birth weight, maternal smoking in pregnancy and social class on the phenotypic manifestation of Attention Deficit Hyperactivity Disorder and associated antisocial behaviour: investigation in a clinical sample. BMC psychiatry, 7(1), 26.
8. Law, K. L., Stroud, L. R., LaGasse, L. L., Niaura, R., Liu, J., & Lester, B. M. (2003). Smoking during pregnancy and newborn neurobehavior. Pediatrics, 111(6), 1318–1323.
9. Ludermir, A. B., Lewis, G., Valongueiro, S. A., de Araújo, T. V. B., & Araya, R. (2010). Violence against women by their intimate partner during pregnancy and postnatal depression: a prospective cohort study. *The Lancet, 376*(9744), 903–910.
10. Stein, A. & Harold, G. T. (2015). Impact of parental psychiatric disorder and physical illness on children's psychological outcomes. Rutter's Child and Adolescent Psychiatry, 6th Edition (pp 352–363). London: Wiley Blackwell.



Birth to age 2.5/3

Disadvantage factors: Poor parental mental health

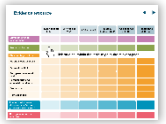
Maternal and paternal mental health (e.g. depression and anti-social behaviour) have been found to impact on child development from infancy through to adolescence. Poor parental mental health can have a negative impact on a child's language development, behaviour, physical health and attachment patterns.[1]

At this stage there is a link between parental depression and poorer behavioural outcomes, with depression (affecting either the mother or father) impacting on both child emotional and behavioural difficulties, either via genetics or negative family experiences (e.g. poor parenting, inter-parental/couple conflict), or the interplay between the two known as gene-environment interaction.[2, 3, 4]

Maternal depression can reduce the likelihood of breastfeeding.[5] In turn, this can lead to poorer neurodevelopmental outcomes[6] and undermine the attachment between mother and child.[7]

Children whose mothers have repeated maternal mental health problems are also more likely to have poorer relationships with their peers than children whose mothers either do not have mental health problems or only had brief periods of poor mental health.[8]

1. Smith, M. (2004). Parental mental health: disruptions to parenting and outcomes for children. Child & Family Social Work, 9(1), 3–11.
2. Harold, G. T., Leve., L. D. & Sellers, R. (2017). How Can Genetically-Informed Research Help Inform the Next Generation of Interparentaland Parenting Interventions? Child Development, 88, 2, 446–458.
3. Hoffman, C., Crnic, K. A., & Baker, J. K. (2006). Maternal depression and parenting: Implications for children's emergent emotion regulation and behavioral functioning. Parenting: Science and Practice, 6(4), 271–295.
4. Whisman, M. A. (2001). The association between depression and marital dissatisfaction. In S.R.H. Beach (Ed.), Marital and family processes in depression: A scientific foundation for clinical practice (pp.3–24). Washington, DC: American Psychological Association.
5. Grigoriadis, S., VonderPorten, E. H., Mamisashvili, L., Tomlinson, G., Dennis, C. L., Koren, G., ... & Radford, K. (2013). The impact of maternal depression during pregnancy on perinatal outcomes: a systematic review and meta-analysis. The Journal of clinical psychiatry, 74(4), 321–341.
6. Rozé, J. C., Darmaun, D., Boquien, C. Y., Flamant, C., Picaud, J. C., Savagner, C., ... & Simeoni, U. (2012). The apparent breastfeeding paradox in very preterm infants: relationship between breast feeding, early weight gain and neurodevelopment based on results from two cohorts, EPIPAGE and LIFT. BMJ open, 2(2), e000834.
7. Montgomery, S. M., Ehlin, A., & Sacker, A. (2006). Breast feeding and resilience against psychosocial stress. Archives of disease in childhood, 91(12), 990–994.
8. Marryat, L. & Martin, C. (2010). Growing up in Scotland: Maternal mental health and its impact on child development and behaviour. Scotland: The Scottish Centre for Social Research. The Scottish Government.



2.5/3 to age 5

Disadvantage factors: Poor parental mental health

Maternal and paternal mental health (e.g. depression and anti-social behaviour) have been found to impact on child development from infancy through to adolescence. Poor parental mental health can have a negative impact on a child's language development, behaviour, physical health and attachment patterns.[1]

As in infancy, parental depression continues to impact negatively on child emotional and behavioural outcomes at this stage.[2, 3]

1. Smith, M. (2004). Parental mental health: disruptions to parenting and outcomes for children. Child & Family Social Work, 9(1), 3–11.
2. Goodman, S. H., Rouse, M. H., Connell, A. M., Broth, M. R., Hall, C. M., & Heyward, D. (2011). Maternal depression and child psychopathology: a meta-analytic review. Clinical child and family psychology review, 14(1), 1–27.
3. Kane, P., & Garber, J. (2004). The relations among depression in fathers, children's psychopathology, and father–child conflict: A meta-analysis. Clinical psychology review, 24(3), 339–360.

Middle childhood (5–11)

Disadvantage factors: Poor parental mental health

Parental depression and anti-social behaviour impacts on parenting skills[1, 2, 3, 4] which may in turn impact on educational attainment.[5, 6, 7] Parental mental health also impacts on child mental health at this stage.[8, 9, 10, 11]

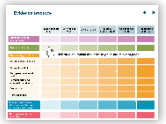
1. Sellers, R., Harold, G. T., Elam, K., Rhoades, K. A., Potter, R., Mars, B., ... & Collishaw, S. (2014). Maternal depression and co-occurring antisocial behaviour: testing maternal hostility and warmth as mediators of risk for offspring psychopathology. Journal of Child Psychology and Psychiatry, 55(2), 112–120.
2. Kiernan, K. E., & Huerta, M. C. (2008). Economic deprivation, maternal depression, parenting and children's cognitive and emotional development in early childhood1. The British journal of sociology, 59(4), 783–806.
3. Lovejoy, M. C., Graczyk, P. A., O'Hare, E., & Neuman, G. (2000). Maternal depression and parenting behavior: A meta-analytic review. Clinical psychology review, 20(5), 561–592.
4. Elgar, F. J., Mills, R. S., McGrath, P. J., Waschbusch, D. A., & Brownridge, D. A. (2007). Maternal and paternal depressive symptoms and child maladjustment: The mediating role of parental behavior. Journal of abnormal child psychology, 35(6), 943–955.
5. Izzo, C. V., Weissberg, R. P., Kasprow, W. J., & Fendrich, M. (1999). A longitudinal assessment of teacher perceptions of parent involvement in children's education and school performance. American journal of community psychology, 27(6), 817–839.
6. Hill, N. E., & Tyson, D. F. (2009). Parental involvement in middle school: a meta-analytic assessment of the strategies that promote achievement. Developmental psychology, 45(3), 740.
7. Fan, W., & Williams, C. M. (2010). The effects of parental involvement on students' academic self-efficacy, engagement and intrinsic motivation. Educational Psychology, 30(1), 53–74.
8. Beardslee, W. R., Versage, E. M., & Gladstone, T. R. (1998). Children of affectively ill parents: A review of the past 10 years. Journal of the American Academy of Child & Adolescent Psychiatry, 37(11), 1134–1141.
9. Cummings, E. M., & Davies, P. T. (1994). Maternal depression and child development. Journal of child psychology and psychiatry, 35(1), 73–122.
10. Harold, G. T., Rice, F., Hay, D. F., Boivin, J., Van Den Bree, M., & Thapar, A. (2011). Familial transmission of depression and antisocial behavior symptoms: disentangling the contribution of inherited and environmental factors and testing the mediating role of parenting. Psychological Medicine, 41(06), 1175–1185.
11. Patterson, G. R., DeBaryshe, B. D., & Ramsey, E. (1989). A developmental perspective on antisocial behavior (Vol. 44, No. 2, p. 329). American Psychological Association.

Adolescence (11–16)

Disadvantage factors: Poor parental mental health

As at the previous stage, parental depression and anti-social behaviour impacts on parenting skills[1, 2, 3, 4] which may in turn impact on educational attainment.[5, 6, 7] Parental mental health also impacts on child mental health at this stage.[8, 9, 10, 11]

1. Sellers, R., Harold, G. T., Elam, K., Rhoades, K. A., Potter, R., Mars, B., ... & Collishaw, S. (2014). Maternal depression and co-occurring antisocial behaviour: testing maternal hostility and warmth as mediators of risk for offspring psychopathology. Journal of Child Psychology and Psychiatry, 55(2), 112–120.
2. Kiernan, K. E., & Huerta, M. C. (2008). Economic deprivation, maternal depression, parenting and children's cognitive and emotional development in early childhood1. The British journal of sociology, 59(4), 783–806.
3. Lovejoy, M. C., Graczyk, P. A., O'Hare, E., & Neuman, G. (2000). Maternal depression and parenting behavior: A meta-analytic review. Clinical psychology review, 20(5), 561–592.
4. Elgar, F. J., Mills, R. S., McGrath, P. J., Waschbusch, D. A., & Brownridge, D. A. (2007). Maternal and paternal depressive symptoms and child maladjustment: The mediating role of parental behavior. Journal of abnormal child psychology, 35(6), 943–955.
5. Izzo, C. V., Weissberg, R. P., Kasprow, W. J., & Fendrich, M. (1999). A longitudinal assessment of teacher perceptions of parent involvement in children's education and school performance. American journal of community psychology, 27(6), 817–839.
6. Hill, N. E., & Tyson, D. F. (2009). Parental involvement in middle school: a meta-analytic assessment of the strategies that promote achievement. Developmental psychology, 45(3), 740.
7. Fan, W., & Williams, C. M. (2010). The effects of parental involvement on students' academic self-efficacy, engagement and intrinsic motivation. Educational Psychology, 30(1), 53–74.
8. Beardslee, W. R., Versage, E. M., & Gladstone, T. R. (1998). Children of affectively ill parents: A review of the past 10 years. Journal of the American Academy of Child & Adolescent Psychiatry, 37(11), 1134–1141.
9. Cummings, E. M., & Davies, P. T. (1994). Maternal depression and child development. Journal of child psychology and psychiatry, 35(1), 73–122.
10. Harold, G. T., Rice, F., Hay, D. F., Boivin, J., Van Den Bree, M., & Thapar, A. (2011). Familial transmission of depression and antisocial behavior symptoms: disentangling the contribution of inherited and environmental factors and testing the mediating role of parenting. Psychological Medicine, 41(06), 1175–1185.
11. Patterson, G. R., DeBaryshe, B. D., & Ramsey, E. (1989). A developmental perspective on antisocial behavior (Vol. 44, No. 2, p. 329). American Psychological Association.



