

Risk and Protective Factors in Child Development and the Development of Resilience

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Abstract

It was the distinguished UK psychiatrist, Professor Sir Michael Rutter, who first promoted the idea that there were risk and protective factors within the wider ecological framework of the child which profoundly influenced the child's development. This paper based on 20 years of research at the Centre for Research into Parenting and Children at University of Oxford will explore some of these risk and protective factors and demonstrate how it is possible to artificially create protective conditions for those children who do not have them naturally, and to promote their resilience, so necessary in this fast changing world.

Keywords

Child Development; Risk and Protective Factors; Resilience

1. Background

In my latest book, *Fertility Rates and Declining Population: No time for children?* [1], I chart the dramatic global decline in fertility rates and particularly in East Asia. In many parts of East Asia, the one child family is now more common than that in mainland China. What is the implication of this decline in fertility? There are many, but a central finding from our analysis is that in the future children will be at a premium. They are “all our tomorrows”; economically, they are a country's most valuable commodity. The conclusion from our book was that, now more than ever, we need to maximise the potential of *all* children.

Some children are achieving more than ever before. At Oxford University I see young people, many from China, who are the brightest and best in the world. But there are other children, who for one reason or another, remain at the margins. Similar children are to be found in all the countries of the world. Understanding the

mechanisms that confine some children to the margins, has been at the core of my research for the last twenty years. For many children the over-riding issue is, of course, growing up in poverty with limited resources. Structural factors like poor health facilities, limited access to education and conflict, all limited opportunity. But the contradiction in my mind is that despite extreme disadvantage, some children escape. How is it possible? This is the big question.

2. Risk and Protective Factors in Child Development

Broadly speaking my research has tried to answer this question both to understand the mechanisms behind the loss of potential, and also with this understanding to find ways of improving these children's futures.

In 2009 [2], I was asked to speak to the British Cabinet about how to prepare children for the 21st century. I considered the world in which our children would grow into, and concluded, one thing was certain. The future world was likely to be more complex, more demanding and more stressful than the world we have experienced. What then was the one gift we should endow our children in order to help them survive in this brave new world? My answer was "psychological well-being"; the "steady state"; "the inner calm" in which they could make sensible decisions.

Psychological well-being, which can be rated on standardised self-report questionnaires, is an excellent measure on how well children are coping with a range of challenges in their lives. Urie Bronfenbrenner [3] was the first to suggest that children's development occurs in an ecological framework. Bronfenbrenner's theory defines complex "layers" of environment, each having an impact on a child's development. Basically, there are four layers or "domains". First there is *the Child* and his/her genetics; secondly there is *the Family*; thirdly there is the *School/Community* and finally there is the *Wider environment*. The final domain is often the focus for Social Policy interventions to ameliorate the impacts of structural inequalities such as poverty, poor health facilities, and lack of education, discrimination and national conflict.

Professor Sir Michael Rutter, highlighted that although there are many risk factors associated with poor child outcomes, there are also "protective" factors in this wider ecological framework which can mitigate the risks and promote "resilience". Environments for those at risk can be artificially created to compensate for the risks. Children who are exposed to a variety of adverse experiences in the early years can suffer long-term damage or negative psychological outcomes. Yet, studies have demonstrated a diversity of responses to events, even within similar environments and conditions [4]. Outcomes vary because individuals differ in terms of their susceptibility to risk and because there may be protective mechanisms, which reduce risk [5]. Improvements in the child's economic situation can have a significant impact across a number of intellectual indicators, including IQ [6]. Similarly, negative childhood experiences may be ameliorated by economic security and supportive relationships in adulthood [7]. In examining these mechanisms it is important to look across time. One of my earliest studies used data from the National Child Development study, a birth cohort study with data collected on individual children over 50 years [8].

3. Risk and Protective Factors in the Early Years

Every since Bowlby, we have been well trained on the importance of "attachment" and how a baby bonds with his/her primary caregiver in the early months. This relationship is crucial to the child's subsequent development [9]. Research showed us that children who were more or less attached in the early years had very different patterns in later life [10]. However in the last two decades, we now know that early care-giving relationships can have both a psychological and *physical impact*.

Work by Rutter on the children rescued from the Romanian orphanages opened our eyes [11]. There was a vague assumption that given a move to a nurturing environment, effective attachment and love, babies would recover from their early deprivation. Rutter, however, showed that it all depended on the amount of time the infant stayed in the institution. Those removed to loving adoptive parents before they were 6 months did just fine... but those who had languished in the orphanages for more than 18 months had ongoing cognitive and other difficulties despite their loving and nurturing adoptive parents.

