

FamilyMatters

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Beyond disadvantage



Cover

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The Blue Fence, 2013

Acrylic on canvas 76 × 76 cm

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Director's report

Alan Hayes

The reach of the Institute's work continues to grow and not only informs policy development and, through evaluation, policy improvement, but guides innovations in initiatives focused on strengthening, supporting and sustaining families. The work of the Institute also advances wider understanding of the factors affecting the wellbeing of Australian families. The Institute continues to extend our key research activities by growing our capacity and capability, building increased levels of national and international collaboration and sharing information through our conferences, seminars, publications, website and media engagement.

New minister and department

The Institute welcomes our new minister, the Hon. Kevin Andrews MP, to his portfolio of Social Services. The Institute will continue to work closely with our portfolio department, the Department of Social Services (DSS; formerly the Department of Families, Housing, Community Services and Indigenous Affairs), while maintaining valued links with our

departmental and agency partners across the Australian Government. Some functions of the former department have moved in or out of DSS. Indigenous affairs and the Office for Women have transferred to the Department of Prime Minister and Cabinet, while aged care, multicultural affairs, settlement services, income support, disability employment services, the non-profit sector and volunteering have become the responsibility of DSS.

Visitors to AIFS

The Institute hosted visits by several distinguished guests in this half year.

The Governor General, Her Excellency Quentin Bryce AC CVO and His Excellency Mr Michael Bryce AM AE visited the Institute for a briefing on the recent and upcoming work of AIFS on 18 July 2013. After attending a presentation and update on AIFS' major projects and future directions, the Governor-General and Mr Bryce joined the Institute's staff for morning tea, which gave them the opportunity to meet and talk with a wide array of staff.

On 1 August, the National Children's Commissioner, Ms Megan Mitchell, visited AIFS to discuss areas of common interest in child protection and the wellbeing of children.

The former Governor General of New Zealand, Sir Anand Satyanand, also visited AIFS, in August. Sir Anand now chairs a New Zealand Government Advisory Expert group on Information Security.

Research

Building a New Life in Australia

Building a New Life in Australia: The Longitudinal Study of Humanitarian Migrants aims to trace the settlement journey of 1,500 humanitarian migrant families residing in five major metropolitan centres and six regional areas. The study will examine their journey from arrival in Australia through to eligibility for citizenship in order to better understand the factors that influence their settlement



Top: Her Excellency
Quentin Bryce with
Prof. Alan Hayes.
Bottom: Her Excellency
Quentin Bryce with Sue
Tait, Daryl Higgins,
Debbie Scott and
Shaun Lohar.

processes, both positively and negatively. Both offshore and onshore humanitarian migrants will be included in the study and it will involve five annual waves of data collection.

During the past 12 months substantial work has gone into the study design, developing participant communication materials and survey content, and gaining ethical approval for the project. In order to inform key aspects of the project AIFS actively engaged representatives from peak agencies (government and non-government), the academic community, humanitarian settlement service providers, cultural, community and faith-based groups, and former humanitarian migrant communities.

Pilot fieldwork was conducted in the first half of 2013 with over one hundred migrating families (154 individuals) to test the overall methodology and survey instrument. This has paved the way for the first wave of data collection, which commenced in October 2013.

The information gathered in this study will be used to inform the development, improvement and targeting of evidence-based policies and programs for humanitarian arrivals in Australia.

Growing up in Australia: The Longitudinal Study of Australian Children (LSAC)

Preparations for the LSAC Wave 6 data collection began in July 2013. Wave 6 includes new measures that are designed to collect important information relevant to the journey through adolescence, including topics such as relationships, sexuality and sexual health and alcohol-related harms. Two new direct assessments will also be introduced that measure executive functioning and language difficulties.

LSAC is also collaborating with Screen Australia and Heiress Films to produce the fifth series of the Life At documentary, *Life at 9*.

Forced Adoption Services Scoping Study

The Institute has been commissioned to undertake the Forced Adoption Support Services Scoping Study, to be conducted between August 2013 and February 2014. The purpose of the study is to develop options for service models that will enhance and complement the existing service system to improve support for people affected by forced adoption policies and practices. More information is available at <www.aifs.gov.au/pae/scopingstudy>.

The work of this project links closely to the Institute's recently completed 18-month

research project into the needs of people affected by past adoption practices. The report of the study, *Past Adoption Experiences: National Research Study on the Service Response to past Adoption Practices*, was published in August 2012 and helped to inform the Australian Government response to the inquiry into former forced adoption or removal policies and practices, including the National Apology and the allocation of funds to address the needs of those affected by these former practices.

Vietnam Veterans' Family Study

The project specification for the Vietnam Veterans' Family Study (VVFS) was signed in September 2013, as part of a memorandum of understanding between the Department of Veterans Affairs (DVA) and AIFS. The project involves the analysis of data from the Vietnam Veterans' Family Study.

The VVFS is a multigenerational study of the physical, mental and social welfare of the families of those who served in the Australian military during the Vietnam era (1965–72). It is based on a survey of Australian military personnel who, in turn, recruited members of their families (e.g., spouses and children) to take part in the survey. The survey comprises a sample of both Vietnam veterans and a sample of those who served in the military but were not deployed to the war in Vietnam.

DVA has engaged AIFS to analyse the results of the survey in order to evaluate the intergenerational effects of service in the Vietnam War. Specifically, our role is to estimate the effects of active military service on the health and wellbeing of the children of Vietnam Veterans and to identify possible mechanisms through which those effects were realised.

The analysis will examine various outcomes, including those related to:

- mental health (e.g., depression, suicidal ideation and self-harm);
- physical health (e.g., birth complications, hearing problems, miscarriage, still birth and spina bifida);
- social functioning; and
- education and economic wellbeing (e.g., employment status).

Domestic and Family Violence Prevention Review and Evaluation

AIFS is conducting two research projects for the NSW Government as part of the Domestic and Family Violence Prevention Review and Evaluation.

The purpose of this research is to identify:

- the role that domestic and family violence services play in addressing the needs of at-risk groups and/or children, and the effectiveness of these services in addressing those needs;
- the characteristics of good practices and exemplar models in targeting at-risk groups and communities and/or children; and
- strategies to build on existing good practice.

The first project concerns prevention and early intervention services that target groups and communities known to be at higher risk of experiencing domestic and family violence, or who face barriers in accessing existing services. These groups include: Aboriginal and Torres Strait Islander women; women with disabilities; women in culturally and linguistically diverse communities; people who are same-sex attracted, intersex, sex or gender diverse; younger women; and women in remote communities.

The second project focuses on prevention, early intervention and response services that target children who are affected by domestic and family violence. The research is centred on children aged 0–8 years and will identify what services children who are affected by domestic and family violence need, what is being done to support them, what models of service delivery are most effective, and what are the gaps in services. This study aims to improve the evidence base to help curb inter-generational violence.

This research will contribute to the implementation of the National Plan to Reduce Violence Against Women and their Children. For more information about this project, see <www.aifs.gov.au/vpr>.

Evaluating the 2012 family violence amendments

In early 2012, AIFS was commissioned by the Attorney-General's Department (AGD) to undertake research on the experiences of recently separated parents in the family law system, including experiences of domestic and family violence. The purpose of this work was to establish benchmarking data to support an evaluation of the effects of the family violence amendments to the *Family Law Act 1975* that were introduced in the *Family Law Amendment (Family Violence and Other Matters) Act 2011*.

AIFS has now been commissioned by AGD to conduct further research to evaluate the effects of the 2012 amendments, which will enable comparisons to be made with the benchmarking data collected through the Survey of Recently

Separated Parents (SRSP) 2012. In addition, this new evaluation will include a survey of family law professionals and service users, which will help to understand the professional practices used when dealing with people experiencing domestic and family violence.

The research has two parts:

- *Responding to Family Violence: A Survey of Family Law Practices and Experiences*—an online survey examining the practices and experiences of professionals across the system and of service users who accessed services funded by the Family Relationship Services program. The survey is designed to understand the current practice approaches of family law system professionals and the extent of change in practice in response to the enactment of the family violence amendments.
- *Survey of Recently Separated Parents 2014*—a follow-up of the SRSP 2012, with a new cohort of separated parents. The survey will take place in April–May 2014.

Child sexual abuse research

The Institute continues to support the work of the Royal Commission into Institutional Responses to Child Sexual Abuse through a portal on the AIFS website, which guides people to relevant Institute publications and resources relating to child sexual abuse (see <www.aifs.gov.au/institute/pubs/carc>). AIFS staff have collated resources and information for victim/survivors of child sexual abuse, practitioners/service providers and those interested in finding out more about support services for victim/survivors and their families, child sexual abuse, its effects, statistics, prevention and responses.

The Institute will continue to develop and update these resources to enable easy access to reliable information for researchers, the media and other interested people. Institute staff are also assisting the Commissioners by providing background material and access to existing information resources.

Conferences

The Fifth International Community, Work and Family Conference

The Fifth International Community, Work and Family Conference took place on 17–19 July at The University of Sydney and was organised by Professor Barbara Pocock, Centre for Work and Life, Hawke Research Institute, the University of South Australia; Professor Marian Baird, Women and Work Research Group,

Business School, the University of Sydney; and Dr Michael Alexander, an Executive Manager within the Institute.

The conference focused on the challenges and opportunities for families, communities and organisations of the rapid changes and transitions in society, with a special focus on work, families and communities in a globalising world.

The conference program and information about the keynote speakers are available at <www.aomevents.com/CWFC2013>.

Bridging Research and Practice: Family Life Education Conference

In October, I was delighted to accept an invitation to present the keynote address in Singapore at the Bridging Research and Practice: Family Life Education Conference, convened by the Ministry of Social and Family Development. My paper, *Bridging the Divide and Returning the Balance: The Power of Parenting in the Middle Years and Beyond*, drew on recent evidence from Australia's suite of longitudinal studies—including the Australian Temperament Project (now in its 33rd year) and the flagship, *Growing up in Australia: The Longitudinal Study of Australian Children (LSAC)*.

Analyses of these rich data resources, among others, provide valuable insights into the positive pathways most children take on the journey to adulthood. They also identify the factors that can place young people at risk of a range of problems and vulnerabilities. Most importantly, however, they show the prime power of parenting and positive family functioning to support young travellers on life's journey.

The Humboldt Colloquium

Later in October, I was very pleased to attend the Humboldt Colloquium "Looking to the Future: International Research in a Changing World", hosted by the Alexander von Humboldt Foundation. Alumni, Fellows of the Foundation and young researchers from Australia, New Zealand, Germany and several other countries travelled to Sydney for the event, held in celebration of the 60th anniversary of the foundation and the bicentennial of the birth of Ludwig von Leichhardt.

The conference theme had much to do with the observation that while changes in the way we think and act as researchers have always been central to scientific or scholarly undertakings and are linked quite inevitably to a future-driven mind-set of science and scholarship,

the pace of these changes has increased, forcing researchers to reflect more often on the conditions that shape their research activities. I was invited to talk about the Institute and our position spanning the boundaries of research, policy and practice. The generosity of the foundation in bringing so many of us together was indeed impressive.

Infant and Early Childhood Social and Emotional Wellbeing Conference

My keynote address at this conference was titled: *Looking at Childhood Through the Long Lens: Australia's Longitudinal Studies as Windows on Human Development Across the Lifespan*.

The conference, jointly convened by the Australian Association for Infant Mental Health and the Australian Research Alliance for Children and Youth, and in collaboration with the Infant Mental Health Association of Aotearoa New Zealand, was held from 30 October to 2 November in Canberra, and the program aimed to close the gap between what we know about healthy child development and what we do to ensure that children thrive. The presentations focused on infant and early childhood social and emotional wellbeing and mental health.

Growing up in Australia and Footprints in Time (LSAC–LSIC) Conference

The Growing up in Australia and Footprints in Time (LSAC–LSIC) Conference was held in Melbourne on 13 and 14 November. There were more than 60 oral presentations focused around the themes of Early Childhood Education and Social Policy, Mental Health, Obesity, Language and Learning, Parenting, Work, Community and Housing and Disability and Health.

Three excellent keynote speakers headlined this year's program:

- *Captain Steven Hirschfeld MD*, Director, The National Children's Study (USA);
- *Associate Professor Susan Morton*, Director, Growing Up in New Zealand; and
- *Dr Maggie Walter*, Associate Professor School of Social Sciences, University of Tasmania, and member of the Longitudinal Study of Indigenous Children (LSIC) Steering Committee since 2004.

For the second time, the two datasets—the Longitudinal Study of Australian Children and the Longitudinal Study of Indigenous

Children—were successfully highlighted in a combined conference.

The conference program and details about the speakers are available at <www.growingupinaustralia.gov.au/conf/2013>.

2014 AIFS Conference: Families in a Rapidly Changing World

The 13th biennial AIFS conference will be held at the Melbourne Convention Centre from 30 July to 1 August 2014. The conference website is live at <www.aifs.gov.au/conferences/aifs12> and the call for abstracts is now open.

Three excellent keynote speakers have also been confirmed:

- *Professor Paul Amato*, Arnold and Bette Hoffman Professor of Family Sociology and Demography, The Pennsylvania State University, USA;
- *Emeritus Professor Dorothy Scott OAM*, Director, Bracton Consulting Services Pty Ltd, Inaugural Director of the Australian Centre for Child Protection, University of South Australia; and
- *Mr Trevor Huddleston CBE*, Chief Analyst and Director of Analytical Services

Directorate, Department for Work and Pensions, UK.

This three-day conference will continue its well-earned reputation as the premier event for discussing cutting-edge research findings, policy priorities and topical issues important to family wellbeing in Australia.

The Australian Centre for the Study of Sexual Assault (ACSSA)

The National Centre for Excellence to Reduce Violence against Women and their Children (NCE) began operational work in early 2013, and with its establishment, much of ACSSA's work will transfer to the new centre. AIFS has been contracted by NCE to house and continue to provide certain clearinghouse functions until September 2014.

Over the last 10 years, ACSSA has established significant networks and valued relationships across a range of sectors including sexual assault services, police, criminal justice agencies, as well as the policy and research communities. AIFS has been privileged to have ACSSA's expertise, wealth of knowledge and wise counsel.

Given the effects of violence, abuse and neglect, and our focus on child protection, AIFS will continue to work in the sexual victimisation field and contribute to the NCE's priorities under the national research agenda.

Concluding thoughts

The year to come is shaping up as another busy one for the Institute as we prepare for the 13th AIFS Conference in Melbourne in July/August 2014 while celebrating the 10th anniversary of the collection of the first wave of data for *Growing Up in Australia: The Longitudinal Study of Australian Children* and the 20th anniversary of the International Year of the Family.

Alongside our current research priorities, we are expanding our research into other areas, such as the implications for families of demographic change and population ageing, including further work on disadvantage across the lifespan and an emphasis on the role and experiences of grandparents and carers.



Vale Justice John Fogarty AM



It is with great sadness that I mark the death of Justice John Fogarty AM. While his outstanding reputation as a leading jurist in the Family Court of Australia has been widely acknowledged, here at AIFS he is warmly remembered for his many contributions to the Institute since its inception, including his term as the Presiding

Member of the Institute's Board of Management, from 1986 to 1989. The Institute was indeed fortunate to have Justice Fogarty's wise counsel, ever-keen insight and wealth of knowledge to guide the work of AIFS in those early years.

Over the years, Justice Fogarty maintained his interest in the work of the Institute. In 2001, he wrote an article for *Family Matters* providing a very personal, insightful account of the drafting of the *Family Law Act 1975* and the establishment of the Family Court and the Institute. He contributed another piece in 2008 to *Family Matters* on the history of child protection in Australia and other Western countries, including the harsh experiences of children transported to Australia in the First Fleet. More recently, we were delighted to welcome him back just last year to present a seminar on the Protecting Victoria's Vulnerable Children Inquiry, which demonstrated his incisive intellect and enduring commitment to the wellbeing of children and their families.

As his obituary in *The Age* commented, "his compassion and humanity shone through all aspects of his life"—an attribute that was clearly apparent in the many ways he supported AIFS and its staff. We send our sincere condolences to his family.



Greater gender equality

What role for family policy?

Willem Adema

There remain persistent gender differences in economic outcomes throughout the world. In 2010 the OECD Gender Initiative was launched to examine existing barriers to gender equality in education, employment, and entrepreneurship (the “three Es”) across Organisation for Economic Co-operation and Development (OECD) countries. In fact, the OECD Gender Initiative was developed as an integral part of a wider policy imperative for new sources of economic growth, and it argues the economic case for achieving gender equality through a more efficient use of everyone’s skills in terms of education and economic participation (OECD, 2012a; 2012b).

Across the OECD, great strides have been made towards gender equality in education in recent decades. Girls today outperform boys in some areas of education and are less likely to drop out of school. But these gains have not yet been fully translated into more equal labour market outcomes—women continue to participate less in paid work, earn less than men, are less likely to make it to the top of the career ladder, and

are more likely to spend their final years in poverty. Greater gender equality will reduce wasting years of investment in educating girls and young women. Making the most of the talent pool ensures that men and women have an equal chance to contribute both at home and in the workplace, thereby enhancing their wellbeing and that of society.

Young men and women often become fathers and mothers. Hence, gender equality issues are strongly related to family policy issues. This paper first presents some key education and labour market outcomes and then discusses how certain aspects of family policy can support greater gender equality in paid and unpaid work in the future.

Despite significant gains, gender equality challenges remain in education participation

Compulsory education up to the age of 15 or 16 leads to almost all boys and girls across the

The gains in female educational attainment have contributed to a rise in female labour force participation on average across the OECD, and contributed to a narrowing of the gender gap in labour force participation.

OECD being enrolled in primary and secondary education. However, boys are more likely to drop out of secondary education, particularly in high-income countries, while girls are more likely to pursue university and other tertiary education. On the whole, (young) women are increasingly better educated than (young) men; on average, across the OECD countries since 2006, the proportion of women aged 25–64 who had completed tertiary education (at just below 30%) exceeds that of men. In Australia, women aged 25–64 have been more likely to have successfully completed a tertiary study since the mid-1990s (OECD, 2011c).

However, there remain wide gender gaps in many fields of study. Women are still much under-represented in science, technology, engineering and mathematics (STEM). And even though more women are completing STEM degrees (particularly in biology and agriculture), they still account for a very small share of students in computing and engineering—subjects in great demand in OECD labour markets. In Australia and across the OECD, on average in 2009, about 75% of the tertiary degrees in health and welfare studies were obtained by women, while the proportion was only 20% for degrees awarded in computer sciences (OECD, 2012b). Furthermore, even when young women choose scientific and technological fields of study, they are less likely than young men to take up careers in those fields (Flabbi, 2011). This is a cause for concern, given the skills shortages in the workplace, the generally more promising career and earnings prospects in science and technology, and the likelihood of positive spill-over into innovation and growth.

Why are girls and young women not pursuing STEM studies in greater numbers? Different subject choices in higher education might be driven by performance differences in reading, mathematics and science at secondary school. However, if we look at the performance of 15-year-old students, we see that: (a) in general, girls seem to have the edge over boys; and (b) gender differences are not that large (OECD, 2012f). On average, across the OECD, there appears to be no significant gender difference in science scores, and while boys do generally perform better in mathematics, this gender gap is narrower than the gap in reading skills, where girls do better.

Gender disparities in educational choices appear to be related more to student attitudes, such as motivation and interest towards a particular subject (e.g., girls appear to be far more likely than boys to spend time reading for pleasure). Attitudes are formed early in life

and are undoubtedly influenced by traditional perceptions of gender roles and wide acceptance of the cultural values associated with particular fields of study (e.g., Kane & Mertz, 2011; OECD, 2009b). Educational choices may also be affected by differing expectations about labour market outcomes (OECD, 2011c). For example, young women might plan for intermittent participation in the labour force because of family responsibilities, and so they might avoid fields of study that lead to jobs that involve long working hours and where long periods of leave are very damaging to career prospects, and instead choose areas of employment where flexible work arrangements facilitate the reconciliation of work and care commitments for children and elderly relatives (OECD, 2011e).