Transition to adulthood

Disadvantage factors: Poor parental mental health

Poor parental mental health is associated with increased risk of mental health difficulties during young adulthood.[1] It is also associated with increased risk of poor quality romantic relationships.[2, 3]

For young adults who become parents themselves, there is an increased risk of mental health and anti-social behaviour problems, and increased risk of repeating behaviours with their own children.[4]

1. Brennan, P. A., Le Brocque, R., & Hammen, C. (2003). Maternal depression, parent–child relationships, and resilient outcomes in adolescence. Journal of the American Academy of Child & Adolescent Psychiatry, 42(12), 1469–1477.
2. Downey, G., & Coyne, J. C. (1990). Children of depressed parents: an integrative review. Psychological bulletin, 108(1), 50.
3. Patterson, G. R., DeBaryshe, B. D., & Ramsey, E. (1989). A developmental perspective on antisocial behavior (Vol. 44, No. 2, p. 329). American Psychological Association.
4. Patterson, G. R. et al. (1989). A Developmental Perspective on Antisocial Behavior. American Psychologist, 44(2), 329–335.

Preconception to birth

Disadvantage factors: Parental drug and alcohol dependency

Drugs, alcohol and smoking (i.e. harmful toxins) are associated with harmful effects on the development of the foetus. Maternal smoking is also an established cause of low birth weight, an important factor associated with infant morbidity and mortality. It also increases the risk of developing respiratory conditions and learning difficulties, as well as other health problems, such as obesity and diabetes. Gestational diabetes (a woman without diabetes developing high blood sugar levels during pregnancy) is also associated with foetal cognitive and behavioural development.[1, 2, 3, 4, 5] Reducing maternal smoking in pregnancy can reduce the likelihood of still birth and pregnancy complications (e.g. pre-term birth, miscarriage and low birth weight).[6]

Exposure to other substances such as lead and chemicals from work is also associated with negative child outcomes, particularly cognitive development.[7, 8] Parental drug use during pregnancy is also associated with later child behavioural difficulties.[9]

Maternal substance misuse can lead to impaired foetal growth, brain development and low birth weight.[10]

Paternal substance misuse can increase the risk of violence towards the mother, leading to maternal stress and release of a stress hormone (cortisol) that can limit foetal development.[11, 12]

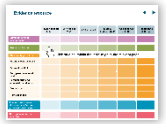
1. Royal College of Physicians. (2010). Passive smoking and children. A report by the Tobacco Advisory Group of the Royal College of Physicians. London: Royal College of Physicians.
2. NHS England (2016). CCG Improvement and assessment framework 2016/17 Technical Annex. https://www.england.nhs.uk/commissioning/wp-content/uploads/sites/12/2016/05/technical-annex.pdf
3. Dietrich, K. N., Berger, O. G., Succop, P. A., Hammond, P. B., & Bornschein, R. L. (1993). The developmental consequences of low to moderate prenatal and postnatal lead exposure: intellectual attainment in the Cincinnati Lead Study Cohort following school entry. Neurotoxicology and teratology, 15(1), 37–44.
4. Ornoy, A., Wolf, A., Ratzon, N., Greenbaum, C., & Dulitzky, M. (1999). Neurodevelopmental outcome at early school age of children born to mothers with gestational diabetes. Archives of Disease in Childhood-Fetal and Neonatal Edition, 81(1), F10–F14.
5. Ornoy, A. (2005). Growth and neurodevelopmental outcome of children born to mothers with pregestational and gestational diabetes. Pediatric endocrinology reviews: PER, 3(2), 104–113.
6. NHS England (2016) saving babies' lives: A care bundle for reducing stillbirth https://www.england.nhs.uk/wp-content/uploads/2016/03/saving-babies-lives-car-bundl.pdf
7. Bellinger, D., Leviton, A., Waternaux, C., Needleman, H., & Rabinowitz, M. (1987). Longitudinal analyses of prenatal and postnatal lead exposure and early cognitive development. New England journal of medicine, 316(17), 1037–1043.
8. Dietrich, K. N., Berger, O. G., Succop, P. A., Hammond, P. B., & Bornschein, R. L. (1993). The developmental consequences of low to moderate prenatal and postnatal lead exposure: intellectual attainment in the Cincinnati Lead Study Cohort following school entry. Neurotoxicology and teratology, 15(1), 37–44.
9. Brooks, D., & Barth, R. P. (1998). Characteristics and outcomes of drug-exposed and non drug-exposed children in kinship and non-relative foster care. Children and Youth Services Review, 20(6), 475–501.
10. Sherwood, R. A., Keating, J., Kavvadia, V., Greenough, A., & Peters, T. J. (1999). Substance misuse in early pregnancy and relationship to fetal outcome. European journal of pediatrics, 158(6), 488–492.
11. Velleman, R., & Templeton, L. (2007). Understanding and modifying the impact of parents' substance misuse on children. *Advances in Psychiatric treatment, 13*(2), 79–89.
12. Bergman, K., Sarkar, P., Glover, V., & O'Connor, T. G. (2010). Maternal prenatal cortisol and infant cognitive development: moderation by infant–mother attachment. *Biological psychiatry, 67*(11), 1026–1032.

Birth to age 2.5/3

Disadvantage factors: Parental drug and alcohol dependency

While the child is still young, parental drug or alcohol dependency increases the risk of harm or injury to the child or ill health. The effects of parental drug or alcohol dependency on child outcomes can be mediated (explained) and/or moderated (alter the magnitude of the association) by abuse/neglect,[1] a hazardous/chaotic home environment,[2] or poor child nutrition.[3]

1. Christoffersen, M. N., & Soothill, K. (2003). The long-term consequences of parental alcohol abuse: a cohort study of children in Denmark. Journal of substance abuse treatment, 25(2), 107–116.
2. Velleman, R., & Templeton, L. (2007). Understanding and modifying the impact of parents' substance misuse on children. *Advances in Psychiatric treatment, 13*(2), 79–89.
3. Keen, J., & Alison, L. H. (2001). Drug misusing parents: key points for health professionals. *Archives of disease in childhood, 85*(4), 296–299.

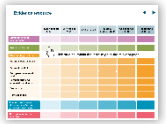


2.5/3 to age 5

Disadvantage factors: Parental drug and alcohol dependency

As at the previous stages, while the child is still young, parental drug or alcohol dependency increases the risk of harm or injury to the child or ill health. The effects of parental drug or alcohol dependency on child outcomes can be mediated (explained) and/or moderated (alter the magnitude of the association) by abuse/neglect,[1] a hazardous/chaotic home environment,[2] or poor child nutrition.[3]

1. Christoffersen, M. N., & Soothill, K. (2003). The long-term consequences of parental alcohol abuse: a cohort study of children in Denmark. Journal of substance abuse treatment, 25(2), 107–116.
2. Velleman, R., & Templeton, L. (2007). Understanding and modifying the impact of parents' substance misuse on children. *Advances in Psychiatric treatment, 13*(2), 79–89.
3. Keen, J., & Alison, L. H. (2001). Drug misusing parents: key points for health professionals. *Archives of disease in childhood, 85*(4), 296–299.



Middle childhood (5–11)

Disadvantage factors: Parental drug and alcohol dependency

As at the previous stages, parental drug or alcohol dependency can have significant adverse consequences on the child. These include physical health and wellbeing (including poor diet and poor hygiene), which may occur via maltreatment and/or other aspects of parenting.[1]

1. Velleman, R., & Templeton, L. (2007). Understanding and modifying the impact of parents' substance misuse on children. *Advances in Psychiatric treatment, 13*(2), 79–89

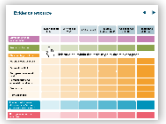
Adolescence (11–16)

Disadvantage factors:
Parental drug and alcohol dependency

As at the previous stages, parental drug or alcohol dependency can have significant adverse consequences on the child's physical health, mental health and wellbeing.[1, 2]

Additional risks for adolescents are a lack of parental monitoring, which is a risk factor for engaging in risky behaviours.[3, 4] There is also an increased risk of substance abuse and mental health problems affecting the child, which in turn can impact on educational attainment, and an increased risk of offending and teen pregnancy.[5, 6, 7, 8, 9, 10, 11, 12]