But perhaps, the more dramatic finding was that summarised in the more recent paper by Perry [12].

As Perry noted:

"Abuse studies from the author's laboratory point to the need for children... to have both stable emotional attachments with, and touch from, primary adult caregivers and spontaneous interactions with peers. If these

connections are lacking, brain development both of caring behaviour and cognitive capacities is damaged in a lasting fashion” [12].

A key mechanism is that essential neural systems do not develop without the necessary experiences. In essence, the brain is like a formatted computer disk that needs information in order to operate. The neural systems which allow us to think, feel and act are the product of an interactive dynamic process. The brain *is most sensitive* to experience in infancy and childhood. At birth, the brain is incomplete. The child’s inherited potential is designed to work in an environment. The brain has sensitive periods and although this may be marginally different for each child, the most sensitive period is around birth and during the first three years.

“The implications of this are profound. In the development of socio-emotional functioning, early life nurturing appears to be critical. If this is absent for the first three years of life and then a child is adopted and begins to receive attention, love and nurturing, the positive experiences may not be sufficient to overcome the lack of development/damage to the brain” [12].

There appears to be three mechanisms leading to lack of brain development or brain damage in the Early Years.

1) With lack of parental/carer interaction, there is a lack of neural network development. The vital links across the network of the brain are not developed. The brain needs information to help it organise itself into a completely functioning system. *“Use it or lose it”* is an axiom mentioned by Perry.

2) Chronic stress, in the case of abuse, over-stimulates an infant’s brain stem and the child develops an *over-active adrenaline* system. Such a child will display increased aggression, impulsivity, and violence later in life because the brainstem floods the body with adrenaline and other stress hormones at inappropriate and frequent times.

3) With high stress, high levels of cortisol are generated that can cause brain cells to die and reduce the connections between the cells in certain areas of the brain, harming the vital brain circuits [13]. The result—a violent, impulsive, emotionally unattached child.

Those at risk are likely to be those living in deprivation with chronic family problems such as mental health, drug and child abuse.

4. Which Children Are Most Likely to Have These Problems?

We know that children with these early impacts on their brains are more likely to have a range of emotional and behavioural disorders.

Mental Health Disorders are traditionally separated into those which present with more “emotional” type symptoms (nervousness, anxiety, phobias etc.) and those which present as more antisocial “Conduct disorders”. Between 80 and 90 percent of all crime is committed by people who had conduct problems as children [14]. More worryingly, it is children with emotional and behavioural disorders who under perform at school. For example 47% of children with such disorders (as measured on the Strengths and Difficulties Questionnaire) were behind in their overall scholastic ability; 10% were considered definite or possible truants by their teachers. When it comes to those with conduct disorders 48% were behind in scholastic ability, 29% were considered to be possible or definite truants and 36% had been excluded from school [15].

But, it is not only in educational outcomes *but also across the life course* that the impacts of these disorders are seen. In my work, using the National Child Development Study (NCDS) of all children born in 1958, I found significant relationships between emotional and conduct disorders at age 7 with low attainment at school, poor relationships with parents at age 16; poor relationships with partners age 33 and a greater tendency to mental health problems in adulthood [16]. And so, we might surmise, the cycle continues into the next generation.

5. Role of Protective Family Factors in Child Development

For those brought up in Confucian tradition, the value and importance of the family is ingrained in their very psyche. In the West with the growth of unmarried parenthood; increase in divorce, growth in single households, it is no wonder newspapers are using the statistics to claim the Western family is dead [17]. Despite, the changes in family life in the West, the “family”, however reconstituted, remains one of the most powerful agents of influence in young people’s lives.

In 2005, the Centre for Research into Parenting and Children at Oxford undertook two major studies demonstrating the protective role fathers have on child well-being [18]. The first study used longitudinal data from the

National Child Development Study (NCDS). There were some strong findings:

- *Early father involvement with a child was associated with continuing involvement with that child throughout childhood and adolescence.*
- *Father involvement was associated with good parent-child relationships in adolescence and also with later satisfactory partnerships in adult life.*
- *Children with involved fathers were less likely to be in trouble with the police.*
- *Father involvement protected children in separated families against later mental health problems.*
- *Father involvement was strongly related to children's later educational attainment.*
- *Early father involvement protected against an adult experience of homelessness in sons of manual workers.*

Because the children in NCDS were born in 1958, the team undertook a second study of over 2000 children in secondary schools in 2005 to see if things had changed. The results from this study were also positive. But qualitative research showed that the involvement of low and middle income fathers, was often quite superficial and their main role was to respond to problems as they arose by “being there” [19]. Even so, this minimal role was protective. Here we must remember other research by Buchanan and her team. In a study of parents and children going through the divorce court [20], ongoing conflict over the residence and contact arrangements could have a major negative impact on child well-being and possibly negate any good of father involvement. These children were as disturbed as a similar group entering state care because of abuse and/or neglect.

