Paediatricians and the UNICEF report on child well-being in rich countries

EDITOR'S
CHOICE

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The recently published United Nations Children's Fund (UNICEF) review of child well-being¹ concluded that children in the United Kingdom had the worst level of well-being of the 21 countries in the Organisation for Economic Co-operation and Development (OECD). The review ranked countries on six dimensions of well-being. These were material well-being, health and safety, educational well-being, family and peer relationships, behaviours and risks, and subjective well-being. Each dimension was informed by three components, which are themselves made up of a variable number of indicators. For example, the three components of the material well-being dimension were relative income poverty, households without jobs and reported deprivation. Relative income poverty was represented by the percentage of children living in homes with equivalent incomes less than 50% of the national median, households without jobs by percentage of children in households without an employed adult and reported deprivation by the percentage of children reporting low family affluence, the percentage reporting few educational resources and the percentage reporting fewer than 10 books in the home. z scores were calculated for each indicator based on data from each country and then averaged to give an average z score for each component. These in turn were averaged to give an average z score for each of the six dimensions.

The measures used in the UNICEF review were developed by Bradshaw *et al*² following a thorough review of child well-being measures. The authors set out to include "topics that matter to children from their point of view but also those that point to adults' responsibility for the well-being of children". The authors acknowledge the difficulty of accurately reflecting complex concepts such as child well-being and are clear that better

measures will need to be developed in the future. International comparisons are always problematic as a result of different standards of data collection and different social attitudes to imparting personal information. However, despite the limitations, which are fully acknowledged by the authors, this is the most comprehensive attempt to date to compare child well-being in the world's richest countries and deserves serious consideration by those concerned with the well-being of children.

CHILD WELL-BEING IN THE UK

Despite being in the highest quartile of OECD countries for wealth, the United Kingdom is in the lowest quartile for five of the six child well-being dimensions. The United Kingdom performs worst on three dimensions: family and peer relationships, behaviours and risks, and subjective well-being. It is near the bottom on material well-being and educational well-being. Only on health and safety does the United Kingdom perform close to (but still below) the average. Limitations of space preclude discussion of UK performance on all 40 indicators. I have selected some indicators of particular relevance to child health professionals for further consideration here. The United Kingdom has a good record on child deaths from accidents and injuries with a rate of 8.4 per 100 000, second only to Sweden. Hugh Jackson and the Child Accident Prevention Trust have positively contributed to the United Kingdom's progress in this area. However, the UK rates of infant death (5.3 per 1000) and low birth weight (7.6%) are over twice those of Iceland (2.4 per 1000 and 3.1%). The high rates among ethnic minority groups in the United Kingdom contributes to this difference but rates are also high among low-income groups.

DPT3 (91%) and measles (80%) immunisation coverage rates by 23 months are low compared with many other countries, the latter largely attributable to the scare generated by Wakefield *et al*'s hypothesis linking MMR to autism.³ There is a

yawning gap between the United Kingdom and the best performing countries on behaviour and risk indicators. UK young people aged 11–15 are almost twice as likely as Swedish young people to have smoked cigarettes at least once per week and four times as likely as French young people to have been drunk two or more times. In the United Kingdom, 34.9% of 15 year olds report having used cannabis in the past year compared with 4.7% in Sweden. Births to UK women aged 15–19 are five times the rate in the Netherlands. Only the United States (25.1%), Canada (19.5%), Spain (16.9%) and Greece (16%) have higher percentages of overweight 13–15 year olds than the United Kingdom (15.8%).

INTERPRETING THE FINDINGS

Predictably, the UNICEF report was briefly front page news. The government, again predictably, played down the significance of the findings suggesting that they were based on old data. Political commentators, depending on their political persuasion, sought explanations in, among others, the rise in marital breakdown and lone parent households, a generalised moral disintegration of British society or the persistently high levels of relative poverty. Detailed examination of the findings, however, suggests that they can be neither readily dismissed as out-dated nor attributed to one single social or economic phenomenon.