1. Velleman, R., & Templeton, L. (2007). Understanding and modifying the impact of parents' substance misuse on children. Advances in Psychiatric treatment, 13(2), 79–89.
2. Vidal, S. I., Vandeleur, C., Rothen, S., Gholam-Rezaee, M., Castelao, E., Halfon, O., ... & Preisig, M. (2012). Risk of mental disorders in children of parents with alcohol or heroin dependence: a controlled high-risk study. European addiction research, 18(5), 253–264.
3. Bailey, J. A., Hill, K. G., Oesterle, S., & Hawkins, J. D. (2006). Linking substance use and problem behavior across three generations. Journal of abnormal child psychology, 34(3), 263–282.
4. Velleman, R., & Templeton, L. (2007). Understanding and modifying the impact of parents' substance misuse on children. Advances in Psychiatric treatment, 13(2), 79–89.
5. Biederman, J., Faraone, S. V., Monuteaux, M. C., & Feighner, J. A. (2000). Patterns of alcohol and drug use in adolescents can be predicted by parental substance use disorders. Pediatrics, 106(4), 792–797.
6. Chassin, L., Pillow, D. R., Curran, P. J., Molina, B. S., & Barrera Jr, M. (1993). Relation of parental alcoholism to early adolescent substance use: a test of three mediating mechanisms. Journal of abnormal psychology, 102(1), 3.
7. Bond, L., Butler, H., Thomas, L., Carlin, J., Glover, S., Bowes, G., & Patton, G. (2007). Social and school connectedness in early secondary school as predictors of late teenage substance use, mental health, and academic outcomes. Journal of Adolescent Health, 40(4), 357-e9.
8. Chassin, L., Curran, P. J., Hussong, A. M., & Colder, C. R. (1996). The relation of parent alcoholism to adolescent substance use: a longitudinal follow-up study. Journal of abnormal psychology, 105(1), 70.
9. Guo, J., Chung, I. J., Hill, K. G., Hawkins, J. D., Catalano, R. F., & Abbott, R. D. (2002). Developmental relationships between adolescent substance use and risky sexual behavior in young adulthood. Journal of Adolescent Health, 31(4), 354–362.
10. Dawkins, M. P. (1997). Drug use and violent crime among adolescents. Adolescence, 32(126), 395.
11. Silverman, J. G., Raj, A., Mucci, L. A., & Hathaway, J. E. (2001). Dating violence against adolescent girls and associated substance use, unhealthy weight control, sexual risk behavior, pregnancy, and suicidality. Jama, 286(5), 572–579.
12. Mensch, B., & Kandel, D. B. (1992). Drug use as a risk factor for premarital teen pregnancy and abortion in a national sample of young white women. Demography, 29(3), 409–429.



Transition to adulthood

Disadvantage factors: Parental drug and alcohol dependency

At this stage, parental drug or alcohol dependency continues to impact negatively on the young adult's emotional/behavioural outcomes. Parental alcohol abuse can increase substance misuse, mortality risk, suicide attempts, teenage pregnancies and unemployment.[1]

1. Christoffersen, M. N., & Soothill, K. (2003). The long-term consequences of parental alcohol abuse: a cohort study of children in Denmark. Journal of substance abuse treatment, 25(2), 107–116.

Preconception to birth

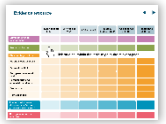
Disadvantage factors: Problem debt

Problem debt typically arises for two, often connected, reasons: persistently low income, and 'shocks' to income or expenses which worsen a household's financial position.[1] Evidence suggests that problem debt can deepen and perpetuate poverty.

Poverty is associated with low birth weight, foetal growth, pre-term birth and infant mortality.[2, 3, 4]

The effects of debt are mediated (explained) and/or moderated (alter the magnitude of the association) by nutrition, prenatal care, parental stress and mental health.[5]

1. Disney, R., Bridges, S. & Gathergood, J. (2008). Drivers of over-indebtedness. London: Department for Business, Enterprise and Regulatory Reform. https://www.iser.essex.ac.uk/research/publications/513423
2. Hamad, R., & Rehkopf, D. H. (2015). Poverty, pregnancy, and birth outcomes: a study of the Earned Income Tax Credit. Paediatric and perinatal epidemiology, 29(5), 444–452.
3. Szwarcwald, C. L., de Andrade, C. L. T., & Bastos, F. I. (2002). Income inequality, residential poverty clustering and infant mortality: a study in Rio de Janeiro, Brazil. Social science & medicine, 55(12), 2083–2092.
4. Parker, J. D., Schoendorf, K. C., & Kiely, J. L. (1994). Associations between measures of socioeconomic status and low birth weight, small for gestational age, and premature delivery in the United States. Annals of epidemiology, 4(4), 271–278.
5. Tanya Nagahawatte, N., & Goldenberg, R. L. (2008). Poverty, maternal health, and adverse pregnancy outcomes. Annals of the New York Academy of Sciences, 1136(1), 80–85.

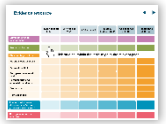


Birth to age 2.5/3

Disadvantage factors: Problem debt

Living at the poverty threshold has been shown to influence children's cognitive and language development, social competence and behavioural problems through its impact on parents' psychological distress and parenting sensitivity.[1]

1. Mistry, R. S., Biesanz, J. C., Taylor, L. C., Burchinal, M., & Cox, M. J. (2004). Family income and its relation to preschool children's adjustment for families in the NICHD Study of Early Child Care. Developmental psychology, 40(5), 727.



2.5/3 to age 5

Disadvantage factors: Problem debt

As at the previous stage, living at the poverty threshold has been shown to influence children's cognitive and language development, social competence and behavioural problems through its impact on parents' psychological distress and parenting sensitivity.[1]

1. Mistry, R. S., Biesanz, J. C., Taylor, L. C., Burchinal, M., & Cox, M. J. (2004). Family income and its relation to preschool children's adjustment for families in the NICHD Study of Early Child Care. Developmental psychology, 40(5), 727.

Middle childhood (5–11)

Disadvantage factors: Problem debt

Economic stress impacts on parental involvement with school and ability to provide resources (e.g. reading material and cultural activities), which can impact on educational attainment.[1, 2, 3] Food insufficiency is associated with poorer school outcomes (suspension, difficulty getting along with peers).[4] Debt is also associated with poorer socio-emotional outcomes.[5]

1. Arnold, D. H., & Doctoroff, G. L. (2003). The early education of socioeconomically disadvantaged children. Annual Review of Psychology, 54(1), 517–545.
2. Evans, G. W. (2004). The environment of childhood poverty. American psychologist, 59(2), 77.
3. Kiernan, K. E., & Mensah, F. K. (2011). Poverty, family resources and children's early educational attainment: the mediating role of parenting. British Educational Research Journal, 37(2), 317–336.
4. Alaimo, K., Olson, C. M., & Frongillo, E. A. (2001). Food insufficiency and American school-aged children's cognitive, academic, and psychosocial development. Pediatrics, 108(1), 44–53.
5. Evans, G. W. (2004). The environment of childhood poverty. American psychologist, 59(2), 77.

Adolescence (11–16)

Disadvantage factors: Problem debt

As at the previous stage, economic stress impacts on parental involvement with school and ability to provide resources (e.g. reading material, cultural activities and private tuition), which can impact on educational attainment.[1, 2, 3] Food insufficiency is associated with poorer school outcomes (suspension, difficulty getting along with peers).[4] Debt is also associated with poorer socio-emotional outcomes.[5]

1. Arnold, D. H., & Doctoroff, G. L. (2003). The early education of socioeconomically disadvantaged children. Annual Review of Psychology, 54(1), 517–545.
2. Evans, G. W. (2004). The environment of childhood poverty. American psychologist, 59(2), 77.
3. Kiernan, K. E., & Mensah, F. K. (2011). Poverty, family resources and children's early educational attainment: the mediating role of parenting. British Educational Research Journal, 37(2), 317–336.
4. Alaimo, K., Olson, C. M., & Frongillo, E. A. (2001). Food insufficiency and American school-aged children's cognitive, academic, and psychosocial development. Pediatrics, 108(1), 44–53.
5. Evans, G. W. (2004). The environment of childhood poverty. American psychologist, 59(2), 77.

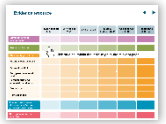
Transition to adulthood

Disadvantage factors: Problem debt

If the family experiences problem debt, the parents may not be able to support further education participation (e.g. university education[1]) and the young person may need to find paid employment.

Living in deprived neighbourhoods (as workless families are more likely to do) may limit the young adult's access to social networks that could be beneficial for securing jobs. Young adults who are not in education or university may have less access to support structures in comparison to their peers.[2]

1. Heller, D. E. (Ed.). (2002). Condition of access: Higher education for lower income students. Westport, Conn.: American Council on Education/Praeger.
2. McBride Murry, V., Berkel, C., Gaylord-Harden, N. K., Copeland-Linder, N., & Nation, M. (2011). Neighborhood poverty and adolescent development. Journal of Research on Adolescence, 21(1), 114–128.



Preconception to birth

Disadvantage factors: Homelessness

Parental homelessness and insecure housing have significant impacts on foetal development. Temporary accommodation and homelessness during pregnancy are associated with a higher risk of premature birth, low birth weight and developmental delay. [1, 2]

1. Stein, J. A., Lu, M. C., & Gelberg, L. (2000). Severity of homelessness and adverse birth outcomes. Health Psychology, 19(6), 524.
2. Richards, R., Merrill, R. M., & Baksh, L. (2011). Health behaviors and infant health outcomes in homeless pregnant women in the United States. Pediatrics, 128(3), 438–446.