Gender equality in labour market outcomes is some way off

The gains in female educational attainment have contributed to a rise in female labour force participation on average across the OECD from 58% in 1990 to 72% in 2010, and contributed to a narrowing of the gender gap in labour force participation by nine percentage points. Nevertheless, considerable gender differences in employment outcomes remain, often related to women rather than men adjusting their labour market behaviour to family commitments.

Work and family considerations contribute to women frequently working part-time and/or in health and education sectors rather than working long hours in the business sector. For example, across the OECD, 70% of employed men usually work 40 hours per week or more compared to about 50% of working women (OECD, 2012d), and while only 9% of employed men work part-time, this is 26% of all employed women, with almost 70% of part-timers being women (OECD, 2012c). And these differences in working hours and occupational and sectoral segregation are often key drivers of the pay differentials between men and women (for a “decomposition analysis”, see OECD, 2012a).

By contrast, women undertake a disproportionately high amount of unpaid work no matter what type of household they live in. In couples where both partners work, women spend more than two extra hours per day in unpaid work. And even in couples where only the woman works, the men only do as much housework as their partners. Gender gaps in child care provision are even wider—working

mothers devote about 50% more time to child care than non-working fathers (Miranda, 2011).

The gender gap in unpaid work decreases with the increase in the female employment rate. From a cross-country perspective, there is a strong negative correlation between a country's female employment rate and women's average unpaid working time. Also, there is some substitution between female paid work and male unpaid work—the higher the female employment rate the more men are engaged in unpaid work (OECD, 2012a).

Although some progress in reducing the gender wage gap has been made since 2000,¹ among full-time employees in OECD countries, at the median, women earned on average 16% less than men in 2010 (Figure 1).² Cross-country variation is substantial across the OECD—at the median in 2010, gender wage gaps were highest in Japan and Korea (at 29% and 39% respectively), and lowest in Hungary and New Zealand (at around 6%). Across the OECD, gender earnings differentials among entrepreneurs are often wider than among employees—self-employed women frequently earn 30 to 40% less than their male counterparts. In fact, in recent history, the number of woman entrepreneurs has changed little in OECD countries. And when women do start businesses, they do it on a smaller scale than men and in a limited range of sectors.³

In many OECD countries, pay gaps at the top of the earnings distribution are wider than at the median. The top 10% of female earners make, on average, 21% less than their male counterparts (Figure 2). This discrepancy suggests the presence of the so-called “glass ceiling”, which prevents women from moving up the career ladder to top-level salaries (e.g., Arulampalam, Booth, & Bryan, 2007).

Indeed, there is a “leaky pipeline” in that there is a significant gap between the participation of women in the labour force and their presence in senior management functions. Women represent, on average, 45% of the labour force across the OECD countries but only about 30% of senior officials and managers. Women are also under-represented on the boards of publicly listed companies. In 2009, fewer than 5% of board positions in Germany, Japan and the Netherlands were held by women. At 8%, Australia was just below the OECD average of 10%, while Norway had by far the highest proportion of women on boards, at just below 40% (OECD, 2012a).

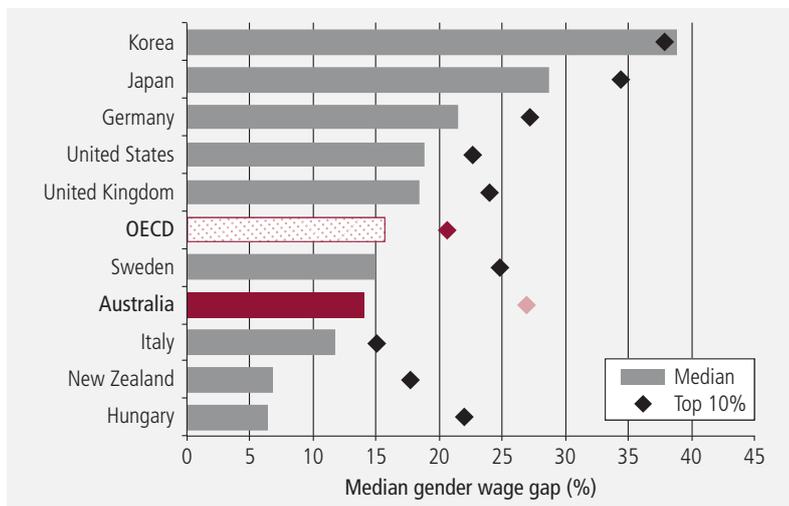
This leaky pipeline has contributed to a debate in many OECD countries on how to improve the gender balance at the top of companies.



Notes: Countries are shown in ascending order of growing gender gap for median earnings in 2010. Data refer to 2009 (instead of 2010) for Germany, Korea, and Sweden and to 2008 for Italy. The gender wage gap is defined as the difference between male and female wages divided by male wages at the median. Estimates of earnings used in the calculations refer to gross earnings of full-time wage and salary workers; however, this definition may slightly vary from one country to another. Also, data are not adjusted for parity of time worked among full-time employees. Further information on the national data sources and earnings concepts used in the calculations can be found at: <www.oecd.org/employment/outlook>. OECD unweighted average calculated for the 26 OECD countries for which data were available for each point in time.

Source: OECD database on earnings distribution <www.oecd.org/els/emp>

Figure 1: Change in gender wage gap in earnings for full-time employees, 2000 and 2010, selected OECD countries



Notes: Countries are shown in ascending order of growing gender gap for median earnings in 2010. Data refer to 2009 (instead of 2010) for Germany, Korea, and Sweden and to 2008 for Italy. The gender wage gap is defined as the difference between male and female wages divided by male wages at the median and at the ninth decile (top 10%) of the earnings distribution. Estimates of earnings used in the calculations refer to gross earnings of full-time wage and salary workers; however, this definition may slightly vary from one country to another. Also, data are not adjusted for parity of time worked among full-time employees. Further information on the national data sources and earnings concepts used in the calculations can be found at: <www.oecd.org/employment/outlook>. OECD unweighted average calculated for the 26 OECD countries for which data were available for each point in time.

Source: OECD database on earnings distribution <www.oecd.org/els/emp>

Figure 2: Gender wage gap in earnings for full-time employees at median and top earnings, selected OECD countries, 2010

In some countries, including Denmark and the United Kingdom, voluntary corporate governance codes are used to raise the issue. By contrast, since 2006, Norway has required public companies and those listed at the Stock exchange to appoint at least 40% of each gender on boards. Whether mandatory or voluntary, for these initiatives to be most effective, they should be part of a broader strategy to enhance female participation in economic activity. Since family commitments so often drive gender differences in career choice and pursuit, family policies that help reconcile work and care commitments are part and parcel of any such strategy.

Family policy: Its objectives and policy tools

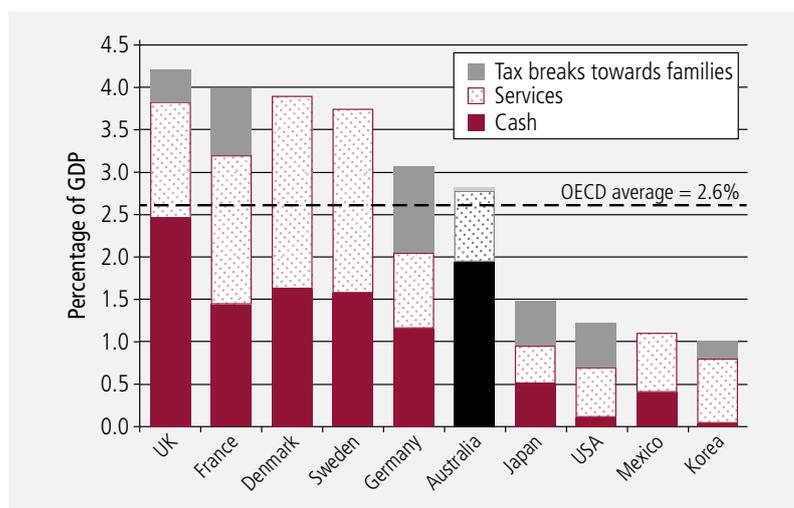
Across the OECD, governments aim to support families by providing parents with choice in their work and family decisions (Adema, 2012). Interdependent family policy objectives include: (a) promoting conditions that help adults to have the number of children they desire at the time of their choosing (OECD, 2011e); (b) combating child and family poverty (Whiteford & Adema, 2007); (c) enhancing child development (OECD, 2009a); and (d) mobilising the female labour supply and promoting gender equality to foster economic growth and underpin the financial sustainability of social protection systems.

However, the relative weight attached to the different policy objectives varies across countries, as does the intensity in the use of different policy tools for the provision of family support, which include the provision of financial support through cash transfers (family allowances, child benefits, working family payments, and maternity, paternity and parental leave payments and birth grants); fiscal measures (e.g., child tax credits or family tax allowances); or the provision of in-kind benefits, including early childhood education and care services. Across the OECD in 2009, spending on family benefits was about 3% of gross domestic product (GDP) on average, just over half of which was cash benefits and just below 1% was in-kind benefits. Australia has a greater focus on cash benefits than most OECD countries, whereas in, for example, France and the Scandinavian countries, the provision of in-kind benefits plays a more important role (Figure 3).

Over the last decade, public spending on family benefits has been highest on average in France, but in 2009, Ireland and the United Kingdom spent the most, at over 4% of GDP. This relative increase is related to the global financial crisis that unfolded in 2007–08. Ireland in particular experienced a relative decline in GDP (the numerator in the international comparison of spending on family benefits), while at the same time real public spending in family benefits (adjusted for inflation) went up, as family benefits are largely income-tested in Ireland and the United Kingdom (OECD, 2012e). In the United Kingdom, for example, the rise in the number of low-income families increased both the take-up of benefits (both child tax credit and working tax credit) and the number of claimants with maximum payments. In Australia, there were also one-off increases in family tax benefits. Another reason for the increase in family spending trends in Australia and the United Kingdom was that it had become harder for single parents to find a job, which sustains the public spending on specific income support programs needed to help them.

Female labour force participation: The role of child care policy

Family policy measures play a key role in the labour market decision of parents, especially mothers, as they co-determine the financial incentives to work at all and/or work more hours. Parental leave facilitates the return to work, and access to good and affordable child care services is often essential to being in employment.



Notes: Public spending here only concerns that which is exclusively for families (e.g., child payments and allowances, parental leave benefits and child care support). Spending in related social policy areas (such as health and housing support) also assists families, but not exclusively, and so is not included here.

Source: OECD (2012g)

Figure 3: Types of public spending on family benefits as percentage of GDP, selected OECD countries, 2009

Econometric analysis for the OECD Gender Initiative helps illustrate the importance of policies and labour market characteristics vis-a-vis trends in female labour force participation (see Box 1 for details). The evidence suggests

that the increase in female labour force participation has been driven by an increase in part-time work in some countries and the expansion of public employment in others. The results also confirm that gains

Box 1: The determinants of female labour force participation

Female labour force participation is influenced by different factors, and the econometric analyses of the OECD Gender Initiative considered two broad groups of indicators as explanatory variables:

- *labour market characteristics*—variations in job and labour market characteristics include the share of employment in the services sector and the public sector, the proportion of part-time jobs, the OECD indicator on the strictness of employment protection legislation, and total unemployment rates. Information on the number of years spent by women in education is included to account for changes in the composition of the female workforce.
- *family-friendly policies*—these aim to help parents reconcile work and family commitments and include paid leave (public spending and duration), child care services for children under the age of 3 (public spending and enrolment rates), public spending on other family benefits, and financial incentives to work (including tax incentives for couple families to have two earners instead of one).

The econometric analysis considers different model specifications. The first considers female workforce participation, but the endogeneity of part-time work affects the interpretation of results. Hence, two other model specifications separately consider full-time and part-time participation as dependent variables.

Table 1: The determinants of female labour force participation, women aged 25–54, OECD countries, 1980–2007

	Labour force participation		Full-time employment		Part-time employment	
Labour market characteristics						
Share of employment in services sector	0.0047 ***	(0.000)	0.00587 ***	(0.00112)	0.008	(0.005)
Share of employment in public sector	-0.462 *	(0.254)	-0.359	(0.249)	-3.097 ***	(1.00)
Incidence of part-time employment	0.473 ***	(0.151)	–		–	
Employment protection legislation	-0.0309	(0.029)	0.0156	(0.0190)	-0.313 ***	(0.115)
Average number of years of education	0.309 ***	(0.029)	-0.346 ***	(0.072)	1.910 ***	(0.280)
Unemployment rate	-0.0449 *	(0.025)	-0.023 **	(0.011)	-0.342 ***	(0.101)
Family-friendly policies						
Spending on leave and birth grants per childbirth	-0.010	(0.012)	0.062 ***	(0.0160)	-0.192 ***	(0.056)
Duration of paid leave	-0.0107 **	(0.005)	0.011	(0.00770)	-0.0638 ***	(0.024)
Spending on child care services per child < 3 years	0.0006	(0.005)	0.016 **	(0.00640)	-0.0958 ***	(0.029)
Enrolment of children in formal child care	0.0377 ***	(0.005)	0.032 ***	(0.009)	0.167 ***	(0.041)
Spending on family benefits per child < 20 years	0.074 ***	(0.019)	0.028	(0.028)	0.102	(0.120)
Tax rate of a second earner ^a	-0.0407 ***	(0.012)	-0.081 ***	(0.019)	–	
Tax incentive to work part-time ^b	–		–		0.0190 ***	(0.006)
No. of observations	156		159		152	
R ²	0.997		0.993		0.980	

Notes: All the estimated models include country-fixed effects so as to focus on the within-country and over-time variations between female labour force participation and its determinants. In addition, because the decision regarding care is to some extent simultaneous with the choice between work and inactivity, the use of child care enrolment rates as regressors introduces a risk of bias in the estimated coefficients, and therefore enrolment rates are instrumented by their lagged values. Because of endogeneity concerns, unemployment rates are also instrumented by their lagged values, and cover those aged 15–64 rather than 25–54 years. Country coverage: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, the United Kingdom and the United States. ^a The tax rate of a second earner is measured by the ratio of the marginal tax rate on the second earner to the tax wedge for a single-earner couple with two children earning 100% of average earnings. The marginal tax rate on the second earner is in turn defined as the share of the second earner's earnings that goes into paying additional household taxes. ^b The tax incentive to work part-time is measured by the increase in household disposable income between a situation where one partner earns the entire household income (133% of average earnings), and a situation where two partners share earnings (100% and 33% of the average earnings respectively), for a couple with two children. Estimates by two-stage least squares, with robust heteroskedasticity-consistent standard errors shown in brackets. Statistically significant differences are noted: * $p < .05$; ** $p < .01$; *** $p < .001$.

Source: OECD (2012a)

Government policies for reconciling work and family life aim to support both parents, but they frequently and inadvertently reinforce the role of women as caregivers.

in educational attainment are an important driver of female labour force participation, while also contributing to the rise in part-time employment.

In terms of family-friendly policies, the analysis considered various indicators on child care, parental leave and family benefits for their effect on female labour force behaviour and found the following:

- The growing enrolment of children in child care has enhanced female employment on a full-time and part-time basis. However, higher public spending on child care does not necessarily lead to more part-time employment, as it may facilitate moves into full-time work, or it may improve the quality of child care without affecting hours worked per week.
- Increasing public spending on paid maternal and/or parental leave tends to raise the incidence of full-time employment relative to part-time work, while extending the duration of paid maternal and/or parental leave decreases the probability of working part-time.
- Finally, higher tax rates on the second earner in a family reduces female labour force participation; but women are more likely to work part-time when two-earner households are taxed less than one-earner households with a similar income level.

The analysis suggests that policies fostering greater enrolment in formal child care have a small but significant effect on full-time and part-time labour force participation, and this effect is much more robust than the effect of paid leave or other family benefits. Thévenon and Solaz (2012) also have found that the extension of the length of paid leave has a positive, albeit small, influence on female employment rates and working hours relative to men, as long as the total period of paid leave is no longer than approximately two years. But the provision of paid leave widens the gender pay gap among full-time employees.

Not only does child care policy affect female labour supply and the associated reduction of family poverty risks, but good quality child care is also instrumental in fostering child development (e.g., Huerta et al., 2011). The literature also suggests that young children in vulnerable families benefit most from such interventions, and that therefore efficient early childhood care and education policies should include a focus on providing support for this group (OECD, 2011c).

Designing parental leave policies towards greater gender equity

Government policies for reconciling work and family life aim to support both parents, but they frequently and inadvertently reinforce the role of women as caregivers. This is because mothers generally make much wider use than fathers of parental leave options, part-time employment opportunities, and other flexible working time arrangements, like teleworking. Often this is related to household income losses being smaller when mothers take leave or reduce their working hours, as they frequently have lower earnings than their partner. However, as long as women take more leave and/or are more likely to reduce their working hours, some employers will continue to perceive them as being less committed to their careers than men, and will be less likely to invest in their careers. The upshot from an economic perspective is that businesses do not make full, efficient use of potential labour resources, while stereotypes of gender roles in paid and unpaid work are perpetuated.

To increase take-up of parental leave among fathers, in some countries fathers are being granted exclusive rights to parts of the parental leave entitlement and/or associated income support. Iceland proportionally has the most gender-equal paid parental leave arrangement because one-third (13 weeks) of the parental leave period is reserved for men. The reform of parental leave in Iceland led to an increase in the proportion of parental leave days being taken by fathers, from 3% in 2001 to some 35% today (Eydal & Gislason, 2008). In 2007, Germany introduced bonus parental leave such that if the father took at least two months of parental leave, the entitlement for both parents become 14 months rather than the standard 12-month period. As a result, Germany saw the number of children whose father took parental leave rise from less than 9% in 2007 to 25% in the second half of 2010 (Statistisches Bundesamt, 2012).

Policies that reduce differences between mothers' and fathers' labour market behaviour—such as formal child care supports and designated leave periods for fathers—also have considerable potential for narrowing gender gaps in unpaid work. There is evidence to suggest that such policies are likely to be most effective if they intervene at those critical times when men are more open to changing their behaviour; that is, when they become fathers (Dex, 2010; Nepomnyaschy & Waldfogel, 2007). Men are more likely to bond with their children if they spend time caring for them from an early age. Fathers'



greater involvement in child care, in turn, has beneficial effects on their children's cognitive and behavioural development (Baxter & Smart, 2011; Huerta et al., 2013).

Looking ahead

Demographic trends will play an important role in shaping public policy, and may well provide opportunities to obtain greater gender equality in work and care outcomes. Figure 4 (on page 14) illustrates these issues for Australia, Japan and the United States. In terms of age groupings within the population, US and Australian patterns are not dissimilar. The number of children is projected to continue to grow slightly, but the working-age population, and in particular the number of senior citizens, is growing at a higher rate. By contrast, in Japan, the proportion of children, and the working-age group in particular, is declining, while the elderly population is growing (Figure 4, graphs on left-hand side).