The data suggest a complex interplay of social, economic, demographic and attitudinal factors acting over a protracted period, combining to place the United Kingdom at the bottom of the child well-being league table. Over the past 30 years, the United Kingdom has moved from a relatively equal society with a strong welfare culture to the most unequal of the rich nations of Europe with a greatly weakened social protection system.⁴ High levels of income inequality are associated with higher than average low-birthweight rates and rates of infant and under-five mortality.^{5,6}

Child poverty increased threefold in the same period so that for long periods in the 1990s over 3 million children were living in households with incomes less than 50% of the national median.⁷ Although the overall rate of child poverty decreased in the early 2000s, the rate of children living in severe poverty (households with incomes less than 27% of the national median) remained constant at 4%.⁸ Children experiencing poverty, especially those in severe and persistent poverty, are deprived of a wide range of necessities,

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including leisure and clothing, taken for granted by their more fortunate peers.^{8,9}

Demographic and attitudinal factors also contribute to child well-being. There are high levels of marital breakdown and lone parenthood in the United Kingdom, and lone parenthood is associated with higher than average risk of child poverty. Lone parenthood alone, however, does not explain the poor levels of child well-being in the United Kingdom compared with other rich nations. Sweden, Denmark, Norway and Finland all have rates of lone parenthood similar to that of the United Kingdom yet they are among the top seven countries for overall child well-being.¹ Part of the reason for this difference is that the tax and benefits systems in these countries ensure that most children of lone parents do not live in poverty. No rich nation that devotes more than 10% of their gross domestic product (GDP) to redistribution through the tax and benefit system (UK devotes only 7%) has a child poverty rate above 10%.⁷

Other forms of social protection that assist families and children, such as affordable child care and maternity and parental leave, are better developed and have been established longer in many countries compared with the United Kingdom. Despite recent initiatives such as Sure Start, children and families remain a low priority in the United Kingdom. Children as a group frequently experience discrimination¹⁰ and many of the rights encompassed by the UN Charter on the Rights of the Child are consistently abrogated in component nations of the United Kingdom.¹¹ The United Kingdom imprisons more children than any other European country and has the lowest age of criminal responsibility.¹¹ Physical assault on children, albeit using “reasonable force”, remains legal in the United Kingdom in contravention of European law.

High levels of inequality, child poverty, social exclusion and low social protection combined with lone parenthood and the low priority given to families and children provide a potent mix affecting child well-being. All the dimensions of child well-being measured in the UNICEF report are likely to have been adversely affected by this combination of factors.

WHAT IS THE IMPORTANCE OF THESE FINDINGS FOR PAEDIATRICIANS AND THE COLLEGE?

The Royal College of Paediatrics and Child Health is committed to addressing social inequalities in child health. In the

light of the UNICEF report, it seems appropriate to extend this aspiration to the College’s future contribution to bringing child well-being in the United Kingdom up to the level of the best in Europe.

Before considering practical steps that paediatricians and the College could take to contribute to this goal, it is worth briefly considering the effect of low levels of child well-being on the day-to-day work of all paediatricians. High rates of low birthweight and preterm births affect maternity and neonatal services. The incidence of very preterm birth (<32 weeks) is higher in areas of deprivation,¹² and discharge from neonatal services is made more problematic by poor living conditions. Relatively low immunisation coverage, especially in more disadvantaged areas, will result in outbreaks of vaccine-sensitive communicable diseases among vulnerable populations, increasing pressure on paediatric services. High obesity rates with associated health problems in childhood and adolescence are likely to further burden paediatric services. These are only some examples of the way in which the poor social and family circumstances that underpin the United Kingdom’s position in the UNICEF league tables affect paediatric services.

PRACTICAL STEPS FOR PAEDIATRICIANS AND THE COLLEGE TO PROMOTE CHILD WELL-BEING

Individual paediatricians

Individual paediatricians work every day to promote and enhance the well-being of their patients. However, to contribute positively to bringing child well-being in the United Kingdom up to the level of the best in Europe, paediatricians should ensure:

- ▶ They are conversant with the findings of the UNICEF report.
- ▶ Their trainees and students are informed of the findings and have an opportunity to discuss their significance.
- ▶ The principles of rights, equity, social justice and non-discrimination are integrated into their practice.
- ▶ An understanding of the social and environmental determinants of health and health inequalities is included at all levels of medical education and that trainees are assisted in developing relevant approaches.
- ▶ They build advocacy skills across the continuum of clinical, community and wider population advocacy.