Birth to age 2.5/3

Disadvantage factors: Homelessness

Homeless children are less likely to be registered with a GP and more likely to be admitted to hospital.[1] Children born to mothers who have been in temporary accommodation are also more likely to miss out on their immunisations.[2]

Frequent home moves, particularly early on in a child's life, can have detrimental impacts on mental health in later childhood. In the context of poverty and disadvantage, frequent school moves have also been associated with negative impacts on child mental health, specifically attention, emotional and behavioural problems.[3]

Poor housing may increase the risk of child health problems or injury.[4] Children who experience poor physical/community environments are at risk of negative outcomes: evidence shows that while there are more children's play areas in economically deprived regions, their quality is generally poorer, with vandalism, playground misuse and danger of injury all higher than in more affluent economic areas.[5]

1. Lissauer, T., Richman, S., Tempia, M., Jenkins, S., & Taylor, B. (1993). Influence of homelessness on acute admissions to hospital. Archives of disease in childhood, 69(4), 423–429.
2. Victor, C. R. (1996). The health of the temporary homeless population. Journal of interprofessional care, 10(3), 257–266.
3. Rumbold, A. R., Giles, L. C., Whitrow, M. J., Steele, E. J., Davies, C. E., Davies, M. J., & Moore, V. M. (2012). The effects of house moves during early childhood on child mental health at age 9 years. BMC Public Health, 12(1), 583.
4. Ziol-Guest, K. M., & McKenna, C. C. (2014). Early childhood housing instability and school readiness. Child development, 85(1), 103–113.
5. Evans, G. W. (2004). The environment of childhood poverty. American psychologist, 59(2), 77.
6. Ellaway, A., Kirk, A., Macintyre, S., & Mutrie, N. (2007). Nowhere to play? The relationship between the location of outdoor play areas and deprivation in Glasgow. Health & Place, 13(2), 557–561.

2.5/3 to age 5

Disadvantage factors: Homelessness

As at the previous stage, homeless children are less likely to be registered with a GP and more likely to be admitted to hospital.[1] Children born to mothers who have been in temporary accommodation are also more likely to miss out on their immunisations.[2]

Frequent home moves, particularly early on in a child's life, can have detrimental impacts on mental health in later childhood. In the context of poverty and disadvantage, frequent school moves have also been associated with negative impacts on child mental health, specifically attention, emotional and behavioural problems.[3]

Poor housing may increase the risk of child health problems or injury.[4] Children who experience poor physical/community environments are at risk of negative outcomes: evidence shows that while there are more children's play areas in economically deprived regions, their quality is generally poorer, with vandalism, playground misuse and danger of injury all higher than in more affluent economic areas.[5]

1. Lissauer, T., Richman, S., Tempia, M., Jenkins, S., & Taylor, B. (1993). Influence of homelessness on acute admissions to hospital. Archives of disease in childhood, 69(4), 423–429.
2. Victor, C. R. (1996). The health of the temporary homeless population. Journal of interprofessional care, 10(3), 257–266.
3. Rumbold, A. R., Giles, L. C., Whitrow, M. J., Steele, E. J., Davies, C. E., Davies, M. J., & Moore, V. M. (2012). The effects of house moves during early childhood on child mental health at age 9 years. BMC Public Health, 12(1), 583.
4. Ziol-Guest, K. M., & McKenna, C. C. (2014). Early childhood housing instability and school readiness. Child development, 85(1), 103–113.
5. Evans, G. W. (2004). The environment of childhood poverty. American psychologist, 59(2), 77.
6. Ellaway, A., Kirk, A., Macintyre, S., & Mutrie, N. (2007). Nowhere to play? The relationship between the location of outdoor play areas and deprivation in Glasgow. Health & Place, 13(2), 557–561.

Middle childhood (5–11)

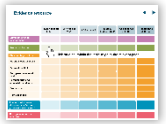
Disadvantage factors: Homelessness

As at the previous stages, homelessness can have negative impacts on the child's physical and mental health,[1, 2] which are linked to school attendance and ability to learn.[3]

Homeless children are more likely to have mental health problems than non-homeless children. Children who have been in temporary accommodation for more than a year are over three times more likely to demonstrate problems such as anxiety and depression than non-homeless children.[4] Homelessness can impact on the mental health of children and their parents. Mothers of homeless children with a history of abuse and poor social integration are more likely to have children with persistent mental health problems.[5, 6]

Children who move schools in-year tend to have lower prior attainment, and achieve less well as a result of moving.[7] Moving schools is associated with poorer attainment at age 16, even when prior attainment is accounted for.[8, 9] The impacts of school moves are worse if there are multiple moves.[10] Children who moved three or more times were found to suffer from behavioural problems and worse school attainment, while multiple moves have been reported to have a negative impact on a child's reading and mathematics attainment.[11] Homeless children are likely to face continued problems with higher rates of absenteeism – homeless children have absence rates two to three times higher than average[12, 13] and absence from school is linked to poor performance.[14]

1. Taske, N., Taylor, L., Mulvihill, C. and Doyle, N. (2005). Housing and Public Health: a review of reviews of interventions for improving health. London: NICE.
2. Evans, G. W., Saltzman, H. & Cooperman, J. (2001). Housing quality and children's socioemotional health. Environment and Behavior, 33, 389–399.
3. Kiernan, K. E., & Mensah, F. K. (2009). Poverty, maternal depression, family status and children's cognitive and behavioural development in early childhood: A longitudinal study. Journal of Social Policy, 38(04), 569–588.
4. Rough, E., Goldblatt, P., Marmot, M. & Nathanson, V. (2013). Chapter 3: Inequalities in child health –BMA. In Growing up in the UK –Ensuring a healthy future for our children. London: British Medical Association.
5. Vostanis, P., Grattan, E., & Cumella, S. (1998). Mental health problems of homeless children and families: longitudinal study. Bmj, 316(7135), 899–902.
6. Vostanis, P., Grattan, E., Cumella, S., & Winchester, C. (1997). Psychosocial functioning of homeless children. Journal of the American Academy of Child & Adolescent Psychiatry, 36(7), 881–889.
7. Rodda, M., Hallgarten, J., Freeman, J. & Thomson, D. (2013). Between the cracks, exploring in year admissions in schools. London: Royal Society for the encouragement of Arts, Manufactures and Commerce.
8. Strand, S., & Demie, F. (2006). Pupil mobility, attainment and progress in primary school. British Educational Research Journal, 32(4), 551–568.
9. Strand, S., & Demie, F. (2007). Pupil mobility, attainment and progress in secondary school. Educational Studies, 33(3), 313–331.
10. Buckner, J. C., Bassuk, E. L., & Weinreb, L. F. (2001). Predictors of academic achievement among homeless and low-income housed children. Journal of School Psychology, 39(1), 45–69.
11. Mehana, M., & Reynolds, A. J. (2004). School mobility and achievement: A meta-analysis. Children and Youth Services Review, 26(1), 93–119.
12. Vostanis, P., & Cumella, S. (1999). Homeless children: problems and needs. Jessica Kingsley Publishers.
13. Vostanis, P., Grattan, E., Cumella, S., & Winchester, C. (1997). Psychosocial functioning of homeless children. Journal of the American Academy of Child & Adolescent Psychiatry, 36(7), 881–889.
14. DfE (2015). The link between absence and attainment at KS2 and KS4.



Adolescence (11–16)

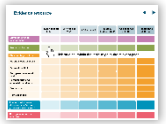
Disadvantage factors: Homelessness

As at the previous stages, homelessness can have negative impacts on the child's physical and mental health,[1, 2] which are linked to school attendance and ability to learn.[3]

Homeless children are more likely to have mental health problems than non-homeless children. Children who have been in temporary accommodation for more than a year are over three times more likely to demonstrate problems such as anxiety and depression than non-homeless children.[4] Homelessness can impact on the mental health of children and their parents. Mothers of homeless children with a history of abuse and poor social integration are more likely to have children with persistent mental health problems.[5, 6]

Children who move schools in-year tend to have lower prior attainment, and achieve less well as a result of moving.[7] Moving schools is associated with poorer attainment at age 16, even when prior attainment is accounted for.[8, 9] The impacts of school moves are worse if there are multiple moves.[10] Children who moved three or more times were found to suffer from behavioural problems and worse school attainment, while multiple moves have been reported to have a negative impact on a child's reading and mathematics attainment.[11] Homeless children are likely to face continued problems with higher rates of absenteeism – homeless children have absence rates two to three times higher than average[12, 13] and absence from school is linked to poor performance.[14]

1. Taske, N. 2014. Housing and public health: A review of reviews of interventions for improving public health.
2. Evans et al, Housing quality and children's socioemotional health, Environmental and Behaviour, 33 (3) 2001.
3. Kiernan, K. E., & Mensah, F. K. (2009). Poverty, maternal depression, family status and children's cognitive and behavioural development in early childhood: A longitudinal study. Journal of Social Policy, 38(04), 569–588.
4. Rough, E., Goldblatt, P., Marmot, M., Nathanson, V. (2003). Chapter 3: Inequalities in child health – BMA. In Growing up in the UK – Ensuring a healthy future for our children.
5. Vostanis, P., Grattan, E., & Cumella, S. (1998). Mental health problems of homeless children and families: longitudinal study. Bmj, 316(7135), 899–902.
6. Vostanis, P., Grattan, E., Cumella, S., & Winchester, C. (1997). Psychosocial functioning of homeless children. Journal of the American Academy of Child & Adolescent Psychiatry, 36(7), 881–889.
7. Rodda, M., Hallgarten, J., Freeman, J., and Thomson, D. (2013) Between the cracks, exploring in year admissions in schools, RSA.
8. Strand, S., & Demie, F. (2006). Pupil mobility, attainment and progress in primary school. British Educational Research Journal, 32(4), 551–568.
9. Strand, S., & Demie, F. (2007). Pupil mobility, attainment and progress in secondary school. Educational Studies, 33(3), 313–331.
10. Buckner, J. C., Bassuk, E. L., & Weinreb, L. F. (2001). Predictors of academic achievement among homeless and low-income housed children. Journal of School Psychology, 39(1), 45–69.
11. Mehana, M., & Reynolds, A. J. (2004). School mobility and achievement: A meta-analysis. Children and Youth Services Review, 26(1), 93–119.
12. Vostanis, P., & Cumella, S. (1999). Homeless children: problems and needs. Jessica Kingsley Publishers.
13. Vostanis, P., Grattan, E., Cumella, S., & Winchester, C. (1997). Psychosocial functioning of homeless children. Journal of the American Academy of Child & Adolescent Psychiatry, 36(7), 881–889.
14. DfE (2015). The link between absence and attainment at KS2 and KS4.