Among many other effects on government policies (e.g., pension policy), population ageing will have important consequences for future trends in paid and unpaid work. First of all, the growth in the proportion of the elderly in the population will increase demand for long-term care services and care workers. The OECD report *Help Wanted* (OECD, 2011d) illustrated that by 2050 the demand for

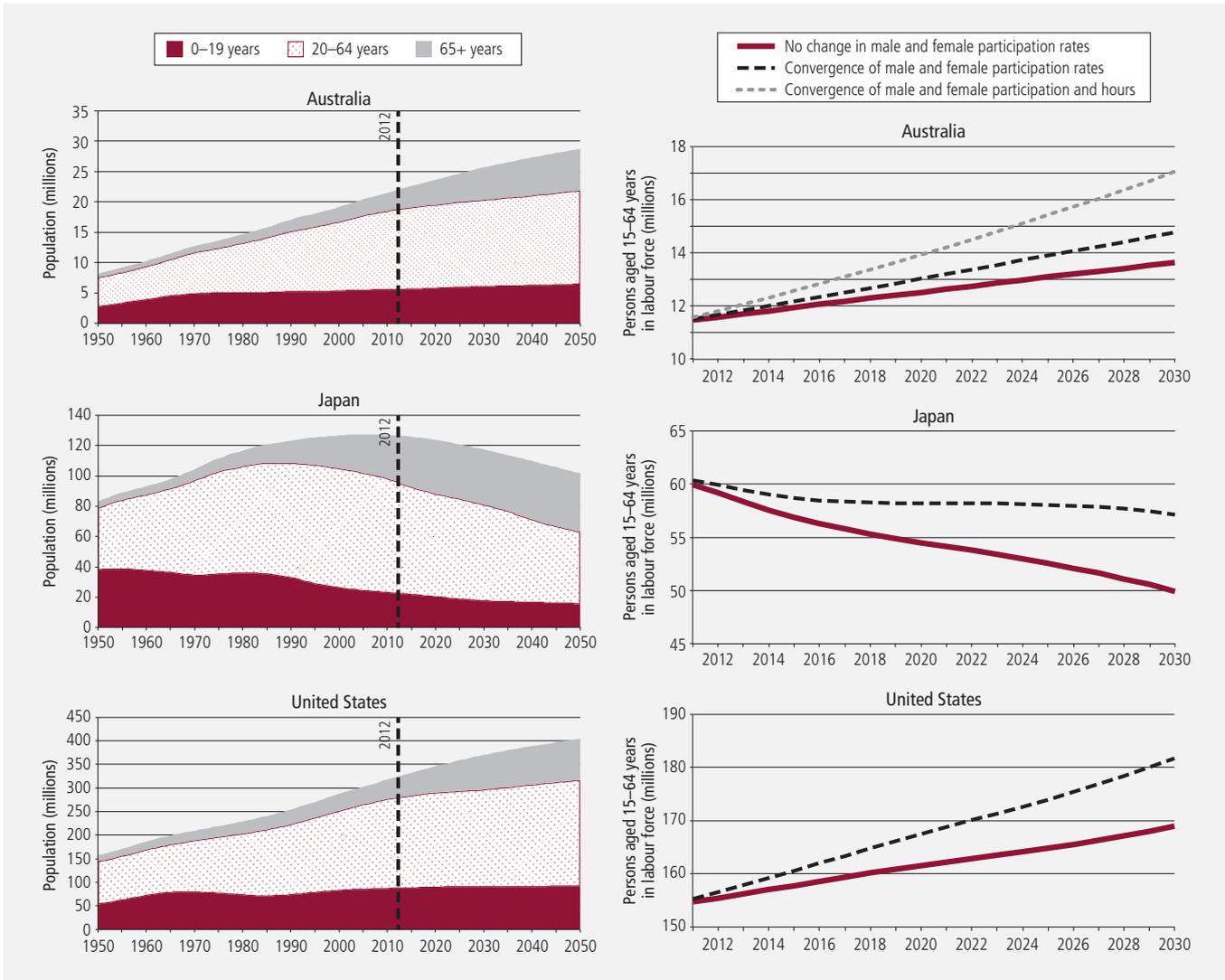
nurses and personal care workers (in full-time equivalents) will at least double in most OECD countries. In Australia, demand was projected to increase from 1% to 3% of the total projected working-age population by 2050.

At the same time, limited growth or even a decline of the working age population, will require labour markets to make a more efficient use of both men and women labour supply. The graphs on the right-hand side of Figure 4 show the potential effects:

- If male and female labour force participation rates remain at the levels observed in 2010, then the Japanese labour force will shrink considerably, while Australian and US labour forces will continue to grow at a moderate pace, in line with population trends.
- Japan could avoid the looming labour force crisis if female participation rates were to converge over the next 20 years to the male participation levels of 2010.
- Figure 4 also illustrates that Australia could make significant gains in labour supply if both the participation rates and working hours of women were to converge to the full-time equivalent participation and hours of men in 2010.

Convergence of male and female participation rates will also contribute to economic growth. Thévenon, Ali, Adema, and Salvi del Pero (2012) suggested that full convergence in

Policies that reduce differences between mothers' and fathers' labour market behaviour have considerable potential for narrowing gender gaps in unpaid work.



Notes: Labour force projections are based on population projections for persons aged 15–64 years reported by the OECD Demography and Population database.
 Source: OECD Secretariat's calculations based on OECD Economic Outlook No. 91; OECD Population and Demography database 2012; OECD Employment database 2012

Figure 4: Historic and projected number of persons, 1950–2050 (left), and projected labour force participation of persons aged 15–64, 2011–30 (right), Australia, Japan and the United States

female and male employment rates by 2030 may lead to an increase in the average annual growth rate in GDP per capita across the OECD of 0.6 percentage points (slightly lower for Australia and the United States at 0.5 percentage points). Given Japan's looming labour supply concerns, potential gains are greatest there, at 0.8 percentage points increase of annual GDP growth per capita. These are projections, but it is likely that demographic trends will induce some degree of improvement in labour market chances of women, especially in Japan.

There is another reason to believe that the future will hold greater gender equality. With the considerable gains in female educational attainment across OECD countries, the

likelihood that women will partner with men who have lower or the same level of educational attainment has increased. The OECD (2011b) showed that in 2008 women had obtained a higher level of educational attainment than their partner in 15% of couple families. Further work by the OECD (2011a) showed that since the mid-1980s, the percentage of women with a partner in the same income decile or quintile had increased in all but two OECD countries for which data were available. This effect is likely to become more pronounced in future, and as female earnings increase relative to their partners, so will household opportunity costs for women taking leave or working part-time. The partnering trend may well contribute to a more equal distribution of paid and unpaid work among partners in future.

Concluding remarks

A more efficient use of economic resources mobilises hitherto unused labour supply, advances the pursuit of individual aspirations, improves family resources (with its potential positive effect on child development), strengthens the tax base, and promotes economic growth. These are among the potential gains society can make from greater gender equality in economic participation.

The challenges associated with the reconciliation of work and care commitments can be a barrier to greater gender equality. In couple families, the partner with the least earnings is usually the one who reduces working hours and provides unpaid care work, and often this is the woman rather than man. The past gains in educational attainment, and thus earnings, among women may lead to some change in that pattern and generate greater financial incentives for men to engage in unpaid work and help their partner to pursue employment opportunities. However, further gains in reducing gender gaps in specific fields of study, labour market segregation and career opportunities are needed in order to further redress gender imbalances in paid and unpaid work.

Governments and business have made efforts to help workers reconcile their family commitments, introducing parental and care leave policies as well as flexible workplace options, such as tele-working, part-time or temporary work. However, the fact remains that it is primarily women who take advantage of family-friendly policies like flexible working arrangements, thus perpetuating the idea that family responsibilities are a woman's affair.

Business culture needs to change so that men and women who, for example, take their parental leave in full, or who work part-time for a limited period, are not considered as being uncommitted to their careers and passed over for promotion. Family policy can help too, by making it more (financially) attractive to families if men rather than women take parental or carers leave.

The most successful policies are those that facilitate male and female economic participation on an equal footing. In that sense, child care policies have so far turned out to be much more effective gender equality tools than parental leave or flexible workplace arrangements. However, child care policies are not in themselves sufficient, as proven by Nordic countries, where wide disparities in employment outcomes remain. A more equal use of parental leave entitlements and flexible

workplace arrangements is also needed to reduce prevailing gender inequalities at home and at work.

Endnotes

- 1 The gender wage gap is defined here as the difference between male and female wages divided by male wages at the median.
- 2 For all the figures in this paper, for presentational reasons, the number of countries for which observations are included has been limited to around 10 (see OECD, 2012a, for information on other OECD and some non-OECD countries).
- 3 Two key differences between male and female entrepreneurs help explain the relatively low earnings of female entrepreneurs: (a) women start their enterprises with limited management experience; and (b) women devote much less time to their businesses than men.

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Willem Adema DPhil is a senior economist who works in the Social Policy Division of the OECD. He was closely involved in the OECD Gender Initiative and this paper draws extensively from its analytical work. This paper focuses on the role that family policy might play in improving gender equality, and thus only covers a small part of the work under the OECD Gender Initiative. For more information, interested readers are referred to *Closing the Gender Gap: Act Now* (OECD, 2012a), *Gender Equality in Education, Employment and Entrepreneurship* (OECD, 2012b) and <www.oecd.org/gender>. The author is grateful to Nabil Ali and Martina Portanti for their datavork for this paper and to Nabil Ali, Olivier Thévenon and Angelica Salvi del Pero for comments on a previous draft. The views expressed in this paper cannot be attributed to the OECD or its member governments; they are the responsibility of the author alone.



Poverty and welfare

Marginalisation and destitution in the aftermath of the United States recession

Laura Lein

The United States recession continues to illuminate the experience of poverty in this country and the weaknesses in programs designed to protect families from the effects of poverty. The poverty rate has risen over the last four years, and is just beginning to stabilise (Smith, 2010). However, even the most optimistic analyses project very slow economic recovery from high unemployment (National Conference of State Legislatures, 2012), with relatively high unemployment rates continuing through the next few years. This economic progression has affected the degree and nature of poverty in the United States. Under these conditions, difficulties with our human services systems and the joint effects of the recession economy and fractures in our social welfare services are increasingly visible.

Supports for families in poverty in the United States are at the intersection of three related sets of programs: workforce and economic development programs, child welfare and early education programs, and means-tested income assistance programs. In the 1990s,

culminating in welfare reform, cash assistance became both more restrictive and time-limited. Support for child care and work preparation programs, while increasing in some cases, lagged behind the needs of eligible potential recipients. Many support programs required work participation as a condition for eligibility. Our recent recession is testing the efficiency and efficacy of our efforts to support families and individuals in poverty. As poverty rates rise, it becomes more important to recognise the different pathways into poverty, and the necessary supports that will both stabilise and encourage full participation in our economy and in our civil society. This requires caring for entire households in poverty—for children as well as adults in their roles as parents and workers—and caring for individuals without spouses or children.

Both the following brief overview of recession-period poverty and the more qualitative examples of the lived experience of poverty illuminate the problems faced by impoverished people in the context of current welfare

Low-income families with gradually increasing income may lose benefits faster than they gain earnings, so that the family standard of living deteriorates as earned income rises, causing them to lose benefits.

policies in the United States. Means-tested cash assistance requires families to descend into poverty before receiving assistance. This means that families must deplete their resources before receiving benefits. They therefore have already lost assets that they might have otherwise used to pay down medical debt, invest in education, and meet family emergencies. In addition, many supports are less available to adults without families of their own.

Time-limited assistance assumes that families and individuals can stabilise themselves within a fixed period of time. With a lengthy recession and a slow and erratic recovery, families may take some time to get their financial lives in order, and they may lose assistance before they are able to sustain themselves. Indeed, some analysis indicates that low-income families with gradually increasing income may lose benefits faster than they gain earnings, so that the family standard of living deteriorates as earned income rises, causing them to lose benefits such as cash assistance, medical coverage and SNAP (Supplemental Nutrition Assistance Program)¹ (Romich, Simmelink, & Holt, 2007).

We've known for some time that families cannot sustain a basic pattern of expenditures when they draw only on cash welfare or only on low-wage work (Edin & Lein, 1997). Furthermore, as introduced above, when households move off welfare and face the entry-level labour market,

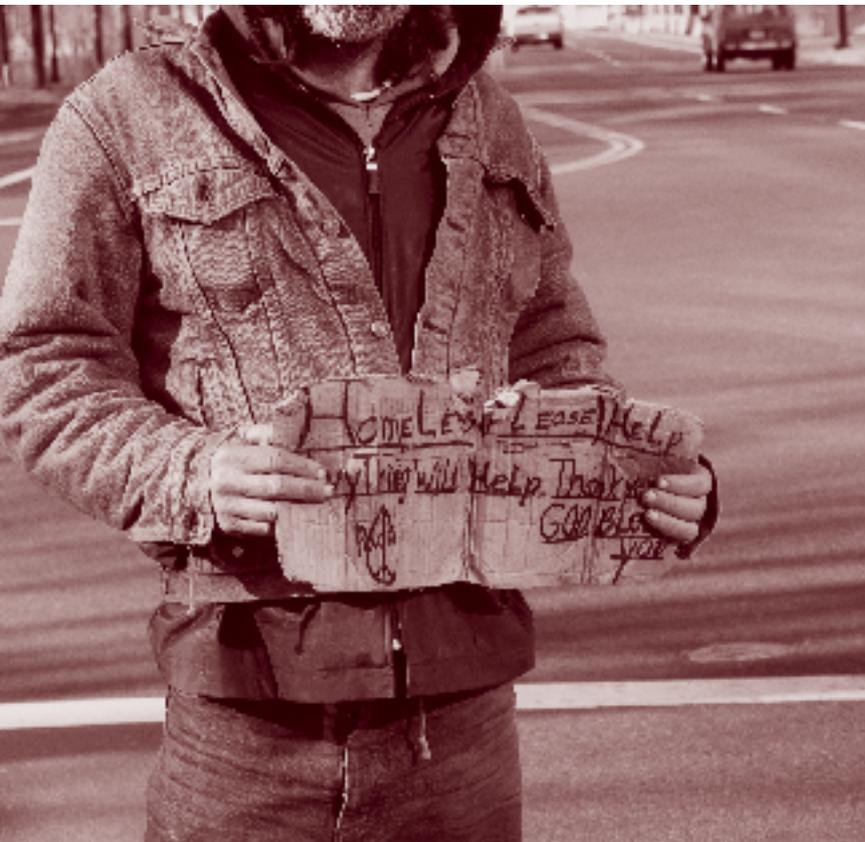
they are increasingly vulnerable to a declining standard of living if their income increases (Romich et al., 2007). Overall, families remain highly dependent on access to the Earned Income Tax Credit (EITC) (which returns taxes to low-income earners), subsidised child care and medical care insurance, and they remain highly vulnerable to de-stabilising events (Lein & Schexnayder, 2007; Seefeldt & Horowski, 2012). Impoverished single individuals have access to even fewer supports altogether.

Work requirements—part of the eligibility for services such as TANF (Temporary Assistance for Needy Families)² and SNAP, among others—assume that people are able to find jobs. As unemployment remains high, and some sub-populations struggle with exceptionally high rates of unemployment, families may lose benefits through the inability to locate regular employment, and individuals are left floundering. While work requirements for welfare recipients may provide adequate assistance in a boom economy, they may close off benefits to potential workers who cannot find a job in a recession economy.

Drawing on national data and recent news coverage, I will first identify some of the experiences and trends related to the recession and then the consequences of the United States' current welfare reforms, made more visible in the context of these trends. These trends include:

- the increase in unemployment and underemployment;
- the increase in poverty overall and in extreme poverty in the United States;
- the nature of disconnection among impoverished families (families with no one in the labour force and no one receiving major welfare benefits);
- the increase in inequality, with larger disparities developing in both income and wealth between the richest and poorest; and
- the marginalisation of the poor.

In a few instances, where it is appropriate, I will contrast the United States experience with that of Australia. However, the two countries have had a very different economic experience of the recession and, in some cases, data collection and the analysis of poverty are framed differently in the two countries. I will also draw on several United States qualitative studies of households in poverty to illustrate how these trends are experienced by households at the extremes of poverty. These studies involve several very different groups, although each is marked by experiences of extreme poverty: panhandlers (those who beg at the roadside),



evacuees in the aftermath of Hurricane Katrina, and disconnected households receiving neither earned wages nor public cash support.

Unemployment and underemployment

In October 2009, as the recession deepened, United States unemployment reached 10%. Three years later, in October 2012, it still remained high at 8% (US Bureau of Labor Statistics, 2012). The high unemployment rate occurred along with dramatic increases in the poverty rate. Overall, while the unemployment rate increased through 2009 and then improved, the poverty rate in the United States (as described in more detail below) continued to increase through 2010.

However, the effects of unemployment and the resulting poverty was felt differentially by different sub-groups of the population. For example, in 2010, unemployment rates were 16% for Blacks, 13% for Hispanics, 9% for Whites, and 8% for Asians (US Bureau of Labor Statistics, 2011). In contrast, Australian unemployment also ticked up as a result of the worldwide recession, but it remained substantially below United States levels, coming in at slightly under 6% in 2009 (IndexMundi, 2011). Nevertheless, at the same time, Indigenous people in Australia experienced levels of unemployment at over 15% (Australian Bureau of Statistics, 2011).

The substantial problem of underemployment has arisen, which adds to the poverty and insecurity experienced by job seekers and holders. Increasingly over the course of the recession, many workers are working involuntarily at less than full-time employment; that is, they work at part-time jobs, with either lower numbers of hours or fewer days of work than they would prefer. In the United States, overall underemployment rose from 10% to 17%, and Blacks were even more strongly affected, with underemployment for this group going up from 15% in April 2008 to 25% in November 2010. (Economic Policy Institute, 2010). In a 2010 publication of the US Bureau of Labor Statistics, the *Monthly Labor Review*, Sum and Khatiwada showed that “the less educated, those in low-skilled occupations, and those in low-paying occupations had a higher incidence of underemployment during the 2007–2009 recession; an examination of the U.S. income distribution reveals that underemployment is more concentrated among workers from lower income households” (p. 3).

Family wellbeing and family structure are also affected by the unemployment and

underemployment of both men and women as well, and the men who father children in low-income single-mother families are likely to be impoverished themselves. Research shows that mothers have difficult decisions to make about their dependence on fathers in an irregular low-wage job market, as the fathers themselves remain in low-income, insecure jobs (Edin & Kefalas, 2005). In the later discussions on disconnection and marginalisation, we will see that non-residential fathers and single mothers can easily fall into destitution, unable to sustain their families and themselves. In a period of high unemployment and underemployment, earners lose their capacity to sustain their families through earned wages, and in our current welfare environment, there is less government assistance on which families can rely (Lein & Schexnayder, 2007). Individual workers without families can also fall into destitution.

Changes in the nature of jobs over the past decades have also made it more difficult for low wage earners to stabilise themselves and their families economically. Increasingly, jobs have moved from more unionised manufacturing jobs to less organised service sector jobs, with lower pay, lower levels of benefits and lower levels of worker protection. An analysis of Labor Department data by Davidson and Hansen (2012), in *USA Today*, indicated that “more than 70% of jobs lost in service industries have returned three years after the recession’s end, while only 15% of jobs lost in manufacturing, construction and other industries that produce goods have come back” (para. 2).

In this context, not only do some subgroups in the population experience higher unemployment, their employment is also likely to be in economic sectors that combine lack of job security and job benefits with their low wages. Research at the University of Chicago examined work structures in the hospitality and retail industries (Henly & Lambert, 2010). In addition to low wages, the authors found that variable working hours and the demand by employers that employees hold a large number of hours open for possible call-in, including those outside the regular day-time work day, contribute to the difficulties of low-income working parents, in particular. Their total work hours and income vary frequently, leaving them short of money and unable to plan around expected income. Variable timing of work hours also makes it difficult to plan for child care or to take advantage of possible pathways (such as education) into better paying, more secure and more regular jobs. And the lack of benefits associated with these jobs leaves the adult workers without medical insurance,

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and their children dependent on means-tested public health insurance. Such families have very few work-based family supports, often being without sick leave or vacation days to help them cope with family emergencies or without programs, such as family leave, to respond to family changes, such as the arrival of new children or new responsibilities for the elderly.

Ethnographic research (Burton, Lein, & Kolak, 2005) indicates that irregular work leads to additional problems for families and individual workers. Sleep schedules may be irregular due to the variable timing of work hours, and workers in multiple jobs may sleep less than they wish and face conflicts between the demands of the different jobs. One mother's schedule included a two-hour and a three-hour sleep block during a 24-hour period that involved working in two part-time jobs, supervising her children and traveling to each job.