6. The Protective Role of Grandparent Involvement

With changing families, increased life expectancy, growing numbers of dual-worker households, and higher rates of family breakdown, it was noted that grandparents appeared to be playing an increasing role in their grandchildren's lives. Buchanan and the team at the Centre for Research into Parenting and Children decided to investigate this further. The resulting study by Buchanan and colleagues [21], focused on the view of adolescents aged 11 - 16. It was assumed that adolescents busying themselves with their own relationships would have little to do with their grandparents. The results however were surprising.

- *Extent of involvement*

More than 80 per cent of the young people saw their grandparents regularly. Almost a third of maternal grandmothers provided regular caretaking, while another 40 per cent did so occasionally. Most grandparents gave regular financial support or other assistance. In addition, there was considerable involvement in sharing young people's interests and activities, and talking about future plans. They were also involved in helping to solve problems, and taking part in school activities.

- *What made involvement likely?*

The child's age, living in a less deprived area, frequent contact, and good grandparent health and closeness to the grandchildren, were all factors influencing involvement. Proximity was not necessarily important, as young people used modern technology to communicate. Parents acted as “gatekeepers” to grandparent involvement. Grandchildren felt grandparents became closer when they undertook some traditional parenting tasks.

- *Child well-being*

Previous research in the UK and US has shown that grandparents with heavy grandchild commitments can be severely depressed with an impact on children, and that adolescents become less close to them as they get older. In this study, grandparent's active involvement was significantly associated with better-adjusted adolescents. In particular, taking part in grandchildren's hobbies and interests was associated significantly with fewer emotional, behaviour and peer problems. As an Indian newspaper commented: “Oxford research finds grandparents are good for grandchildren”.

7. New Developments in Life History Research

More recently, research has moved on to consider how we can help children achieve resilience in the face of adversity. Early research by the author [22] found that most families known to child protection agencies could overcome single adversities (death in a family, debts, redundancy etc....) but their coping ability crumbled under the weight of multiple adversities. Recently an ex-colleague, Professor Flouri has been researching the mechanisms associated with childhood resilience [23]. Using longitudinal and cross-sectional data, she has found that in addition to all the adversities children may have faced, it is how children process their experiences which predicts outcome. Some children are crippled by negative cognitions in the face of adversity while others are able to

reframe adversity into positive ways forward.

In 2010, at Oxford, we explored the idea that children might be taught the skills to become resilient. Children of primary schoolage were instructed in the cognitive behavioural skills of managing their distress and of finding positive solutions to their concerns. This was only a small study but the results were extremely promising [24].

More recently there have been other ideas. Over the years there has been concern that children's diet is associated with a range of cognitive difficulties. Until recently, this work was regarded as a bit "alternative", or at the very least unproven. However, work by another colleague at Oxford, has found that many children experiencing emotional and behavioural problems are deficient in a crucial vitamin. Small randomised and double blind trials have show supplements of Omega 3 in children's diets have dramatically improved a child's functioning in those with dyslexia, ADHD, Dyspraxia etc. [25].

8. The Way Forward

Across the world with the prospect of fewer young people to support our ageing population, maximising the potential of all young people becomes more important. To this end, reducing child poverty, improving general health and making excellent education available to all, is of course, the starting position. But it is the thesis of this paper that in this fast changing world more is needed. We need to maximise children's *psychological well-being* and help them develop resilience. Economists have shown that children with conduct disorders, in particular, are very costly to society—not only because of the associated costs of criminality but because they are more likely to be dependent on welfare and less productive economically [26] [27]. So what do we need to do? First we need to give children in the early years the environment to maximize their brain development; secondly, where possible, we need to reduce risk factors to their development in the wider ecological framework and strengthen protective factors. Thirdly, we need to teach children and young people the skills to manage their negative cognitions and become more resilient. But finally, we need to continue our search on factors that might impact on children's well-being such as diet. It was not that long ago that we discovered many children were being poisoned by lead in the water. In searching more widely, we will need to look right across the ecological domains of a child's life and identify further factors that place them at risk, and other factors that can insulate them against the risks and then remediate what is possible to remediate.

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