Transition to adulthood

Disadvantage factors: Homelessness

Experiences of homelessness at earlier stages continue to impact on physical and mental health of the young adult, particularly if these experiences have been persistent.

Parents may not be able to provide housing for a young adult, if they themselves are encountering constraining housing conditions.

Preconception to birth

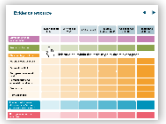
Interaction between disadvantage factors (and wider risk factors)

Parental worklessness is associated with several 'interlinked risk factors' (including low parental education, lone parenthood, poor parental mental health, housing conditions, and income poverty) and a child may face 'cumulative multiple risks' that influence their life chances.[1]

Several of these factors can impact on parents' relationships with each other, and also parental health, which in turn impacts on child outcomes.

Economic pressures (e.g. parental worklessness, homelessness and problem debt) can increase parental conflict.[2, 3] Parental ill health is associated with higher rates of anxiety, depression and relationship distress.[4, 5] Parental depression can be episodic and may continue post-pregnancy, so that the child is impacted by ongoing parental mental health difficulties.[6] Also, ill health (e.g. obesity) of parents can be linked with child outcomes.[7, 8] Paternal substance misuse can increase the risk of family conflict/violence during pregnancy.[9]

1. Schoon, I., Barnes, M., Brown, V., Parsons, S., Ross, A. & Vignoles, A. (2012) Intergenerational transmission of worklessness: Evidence from the Millennium Cohort and the Longitudinal Study of Young People In England. Research Report DFE-RR234. London: Department for Education. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183328/DFE-RR234.pdf
2. Evans, G. W. (2004). The environment of childhood poverty. American psychologist, 59(2), 77.
3. Conger, R. D., Conger, K. J., & Martin, M. J. (2010). Socioeconomic status, family processes, and individual development. Journal of Marriage and Family, 72(3), 685–704.
4. Scott, K. M., Bruffaerts, R., Tsang, A., Ormel, J., Alonso, J., Angermeyer, M. C., ... & Gasquet, I. (2007). Depression–anxiety relationships with chronic physical conditions: results from the World Mental Health Surveys. Journal of affective disorders, 103(1), 113–120.
5. Schulz, R., & Tompkins, C. A. (1990). Life events and changes in social relationships: Examples, mechanisms, and measurement. Journal of Social and Clinical Psychology, 9(1), 69–77.
6. Hammen, C. (2002). Context of stress in families of children with depressed parents. In S. Goodman and I. Gotlib (Eds.), Children of depressed parents: Mechanisms of risk and implications for treatment (pp. 175–199). Washington, DC: American Psychological Association.
7. Wake, M., & Salmon, L. (2000). Influence of parental gender and self-reported health and illness on parent-reported child health. Pediatrics, 106(6), 1422–1428.
8. Wrotniak, B. H., Epstein, L. H., Paluch, R. A., & Roemmich, J. N. (2004). Parent weight change as a predictor of child weight change in family-based behavioral obesity treatment. Archives of pediatrics & adolescent medicine, 158(4), 342–347.
9. Amaro, H., Fried, L. E., Cabral, H., & Zuckerman, B. (1990). Violence during pregnancy and substance use. American journal of public health, 80(5), 575–579.



Birth to age 2.5/3

Interaction between disadvantage factors (and wider risk factors)

Parental worklessness can act as a proxy for poverty/economic stress with less supportive parenting and poorer home learning environments. Poverty via nutrition, prenatal care and home environment influences school attitudes and socialisation, impacts on resources and stimulating materials (e.g. less reading material, fewer cultural activities) and can affect school readiness.[1] Poverty also impacts on parenting. Parental sensitivity and engagement is more likely to be compromised in parents who are poor.[2] Fathers are also less likely to be present in the family.[3]

Poor parental mental health can impact on parental worklessness which in turn may impact on family problem debt.[4, 5] Extra economic costs and challenges at this stage may cause greater parental conflict, which can impact on parental mental health and vice versa.

Homelessness can also cause parental stress leading to increased parental/family conflict. Housing factors can also be associated with a lack of social support for parents.[6, 7]

(continued on next page)

1. Evans, G. W. (2004). The environment of childhood poverty. American psychologist, 59(2), 77.
2. Evans, G. W. (2004). The environment of childhood poverty. American psychologist, 59(2), 77.
3. Demuth, S., & Brown, S. L. (2004). Family structure, family processes, and adolescent delinquency: The significance of parental absence versus parental gender. Journal of research in crime and delinquency, 41(1), 58–81.
4. Perkins, R., & Rinaldi, M. (2002). Unemployment rates among patients with long-term mental health problems. The Psychiatrist, 26(8), 295–298.
5. Huston, A. C., Duncan, G. J., McLoyd, V. C., Crosby, D. A., Ripke, M. N., Weisner, T. S., & Eldred, C. A. (2005). Impacts on children of a policy to promote employment and reduce poverty for low-income parents: new hope after 5 years. Developmental Psychology, 41(6), 902.
6. Marra J. V., McCarthy E., Lin H. J., Ford J., Rodis E., Frisman L. K. (2009). Effects of social support and conflict on parenting among homeless mothers. American Journal of Orthopsychiatry, 79, 348-356.
7. National Center on Family Homelessness Health Care for the Homeless Clinicians' Network. (2003). Social support for homeless mothers. Newton, MA: National Center on Family Homelessness.

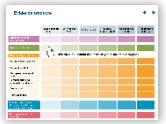
Birth to age 2.5/3

Interaction between disadvantage factors (and wider risk factors)

Anti-social behaviour can lead to parental conflict,[1] and is associated with parental drug or alcohol dependency,[2, 3] lower family income,[4] impaired parenting and increased risk of violence/neglect.[5, 6]
Child abuse/neglect remains a risk throughout the life course. Parental drug or alcohol dependency (affecting either the mother or father) can be associated with a chaotic home environment,[7] as well as poor parental mental health and physical health. Parental drug dependency can also have potential financial impacts (e.g. family problem debt and worklessness).[8]

Disadvantage experienced at earlier stages can continue to impact on child outcomes, particularly if these experiences have been persistent.

1. Harold, G. T., Elam, K. K., Lewis, G., Rice, F., & Thapar, A. (2012). Interparental conflict, parent psychopathology, hostile parenting, and child antisocial behavior: Examining the role of maternal versus paternal influences using a novel genetically sensitive research design. Development and Psychopathology, 24(04), 1283–1295.
2. Moss, H. B., Yao, J. K., & Panzak, G. L. (1990). Serotonergic responsivity and behavioral dimensions in antisocial personality disorder with substance abuse. Biological psychiatry, 28(4), 325–338.
3. Compton, W. M., Conway, K. P., Stinson, F. S., Colliver, J. D., & Grant, B. F. (2005). Prevalence, correlates, and comorbidity of DSM-IV antisocial personality syndromes and alcohol and specific drug use disorders in the United States: results from the national epidemiologic survey on alcohol and related conditions. The Journal of clinical psychiatry.
4. Scott, S., Knapp, M., Henderson, J., & Maughan, B. (2001). Financial cost of social exclusion: follow up study of antisocial children into adulthood. Bmj, 323(7306), 191.
5. Harold, G. T., Elam, K. K., Lewis, G., Rice, F., & Thapar, A. (2012). Interparental conflict, parent psychopathology, hostile parenting, and child antisocial behavior: Examining the role of maternal versus paternal influences using a novel genetically sensitive research design. Development and Psychopathology, 24(04), 1283–1295.
6. Thornberry, T. P., Freeman-Gallant, A., Lizotte, A. J., Krohn, M. D., & Smith, C. A. (2003). Linked lives: The intergenerational transmission of antisocial behavior. Journal of abnormal child psychology, 31(2), 171–184.
7. Velleman, R., & Templeton, L. (2007). Understanding and modifying the impact of parents' substance misuse on children. Advances in Psychiatric treatment, 13(2), 79–89.
8. Merikangas, K. R., He, J. P., Burstein, M., Swanson, S. A., Avenevoli, S., Cui, L., ... & Swendsen, J. (2010). Lifetime prevalence of mental disorders in US adolescents: results from the National Comorbidity Survey Replication–Adolescent Supplement (NCS-A). Journal of the American Academy of Child & Adolescent Psychiatry, 49(10), 980–989.



2.5/3 to age 5

Interaction between disadvantage factors (and wider risk factors)

Parental worklessness is associated with economic stress and lack of resources which can affect school readiness. Children start school behind peers and then have to try to 'catch up'.[1, 2]

Socio-economic status can impact on children's absenteeism and number of school years completed.[3, 4] Socio-economic status is also associated with parent expectations and attitudes towards school.[5] Low income families may be forced to move houses regularly, impacting on changing schools.[6] There are also social and psychological impacts on children.[7]

Anti-social behaviour can impact on a child through imitation or 'modelling' of behaviours (Social Learning Theory).[8] Social Learning Theory proposes that children observe the behaviour of people around them and may imitate behaviours they have observed.[9, 10]

Disadvantage experienced at earlier stages can continue to impact on child outcomes, particularly if these experiences have been persistent.