Thus, while the recession was clearly correlated with unemployment and underemployment, ongoing changes in the nature of the economy and the nature of jobs are also related to low and irregular income. Without job security, regular hours and pay, and health care and other family-supportive benefits, workers find it more difficult to maintain their households and stay out of poverty. In addition to the risk of poverty, workers and their families experience hardships related to scheduling and other demands of their jobs.

Poverty and extreme poverty

As described earlier, the poverty rate increased in the United States over the course of the recession. In 2009, the overall United States poverty rate was 14%, and then rose to 15% in 2010, the highest rate since 1993 (United States Census Bureau, 2011a). Not only was poverty increasing, but the number of people in extreme poverty (defined as individuals living on less than \$2 per day) also continued a decade-long increase. In a recent report, Shaefer and Edin (2012) estimated that:

as of the beginning of 2011, about 1.46 million U.S. households with about 2.8 million children were surviving on \$2 or less in income per person per day in a given month. This constitutes almost 20 percent of all non-elderly households with children living in poverty. About 866,000 households appear to live in extreme poverty across a full calendar quarter. The prevalence of extreme poverty rose sharply between 1996 and 2011. (page 4)

Such experiences of extreme poverty leave families debilitated by their debt, by periods

with untreated medical conditions, by their lack of stable housing and by the unmet needs of children who have lacked services ranging from quality child care to regular medical care. For disconnected families and individuals (discussed below), particularly those in extreme poverty, new medical conditions go untreated, medical care can be interrupted, relationships with helping networks become strained, and attention is focused on the immediacies of the next day's food and housing (Lein & Schexnayder, 2007; Seefeldt & Horowski, 2012).

The changes in the poverty rate and the rates of extreme poverty co-existed with increasingly high proportions of people being without health insurance (50 million people, or 16% of the population) in 2010. There were slight improvements in 2011, when the poverty rate was 15% and the rate of those without medical insurance was 16% (United States Census Bureau, 2011b). When families or individuals experience periods when they have irregular access to health insurance or none at all, they are likely to accrue medical debts. The use of consumer debt to bridge insurance and income gaps exacerbates the situation. Such indebtedness can far outstrip the ability to repay these obligations, leading to the prospect of lifelong indebtedness (Angel, Lein, & Henrici, 2006). Even if they eventually become more financially stable, they may carry levels of debt that will affect their financial lives for decades.

The disconnected

In the course of the recession, it is noteworthy that, while unemployment, underemployment, and lack of health insurance all increased and continue to remain at relatively high rates, welfare rates have remained steady. One consequence of this is an increase in the ranks of the "disconnected"—households with neither earned income nor welfare income. In such households, members have access neither to income from regular earned wages, nor to the benefits of dependable public support. Some of these families are undoubtedly among the ranks of the extremely poor described above. Work published by the Assistant Secretary for Planning and Evaluation (2011) indicates that the number of disconnected households in the United States has risen steadily since the welfare reforms of 1996, but took a steep increase during the recent recession.

Studies using a range of definitions of "disconnected" have found that between 13% and 20% of the population of households in poverty are disconnected at any one time



(Seefeldt & Horowski, 2012). Indeed, TANF goes unused by large numbers of eligible families, including those without employment. Some of these families may have “timed out” of the time-limited TANF benefit; some may have been discouraged from applying by welfare offices attempting to reduce the number of recipients; while some may have felt unequal to the task of the application process itself (Lein & Schexnayder, 2007).

The numbers of families drawing on a range of other services—including SNAP (Tiehen, Jolliffe, & Gundersen, 2012), unemployment insurance (Congressional Budget Office, 2012), and Medicaid (Lambert, 2010)—all increased during this same period. It is noteworthy that welfare or cash transfers to needy families and unemployment insurance are both time-limited. While children’s eligibility for Medicaid and the State Children’s Health Insurance Plan provide considerable coverage to impoverished children, the eligibility guidelines for adults are much more restrictive. While not time-limited, many state SNAP programs require families to be engaged in some level of paid labour. These restrictions leave some impoverished families with few public resources.

The Earned Income Tax Credit has been an important support to low-income working families, although its payments to non-parent earners are less substantial. However, access to the EITC depends on attachment to the labour force, so disconnected families don’t have access to this important source of financial assistance.

Some families are able to draw on a range of informal and community-based resources (Edin & Lein, 1997; Lein & Schexnayder, 2007). They connect with agencies offering services ranging from food baskets to utility bill payments. They depend on help from their neighbours, friends and relatives, who might supply food, emergency housing, child care assistance, and occasional cash contributions. They find ways to earn money “off the books” (Venkatesh, 2007) in informal jobs—such as lawn-mowing, child care, or beauty treatments—or in illegal activities, including dealing in stolen goods or selling drugs. However, when these informal sources of support or income fail them, and they have neither formal public supports or work, they fall into extreme poverty.

Some disconnected households have informal or non-governmental sources of support. However, others experience periods of near-destitution, including days with insufficient food, and periods of homelessness or virtual homelessness (Seefeldt & Horowski, 2012). These conditions have been noted in earlier post-welfare reform studies that examined the conditions facing recent welfare leavers and those who had been diverted from it by welfare policies that discouraged potential TANF recipients from completing an application (Lein & Schexnayder, 2007).

More qualitative research on families’ simultaneous disconnection from both public programs and employment has indicated that they suffer relative social isolation and lack of helping networks. As we will see in the descriptions below of groups facing

Between 13% and 20% of the population of households in poverty are “disconnected” at any one time—with neither earned income nor welfare income.

Katrina evacuees searching for work lacked recommendations, documentation of prior experience, and substantiation of their training.

destitution, such poverty can co-occur with a loss of family, neighbourhood, and other social networks. Families and individuals facing multiple barriers to steady employment depend on connections to sustain themselves during their most vulnerable periods and work towards a more stable household. They need “tight” connections to an informal helping network that provides additional resources and social and emotional support. They need “loose” connections to community and civic organisations that provide such support and serve as links to jobs, education and other opportunities (Wallace & Wallace, 2008). Without these links, families in poverty can easily sink into destitution, as we have seen in the experiences of those cut off from their home communities and public services (Angel, Bell, Beausoleil, & Lein, 2012). It is likely that disconnected families without cash assistance and employment are missing at least some of these vital connections to the larger society.

Without public or private supports, these families are vulnerable to what might be called a “cascade effect” (a description used in studies of various vulnerabilities experienced by low-income families). In a study called *Welfare, Children and Families: A Three-City Study*,³ a young mother recently off welfare had acquired a steady job with a bank. She was using subsidised child care for her two children (a two-year-old and a four-year-old), and she was particularly pleased when she was first interviewed that she had been able to move out of public housing and into a private apartment for which she could afford the market rent. She anticipated moving up the career ladder at the bank. However, when her young son bit someone at day care a second time, she was asked to remove him from the program. Her child care subsidy required that she use the day care regularly or find an alternative within several weeks. Unable to do so, she lost the child care subsidy. Without child care, she lost her job. And without her job, she lost her apartment. Within two months of the episode at her day care, she was unemployed and homeless. These cascades from one event to another can occur more easily among families whose lack of income is compounded by fewer network and community resources.

Hurricane Katrina

Without jobs, without public supports, and without extensive networks, families often face extended periods of destitution, which can result in family dissolution. Evacuees from the United States Gulf Coast areas hit by Hurricane Katrina, who were often air-lifted to new cities

with little notice or preparation, exemplify the experience of survival in the context of fractured social networks. A number of recent studies have described and analysed the experiences of Katrina evacuees in the months following their departure from New Orleans.

Austin, Texas, received approximately 10,000 evacuees in the weeks following the 29 August 2005 landfall of the hurricane, and one study of these evacuees showed the economic effects of the loss of community in the four to six months following the hurricane (Angel et al., 2012; Lein et al, 2006). In the course of a chaotic evacuation, hurricane survivors ended up in cities with which they were unfamiliar, parted from family members and local community institutions such as churches, and, after the first months of emergency assistance, were expected to meet the requirements of the more usual poverty programs. New locales had different poverty policies, different labour force requirements and different service structures. Families faced these somewhat alien environments with only fragments of the supporting networks that used to inform and assist them in their home communities.

Furthermore, they faced unusual barriers. Many left their Gulf Coast homes without any identification, and the home systems that could have provided back-up identification were also incapacitated. Evacuees lost evidence of their medical insurance and their medical records, their social security identification, their driver’s licences, and documents indicating their Louisiana eligibility for public assistance. It was difficult for them to access and receive medical care. It was difficult, and in many cases impossible, to apply for jobs or for long-term formal assistance without identification.

In interviews with 800 evacuee households, concentrated in the period four to six months after the evacuation, the study authors reported:

- *Average incomes of \$629 per month*—Workers appeared to face the most difficult transitions if their work in New Orleans (or other parts of the Gulf Coast) had been primarily informal and in the tourism sector. There were far fewer opportunities for such employment in Austin, and, as the evacuees explained, most workers had found such informal jobs through their family, neighbourhood, and community networks. On the other hand, workers who fared best often explained that they found jobs in national companies that had employed them in the Gulf Coast before the storm. The ability to carry work-related and professional connections to the new city was an important asset.

- *An unemployment rate of 60%*—With skills and experience matched to a different economy, lacking network ties to potential employers, and often with a lack of formal identification, the job hunt posed many difficulties. Katrina evacuees searching for work lacked recommendations, documentation of prior experience, and substantiation of their training.

Other difficulties also made the job hunt difficult. The public transportation system in Austin often did not serve the outlying neighborhoods where some Katrina evacuees were placed, given the housing shortage overall. Three major employer groups in Austin are higher education institutions, the state government, and high-tech businesses. Job requirements were considerably different in Austin than in New Orleans and other Gulf Coast communities, where food processing, fishing and tourism, among other industries, played a larger role.

- *Continuing dependence (56%) on the Federal Emergency Management Agency (FEMA) for housing*—Public housing assistance is not an entitlement program, and those in poverty applying for housing aid often spend months and even years on a waiting list. Emergency housing assistance, received by many Katrina evacuees, is meant to be temporary, and is phased out after a period of time. Although some evacuees received more extended assistance, most expressed fears about the end of FEMA assistance and the looming possibility of homelessness.

- *A SNAP usage rate of only 44%*—A majority of interviewees among Katrina evacuees appeared to be eligible for some SNAP assistance, given their income, household size and lack of other resources. However, under pressure of the recent privatisation of the Texas SNAP food benefits system (“US Food Stamp Czar”, 2010) and the volume of applicants, the system ground to a halt, and responses to applications were delayed, sometimes by months.

- *On-going health problems experienced by 57%*—Evacuees experienced considerable difficulty receiving services from overwhelmed mental health centres and community clinics. They were difficult to serve since they often arrived without any medical records, new medical conditions had arisen due to the flooding and evacuation, and pre-existing conditions were exacerbated.

- *Children of 15% of the evacuees were still unplaced in schools*—As housing supports shifted, evacuees were transferred from



their original emergency housing to other housing, and their children were transferred from one school to another. Children were also still responding to the trauma and sudden changes from the flooding and the evacuation. Some children’s behaviour posed problems for the receiving districts.

The lack of centralised entitlement services not only marked the experience of the Katrina evacuees, but also that of the providers (Bell, 2008). In a parallel study to the survey interviews of Katrina evacuees, researchers undertook an interview study of the case managers fielded by local agencies to assist the evacuees as they settled into Austin. While national agencies funneled money and other resources into Austin, over 30 agencies worked with case managers to get resources to the evacuees themselves (Gajewski, Bell, Lein, & Angel, 2011). During the first months, there was a combined sense of “crisis and creativity” as case managers worked to meet the basic needs of a near-destitute population (Bell, 2008).

However, as it became clear that the Gulf Coast, and New Orleans in particular, was not going to be able to receive back the evacuees in the near future, a period of “uncertainty and response” settled in. Emergency resources were diminishing, it was very difficult to get evacuees enrolled in regular poverty programs, and many evacuees had continuing difficulties finding employment. Furthermore, they remained affected by ongoing mental and physical health problems, the lack of identification and formal documentation, and

The United States is emerging from the recession with a considerably greater degree of economic inequality than when it entered.

Families sustaining long-term unemployment accrue debts for medical care, housing costs and living expenses

the loss of family, community and other social networks. Within a year, both case workers and evacuees were facing a period of “fatigue and disillusionment” (Bell, 2008). The large-scale but decentralised work of government agencies such as FEMA and the multiple charitable organisations could field neither the deep ongoing resources nor the organisation the scope of this disaster required.

Katrina evacuees often lacked the resources, community knowledge and specific skills necessary for competing in the Austin job market. Our fragmented safety net left them relatively unsupported after the initial major investment in their immediate wellbeing post-disaster was over.

Inequality

The effects of the US recession have fallen most heavily on the poor, as indicated in increasing disparities in both income and wealth in the course of the recession, even compared to past recessions. The United States is emerging from the recession with a considerably greater degree of economic inequality than when it entered. The experience of inequality has ramifications for those in poverty, over and above that of the poverty itself (Thorbecke & Charumilind, 2002).

According to work by Emmanuel Saez (2010), during the recession of 2000–02, the population with the top 1% of income lost 31% of their income, while the bottom 99% lost 7%. During the following expansion (2002–07), the top 1% experienced a 62% growth in income, compared to 7% for the bottom 99%. The effects of the Great Recession (2007–09) and the following recovery worsened this gap. While the top 1% lost 36% of their income, the bottom 99% lost 12%. During the 2009–10 recovery period, the top 1% experienced 12% income growth, but the bottom 99% experienced only one-fifth of 1% income growth. Thus, the top 1% gained 93% of all income growth across the entire population.

In this period of cycling recession and expansion, the gap between high and low incomes increased. Just as the income gap was accentuated during the recession, so was the gap in wealth, and this was particularly visible in the growing gap in wealth between White and Black and White and Hispanic populations (Jordan, 2011). Australia also has a considerable income gap, but the gap has not expanded to the same degree as in the United States (Leigh, 2009).

Marginalisation of the poor

Families that struggle between limited access to welfare and low-wage uncertain work face a range of challenges. It is not just the nature of the challenges that impedes their progress, but their multiplicity. A study of welfare leavers (Lein & Schexnayder, 2007) discovered that the number of barriers welfare leavers faced (child care, transportation, health, housing insecurity, food insecurity) was itself a barrier that magnified the difficulties posed by any single barrier or problem. One barrier accentuated the effects of another; for instance, families with transportation problems had trouble getting to necessary health services.

Furthermore, families sustaining long-term unemployment accrue debts for medical care, housing costs and living expenses (Chiteji & Danziger, 2011). Other qualitative research indicates that these families also draw heavily on their informal helping networks of friends and relatives, people who themselves are often economically vulnerable (Edin & Lein, 1997).

Families and individuals who face unemployment, disconnectedness and illness simultaneously often face the marginalisation of near-destitution poverty. A study in Austin, Texas, of panhandlers who beg from car drivers suggests something about both the routes to such destitution and the difficulties of escape. The study estimated that Austin housed about 500 panhandlers, and interviewed 118 of them through a randomised selection process. The average panhandler was white, was over 40 years old, was male, was either homeless or had recent experience of homelessness, was most likely to have spent the night preceding the interview out-of-doors, and had resided in Austin for more than five years.

Their routes to destitution included experience in the foster care system (14%); military service, often with a less than honourable discharge (30%); and early family experiences of homelessness (23%). Panhandlers also described having persistent mental and physical health problems, experience of abuse or violence, an alcoholic parent, the violent death of a loved one and/or unexpected disabling illnesses or injuries. Many felt they were now too old for the heavy manual labour that had dominated their workforce experience. Panhandlers could not earn as much as the minimum wage at this activity, and only a very few explained their panhandling as a preferred choice (7%). In spite of these problems, almost half (45%) of the interviewees had worked for wages in the preceding year, and most were still trying to find work.

Even as the recession slowly releases its grip, poverty rates in the United States remain high, and larger groups of the US public are experiencing periods of poverty and near-poverty, even though use of TANF remains relatively low. In addition to periods of unemployment, people are experiencing unstable underemployment.

This discussion supports the argument for a strong and dependable government role in supporting families and individuals in poverty. While paid work is a core of household stability and individual independence, it is enabled by work-supportive programs and services. And poverty is prevented or ameliorated by reliable supports when work fails. In the United States context, these programs and policies could include:

- robust EITC, which is an important support, given the inadequacy of low-level wages for family subsistence, with possible use of this program to support single workers as well as families;
- TANF, which remains a significant bridging program for families in difficulties;
- access to child care and health insurance, both key to family stability; and
- encouragement of “best practices” in employment to allow employed parents to sustain their families while acting as responsible employees, and to allow individual workers to maintain themselves during periods of illness or other difficulties.

Alternate programs for parents and individuals who are physically or mentally unable to work include:

- access to disability support; and
- access to partial supports through specialised work placements, and longer term assistance.

Programs that encourage and reward fathers’ fiscal and logistical involvement, even through periods of fathers’ poverty include:

- child support programs, particularly those that offer encouragement for father involvement; and
- training and placement programs for men.

The growing literature that is testing models for these and other policies should be closely examined for evidence of effectiveness. In periods of recession and job loss, programs that prevent the decline of workers into unemployment and underemployment, and that maintain their incomes at above-poverty levels are critical to their own wellbeing and performance as effective workers, and to the wellbeing of the households they support.

Endnotes

- 1 The SNAP program was formerly known as the Food Stamp program. It provides financial assistance to low-income people to purchase food.
- 2 TANF is often referred to simply as “welfare” and is a program from the 1996 welfare reforms. It imposes time limits and other restrictions on welfare recipients.
- 3 See the Three-City Study website at: <web.jhu.edu/threecitystudy>.

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Early childhood poverty and adult achievement, employment and health

Greg J. Duncan, Ariel Kalil and Kathleen M. Ziol-Guest

Using a poverty line of about US\$23,000 for a family of four, the United States Census Bureau counted more than 16 million US children living in poor families in 2011. Poor children begin school academically and behaviourally well behind their more affluent peers and, if anything, lose ground during their school years. On average, poor US kindergarten children have lower levels of reading and mathematics skills and are rated by their teachers as less well-behaved than their more affluent counterparts. As we show in this essay, children from poor families also go on to complete less schooling, work and earn less, and are less healthy. Understanding the origins and persistence of these differences in fortunes is a vital step toward ensuring the prosperity of future generations.

Our focus is on what low income in childhood, particularly early childhood, means for health and a successful career later in life. Identifying causal effects is tricky, since poverty is associated with a cluster of disadvantages that may be detrimental to children. To determine

how children would be affected by a policy that increased family incomes but did nothing else, we focus on distinguishing the effects of family income from those of other sources of disadvantage. In policy terms, this approach enables us to address the following question: To what extent are successes in adulthood affected by a policy, such as the US earned income tax credit, which boosts the family incomes of low-income parents with children but does not directly change any other characteristic of their parents' or families' environments?¹

Social scientists have been investigating links between family poverty and subsequent child outcomes for decades (see Mayer, 1997, for a review). As in many research areas, early empirical studies were typically based on point-in-time cross-sectional data. The creation of nationally representative longitudinal datasets in the late 1960s and 1970s enabled researchers to test more refined and dynamic models of links between children's poverty experiences and later outcomes, which

predicted, for example, that persistent poverty is more harmful than transient poverty. Importantly, large-scale random-assignment social experiments that manipulated family income were conducted in the United States in the 1970s; however, most of them focused on the question of how additional income affected adult work effort rather than its effect on child wellbeing (Maynard & Murnane, 1979).

Almost universally neglected in the poverty scholarship is the *timing* of economic hardship across childhood and adolescence. Emerging research in neuroscience, social epidemiology and developmental psychology suggests that poverty early in a child's life may be particularly harmful. Not only does the astonishingly rapid development of young children's brains leave them sensitive (and

vulnerable) to environmental conditions, but the family context (as opposed to the school or peer context) dominates children's everyday lives.