- ▶ Children have access to information required for them to be informed decision makers and are routinely involved in decision-making regarding issues that affect them.
- ▶ Local immunisation uptake rates are increased with particular attention to incomplete vaccination courses among disadvantaged children.
- ▶ The UN Convention is used locally to improve services and to advocate for improved, affordable child care and early educational opportunities for all families.

The College

The College has taken some important steps recently to increase its contribution to promoting child well-being. The College is now affiliated to the End Child Poverty campaign and contributes to the NGOs working on child rights in the home nations. These activities are co-ordinated by the Advocacy Committee. The College’s contribution could be further enhanced by:

- ▶ Adopting a more public lobbying role on the issues raised by the UNICEF report such as the unacceptably high level of child poverty and highlighting the multiple effects of child poverty on child well-being.
- ▶ Promoting the importance of child health with government and overcoming the current low priority given to children in health policy.
- ▶ Promoting and lobbying for “family friendly” social protection policies that guarantee adequate income for all, maternity benefits, financial support for the poor and allow parents and caregivers to effectively balance their time spent at home and work as recommended by the recent WHO Commission on Social Determinants of Health report on early child development.¹³ Increased levels of taxation may be required to achieve this goal.
- ▶ Expanding work with other agencies and organisations seeking to reduce child poverty and promote child well-being to establish the college as a primary partner in all initiatives to promote child well-being.
- ▶ Working with other Colleges to develop strategies for the promotion of child well-being.
- ▶ Ensuring that training programmes provide paediatricians with the knowledge, attitudes and skills to promote child rights and child well-being.

- Promoting research on the social determinants of child well-being and on interventions to enhance well-being and ensure children's rights are respected.

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Archivist

WOEIGH: a problem with heparin

One of the many impressive features of modern medical science is that the WOEIGH (What on earth is going on here?) reaction is quickly activated and often leads to rapid and practical results. The swift identification of new pathogens has been the result several times in recent years, but the latest example concerns the lethal contamination of some batches of heparin (Takashi K Kishimoto and colleagues. *New England Journal of Medicine* 2008;**358**:2457–67; see also editorial, *ibid*: 2505–9 and Perspective article, *ibid*: 2429–31).

In the USA hypotensive episodes in patients receiving heparin are reported to the Food and Drug Administration (FDA). Towards the end of 2007 and in early 2008 there was a dramatic increase in such notifications. Between 1 January 2007 and mid-April 2008, 81 deaths related to reactions to heparin were reported. Cooperation between regulatory bodies, pharmaceutical companies and physicians led to the suspect heparin being traced to a manufacturing laboratory in China. It was then demonstrated that the heparin preparations that had caused these reactions were contaminated with an unusual oversulphated form of chondroitin sulphate (OSCS). Contaminated heparin had been used in 12 countries including the USA and Germany. After the recall of all heparin products by a single manufacturer, heparin-associated deaths in the USA returned to a background level. Now US researchers have tested suspect and control lots of heparin and shown a mechanism by which OSCS might have produced the clinical effects (hypertension, facial swelling, tachycardia, urticaria and nausea) seen in patients. They found that OSCS directly activated the kinin-kallikrein pathway in human plasma and this could lead to the generation of bradykinin, a potent vasoactive mediator. OSCS also induced generation of potent anaphylatoxins, C3a and C5a, derived from complement proteins. The two effects were linked and depended on fluid-phase activation of factor XII. Testing of plasma samples from various species and subsequent administration of OSCS to pigs showed that pigs are also sensitive to OSCS.

A simple in vitro bioassay (testing the ability of heparin preparations to activate plasma prekallikrein in control plasma) together with analytical testing for OSCS could help to ensure the safety of heparin supplies. The writer of the Perspective article states that there is a likelihood that the heparin was contaminated intentionally to increase profits and calls for increased regulation and inspection of globally manufactured drugs.