1. Evans, G. W. (2004). The environment of childhood poverty. American psychologist, 59(2), 77.
2. Neuman, S. B., & Celano, D. (2001). Access to print in low-income and middle-income communities: An ecological study of four neighborhoods. Reading Research Quarterly, 36(1), 8–26.
3. Duncan, G. J., Yeung, W. J., Brooks-Gunn, J., & Smith, J. R. (1998). How much does childhood poverty affect the life chances of children?. American sociological review, 406–423.
4. Brooks-Gunn, J., & Duncan, G. J. (1997). The effects of poverty on children. The future of children, 55–71.
5. Arnold, D. H., & Doctoroff, G. L. (2003). The early education of socioeconomically disadvantaged children. Annual Review of Psychology, 54(1), 517–545.
6. Evans, G. W. (2004). The environment of childhood poverty. American psychologist, 59(2), 77.
7. Evans, G. W. (2004). The environment of childhood poverty. American psychologist, 59(2), 77.
8. Catalano, R. F., & Hawkins, J. D. (1996). A theory of antisocial behavior. Delinquency and crime: Current theories (1996), 149.
9. Bandura, A. (1978). Social learning theory of aggression. Journal of communication, 28(3), 12–29.
10. Widom, C. S., & Wilson, H. W. (2015). Intergenerational transmission of violence. In Violence and mental health (pp. 27–45). Springer Netherlands.

Middle childhood (5–11)

Interaction between disadvantage factors (and wider risk factors)

Parental worklessness is associated with family problem debt, poor housing and family conflict.[1]

Homelessness exacerbates family conflict and affects the child's physical and mental health, which in turn can impact negatively on school attendance and ability to learn.[2, 3, 4, 5, 6] Socio-economic status is associated with parenting, which can have an ongoing impact on the child's academic and behavioural outcomes at school.[7, 8, 9] Changes in socio-economic status in middle childhood can have greater impacts on later employment, income, worklessness, criminality and depression than child cognitive ability.[10]

Parental substance misuse is associated with parental conflict as well as financial impact.[11]

Disadvantage experienced at earlier stages can continue to impact on child outcomes, particularly if these experiences have been persistent.

1. Evans, G. W. (2004). The environment of childhood poverty. American psychologist, 59(2), 77.
2. Evans, G. W., Saltzman, H., & Cooperman, J. L. (2001). Housing quality and children's socioemotional health. Environment and Behavior, 33(3), 389–399.
3. Engle, P. L., & Black, M. M. (2008). The effect of poverty on child development and educational outcomes. Annals of the New York Academy of Sciences, 1136(1), 243–256.
4. McKoy, D. L., & Vincent, J. M. (2008). Housing and education: The inextricable link. Segregation: The rising costs for America, 125–50.
5. Bradley, R. H., Corwyn, R. F., McAdoo, H. P., & García Coll, C. (2001). The home environments of children in the United States part I: Variations by age, ethnicity, and poverty status. Child development, 72(6), 1844–1867.
6. Evans, G. W., & English, K. (2002). The environment of poverty: Multiple stressor exposure, psychophysiological stress, and socioemotional adjustment. Child development, 73(4), 1238–1248.
7. Patterson, G. R., DeBaryshe, B. D., & Ramsey, E. (1989). A developmental perspective on antisocial behavior (Vol. 44, No. 2, p. 329). American Psychological Association.
8. Hartas, D. (2011). Families' social backgrounds matter: Socio-economic factors, home learning and young children's language, literacy and social outcomes. British Educational Research Journal, 37(6), 893–914.
9. Waylen, A., & Stewart-Brown, S. (2010). Factors influencing parenting in early childhood: a prospective longitudinal study focusing on change. Child: care, health and development, 36(2), 198–207.
10. Feinstein, L., & Bynner, J. (2004). The importance of cognitive development in middle childhood for adulthood socioeconomic status, mental health, and problem behavior. Child development, 75(5), 1329–1339.
11. Velleman, R., & Templeton, L. (2007). Understanding and modifying the impact of parents' substance misuse on children. Advances in Psychiatric treatment, 13(2), 79–89.

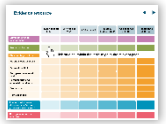
Adolescence (11–16)

Interaction between disadvantage factors (and wider risk factors)

In early adolescence, the gap between the most disadvantaged groups and the 'average' is already evident. Throughout this stage the gap widens and the impacts become more visible – including negative attitudes and aspirations, poor academic outcomes and risky and/or anti-social behaviour.[1, 2, 3, 4, 5] For adolescents living in poor housing or disadvantaged neighbourhoods, there is an increased risk of exposure to crime or violence.[6]

Disadvantage experienced at earlier stages can continue to impact on child outcomes, particularly if these experiences have been persistent.

1. Walsemann, K. M., Geronimus, A. T., & Gee, G. C. (2008). Accumulating disadvantage over the life course evidence from a longitudinal study investigating the relationship between educational advantage in youth and health in middle age. Research on Aging, 30(2), 169–199.
2. Fergusson, D. M., Woodward, L. J., & Horwood, L. J. (2000). Risk factors and life processes associated with the onset of suicidal behaviour during adolescence and early adulthood. Psychological medicine, 30(01), 23–39.
3. McLoyd, V. C. (1998). Socioeconomic disadvantage and child development. American psychologist, 53(2), 185.
4. Bauman, L. J., Silver, E. J., & Stein, R. E. (2006). Cumulative social disadvantage and child health. Pediatrics, 117(4), 1321–1328.
5. Fergusson, D. M., & Lynskey, M. T. (1996). Alcohol misuse and adolescent sexual behaviors and risk taking. Pediatrics, 98(1), 91–96.
6. McBride Murry, V., Berkel, C., Gaylord-Harden, N. K., Copeland-Linder, N., & Nation, M. (2011). Neighborhood poverty and adolescent development. Journal of Research on Adolescence, 21(1), 114–128.



Transition to adulthood

Interaction between disadvantage factors (and wider risk factors)

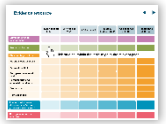
Parental worklessness can affect the young adult's transition to employment. Young people from poorer/disadvantaged families may be more likely to face unemployment.[1, 2, 3] Unemployment rates can also be higher among teenagers of sole-parent families than among other teenagers.[4]

At this stage when institutional support for the young person has been largely withdrawn, they may continue to be dependent on their parents for emotional, social, housing and financial support. If parents are under increasing strain themselves they may be unable to support their child effectively. This concerns the provision of emotional and social support which is affected by parental mental and physical health. In addition, it can be the case that the young person takes on caring responsibilities for their parents.[5, 6]

At this stage young adults may also become parents themselves, and disadvantage factors may begin to affect another generation of children. For example, poor educational attainment can influence a young parent's ability to access jobs and resources (thus leading to parental worklessness).[7, 8]

Disadvantage experienced at earlier stages can continue to impact on the young adult's outcomes, particularly if these experiences have been persistent.

1. Gregg, P., Harkness, S. & Smith, S. (2009). Welfare Reform and Lone Parents in the UK. The economic journal,119(535), F38–F65.
2. Gregg, P., Macmillan, L. & Vittori, C. (2015). Nonlinear Estimation of Lifetime Intergenerational Economic Mobility and the Role of Education, London: UCL Institute of Education. http://repec.ioe.ac.uk/REPEc/pdf/qsswp1503.pdf
3. Bradbury, B., Garde, P., & Vipond, J. (1986). Youth unemployment and intergenerational immobility. Journal of Industrial Relations, 28(2), 191–210.
4. Bradbury, B., Garde, P., & Vipond, J. (1986). Youth unemployment and intergenerational immobility. Journal of Industrial Relations, 28(2), 191–210.
5. Aldridge, J., & Becker, S. (1993). Children as carers. Archives of Disease in Childhood, 69(4), 459.
6. Halpenny, A. M., & Gilligan, R. (2004). Caring before their time. Research and policy perspectives on young carers.
7. Macmillan, L. (2010) The intergenerational transmission of worklessness in the UK. Working Paper No. 10/231. Bristol, The Centre for Market and Public Organisation (CMPU) http://www.bristol.ac.uk/media-library/sites/cmpo/migrated/documents/wp231.pdf
8. Schoon, I., Barnes, M., Brown, V., Parsons, S., Ross, A. & Vignoles, A. (2012). Intergenerational transmission of worklessness: Evidence from the Millennium Cohort and the Longitudinal Study of Young People In England. Research Report DFE-RR234. London: Department for Education. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183328/DFE-RR234.pdf



Preconception to birth

Recognising poorer outcomes

Low birth weight is a strong predictor of future outcomes. A baby's weight at birth is strongly associated with mortality risk during their first year, developmental problems in childhood and the risk of various physical health and mental health outcomes in adulthood.[1, 2, 3]

Premature birth is closely associated with low birth weight, and impacts on children's educational attainment as well as health.[4, 5, 6]

Infants who have been prenatally exposed to drugs or alcohol may experience neonatal withdrawal, or be born with substance-induced conditions such as Foetal Alcohol Syndrome.[7]

1. Lubchenco, L. O., Searls, D. T., & Brazie, J. V. (1972). Neonatal mortality rate: relationship to birth weight and gestational age. The Journal of pediatrics, 81(4), 814–822.
2. Vohr, B. R., Wright, L. L., Dusick, A. M., Mele, L., Verter, J., Steichen, J. J., ... & Delaney-Black, V. (2000). Neurodevelopmental and functional outcomes of extremely low birth weight infants in the National Institute of Child Health and Human Development Neonatal Research Network, 1993–1994. Pediatrics, 105(6), 1216–1226.
3. Hack, M., Flannery, D. J., Schluchter, M., Cartar, L., Borawski, E., & Klein, N. (2002). Outcomes in young adulthood for very-low-birth-weight infants. New England Journal of Medicine, 346(3), 149–157.
4. Johnson, S., Hennessy, E., Smith, R., Trikic, R., Wolke, D., & Marlow, N. (2009). Academic attainment and special educational needs in extremely preterm children at 11 years of age: the EPICure study. Archives of Disease in Childhood-Fetal and Neonatal Edition, 94(4), F283–F289.
5. Moster, D., Lie, R. T., & Markestad, T. (2008). Long-term medical and social consequences of preterm birth. New England Journal of Medicine, 359(3), 262–273.
6. Talge, N. M., Holzman, C., Wang, J., Lucia, V., Gardiner, J., & Breslau, N. (2010). Late-preterm birth and its association with cognitive and socioemotional outcomes at 6 years of age. Pediatrics,126(6),1124–31.
7. American Academy of Pediatrics (1998). Neonatal drug withdrawal. Pediatrics, 1079–1088.