We begin by briefly reviewing the scope of childhood poverty in the United States, possible mechanisms linking early poverty to adult outcomes and some of the experimental and non-experimental empirical literature. We then highlight emerging research based on newly available data linking poverty measured as early as the prenatal year to adult health and labour market outcomes measured in the fourth decade of life. We conclude with thoughts about how policy attention might focus on deep and persistent poverty occurring early in childhood.

Poverty in the United States and elsewhere

The official US definition of poverty is based on a comparison of a household's total income with a threshold level of income that varies with family size and inflation. The 2011 poverty line was drawn at US\$18,123 for a single parent living with two children and at US\$22,811 for a four-person family with two children. Over the last 20 years, the fraction of young children classified as poor has ranged from about 18% to 26%; the recent US recession has pushed the number of poor young children to their highest levels since 1994 (Figure 1).

Based on a poverty line defined as a disposable household income of less than 50% of a country's median (size-adjusted) household disposable income (about \$29,000 for a family of three), nearly one-quarter of US children under the age of 6 are classified as poor (Figure 2).² While higher than that of any other developed country, the US rate is only a few points above rates in the United Kingdom, Canada and Poland.³ When the poverty threshold is set at a more austere 40% of median disposable household income (about US\$23,000 for a family of three), the cross-country differences are more striking: the 15% US poverty rate is more than half again as high as that of any country other than Poland. Thus, deep poverty among children is considerably more pervasive in the United States than in most other Western industrialised countries.

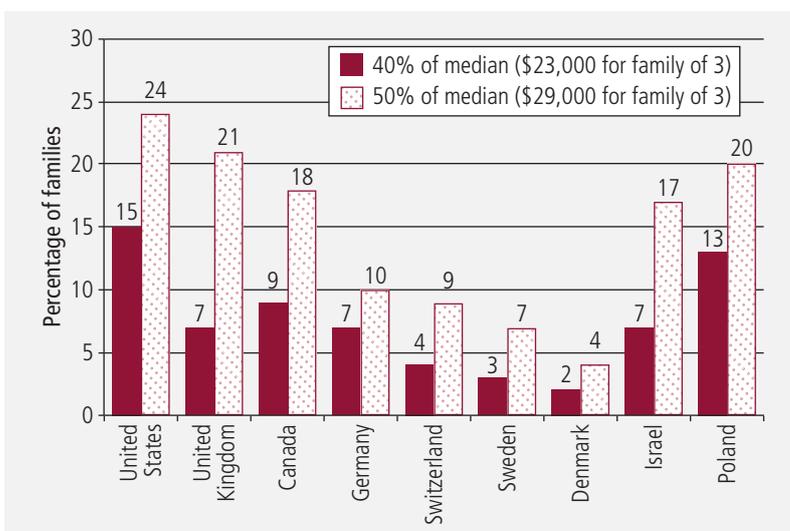
Why poverty may hinder development

What are the consequences of growing up in a poor household? Economists, sociologists, developmental psychologists, neuroscientists



Source: US Census Bureau

Figure 1: Poverty rate for children less than 6 years old, 1990–2011



Source: Gornick & Jantti (2009)

Figure 2: Poverty rates for families with young children, by 40% and 50% poverty thresholds, 2000

and social epidemiologists emphasise different pathways by which poverty may influence children's development.

Economic models of child development focus on what money can buy (see Becker, 1981). They view families with greater economic resources as being better able to purchase or produce important "inputs" into their young children's development (for example, nutritious meals, enriched home learning environments and child care settings outside the home, safe and stimulating neighbourhood environments) and, with older children, higher quality schools and post-secondary education.

Psychologists and sociologists point to the quality of family relationships to explain poverty's detrimental effects on children. Their theoretical models emphasise the role of higher incomes in improving parents' psychological wellbeing and family processes, in particular the quality of parents' interactions with their children (Chase-Lansdale & Pittman, 2002; McLoyd, 1990; McLoyd, Jayartne, Ceballo, & Borquez, 1994). Poverty and economic insecurity take a toll on a parent's mental health, which may be an important cause of low-income parents' non-supportive parenting (McLoyd, 1990). Depression and other forms of psychological distress can profoundly affect parents' interactions with their children (Zahn-Waxler, Duggal, & Gruber, 2002). A long line of research has found that low-income parents, as compared with middle-class parents, are more likely to employ an authoritarian and punitive parenting style and less likely to provide their children with stimulating learning experiences in the home. Prevailing theoretical models describe the role of income in affecting parenting style as an indirect one that operates through parents' mental health (McLoyd, 1990).

Emerging evidence from neuroscience and social epidemiology suggests that the timing of child poverty matters, and that for some outcomes later in life, particularly those related to attainment and health, poverty early in a child's life may be particularly harmful. Both human and animal studies highlight the critical importance of early childhood for brain development and for establishing the neural functions and structures that will shape future cognitive, social, emotional and health outcomes (Knudsen, Heckman, Cameron, & Shonkoff, 2007; Sapolsky, 2004). Essential properties of most of the brain's architecture are established very early in life by genes and, importantly, early experience. Young children's brains are especially open to learning and enriching influences. But the negative aspect of the plasticity of early brain development is that



young children's brains are more vulnerable to developmental problems should their environment be deprived or characterised by traumatic stress (Nelson et al., 2007). Traumatic stress that arises from child maltreatment, for example, produces measurable changes in brain structure and is likely to impart longlasting disadvantages for adult mental and physical health and labour market functioning.

Based on insights from this emerging neuroscience literature, Cunha, Heckman, Lochman, and Masterov (2005) proposed an economic model of development in which preschool cognitive and socio-emotional capacities are key ingredients for human capital acquisition during the school years. In their model, "skill begets skill" and early capacities can affect the likelihood that later school-age human capital investments will be successful and productive. This model predicts that economic deprivation in early childhood creates disparities in school readiness and early academic success that widen over the course of childhood.

Complementary studies in psychology and social epidemiology illustrate that both *in utero* environments and early childhood experiences can have long-term effects on adult physical and mental health (Barker, Forsén, Eriksson, & Osmond, 2002; Danese, Pariante, Caspi, Taylor, & Poulton, 2007; Poulton, & Caspi, 2005). The "fetal origins hypothesis" posits a programming process whereby nutritional deficits and impaired growth occurring during the prenatal period have longlasting implications for physiology and disease risk

The timing of child poverty matters, and for some outcomes later in life, particularly those related to attainment and health, poverty early in a child's life may be particularly harmful.

Since poverty is associated with other experiences of disadvantage, it is difficult to determine whether it is poverty per se that really matters or, instead, other related experiences.

(Strauss, 1997). Chronic stress from growing up poor could also alter long-term hormonal and immune functions in ways that predict disease later in life. For example, Evans and Schamberg (2009) showed that childhood poverty increases allostatic load, a biological index of the cumulative wear and tear on the body, during the teenage years. Moreover, the longer the children had lived in poverty, the higher their allostatic load.

Allostatic load is caused by the mobilisation of multiple physiological systems in response to chronic stressors in the environment. This biological wear and tear accumulates over time among children sustaining adverse events or stressors, leading in turn to maladaptive physiologic responses that increase disease risk and undermine health. Childhood poverty may actually “reset” the immune system in a manner that increases stress-related impairments in immune function, rates of infectious and chronic diseases, or blood pressure and cardiovascular disease incidence (Miller et al., 2009).

Methods for assessing causal effects of poverty

Regardless of the timing of low income, isolating its causal effects on children’s wellbeing is very difficult. Since poverty is associated with other experiences of disadvantage, it is difficult to determine whether it is poverty per se that really matters or, instead, other related experiences. The best way to identify how much money itself really matters is to conduct an experiment that compares families that receive some additional money with families that are otherwise similar but do not receive such money. The only large-scale randomised interventions to alter family income directly were the US negative income tax experiments, which were conducted between 1968 and 1982 with the primary goal of identifying the influence of guaranteed income on parents’ labour force participation. Researchers found that elementary (primary) school children in the experimental group (whose families experienced a 50% boost in their income) exhibited higher levels of early academic achievement and school attendance than the control group (Maynard & Murnane, 1979). No test score differences were found for adolescents, although youth in the experimental group did have higher rates of high school completion and educational attainment (Salkind & Haskins, 1982). This suggests that higher income may indeed cause higher achievement, although even in this case it is impossible to distinguish the effects of income from the possible benefits to children

of the reductions in parental work time that accompanied the income increases.

Providing income support to working poor parents through wage supplements has been shown to improve children’s achievement, according to data from experimental welfare reform evaluation studies undertaken during the 1990s. One study analysed data from seven random-assignment welfare and antipoverty programs; all of them increased parental employment but only some increased family income (Morris, Huston, Duncan, Crosby, & Bos, 2001). Preschool and elementary (primary) school children’s academic achievement was improved by programs that boosted both income and parental employment, but not by programs that only increased employment. The school achievement of adolescents did not appear to benefit from either kind of program.⁴ A separate analysis of the data on younger children suggests that a US\$3,000 increase in annual income is associated with a gain of about one-fifth of a standard deviation in achievement test scores (Duncan, Morris, & Rodrigues, 2011).

Convincing evidence can sometimes be derived from non-experimental studies that are careful to compare families that differ in terms of income but are otherwise similar. One such study took advantage of the fact that between 1993 and 1997, the maximum earned income tax credit for working poor families increased by more than US\$2,000 for a family with two children (Dahl & Lochner, 2012). The authors compared the school achievement of children before and after this generous increase. They found improvements in low-income children’s achievement in middle childhood that coincided with the policy change. A second study, based in Canada, found similar results when it took advantage of variation across Canadian provinces in the generosity of their National Child Benefit program to estimate income effects on child achievement (Milligan & Stabile, 2008).

Linking early poverty to adult outcomes

Although these experimental data have provided important insights into the causal effects of poverty, neither they nor any other studies in the past income literature has been able to relate family income early in a child’s life to adult attainments, largely because no single study had collected data on both early childhood income and later adult outcomes. However, our recent research has made this link using data from the Panel Study of Income

Dynamics (PSID), which has followed a nationally representative sample of US families and their children since 1968 (Duncan, Ziol-Guest, & Kalil, 2010). The study is based on children born between 1968 and 1975 and collected information on their economic outcomes between ages 25 and 37. Health conditions were assessed in 2006, when these individuals were between the ages of 30 and 37.

One of the many merits of the PSID is that it measured income in every year of a child's life from the prenatal period through age 15. This enabled us to measure poverty across several distinct periods of childhood, distinguishing income early in life (prenatal through fifth year) from income in middle childhood and adolescence (Duncan et al., 2010). We used the PSID's high-quality edited measure of annual total family income, inflated to 2005 levels using the consumer price index. The simple associations between income early in life and adult outcomes are striking (Table 1).⁵ Compared with children whose families had incomes of at least twice the poverty line during their early childhood, poor children completed two fewer years of schooling and, as adults, earned less than half as much, worked 451 fewer hours per year, and received US\$826 per year more in food stamps. Males who grew up in poverty were twice as likely to be arrested. For females, poverty was associated with a more than five-fold increase in the likelihood of bearing a child out of wedlock prior to age 21. As for health, poor children were nearly three times as likely to report poor overall health as adults, were more than twice as likely to report various activity-limiting health conditions, and were 19 percentage points more likely to be overweight.

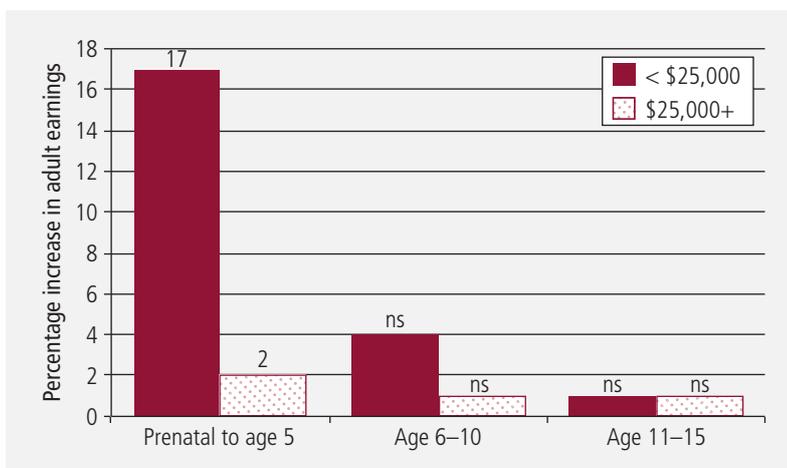
Looking beyond these simple correlations, Duncan and colleagues (2010) regressed the adult outcomes listed in Table 1 on three childhood stage-specific measures of family income—average income between the prenatal year and age 5, average income between ages 6 and 10, and average income between ages 11 and 15—plus an extensive list of background controls.⁶ To account for the possibility that income effects are nonlinear, two coefficients were estimated for each childhood stage, the first reflecting the estimated effect of an additional US\$3,000 of annual income⁷ in the given stage for children whose income during that stage averaged less than US\$25,000 and the second reflecting comparable effects for higher income children (all three sets of income variables, plus other controls, are included in all regressions).

Turning first to their central measure of labour market productivity—average annual earnings

Table 1: Adult outcomes by poverty status between the prenatal year and age 5

	Early childhood income in relation to official US poverty line		
	Below poverty line (mean or %)	1–2 × poverty line (mean or %)	> 2 × poverty line (mean or %)
Completed schooling (years)	11.8	12.7	14.0
Adult earnings between ages 25 and 37 (in US\$10,000)	\$17.9	\$26.8	\$39.7
Annual work hours between ages 25 and 37	1,512	1,839	1,963
Food stamps between ages 25 and 37	\$896	\$337	\$70
Ever arrested (men only)	26%	21%	13%
Non-marital birth (women only)	50%	28%	9%
Poor health in 2005	13%	13%	5%
Obese in 2005 (BMI > 30)	45%	32%	26%
Hypertension in 2005	25%	10%	9%
Arthritis in 2005	7%	7%	3%
Diabetes in 2005	4%	6%	2%
Work-limiting hypertension in 2005	4%	2%	2%

Note: The sample consists of individuals born between 1968 and 1975 in the PSID. Earnings and food stamp values are in 2005 dollars.



Note: "n. s." means not statistically significant at $p < .10$

Source: Duncan et al. (2010)

Figure 3: Percentage increase in adult earnings associated with a \$3,000 annual increase in childhood income, for incomes under and over \$25,000

between ages 25 and 37—Duncan and colleagues (2010) found that for children growing up in families with average early childhood incomes below US\$25,000, a US\$3,000 annual boost to family income between the prenatal year and age 5 was associated with a 17% increase in adult earnings (Figure 3). For children growing up in higher income

households (more than US\$25,000 per year), a US\$3,000 boost to family income was statistically significant but was estimated to increase adult earnings by only about 2%. None of the income increments later in childhood was estimated to have statistically significant effects on later earnings.

Results for work hours are broadly similar to those for earnings, showing a highly significant estimated effect of early, but not later, childhood income. In this case, a US\$3,000 annual increase in the average income of low-income families from prenatal to age 5 is associated with 152 additional work hours per year after age 25. This is shown as the first bar in Figure 4.

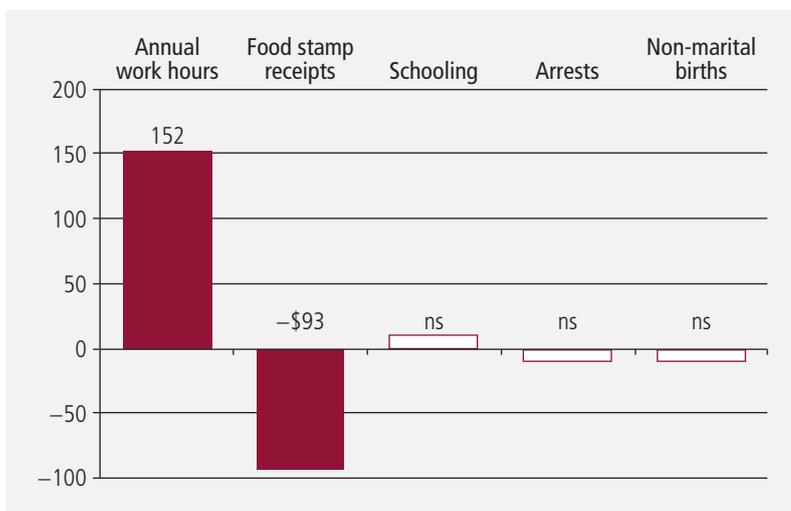


Figure 4: Effects on various adult outcomes associated with a \$3,000 annual increase in prenatal to age 5 income, for incomes < \$25,000

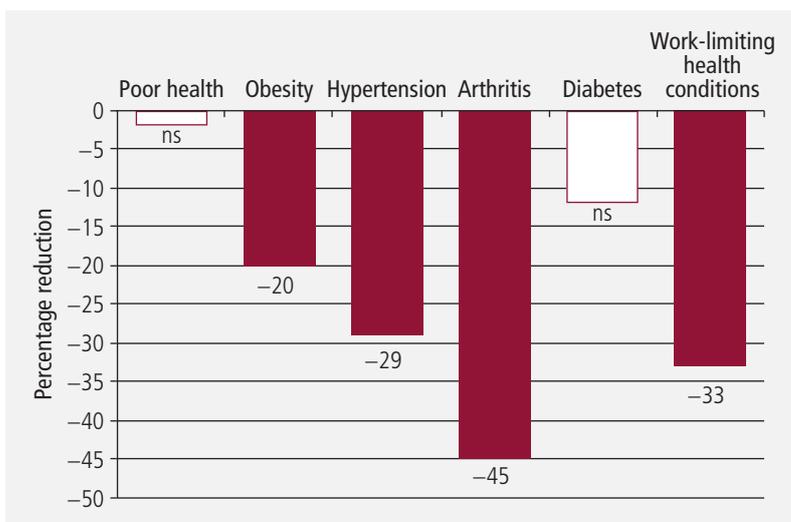


Figure 5: Percentage reductions in odds of various health conditions associated with a \$3,000 annual increase in prenatal to age 5 income, for family income < \$25,000, 2006

Other results presented in Figure 4 show that the boost in adult productivity associated with additional income in early childhood also led to significantly lower amounts of food stamp receipts (expressed in US dollars per year).

Earnings are the product of work hours and the hourly wage rate. There is clearly a strong relationship between early income and work hours, but it is also important to determine how important early income is for the hourly wage rate. In results not shown, Duncan and colleagues (2010) found no connection between early income and hourly earnings; virtually all of the earnings effect was carried by increases in labour supply rather than the wage rate. Accordingly, it is perhaps not surprising that early income was not significantly related to completed schooling, the most potent determinant of hourly wage rates.⁸ Nor were there significant effects of early poverty on problem behaviour—being arrested or incarcerated (for males) or having a non-marital (ex-nuptial) birth (for females). Family income during adolescence seemed to matter more for these outcomes.

So, if neither the human capital (schooling and wage rates) nor the behavioural (lack of arrests or non-marital births) outcomes account for links between early income and adult labour market productivity, what does? Consistent with the “early origins” work in social epidemiology and neuroscience, it appears that early income has long-term effects on work-limiting health conditions.

Regression results are shown in Figure 5. As with earnings and work hours, each of the health conditions was regressed on stage-specific childhood income and demographic control variables. As before, the income associations are allowed to be nonlinear, with one linear segment fit across average annual incomes within a given childhood stage up to US\$25,000 and another fit to incomes above US\$25,000. Only the coefficients on the low-income segment for early childhood are shown in Figure 5.⁹ Given the dichotomous nature of the health outcomes, we estimated these models with logistic regression. The bars in Figure 5 represent the percentage reductions in the odds of a given condition associated with a US\$3,000 increase in annual income between the prenatal year and age 5.