Birth to age 2.5/3

Recognising poorer outcomes

Age 3 is when conduct disorders begin to emerge/show themselves (conduct disorders can be impacted by some of the disadvantage factors).[1] Early evidence of neurodevelopmental disruption (e.g. autism) is also apparent at this age. Early signs of autism include a lack of eye contact, not responding to their own name, delays in language development and difficulties with attentional focus.[2, 3] Also, a child not talking by age 18–24 months, or not walking by age 16 months, is a warning sign.[4]

At all ages, indicators for abuse and neglect are key warning flags[5, 6] as well as poor physical or mental health.[7, 8, 9, 10]

1. Moffitt, T. E., Caspi, A., Dickson, N., Silva, P., & Stanton, W. (1996). Childhood-onset versus adolescent-onset antisocial conduct problems in males: Natural history from ages 3 to 18 years. Development and psychopathology, 8(02), 399–424.
2. Senju, A., & Johnson, M. H. (2009). Atypical eye contact in autism: models, mechanisms and development. Neuroscience & Biobehavioral Reviews, 33(8), 1204–1214.
3. Nadig, A. S., Ozonoff, S., Young, G. S., Rozga, A., Sigman, M., & Rogers, S. J. (2007). A prospective study of response to name in infants at risk for autism. Archives of pediatrics & adolescent medicine, 161(4), 378–383.
4. Siegler, R. S., Eisenberg, N., DeLoache, J. S., & Saffran, J. R. (2014). How children develop: Fourth edition. New York: Macmillan
5. Kaplan, S. J., Pelcovitz, D., & Labruna, V. (1999). Child and adolescent abuse and neglect research: A review of the past 10 years. Part I: Physical and emotional abuse and neglect. Journal of the American Academy of Child & Adolescent Psychiatry, 38(10), 1214–1222.
6. Norman, R. E., Byambaa, M., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The long-term health consequences of child physical abuse, emotional abuse, and neglect: a systematic review and meta-analysis. PLoS Med, 9(11), e1001349.
7. Baird, J., Fisher, D., Lucas, P., Kleijnen, J., Roberts, H., & Law, C. (2005). Being big or growing fast: systematic review of size and growth in infancy and later obesity. Bmj, 331(7522), 929.
8. Wabitsch, M. (2000). Overweight and obesity in European children: definition and diagnostic procedures, risk factors and consequences for later health outcome. European journal of pediatrics, 159(1), S8–S13.
9. DeWalt, D. A., & Hink, A. (2009). Health literacy and child health outcomes: a systematic review of the literature. Pediatrics, 124(Supplement 3), S265–S274.
10. Costello, E. J., Egger, H., & Angold, A. (2005). 10-year research update review: the epidemiology of child and adolescent psychiatric disorders: I. Methods and public health burden. Journal of the American Academy of Child & Adolescent Psychiatry, 44(10), 972–986.

2.5/3 to age 5

Recognising poorer outcomes

Lack of school readiness by age 5 is a sign of a poor outcome (e.g. language skills, socio-emotional skills and attention).[1]

At all ages, indicators for abuse and neglect are key warning flags,[2, 3] as well as poor physical or mental health.[4, 5, 6, 7]

1. Duncan, G. J., Dowsett, C. J., Claessens, A., Magnuson, K., Huston, A. C., Klebanov, P., ... & Sexton, H. (2007). School readiness and later achievement. *Developmental psychology, 43*(6), 1428.
2. Kaplan, S. J., Pelcovitz, D., & Labruna, V. (1999). Child and adolescent abuse and neglect research: A review of the past 10 years. Part I: Physical and emotional abuse and neglect. Journal of the American Academy of Child & Adolescent Psychiatry, 38(10), 1214–1222.
3. Norman, R. E., Byambaa, M., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The long-term health consequences of child physical abuse, emotional abuse, and neglect: a systematic review and meta-analysis. PLoS Med, 9(11), e1001349.
4. Baird, J., Fisher, D., Lucas, P., Kleijnen, J., Roberts, H., & Law, C. (2005). Being big or growing fast: systematic review of size and growth in infancy and later obesity. Bmj, 331(7522), 929.
5. Wabitsch, M. (2000). Overweight and obesity in European children: definition and diagnostic procedures, risk factors and consequences for later health outcome. European journal of pediatrics, 159(1), S8–S13.
6. DeWalt, D. A., & Hink, A. (2009). Health literacy and child health outcomes: a systematic review of the literature. Pediatrics, 124(Supplement 3), S265–S274.
7. Costello, E. J., Egger, H., & Angold, A. (2005). 10-year research update review: the epidemiology of child and adolescent psychiatric disorders: I. Methods and public health burden. Journal of the American Academy of Child & Adolescent Psychiatry, 44(10), 972–986.

Middle childhood (5–11)

Recognising poorer outcomes

Missing school/not engaging with school.[1, 2]

Lack of or poor-quality friendships.[3, 4]

At all ages, indicators for abuse and neglect are key warning flags,[5, 6] as well as poor physical or mental health.[7, 8, 9, 10]

1. Reynolds, A. J., Temple, J. A., Robertson, D. L. & Mann, E. A. (2001). Long-term effects of an early childhood intervention on educational achievement and juvenile arrest: A 15-year follow-up of low-income children in public schools. JAMA, 285(18), 2339–2346.
2. Hallfors, D., Vevea, J. L., Iritani, B., Cho, H., Khatapoush, S., & Saxe, L. (2002). Truancy, grade point average, and sexual activity: A meta-analysis of risk indicators for youth substance use. Journal of School Health, 72(5), 205–211.
3. Kaltiala-Heino, R., Rimpelä, M., Rantanen, P., & Rimpelä, A. (2000). Bullying at school—an indicator of adolescents at risk for mental disorders. Journal of adolescence, 23(6), 661–674.
4. Criss, M. M., Pettit, G. S., Bates, J. E., Dodge, K. A., & Lapp, A. L. (2002). Family adversity, positive peer relationships, and children's externalizing behavior: A longitudinal perspective on risk and resilience. Child development, 73(4), 1220–1237.
5. Kaplan, S. J., Pelcovitz, D., & Labruna, V. (1999). Child and adolescent abuse and neglect research: A review of the past 10 years. Part I: Physical and emotional abuse and neglect. Journal of the American Academy of Child & Adolescent Psychiatry, 38(10), 1214–1222.
6. Norman, R. E., Byambaa, M., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The long-term health consequences of child physical abuse, emotional abuse, and neglect: a systematic review and meta-analysis. PLoS Med, 9(11), e1001349.
7. Baird, J., Fisher, D., Lucas, P., Kleijnen, J., Roberts, H., & Law, C. (2005). Being big or growing fast: Systematic review of size and growth in infancy and later obesity. BMJ, 331(7522), 929.
8. Wabitsch, M. (2000). Overweight and obesity in European children: definition and diagnostic procedures, risk factors and consequences for later health outcome. European journal of pediatrics, 159(1), S8–S13.
9. DeWalt, D. A., & Hink, A. (2009). Health literacy and child health outcomes: a systematic review of the literature. Pediatrics, 124(Supplement 3), S265–S274.
10. Costello, E. J., Egger, H., & Angold, A. (2005). 10-year research update review: the epidemiology of child and adolescent psychiatric disorders: I. Methods and public health burden. Journal of the American Academy of Child & Adolescent Psychiatry, 44(10), 972–986.

Adolescence (11–16)

Recognising poorer outcomes

Missing school/not engaging with school.[1, 2]

Gang membership/criminality.[3, 4, 5, 6]

Child mental health problems, such as depression, conduct problems or eating disorders.[7, 8, 9, 10]

Regular risky behaviour – drugs or alcohol, sexual activity, anti-social behaviour.[11, 12, 13]

Lack of friendships.[14, 15]

At all ages, indicators for abuse and neglect are key warning flags,[16, 17] as well as poor physical or mental health.[18, 19, 20, 21]

1. Reynolds, A. J., Temple, J. A., Robertson, D. L., & Mann, E. A. (2001). Long-term effects of an early childhood intervention on educational achievement and juvenile arrest: A 15-year follow-up of low-income children in public schools. Jama, 285(18), 2339–2346.
2. Hallfors, D., Vevea, J. L., Iritani, B., Cho, H., Khatapoush, S., & Saxe, L. (2002). Truancy, grade point average, and sexual activity: A meta-analysis of risk indicators for youth substance use. Journal of School Health, 72(5), 205–211.
3. Esbensen, F. A., Peterson, D., Taylor, T. J., & Freng, A. (2009). Similarities and differences in risk factors for violent offending and gang membership. Australian & New Zealand Journal of Criminology, 42(3), 310–335.
4. Esbensen, F. A., Winfree, L. T., He, N., & Taylor, T. J. (2001). Youth gangs and definitional issues: When is a gang a gang, and why does it matter?. Crime & delinquency, 47(1), 105–130.
5. Gilman, A. B., Hill, K. G., & Hawkins, J. D. (2014). Long-term consequences of adolescent gang membership for adult functioning. American journal of public health, 104(5), 938–945.
6. Trzesniewski, K. H., Donnellan, M. B., Moffitt, T. E., Robins, R. W., Poulton, R., & Caspi, A. (2006). Low self-esteem during adolescence predicts poor health, criminal behavior, and limited economic prospects during adulthood. Developmental psychology, 42(2), 381.
7. Ford, T., Goodman, R., & Meltzer, H. (2003). The British child and adolescent mental health survey 1999: the prevalence of DSM-IV disorders. Journal of the American academy of child & adolescent psychiatry, 42(10), 1203–1211.
8. Masten, A. S., Roisman, G. I., Long, J. D., Burt, K. B., Obradović, J., Riley, J. R., ... & Tellegen, A. (2005). Developmental cascades: linking academic achievement and externalizing and internalizing symptoms over 20 years. Developmental psychology, 41(5), 733.
9. Fergusson, D. M., Horwood, L. J., Ridder, E. M., & Beautrais, A. L. (2005). Subthreshold depression in adolescence and mental health outcomes in adulthood. Archives of general psychiatry, 62(1), 66–72.
10. Kieling, C., Baker-Henningham, H., Belfer, M., Conti, G., Ertem, I., Omigbodun, O., ... & Rahman, A. (2011). Child and adolescent mental health worldwide: evidence for action. The Lancet, 378(9801), 1515–1525.
11. Tapert, S. F., Aarons, G. A., Sedlar, G. R., & Brown, S. A. (2001). Adolescent substance use and sexual risk-taking behavior. Journal of Adolescent Health, 28(3), 181–189.
12. Rashad, I., & Kaestner, R. (2004). Teenage sex, drugs and alcohol use: problems identifying the cause of risky behaviors. Journal of health economics, 23(3), 493–503.
13. Kotchick, B. A., Shaffer, A., Miller, K. S., & Forehand, R. (2001). Adolescent sexual risk behavior: A multi-system perspective. Clinical psychology review, 21(4), 493–519.
14. Kaltiala-Heino, R., Rimpelä, M., Rantanen, P., & Rimpelä, A. (2000). Bullying at school—an indicator of adolescents at risk for mental disorders. Journal of adolescence, 23(6), 661–674.
15. Bagwell, C. L., Schmidt, M. E., Newcomb, A. F. & Bukowski, W. M. (2001). Friendship and peer rejection as predictors of adult adjustment. New directions for child and adolescent development, 91, 25–50.
16. Kaplan, S. J., Pelcovitz, D., & Labruna, V. (1999). Child and adolescent abuse and neglect research: A review of the past 10 years. Part I: Physical and emotional abuse and neglect. Journal of the American Academy of Child & Adolescent Psychiatry, 38(10), 1214–1222.
17. Norman, R. E., Byambaa, M., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The long-term health consequences of child physical abuse, emotional abuse, and neglect: a systematic review and meta-analysis. PLoS Med, 9(11), e1001349.
18. Baird, J., Fisher, D., Lucas, P., Kleijnen, J., Roberts, H. & Law, C. (2005). Being big or growing fast: Systematic review of size and growth in infancy and later obesity. BMJ, 331(7522), 929.
19. Wabitsch, M. (2000). Overweight and obesity in European children: definition and diagnostic procedures, risk factors and consequences for later health outcome. European journal of pediatrics, 159(1), S8–S13.
20. DeWalt, D. A., & Hink, A. (2009). Health literacy and child health outcomes: a systematic review of the literature. Pediatrics, 124(Supplement 3), S265–S274.
21. Costello, E. J., Egger, H., & Angold, A. (2005). 10-year research update review: the epidemiology of child and adolescent psychiatric disorders: I. Methods and public health burden. Journal of the American Academy of Child & Adolescent Psychiatry, 44(10), 972–986.

Transition to adulthood

Recognising poorer outcomes

Not achieving diverse markers of adulthood (e.g. completing education; establishing a viable career; independent living; establishing a committed relationship; possibly entering into parenthood), leading to reduced confidence and independence.[1, 2, 3, 4, 5]

Experiencing a prolonged period not in employment, education or training; under-employment or low pay. [6, 7, 8, 9]

Lack of appropriate housing.[10]

Regular risky behaviour – drugs or alcohol, sexual activity, anti-social behaviour.[11]

Gang membership/criminality.[12, 13, 14, 15]

Disadvantage factors impacting negatively on a young parent's own child or children (i.e. cycle of disadvantage continues).

At all ages, indicators for abuse and neglect are key warning flags,[16, 17] as well as poor physical or mental health.[18, 19, 20, 21]

1. Deming, D., & Dynarski, S. (2009). Into college, out of poverty? Policies to increase the postsecondary attainment of the poor (No. w15387). National Bureau of Economic Research.
2. Murray, C., Goldstein, D. E., Nourse, S., & Edgar, E. (2000). The postsecondary school attendance and completion rates of high school graduates with learning disabilities. Learning Disabilities Research & Practice, 15(3), 119–127.
3. Hammarström, A., & Janlert, U. (2002). Early unemployment can contribute to adult health problems: results from a longitudinal study of school leavers. Journal of Epidemiology and Community Health, 56(8), 624–630.
4. Conger, R. D., Cui, M., Bryant, C. M. & Elder, G. H. (2001). Competence in early adult romantic relationships: A developmental perspective on family influences. Journal of Personality and Social Psychology, 79, 224–237.
5. Kim, H. K., & Capaldi, D. M. (2004). The association of antisocial behavior and depressive symptoms between partners and risk for aggression in romantic relationships. Journal of Family Psychology, 18(1), 82.
6. Duckworth, K., & Schoon, I. (2012). Beating the odds: exploring the impact of social risk on young people's school-to-work transitions during recession in the UK. National Institute Economic Review, 222(1), R38–R51.
7. Kokko, K., & Pulkkinen, L. (2000). Aggression in childhood and long-term unemployment in adulthood: a cycle of maladaptation and some protective factors. Developmental psychology, 36(4), 463.
8. Gregg, P. (2001). The impact of youth unemployment on adult unemployment in the NCDS. The economic journal, 111(475), 626–653.
9. Carmichael, F., & Ward, R. (2001). Male unemployment and crime in England and Wales. Economics Letters, 73(1), 111–115.
10. Evans, G. W., & Kim, P. (2010). Multiple risk exposure as a potential explanatory mechanism for the socioeconomic status–health gradient. Annals of the New York Academy of Sciences, 1186(1), 174–189.
11. Masten, A. S., Roisman, G. I., Long, J. D., Burt, K. B., Obradović, J., Riley, J. R., ... & Tellegen, A. (2005). Developmental cascades: linking academic achievement and externalizing and internalizing symptoms over 20 years. Developmental psychology, 41(5), 733.
12. Esbensen, F. A., Peterson, D., Taylor, T. J., & Freng, A. (2009). Similarities and differences in risk factors for violent offending and gang membership. Australian & New Zealand Journal of Criminology, 42(3), 310–335.
13. Esbensen, F. A., Winfree, L. T., He, N., & Taylor, T. J. (2001). Youth gangs and definitional issues: When is a gang a gang, and why does it matter?. Crime & delinquency, 47(1), 105–130.
14. Gilman, A. B., Hill, K. G., & Hawkins, J. D. (2014). Long-term consequences of adolescent gang membership for adult functioning. American journal of public health, 104(5), 938–945.
15. Trzesniewski, K. H., Donnellan, M. B., Moffitt, T. E., Robins, R. W., Poulton, R., & Caspi, A. (2006). Low self-esteem during adolescence predicts poor health, criminal behavior, and limited economic prospects during adulthood. Developmental psychology, 42(2), 381.
16. Kaplan, S. J., Pelcovitz, D., & Labruna, V. (1999). Child and adolescent abuse and neglect research: A review of the past 10 years. Part I: Physical and emotional abuse and neglect. Journal of the American Academy of Child & Adolescent Psychiatry, 38(10), 1214–1222.
17. Norman, R. E., Byambaa, M., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The long-term health consequences of child physical abuse, emotional abuse, and neglect: a systematic review and meta-analysis. PLoS Med, 9(11), e1001349.
18. Baird, J., Fisher, D., Lucas, P., Kleijnen, J., Roberts, H. & Law, C. (2005). Being big or growing fast: Systematic review of size and growth in infancy and later obesity. BMJ, 331(7522), 929.
19. Wabitsch, M. (2000). Overweight and obesity in European children: definition and diagnostic procedures, risk factors and consequences for later health outcome. European journal of pediatrics, 159(1), S8–S13.
20. DeWalt, D. A., & Hink, A. (2009). Health literacy and child health outcomes: a systematic review of the literature. Pediatrics, 124(Supplement 3), S265–S274.
21. Costello, E. J., Egger, H., & Angold, A. (2005). 10-year research update review: the epidemiology of child and adolescent psychiatric disorders: I. Methods and public health burden. Journal of the American Academy of Child & Adolescent Psychiatry, 44(10), 972–986.