Figure 5 shows a remarkable pattern of effects on emerging (mid- to late 30s) adult health problems. Although increments to early income do not appear to affect self-rated overall adult health or diabetes, US\$3,000 increments to low income early in life are associated with a 20% reduction in the odds of being obese,



a 29% reduction in the odds of reporting hypertension, a 46% reduction in the odds of reporting arthritis, and a 33% reduction in the odds of reporting a health-related work limitation. Although more research is obviously needed, these health pathways involving stress and inflammation appear to be very promising linkages between poverty early in life and adult labour market productivity. These results are consistent with the hypothesis that the early years represent a sensitive period during which social processes become embedded in biology and that modifications in gene expression or cellular phenotype could be responsible for these associations.

Some policy implications

Early childhood is a particularly sensitive period in which economic deprivation may compromise children's health and employment opportunities. This research suggests that greater policy attention should be given to remediating situations involving deep and persistent poverty in utero and occurring early in childhood. In terms of indicators, it is crucial to track rates of poverty among children—especially deep poverty occurring early in childhood—to inform policy discussions regarding children's wellbeing.

In the case of welfare policies, imposing sanctions and other regulations that deny

benefits to families with very young children would appear to be particularly harmful. Not only do young children appear to be most vulnerable to the consequences of deep poverty, but mothers with very young children are also least able to support themselves through employment in the labour market.

More effective would be income transfer policies that provided more income to families with young children. In the case of work support programs like the earned income tax credit, this might mean extending more generous credits to families with young children. In the case of child tax credits, this could mean making the credit refundable and also providing larger credits to families with young children. Interestingly, several European countries gear the time-limited benefits provided by their assistance programs to the age of children. In Germany, a modest parental allowance is available to a mother working fewer than 20 hours per week until her child is 18 months old. France guarantees a minimum income to most of its citizens, including families with children of all ages. Supplementing this basic support is the *allocation de parent isolé* (API) program for lone parents with children under age 3. In effect, the API program acknowledges a special need for income support during this period, especially if a parent wishes to care for very young children and forgo income from employment.

Greater policy attention should be given to remediating situations involving deep and persistent poverty in utero and occurring early in childhood.

Imposing sanctions and other regulations that deny benefits to families with very young children would appear to be particularly harmful.

Australia has historically had far more generous and long-term income support policies for lone mothers than the US. However, at the time of writing, the Australian Government had implemented budget cuts to such programs as part of its austerity program. In January 2013, the Federal Government imposed tighter restraints on parenting pensions, resulting in more single parents (mostly mothers) being moved onto a lower unemployment allowance once their youngest child turns 8 years old (Australian Council of Social Services, 2012).

In emphasising the potential importance of policies to boost income in early childhood, we do not mean to suggest that this is the only policy path worth pursuing. Obviously investments later in life and those that provide direct services to children and families may also be well advised. Economic logic requires a comparison of the costs and benefits of the various programs that seek to promote the development of disadvantaged children throughout the life course. In this context, expenditures on income transfer and service delivery programs should be placed side by side and judged by their benefits and society's willingness to pay for the outcomes they produce, relative to their costs.

Endnotes

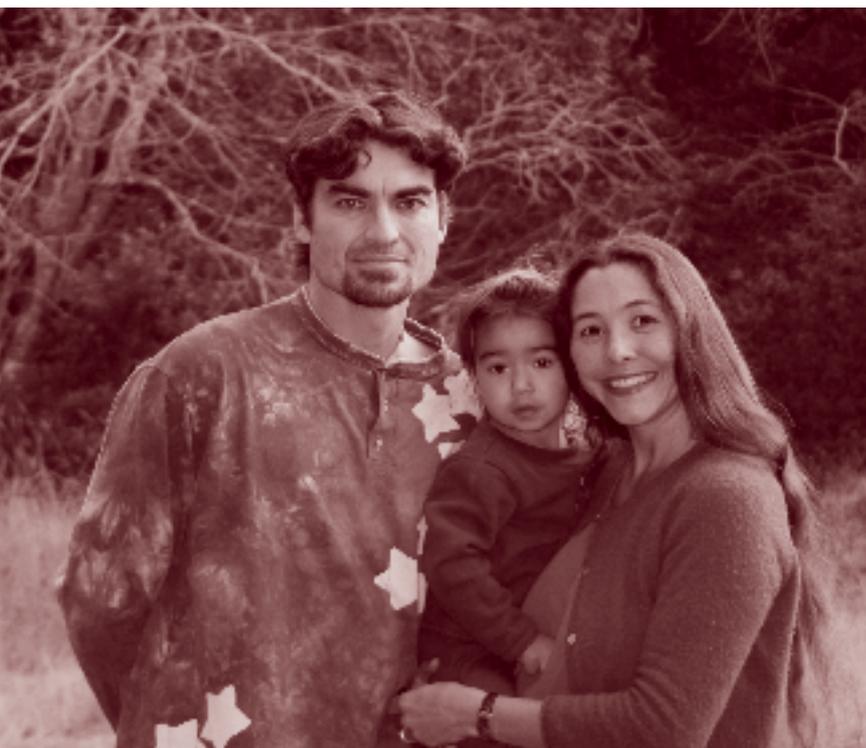
1 The EITC is a refundable federal income tax credit for low to moderate income working individuals and families. The US Congress originally approved the tax credit legislation in 1975, in part to offset the burden of social security taxes and to provide

an incentive to work. When the EITC exceeds the amount of taxes owed, it results in a tax refund to those who claim and qualify for the credit. For the tax year 2011, the maximum credit for a single person or a couple with one child was \$3,094 and for a single person or couple with two children was \$5,112.

- 2 These data are drawn from Gornick and Jantti (2009), who draw from the Luxembourg Income Study (LIS) Wave 5, which is centred on the year 2000.
- 3 Data on young children in Australia were not included in Gornick and Jantti (2009) due to incomplete information on children's ages. However, the data for all children (under 18) are available and show that using the 50% median income threshold 22% of US children are poor. The corresponding figure for Australia is 12%.
- 4 Though leveraging experimental data, the analysis itself is not an experiment, as families were not randomly assigned across types of treatments.
- 5 Data on all but the last four health conditions appear in Duncan et al. (2010). Data on health conditions come from additional calculations using the same PSID-based sample.
- 6 "Background controls" consist of birth year, race, sex, whether the child's parents were married and living together at the time of the birth, mother's age at birth, region, number of siblings, parent schooling, parent test score, cleanliness of the house, parents' expectations for child, parent achievement motivation, parent locus of control and parent risk avoidance. The regression then—for example, for earnings—regressed average earnings between ages 25 and 37, averaged over as many of these years as possible, on average annual income between the prenatal year and age 5, between ages 6 and 10 and between age 11 and 15, plus these background variables. See Duncan et al. (2010) for additional technical detail.
- 7 The US\$3,000 amount was chosen for the interpretation of coefficients because it is well within the range of an actual US policy—the earned income tax credit. Given that a linear function was fit to the entire income range up to US\$25,000, estimated effects of income increments smaller or larger than US\$3,000 can be obtained with proportionate reductions or increases in the effects shown in the figures.
- 8 The completed schooling picture is a bit more complicated. Although early income did not matter for eventual completed schooling, it did have a significant effect on completed schooling by age 21. Thus, it appears that early income may matter more for the "on time" completion of schooling by the end of adolescence than for the sporadic increases in schooling that often occur later.
- 9 These regression results do not appear in Duncan et al. (2010) but use the same sample. In only one case—for incomes above US\$25,000 for ages 11 to 15 in the diabetes regression—was the coefficient more than twice its standard error.

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Investments later in life and those that provide direct services to children and families may also be well advised.



Early education and care experiences and cognitive skills development

A comparative perspective between Australian and American children

Rebekah Levine Coley, Caitlin McPherran Lombardi, Jacqueline Sims and Elizabeth Votruba-Drzal

Australia and the US, while sharing many cultural and economic similarities, show notable differences in policies and practices regarding children's early education and care (EEC). Although both countries rely on the private market for EEC, Australia has stronger supports for high-quality EEC and provides parents of all income levels greater financial support for EEC. Little research has compared the EEC experiences of young children in the two contexts and resultant links with children's readiness for formal schooling. This research uses nationally representative longitudinal birth cohort studies from Australia and the US to address two primary questions. First, what are the types and extent of EEC experiences during infancy, toddler and preschool years in the two contexts? Second, do EEC experiences promote the cognitive skills essential for children's success at school?

Empirical review of early childhood education and children's cognitive development

A growing literature, primarily from the US, has documented links between characteristics of EEC settings, including the type and extent of care, and children's development. Numerous studies of US children have found that attending centre-based EEC programs (e.g., preschool, nursery school, pre-kindergarten, and other centre-based child care programs) is predictive of greater reading and math skills in comparison to parental care or more informal home-based care settings (Gormley, Gayer, Phillips, & Dawson, 2005; Loeb, Bridges, Bassok, Fuller, & Rumberger, 2007; Magnuson, Meyers, Ruhm, & Waldfogel, 2004; Morrissey, 2010; National Institute of Child Health and Human Development Early Child Care Research Network [NICHD ECCRN], 2002, 2005;

NICHD ECCRN & Duncan, 2003). Much of this research has focused explicitly on centre-based EEC programs for 3 and 4-year-olds in the year or two prior to entering primary school. The extent of EEC, or the number of hours per week that children spend in EEC settings, has not been associated consistently with early cognitive development, although studies have repeatedly demonstrated associations between both centre-based care and greater hours of care and elevations in children's behavior problems (for reviews, see Coley, Votruba-Drzal, Miller, & Koury, 2012; Phillips, McCartney, & Sussman, 2006). These elevations may have implications for children's cognitive skills development, given prior literature linking externalising problems to cognitive skills development (Li-Grining, Votruba-Drzal, Maldonado-Carreño, & Haas, 2010).

Some have argued that as children grow from infancy through early childhood the influence of EEC settings on children's development may change. These studies suggest that centre-based care during the later toddler and preschool years (e.g., after age 2) may be more beneficial for children's academic skills development than infant/early toddler centre-based care for children under the age of 2 (Loeb et al., 2007; NICHD ECCRN & Duncan, 2003; Votruba-Drzal, Coley, Koury, & Miller, 2012). For example, NICHD ECCRN and Duncan (2003) discovered that attending centre-based care between 3 months and 24 months of age was unrelated to cognitive and academic scores at kindergarten entry, whereas exposure to centre-based care between 27 months and 54 months of age conferred significant benefits. Similarly, Loeb and colleagues (2007) found that the greatest academic benefits of centre-based care were for children who began centre-based care between 2 and 3 years of age, rather than either earlier or later in the preschool years. Little attention has been paid to the differential effects of the extent of care during infancy versus later in early childhood.

The cognitive benefits of centre-based care also have been illustrated using data from the older child cohort of *Growing Up in Australia*: The Longitudinal Study of Australian Children (LSAC; Australian Institute of Family Studies, 2009). Using retrospective reports of EEC attendance in the year prior to primary school, research has found that participation in preschool programs was associated with enhanced literacy and numeracy skills in comparison to children not attending preschool programs (Claessens & Garrett, 2011; Harrison et al., 2009; Smart, Sanson, Baxter, Edwards, & Hayes, 2008). However, this research did not take into account children's earlier experiences

of EEC prior to preschool, making it difficult to examine the differential effects of care during infancy versus later childhood, and leaving open questions concerning whether the cognitive skills boost is derived from preschool or from early experiences correlated with preschool care.

Several factors explain why there may be differences in the effects of centre-based care settings on children's cognitive development as children age. During the early infant and toddler years, children's cognitive, social and emotional skills develop rapidly. During this time, children may benefit most from one-on-one interactions and the warm, responsive caregiving that promotes secure child-caregiver attachments and provides rich language stimulation and opportunities for children to safely explore their environment (Early & Burchinal, 2001). The larger group sizes that are common in centre-based EEC setting may be stressful for young children. Indeed, prior studies have shown that in infancy and toddlerhood, children are at heightened risk of elevations in cortisol over the course of the school day when compared to their older counterparts, which may in turn have implications for their development of early cognitive skills (Dettling, Gunnar, & Donzella, 1999; Vermeer & van IJzendoorn, 2006; Watamura, Donzella, Alvin, & Gunnar, 2003). Thus, younger children may develop optimally with parental care or within smaller and more intimate non-parental care settings (such as home-based care by relatives or non-relatives), where there are fewer peers and greater adult-child ratios than centre-based programs (Dowsett, Huston, Imes, & Gennetian, 2008).

With enhanced language skills, greater emotional regulation, and more advanced social skills, older, preschool-aged children may benefit more from varied environments with a broad array of learning experiences and peers with which to engage. Centre-based EEC programs often provide trained caregivers, more peer interaction opportunities, and more structured and varied educational curricula than parental or home-based EEC settings for preschool-age children, which may enhance preschoolers' cognitive skills (Coley, Li-Grining, & Chase-Lansdale, 2006; Dowsett et al., 2008; Fuller, Kagan, Loeb, & Chang, 2004; Maccoby & Lewis, 2003). Also, with more advanced self-regulatory skills, preschool-aged children evidence less stress in the context of centre-based EEC settings (Dettling et al., 1999; Vermeer & van IJzendoorn, 2006; Watamura, et al., 2003). These factors suggest that for preschoolers, centre-based care may optimally promote school readiness skills.

Numerous studies have found that attending centre-based EEC programs is predictive of greater reading and math skills in comparison to parental care or more informal home-based care settings.

Although Australia and the US share many economic and child care market features, there are notable differences in governmental support for early education and care.

Early childhood education policy in Australia and the United States

Although Australia and the US share many economic and child care market features, there are notable differences in governmental support for early education and care. According to the Organisation for Economic Co-operation and Development (OECD), both countries spend considerably less on families than most other peer countries in the OECD. However, the Australian Government provides parents with a variety of early childhood subsidies that exist only sparingly in the US. These differences begin at childbirth and may explain differences in the use of infant care between the two countries. Australia has long offered new parents one year of unpaid leave and a one-time “Baby Bonus” payment upon the birth of a child, and an 18-week paid leave option has been offered as an alternative to the Baby Bonus since 2011. In contrast, the US offers new parents 12 weeks of unpaid leave, with limited paid leave existing only within the private sector and in some individual states, suggesting that there would be a greater need in the US for EEC during infancy. The US also imposes work requirements for mothers receiving welfare, starting in their child’s infancy, whereas in Australia, mothers receiving welfare are not required to return to work until their youngest child reaches six years of age (Department of Human Services [DHS], 2013b). In concert with these policy differences, maternal employment patterns differ notably between the two countries, with US mothers entering employment earlier and being notably more likely to work full-time than Australian mothers (Australian Bureau of Statistics [ABS], 2012; US Department of Labor, 2009).

Extensive differences also exist between the two countries when it comes to paying for EEC. In Australia, the federal government covers up to 50% of families’ costs for centre-based care through the Child Care Rebate (up to a maximum of \$7,500 per year), and also subsidises informal registered child care (DHS, 2013a; Michel, 2003). Furthermore, Australian state/territory governments directly fund public preschools for the year prior to primary school entry. In contrast, the US reserves direct subsidies for low-income and poor families, with middle and upper income families receiving less generous tax credits. US preschools have long existed primarily in the private market, although publicly funded pre-kindergarten programs have expanded rapidly in the US over the past decade. Finally, the differences also extend to quality regulations.

Australia’s National Quality Framework evaluates nearly all Australian care settings, even family day care centres, while in the US, nearly 25% of children experiencing EEC attend unregulated care settings (Zigler, Marsland, & Lord, 2009). In short, Australia offers richer public options for EEC and more heavily regulates and subsidises these options, whereas the US system relies primarily on the private market, with fewer regulations and subsidies (Michel, 2003).

Given these distinctions, it follows that access to and use of EEC may differ between the countries as well. Prior research has found that a more substantial proportion of Australian children (90%) attend an EEC setting at some point prior to school entry compared to their US peers (about 78%), and Australian families are likely to place their children, particularly preschool-aged children, in EEC programs regardless of maternal employment status (ABS, 2006; Harrison & Ungerer, 2005; Harrison et al., 2009; Votruba-Drzal, et al., 2012). Still, research indicates that the most disadvantaged families in both countries are less likely to use formal EEC settings than their more advantaged counterparts (Capizzano & Adams, 2004; Harrison & Ungerer, 2005). Australia has responded to this need by committing to provide all children with access to high-quality preschool programs in the year prior to primary school by 2013 (Department of Education, Employment and Workforce Relations [DEEWR], 2012). Australia also has made a recent commitment to improving quality and standardising quality standards across states and territories through the National Quality Framework, whereas the US retains a diverse range of state regulations. Overall, these differences in policies for young families may lead to heterogeneity in EEC experiences during the infancy, toddler, and preschool years. Moreover, they also may give rise to variability in the effects of EEC experiences on children’s cognitive development.

Method

Sample

Data for this paper were drawn from two nationally representative birth cohort studies that follow children from birth through school entry: the Longitudinal Study of Australian Children Birth cohort (LSAC-B) from Australia, and the Early Childhood Longitudinal Study Birth cohort (ECSL-B) from the United States. These studies are particularly well suited for comparative research due to similarities in the sampling time frames and measures of EEC and children’s functioning. Both studies

have probability weights, making the samples nationally representative.

LSAC-B is a nationally representative study of a cohort of approximately 5,100 children born in Australia between March 2003 and February 2004. Births were sampled from the Medicare enrolment database, with stratification used to ensure proportional geographic representation for each state and territory. The survey sample excluded non-permanent residents, children with the same name as deceased children, and only allowed for one child per household. For more information on LSAC-B, see Sanson et al. (2002) and Soloff, Lawrence, and Johnstone (2005).

LSAC-B has so far collected four waves of data, with in-person interviews and direct assessments when children were, on average, 9 months (Wave 1), 3 years (Wave 2), 5 years (Wave 3), and 7 years (Wave 4), and with response rates of 58%,¹ 90%, 86% and 84% respectively. Data also were collected through mail-in written surveys in between the main waves, at average ages of nearly 2 years (Wave 1.5), nearly 4 years (Wave 2.5), and 6 years (Wave 3.5), and with response rates of 71%, 64% and 59% respectively. We selected four waves of the LSAC-B data that best matched the developmental timing of the ECLS-B data collection: Wave 1 (9 months), which we will refer to as the infant wave; Wave 1.5 (nearly 2 years), referred to as the toddler wave; Wave 2.5 (nearly 4 years), referred to as the preschool wave; and Wave 4 (7 years), the school-age wave.² Due to a high amount of missing data in the LSAC-B analytic sample, due to attrition and missing data on individual measures, missing data were imputed in Stata 12 (Royston, 2004, 2005) using multiple imputation by chained equations. The final LSAC-B analytic sample consisted of all children from the Wave 1 sample, a total of 5,107 children.

The ECLS-B is a nationally representative birth cohort study of approximately 10,700 children³ born in the United States in the year 2001 (Flanagan & West, 2004). Children who died or were adopted prior to the age of 9 months and children born to mothers under age 15 were excluded from the sample. The ECLS-B collected four waves of data on the birth cohort at average ages of 10 months (Wave 1; infancy), 2 years (Wave 2; toddlerhood), 4 years (Wave 3; preschool) and 5 years, following the entry to primary school (Wave 4/5; school-age),⁴ with response rates of 74%, 93%, 91% and 92–93%. Our analytic sample contained approximately 6,250 children who remained in the ECLS-B sample in Wave 4 with complete data,⁵ with



weights used to adjust for differential non-response and attrition.

Measures

Across all constructs, measures were created in a parallel fashion for the two datasets, except as noted.

EEC characteristics

In both studies, parents reported on regular non-parental care settings that their children experienced at each wave of the study. At each wave, data were coded into three mutually exclusive categories of care: centre (day care centre, preschool, Head Start), informal (relative, nanny, other non-relative, family day care, occasional care),⁶ or parent care (used as the reference category for later analysis). Due to the nature of the data availability and to extant literature suggesting the significant role of centre-based care in children's development, we "prioritised" centre-based care, coding the EEC type as "centre" if children received both centre-based and informal care. We considered separating out relative from non-relative informal care arrangements; however, these two types of care arrangements during infancy, toddlerhood or preschool stages were not related differently to children's later cognitive skills in either dataset. Thus, we used the combined measure of informal care arrangements. Because parent reports may not be reliable in differentiating subtypes of centre-based care arrangements (e.g., for-profit versus non-profit, or publicly funded pre-kindergarten versus private centres) and provider reports were not available across all waves of the two datasets, we also included all types of centres into one holistic group. At each wave, a dummy variable was created to denote whether children were in multiple concurrent non-parental care arrangements.

A more substantial proportion of Australian children attend an EEC setting at some point prior to school entry compared to their US peers.

Australian families are likely to place their children in EEC programs regardless of maternal employment status.

The extent to which children experienced EEC was measured at each wave using parent reports of the number of total hours per week children spent in care arrangements. Extent of care was categorised into full-time EEC (30 hours or more per week), part-time EEC (less than 30 hours), or no non-parental care.

Children's cognitive skills

Four measures of children's cognitive skills were assessed at age 7 in LSAC-B. Children's academic skills were assessed using the Academic Rating Scale (National Centre for Educational Statistics, 2002), in which teachers rated children's skills on a five-point scale (not yet = 1 to proficient = 5). The teachers reported on the subscales for Language and Literacy (9 items, $\alpha = .96$) and Mathematical Thinking (9 items, $\alpha = .94$). Children were directly assessed with the Matrix Reasoning test from the Wechsler Intelligence Scale for Children, 4th edition (WISC-IV) to assess non-verbal intelligence. Children's receptive vocabulary skills also were directly assessed by field interviewers using a shortened version of the Peabody Picture Vocabulary Test, 3rd edition (PPVT-III; Australian Council for Educational Research, 2000; Dunn & Dunn, 1997).

In the ECLS-B, children's cognitive skills at age 5 were measured using direct assessments to test children's reading, maths and language skills. The reading and maths skills assessments comprised items drawn from well-validated standardised instruments, including the PPVT-III (Dunn & Dunn, 1997), PreLAS 2000 (Duncan & De Avila, 1998), Preschool Comprehensive Test of Phonological & Print Processing (Lonigan, Wagner, Torgesen, & Rashotte, 2002),

and Test of Early Mathematics Ability, 3rd edition (Ginsburg & Baroody, 2003). The early reading assessment (74 items, $\alpha = .92$) assessed letter knowledge, word recognition, print conventions and phonological awareness. The maths assessment (58 items, $\alpha = .92$) assessed number sense, properties, operations and probability. Children's expressive language skills were assessed using the Let's Tell Stories subscale of the PreLAS, using a 0 to 5 scale to indicate coherence, fluency and complexity of language use.

Child characteristics

Numerous child characteristics were drawn from the LSAC-B and ECLS-B, including age of assessment (in months) and gender. Child low birthweight status was represented with an indicator of whether the child was born of low birthweight (less than 2,500 grams) versus normal. Child health condition was also represented by an indicator that reflected whether the child was of fair or poor health based on parent reports at Wave 1. In LSAC-B, race/ethnicity was measured using two dummy variables that indicated whether the child had a parent of Asian origin or with an Indigenous background. Child race/ethnicity was captured in ECLS-B with dummy variables indicating non-Hispanic African American, Hispanic, Asian, American Indian or multiracial, with non-Hispanic White as the reference group.

Early cognitive ability was assessed in each study at Wave 1. In LSAC-B, the Communication and Symbolic Behavior Scales (CSBS) Developmental Profile: Infant-Toddler Checklist (Wetherby & Prizant, 2001) was used, with a 24-item parent report scale ($\alpha = .89$) measuring children's early social, language and cognitive skills (Sanson, Misson, Hawkins, Berthelsen, & the LSAC Consortium Advisory Group, 2010). The ECLS-B used the Bayley Short Form—Research Edition (Bayley, 1993; Flanagan & West, 2004) to measure exploration of objects, early problem-solving and preverbal communication ($\alpha = .80$).

Parental and household characteristics

Several parental and household characteristics also were assessed. Time-invariant variables were drawn from Wave 1, whereas time-varying characteristics were measured at Wave 1 and Wave 3 in both studies. Parental age was measured with age in years of the youngest parent in the household. Parental education was assessed using the highest level of educational attainment, delineated as less than a high school qualification, a high school qualification (reference group), trade certificate or some university, and a Bachelor's



degree or higher. Maternal employment status was measured categorically indicating whether mothers were employed part-time (< 30 hours) or full-time (≥ 30 hours) at Waves 1 and 3, in comparison to not being employed. A dichotomous variable indicated whether either of the child's parents was an immigrant. An additional dichotomous variable indicated whether the primary language of the household was non-English at Wave 1. Marital status was measured categorically, delineating whether the respondent was consistently married (versus single or cohabiting) at Waves 1 and 3, married at either wave, or not married at either wave. A continuous variable denoted the number of children under age 18 in the household, averaged over Waves 1 and 3. Finally, total annual household income was averaged over Waves 1 and 3, in units of \$10,000.

Analytic approach

Associations between EEC and children's cognitive skills after school entry were modelled using a longitudinal lagged regression model, based on an accumulation of inputs framework (Blau, 1999; NICHD & Duncan, 2003). As shown in the following equation, cognitive skills following school entry (Wave 4 in LSAC-B and Waves 4/5 in ECLS-B) were expressed as a function of all EEC, child, maternal, and household inputs to a child's development prior to that point in time.

$$\text{Child Outcomes}_{4i} = B_0 + B_1 \text{Child Outcomes}_{1i} + B_2 \text{EEC}_{1,2,3i} + B_3 \text{Child}_{1-3i} + B_4 \text{Maternal/ Household}_{1-3i} + \varepsilon_i$$

Because characteristics of children, parents, and families may affect use of EEC, and factors affecting family selection of EEC could also be related to children's cognitive skills, it is essential to adjust for such factors in seeking to isolate potentially causal connections between EEC experiences and children's cognitive skills. Thus, our analytic models included a rich set of child, maternal and household factors as covariates, chosen based on prior research. Models also included a Wave 1 measure of cognitive ability to control for unmeasured, time-invariant differences in children (Cain, 1975), thus further reducing concerns of omitted variable bias. For both studies, survey weights, which adjust for selection criteria and differential response, were incorporated in all analyses. The use of these weights makes each sample representative of infants born in each country at the time of the Wave 1 sample selection.

Prior to conducting the multivariate models, we adjusted the measures of cognitive skills to help control for the differences in measurement and child age at assessment across the LSAC-B and ECLS-B datasets. Raw outcome variables were adjusted for age by taking the residuals from a regression of the outcome score on child age, and then were standardised to have a mean of 0 and a standard deviation (SD) of 1 so that a one-unit difference represented a one standard deviation shift, as has been the practice in prior comparative child development research (e.g., Bradbury, Corak, Waldfogel, & Washbrook, 2010).

Results

Descriptive results

Table 1 (on page 42) presents weighted descriptive statistics on each of the samples. We note that for descriptive interpretation, we present the non-adjusted measures of children's cognitive skills. Children in the LSAC-B were slightly younger during the infant, toddler and preschooler waves, but slightly older at the final wave, in comparison to children in the ECLS-B. Considering child, parent and family characteristics, we see both similarities and differences across the datasets. Australian parents were slightly older, more likely to be married, more highly educated, and had higher incomes than their US counterparts. Mothers were more likely to be employed part-time in Australia and full-time in the US. Families in Australia were more likely to contain immigrant parents, but less likely to be non-English speaking than families in the US. Families in the US were more likely to be non-White, although we note that the LSAC-B did not explicitly ask for respondents' race and ethnicity beyond country of origin for immigrants and Aboriginal status.

Table 2 (on page 43) presents descriptive statistics on children's EEC experiences. During infancy, only one-third of children in Australia were in non-parental EEC, compared to one-half of US infants. These differences were driven by informal care: in both datasets, approximately 10% of children were in centre-based care during infancy, while 24% of Australian and 41% of US infants were in informal EEC. US infants also were five times more likely to be in full-time EEC than their Australian counterparts (30% versus only 6% respectively). Some of these differences had evened out by the toddler wave, with close to half of the children in both datasets experiencing non-parental EEC. Australian toddlers were slightly more likely to be in centres and less likely to be in informal EEC than US toddlers.

Research indicates that the most disadvantaged families in both countries are less likely to use formal EEC settings than their more advantaged counterparts.

Table 1: Child and family characteristics, LSAC-B and ECLS-B

	LSAC-B		ECLS-B	
	% or <i>M</i> (SD)	Range	% or <i>M</i> (SD)	Range
Child age (months)				
Infant	8.86 (2.57)	3–19	10.47 (1.96)	6–22
Toddler	21.49 (3.39)	15–29	24.39 (1.21)	17–38
Preschool	47.27 (3.34)	41–53	52.38 (4.09)	44–65
School-aged	81.98 (3.51)	73–93	68.18 (4.42)	57–84
Child outcomes				
Maths score	3.30 (0.80)	1–5	44.09 (10.16)	11–70
Reading score	3.35 (0.77)	1–5	44.02 (14.29)	12–82
Matrix Reasoning score	10.60 (3.02)	3–19	–	–
Vocabulary/language score	73.99 (5.20)	54–92	3.46 (0.79)	0–5
Covariates				
Child male	51.2%	0–1	51.2%	0–1
Race/ethnicity				
White	86.9%	0–1	53.7%	0–1
African American	–	–	13.9%	0–1
Hispanic	–	–	25.2%	0–1
Asian	8.5%	0–1	2.8%	0–1
Indigenous	4.6%	0–1	–	–
Native American	–	–	0.5%	0–1
Multiracial and other	–	–	4.0%	0–1
Child low birthweight	0.06%	0–1	7.5%	0–1
Child bad health	3.1%	0–1	2.4%	0–1
Child CSBS/Bayley score	25.88 (9.70)	0–57	50.37 (9.64)	0–99
Immigrant household	31.5%	0–1	24.3%	0–1
Non-English household	15.7%	0–1	18.5%	0–1
Child number of siblings ^a	0.99 (1.07)	0–10	1.19 (1.06)	0–9
Parental marital status				
Parent never married ^a	21.1%	0–1	27.3%	0–1
Parent sometimes married ^a	11.4%	0–1	10.9%	0–1
Parent always married ^a	67.5%	0–1	61.8%	0–1
Youngest parent's age	31.41 (5.29)	15–63	27.85 (6.13)	17–70
Parental education				
Parent < high school education ^a	4.8%	0–1	8.3%	0–1
Parent high school education ^a	4.5%	0–1	23.0%	0–1
Parent trade certificate/some university ^a	48.3%	0–1	34.2%	0–1
Parent Bachelor's degree ^a	42.3%	0–1	34.5%	0–1
Annual household income (\$10,000s) ^a	8.39 (5.12)	0–54	5.41 (4.36)	0–20
Mother's employment status				
Part-time employed Wave 1	23.2%	0–1	18.0%	0–1
Part-time employed Wave 3	40.0%	0–1	17.3%	0–1
Full-time employed Wave 1	9.4%	0–1	35.0%	0–1
Full-time employed Wave 3	18.7%	0–1	42.2%	0–1

Notes: ^a Averaged over Wave 1 and Wave 3.

In relation to EEC extent, large differences remained, with American toddlers being four times more likely than Australian toddlers to experience full-time EEC (32% vs 8% respectively). On the other hand, Australian children were much more likely than US children to be in multiple care arrangements (18% vs 5% respectively). Finally, at the preschool wave, Australian children were slightly more likely than their US counterparts to be in non-parental EEC (85% vs 80% respectively), with this being driven by the greater use of centre-based preschools. Australian preschoolers continued to be much more likely to be in EEC part-time rather than full time (77% part-time in Australia vs 40% in the US), and also to use multiple types of EEC (37% vs 21% respectively).

Before turning to associations between EEC experiences and children's later cognitive skills, we also assessed whether there were differences in the family socio-economic characteristics of children attending EEC programs in the two countries. Our results generally showed very similar patterns (results not shown). In both samples, families with greater income, higher parental education, and more full-time maternal employment were more likely to use centre-based and informal care than parent care. One difference was that in the Australian data, married mothers were less likely to use parent care than their single/cohabiting counterparts, whereas in the US data, married mothers were more likely to use parent care.

EEC experiences and children's cognitive skills

Table 3 (on page 44) presents results from ordinary least squares (OLS) regression models assessing differences in children's cognitive functioning following school entry as a function of the type of EEC they experienced during the infancy, toddlerhood and preschool years. We note that all child and family covariates described above were included in these models, but for the sake of parsimony we present coefficients only for the main EEC variables of interest (full tables available upon request).

Results for LSAC-B are presented in the first four columns. In these models, we see that the type of EEC that Australian children experienced in infancy and preschool was not associated with their cognitive functioning at age 7, controlling for toddler EEC and the host of child, parent and family covariates. However, experiencing EEC during the toddler wave, at approximately age 2, was positively associated with children's

Table 2: Types and extent of EEC experiences for infant, toddler and preschool children, LSAC-B and ECLS-B

	LSAC-B (%)	ECLS-B (%)
Infant		
EEC type		
Parent	65.5	49.6
Centre	10.7	9.2
Part-time	8.1	2.4
Full-time	2.6	6.9
Informal	23.9	41.2
Part-time	20.0	17.7
Full-time	3.9	23.5
EEC extent		
Part-time	28.1	20.0
Full-time	6.4	30.4
Multiple EEC arrangements	8.4	5.0
Toddler		
EEC type		
Parent	47.4	51.3
Centre	26.2	16.8
Part-time	21.2	4.7
Full-time	4.9	12.1
Informal	26.5	31.9
Part-time	23.3	11.7
Full-time	3.2	20.2
EEC extent		
Part-time	45.2	17.2
Full-time	8.1	31.5
Multiple EEC arrangements	18.0	4.6
Preschool		
EEC type		
Parent	14.6	20.3
Centre	74.7	69.2
Part-time	63.2	34.7
Full-time	11.4	34.5
Informal	10.8	10.5
Part-time	9.6	4.5
Full-time	1.2	6.1
EEC extent		
Part-time	77.0	39.7
Full-time	12.7	40.6
Multiple EEC arrangements	36.7	20.6

cognitive functioning. Specifically, children who attended centre-based care at age 2 had significantly higher teacher-rated maths skills and literature skills, higher matrix reasoning scores, and marginally higher vocabulary skills than their peers who were in parental care during their toddler wave. No significant

The system in the US is more decentralised, with less consistent regulations, more limited and targeted financial support, and states rather than the federal government beginning to take the lead on promoting universal access to preschool.

differences emerged between children in centre-based versus informal care during toddlerhood. Across all of these results, effect sizes were small, averaging about .10 of a standard deviation difference.

Turning to the results from the ECLS-B, shown in the final three columns of the table, we see a different pattern of results. Like in the LSAC-B, in the ECLS-B there were no significant associations between non-parental care during infancy and children's cognitive skills after school entry. In contrast to the Australian results, few significant results emerged in relation to toddler EEC, though US children in informal EEC during toddlerhood had better expressive language skills than their peers in parent care. A more consistent set of results emerged for preschool-age EEC. US children in centre-based preschools had higher maths and reading skills than their peers in informal EEC, as shown by the matched superscripts in Table 3. Children in informal preschool EEC also had lower reading scores than children in parent care. Effect sizes were again small, albeit slightly higher than in the LSAC-B results.

Many similarities emerged across the datasets in the associations between child, parent and family covariates and children's later cognitive skills (results not shown). In particular, male children and children born with low birthweight had lower cognitive skills. Racial/ethnic differences in cognitive skills were strong in the US, but not in Australia. Both datasets show notable continuity in cognitive

skills from infancy until after school entry. Children in families with unmarried parents, families with more children, and families with younger parents showed lower cognitive functioning, as did children with less educated and lower income parents. Notably, almost no significant associations emerged between maternal employment and children's later cognitive functioning in either country, or between multiple EEC arrangements and children's cognitive functioning.

In summary, results indicate that centre-based EEC benefits Australian children during toddlerhood, but benefits US children during preschool. In Table 4 (on page 45), results are presented from models considering the extent rather than the type of care at each wave, splitting EEC into part-time or full-time non-parental EEC versus parent care. These models also include all child and family covariates (detailed results available upon request).

Results in Table 4 reiterate the finding that infant EEC is not associated with children's later cognitive functioning, regardless of whether the care is part-time or full-time. Similarly, when split by part-time and full-time, preschool EEC is not associated with later cognitive skills in either dataset, although we reiterate that in LSAC-B, relatively few children were in full-time care and hence these small groups have limited statistical power. Turning to EEC during toddlerhood, results from the LSAC-B show that both part-time and full-time care had benefits for Australian children's

Table 3: Predicted children's school-age cognitive skills by EEC timing and type, OLS regression models, LSAC-B and ECLS-B

Independent variables	LSAC-B				ECLS-B		
	Teacher-rated maths	Teacher-rated literature	Matrix Reasoning	Vocabulary	Math	Reading	Expressive language
Infant EEC							
Centre	-0.08 (0.06)	-0.06 (0.07)	-0.00 (0.08)	-0.06 (0.07)	-0.05 (0.06)	-0.07 (0.06)	0.06 (0.07)
Informal	-0.01 (0.05)	-0.01 (0.05)	-0.00 (0.05)	0.01 (0.04)	-0.03 (0.04)	-0.04 (0.04)	0.01 (0.04)
Toddler EEC							
Centre	0.12 (0.05) *	0.10 (0.04) *	0.10 (0.05) *	0.11 (0.06) +	-0.02 (0.05)	-0.05 (0.06)	0.06 (0.04)
Informal	0.04 (0.05)	0.06 (0.05)	0.03 (0.04)	0.04 (0.04)	0.01 (0.03)	-0.01 (0.04)	0.08 (0.03) *
Preschool EEC							
Centre	0.06 (0.06)	0.07 (0.06)	0.04 (0.05)	-0.01 (0.06)	0.05 (0.05) ^a	0.07 (0.05) ^a	0.04 (0.06)
Informal	0.04 (0.08)	0.03 (0.08)	-0.07 (0.07)	-0.04 (0.07)	-0.08 (0.07) ^a	-0.18 (0.06) ^{** a}	0.01 (0.08)
F of model	8.52 **	13.01 **	7.87 **	16.69 **	39.90 **	38.91 **	16.88 **
R ²	0.08	0.11	0.06	0.13	0.25	0.21	0.17

Note: Non-parental EEC groups are compared to the omitted category of parent EEC. All analyses controlled for the Wave 1 value of the age of youngest parent, highest education of parent, race, immigrant household, English spoken in household, child gender, child low birthweight, child in bad health, child early cognitive skills, child age at assessment, and multiple EEC arrangements at infancy, toddlerhood and preschool waves. Models also controlled for mother employed part-time and mother employed full-time at Waves 1 and 3, income averaged across Waves 1 and 3, number of children in household averaged across Waves 1 and 3, and marital status at Waves 1 and 3. Within each column, groups with shared superscript letters are different from each other at the $p < .05$ level. Other statistically significant differences are noted: + $p < .10$, * $p < .05$, ** $p < .01$.

Table 4: Predicted children's school-age cognitive skills by EEC timing and extent, OLS regression models, LSAC-B and ECLS-B

Independent variables	LSAC-B				ECLS-B		
	Teacher-rated maths	Teacher-rated literature	Matrix Reasoning	Vocabulary	Maths	Reading	Expressive language
Infant EEC							
Part-time	-0.02 (0.05)	-0.02 (0.04)	-0.01 (0.05)	-0.01 (0.04)	-0.04 (0.04)	-0.04 (0.04)	0.03 (0.05)
Full-time	-0.05 (0.09)	-0.04 (0.1)	0.00 (0.09)	0.04 (0.08)	-0.04 (0.05)	-0.09 (0.05) +	0.00 (0.05)
Toddler EEC							
Part-time	0.08 (0.05) +	0.08 (0.04) *	0.05 (0.04) ^a	0.07 (0.04)	-0.05 (0.04) ^a	-0.07 (0.05)	0.01 (0.04) ^a
Full-time	0.04 (0.09)	0.06 (0.1)	0.22 (0.07) ** ^a	0.09 (0.08)	0.04 (0.04) ^a	0.00 (0.05)	0.13 (0.04) ** ^a
Preschool EEC							
Part-time	0.01 (0.06)	0.02 (0.06)	-0.02 (0.06)	-0.04 (0.07)	0.04 (0.05)	0.02 (0.05)	0.05 (0.06)
Full-time	0.01 (0.1)	0.01 (0.09)	-0.08 (0.09)	-0.1 (0.08)	-0.01 (0.05)	0.05 (0.05)	0.02 (0.06)
<i>F</i> of model	8.64 **	12.46 **	7.85 **	18.67 **	39.90 **	38.91 **	16.88 **
<i>R</i> ²	0.08	0.11	0.06	0.14	0.25	0.21	0.17

Note: Non-parental EEC groups are compared to the omitted category of parent EEC. All analyses controlled for the Wave 1 value of the age of youngest parent, highest education of parent, race, immigrant household, English spoken in household, child gender, child low birthweight, child in bad health, child early cognitive skills, child age at assessment, and multiple EEC arrangements at infancy, toddlerhood, and preschool. Models also controlled for mother employed part-time and mother employed full-time at Waves 1 and 3, income averaged across Waves 1 and 3, number of children in household averaged across Waves 1 and 3, and marital status at Waves 1 and 3. Within each column, groups with shared superscript letters are different from each other at the $p < .05$ level. Other statistically significant differences are noted: + $p < .10$, * $p < .05$, ** $p < .01$.

functioning. Part-time EEC during toddlerhood predicted higher teacher-rated literature skills and marginally higher teacher-rated maths skills at age 7 than parent care, and full-time toddler EEC predicted higher Matrix Reasoning skills than either parent care or part-time EEC. In the ECLS-B data, on the other hand, results show a more consistent benefit from full-time toddler care, predicting greater maths skills in comparison to part-time EEC and greater expressive language skills in comparison to either part-time EEC or parent care.

We also considered whether interactions between EEC type and extent are important in predicting different levels of children's cognitive skills after school entry. Caution is warranted in these results, however, since cell sizes were small in many cases. These models generally indicated that part-time centre-based EEC during toddlerhood was most beneficial in the LSAC-B data, whereas patterns were less consistent in the ECLS-B (results not shown). Additional models also assessed the effects of EEC type and extent while altering the inclusion of controls for maternal employment; results did not change.

Discussion

As one of the first studies directly comparing the effects of children's early education and care programs on their cognitive skill development in Australia and the US, this

study provides important new information for scholars, policy-makers and practitioners. As maternal employment has increased and the benefits of early education programs have gained recognition, governments in numerous countries have increased the resources devoted to supporting and encouraging high-quality EEC programs for young children. Indeed, Australia has made significant strides in recent years, with the establishment of the National Quality Framework (a commitment to providing access to part-time preschool for all Australian children in the year prior to school entry), and the provision of financial support to help families self-care for their infants and pay for EEC programs for young children (DEEWR, 2012). In contrast, the system in the US is more decentralised, with less consistent regulations, more limited and targeted financial support, and states rather than the federal government beginning to take the lead on promoting universal access to preschool (Michel, 2003). In this study, we hypothesised that these policy differences, as well as higher rates of full-time maternal employment in the US than in Australia, might lead both to differences in the use of EEC, and to diverse effects on children's school readiness.

Indeed, patterns of EEC use were dissimilar in the two countries. Based upon representative samples of children born in 2003 in Australia and in 2001 in the US, results found that Australian children were more likely to be

Australian children were more likely to be in part-time rather than full-time EEC when they were infants, toddlers and preschoolers compared to American children.

Infant EEC was neither promotive nor detrimental to children's later cognitive skills, regardless of whether it was in centres or homes, or full- or part-time.

in part-time rather than full-time EEC when they were infants, toddlers and preschoolers compared to American children. Moreover, Australian children were more likely than their US peers to be in formal EEC centres during their toddler and preschool years (ages 2 and 4, respectively). In contrast, families in the US were more likely to use informal, home-based EEC options during infant and toddler years than Australians. These differences are likely important for children's healthy development, because extensive research has found that centres are more likely than informal EEC arrangements to provide high-quality care, characterised as they are by structured and stimulating early experiences, rich learning experiences, and warm and responsive care providers (Phillips et al., 2006), although some argue that for infants, higher quality care may be derived from home settings (Dowsett et al., 2008; NICHD ECCRN, 1996). On the other hand, informal arrangements may be more accessible and affordable for parents, particularly in the US, with its more limited financial supports (Coley et al., 2006; Li-Grining & Coley, 2006).

In addition to exploring patterns of EEC, this study provided innovative new information concerning associations between young children's EEC experiences and their core cognitive skills following school entry, skills that are essential for school achievement and eventual educational attainment and economic success (Heckman, 2000). Three primary patterns emerged from these results concerning the importance of EEC timing, type and extent. First, in both datasets, infant EEC was neither promotive nor detrimental to children's later cognitive skills, regardless of whether it was in centres or homes, or full- or part-time. This result may help to assuage concerns over growing maternal employment and EEC use during children's first year. Second, our results replicated other research in finding that formal centre-based EEC programs were more promotive of children's cognitive skills than were informal EEC settings such as relative, nanny and other home arrangements. Controlling for a broad array of child, parent and family characteristics, as well as for children's early cognitive skills, our models found that children who attended centre-based EEC programs in toddler or preschool years scored higher than their counterparts in other care settings in their later academic, reading and language skills. There were fewer differences in relation to the extent of EEC, with benefits accruing from both part-time and full-time EEC programs in Australia, but primarily from full-time programs in the US.

In considering the importance of these results, it is essential to consider the practical significance of the effects. Effect sizes for centre-based EEC were consistently small, averaging just over 10% of a standard deviation, similar to effect sizes found in other research on EEC from large national datasets (e.g., Coley et al., 2012; Loeb et al., 2007). To put these effects in context, the boost to children's cognitive skills from centre-based EEC was about the same size as that of a \$10,000 differential in annual family income, and about half the size of the effect of having a parent with a university degree versus a high school qualification. In considering potential policy levers for increasing children's early cognitive skills, these results thus suggest that increasing centre-based EEC attendance may be as effective as increasing family income, albeit less effective than the more expensive and challenging goal of significantly increasing adult educational attainment.

The third pattern in our results found that the timing of centre-based EEC benefits differed between the two datasets. Specifically, in Australia, the benefits derived from centre-based EEC during toddlerhood, when children were about 2 years of age, whereas in the US, the benefits derived from centre-based preschool programs, when children were 4 years old. There are various potential reasons for these differences. First, in Australia, three-quarters of children attended centre-based programs at age 4, and hence there was limited statistical power in differentiating the effects of this experience from informal and parental care. This high rate is in spite of the fact that in some Australian states and territories children begin primary school at age 4, and hence had more limited opportunities to attend centre-based EEC at this age. In addition, few Australian children were in full-time EEC (for more than 30 hours a week), limiting the role of this type of care.

Beyond these issues, it is important to consider other potential mechanisms explaining the associations between centre-based EEC for toddlers in Australia and for preschoolers in the US with children's later cognitive skills and school success. One potential mechanism is the quality of EEC programs. Unfortunately, the LSAC-B study did not directly assess the quality of EEC arrangements using standardised observation measures.⁷ However, we can look to related structural factors to gain some insight into potential differences in quality across settings, times and countries. For example, within centres, 96% of toddler centres were accredited in Australia, compared to only 32% in the US, and these differences were similar for centres attended by preschoolers (100%

vs 49% respectively). Notable differences emerged in teacher training as well, with 82% of Australian centre-based toddler teachers and 91% of centre-based preschool teachers reporting that they had a degree in early childhood education or a related field, whereas these proportions were 23% and 62% respectively in the US. However, the rates of teachers with a Bachelor degree or higher was similar in the two countries, as were the child-to-staff ratios. The aforementioned differences in centre accreditation and teacher training in early childhood development and educational practices might translate into higher quality educational contexts for young Australian children, an important question for future research to address. Although these structural markers of quality were greater for both toddler and preschool age children in Australia versus the US, it is possible that more highly trained caregivers and regulated settings are more influential for toddlers, who are still struggling with mastering basic communication, self-regulation and emotional skills, compared to their older counterparts.

In closing, it is important to acknowledge the limitations of this research. There are significant data limitations that are inherent in our reliance on the LSAC-B and ECLS-B, notably having incomplete information on all EEC settings attended, and information on EEC only being collected at distinct developmental periods rather than being continuously recorded from birth through school entry. As mentioned earlier, another important limitation is the lack of direct assessments of EEC quality. It is difficult to truly compare the experiences of children in EEC in Australia versus the US without a more detailed understanding of EEC program curricula, structure and quality, and how these differ between the two countries. Finally, although models included a broad array of child, parent and family covariates, and incorporated lagged OLS models to adjust for selection bias, correlational methods are not able to control for all unmeasured heterogeneity that may have biased measured links between EEC experiences and children's development.

Beyond these limitations, results of this research replicate a growing base of scientific evidence suggesting that centre-based EEC programs help to promote children's readiness for school by supporting growth in core early cognitive skills, such as language comprehension and production, and nascent reading and maths skills. These skills, in turn, help children to successfully transition into and flourish in formal school settings. As such, our results provide empirical support



for the Australian Government's efforts to increase all children's access to centre-based EEC programs. Continued attention needs to be paid to the influence of these experiences on other arenas of children's functioning, such as emotional and behavioral skills, and to the EEC experiences of toddler-age children to determine whether government efforts to promote EEC should extend down to 2- and 3-year-olds.

Endnotes

- 1 Different response rates have been reported based on different calculations. This response rate includes non-response from all sources from the originally drawn sample (see Gray & Sanson, 2005).
- 2 We chose Wave 4 rather than Waves 3 or 3.5 to assess children's developmental outcomes because only 21% of Australian children had entered primary school at Wave 3, and there were no child assessments at Wave 3.5.
- 3 ECLS-B secure data rules require that all *N*s be rounded to the nearest 50.
- 4 Not all children had entered primary school at the time of assessment at Wave 4. Accordingly, the ECLS-B reassessed those children the following year to capture their development at the start of primary school.
- 5 This represents 92% of the 6,800 children in the Wave 4/5 sample.
- 6 We included family day care in the informal category, in congruence with a host of prior research showing that such programs are less structured than centres and show associations with children's school readiness skills more akin to relative and non-relative home care than to centres. Similarly, though occasional care may be based in a centre context, it is unlikely to share the same structure and curriculum as centre programs and hence was included with informal care.

Increasing centre-based EEC attendance may be as effective as increasing family income, albeit less effective than the more expensive and challenging goal of significantly increasing adult educational attainment.

In Australia, the benefits derived from centre-based EEC during toddlerhood, when children were about 2 years of age, whereas in the US, the benefits derived from centre-based preschool programs, when children were 4 years old.

7 LSAC-B did link quality assurance data collected by the National Childcare Accreditation Council to some EEC settings at Wave 1, but the NCAC measures were altered by Wave 2, limiting our ability to identify stable measures across the waves. Moreover, the ECLS-B collected observational quality measures only at Waves 2 and 3, and only for a subset of EEC settings.

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Centre-based EEC programs help to promote children's readiness for school by supporting growth in core early cognitive skills, such as language comprehension and production, and nascent reading and maths skills.



From training to practice transformation

Implementing a public health parenting program

Sally Gaven and Janet Schorer

Parenting is an intensely private journey, both joyful and fraught, and often traversed in the wee dark hours in lonely conditions, or perhaps more dauntingly in the full glare of a shopping centre crowd. But parenting is also critical to many aspects of public health. Longitudinal research such as the Christchurch Health and Development Study, which has followed 1,265 New Zealanders from birth to adulthood, shows that childhood conduct disorder may be the most important determinant of problematic lifelong development—being strongly associated with imprisonment, drug dependence, mental illness, early parenthood, inter-partner violence and suicide (Fergusson, Boden, & Horwood, 2009).

A wealth of evidence shows that the most successful intervention for childhood conduct problems is parent management training that is based on social learning and behaviour modification methods, such as the Triple P: Positive Parenting Program® developed by Professor Matthew Sanders and colleagues

at the University of Queensland (Fergusson et al., 2009; Nexus Management Consulting, 2009). While a recent systematic review and meta-analysis by Wilson et al. (2012) of Triple P evaluations worldwide has pointed to specific weaknesses in the research design of many of these studies (such as small sample size, selective reporting bias and a focus on short-term effects), this does not discount the evidence for parent management training, but does highlight the importance of continual (but cost-effective) improvements to social research and the need to focus on how evidence-based programs are implemented.

The NSW Government began a public health implementation of Triple P in 2008, which was evaluated with an emphasis on what happens *after* practitioners are trained in an evidence-based program, and how implementation issues affect the changes it creates for families—in the population and in the practice of working with families (Nexus Management Consulting, 2011).

Going public: Triple P

While Triple P began on a small scale as an individually administered training program for parents of disruptive preschool children (Sanders & Glynn, 1981), it has evolved over the past 25 years into a comprehensive public health model of parenting education. Inspired by examples of large-scale health promotion studies that targeted behaviours such as smoking, sedentary lifestyle and unhealthy diets (Farquhar et al., 1985), Matthew Sanders and colleagues developed an evidence-based system of parenting intervention targeting the whole-of-population level.

Triple P now represents a coordinated system of training and accreditation for practitioners across various fields of health, education, child care, general practice and social welfare. Over 62,000 practitioners have undertaken Triple P training in countries including Australia, New Zealand, Singapore, Hong Kong, Canada, United States, England, Scotland, Belgium, The Netherlands, Curacao, Republic of Ireland, Japan, Germany, Switzerland, Sweden and Iran, with large-scale implementation taking place in several of these countries (Sanders & Murphy-Brennan, 2010; Sanders et al., 2008).

Triple P includes five different levels of intervention, and the NSW implementation of Triple P offers Level 2 Seminars (three developmental guidance seminars aimed at all parents) and/or Level 4 Groups (a series of eight intensive sessions for parents of children with behavioural difficulties) free of charge to all parents of children aged 3 to 8 years. Triple P forms part of the Families NSW prevention and early intervention efforts, jointly delivered by the NSW Department of Family and Community Services (FaCS), Department of Education and Communities (DEC), and Ministry of Health, in partnership with families, community organisations and local government.

Led by FaCS, the implementation was resourced with \$5 million from the NSW Government, over four years, to provide:

- *governance* via interagency Triple P Working Groups;
- *engagement and training* of 1,100 practitioners from non-government service providers and government agencies between 2008 and 2010; and
- *delivery support* to encourage each accredited practitioner to deliver two Level 2 Seminar Series and two Level 4 Group Series each year.

By providing Triple P to as many NSW parents as possible, the program aims to:

- *reduce risk factors* for poor developmental outcomes in children:
 - early onset behavioural and emotional problems in children;
 - coercive, harmful and ineffective parenting; and
 - parents' emotional distress and conflict.
- *increase protective factors* for favourable developmental outcomes:
 - parental confidence and efficacy;
 - positive parenting practices; and
 - participation in evidence-based parenting programs.
- *build the capacity* of communities to support parents through:
 - capacity and confidence of service providers; and
 - interagency collaboration and referral pathways.

Measuring the value of improved parenting

Nexus Management Consulting was engaged in 2009 to evaluate the changes the NSW implementation of Triple P created for families—in the population and in the practice of working with families. The methods were tri-fold:

- A *process evaluation* assessed the quantity and quality of the program's outputs—practitioner training and support, and the delivery of seminars and groups to families. Methods included: the analysis of program data on practitioners, courses delivered and attendee numbers and demographics; focus groups and consultations with partner agencies and more than 60 practitioners; and an online survey of over 300 practitioners.
- An *outcome evaluation* measured the quantity and quality of changes in children's behaviour and parenting practices after parents completed a Triple P course. This aimed to confirm that the NSW implementation was effective and delivered client outcomes in line with implementations elsewhere. Methods included: a non-randomised controlled trial involving 182 families; analysis of pre- and post-intervention outcome data and attendee satisfaction data collected by practitioners; and a telephone survey of 45 parents who had recently completed a course.
- An *economic evaluation* estimated the costs and benefits of making these changes, and any longer term population impacts. Methods included: analyses of the costs

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incurred by the head office, regional offices and provider organisations; and a literature review.

This paper gives an overview of the evaluation's key findings, but with a focus on the implementation challenges of achieving population reach with a public health parenting program. Further details of the methods and findings, including of the outcome evaluation, are published in the evaluation summary report (Nexus Management Consulting, 2011).

What was done: How much and how well?

In just over two years, over 1,000 practitioners were trained to deliver Triple P—two-thirds from 250 non-government organisations, and mostly child and family workers, caseworkers or service managers. The rate of accreditation following training was high compared to international standards (86%), nearly all practitioners surveyed felt confident about delivering Triple P, and attendee satisfaction with courses was high.

However, only 60% of trained practitioners had started delivering courses to families, and only a third were delivering courses at the expected rate. Thus, in 2010, around 600 Triple P courses were delivered in NSW, less than one-fifth of the targeted 3,348.

Attendee estimates indicated that only about 14% of the target reach was achieved by the end of 2010, and in the absence of broad engagement strategies, families coming to courses were more disadvantaged than the general population, with the children experiencing more emotional and behavioural difficulties.

A mid-term evaluation issues paper in 2010 identified the need for improvements in practitioner and delivery support in order to raise the number of courses being held and to attract more families to attend. As the implementation developed, FaCS boosted efforts to engage, support and ease the workload of practitioners. Initiatives included:

- practitioner peer support groups;
- promotion of co-facilitation;
- a purpose-built scoring application to improve data entry and the use of outcome instruments;
- promotional resources;
- a practitioner website; and
- assistance funding to cover expenses such as audiovisual equipment, child care, refreshments and venue hire.

What changed and for whom?

The outcome evaluation showed that the behaviour and emotional wellbeing of children whose parents attended a Triple P course in NSW improved significantly. The controlled trial used the validated behavioural screening Strengths and Difficulties Questionnaire (SDQ; Goodman, 1999). Parents answered 25 questions about their children's positive and negative emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and prosocial behaviour, before and immediately after completing the Triple P Level 2 Seminar Series and six months later. A comparison group of parents who had not attended any parenting courses also completed the survey at the same time intervals.

The children (both boys and girls) whose parents went to Triple P seminars showed a significant improvement in their behaviour and emotions six months later, while the children in the no-treatment comparison group did not. There was a net reduction in children with SDQ scores in the clinical range of almost 10 percentage points six months after their parents completed Triple P Level 2 (see Figure 1 on page 53). That is, of the 93 children in the treatment group with complete data, 20 had an SDQ total problems score of 16 or more (clinical range) before Triple P, while six months later only 11 children did.

While there were marked differences between the Triple P and comparison groups on their enrolment into the study (the Triple P group was generally more disadvantaged on entry to the study, their children had significantly higher SDQ total problem scores and were more likely to be attending a professional service with regard to their child's behaviour or emotional problems), multivariate analysis adjusting for these differences showed that the rate of improvement was due to participation in Triple P.

Among those who completed the more intensive eight-week Triple P Level 4 Group Series, analysis of outcome data on parenting behaviour and child behaviour and emotional difficulties also showed significant improvements after attending the sessions. There was a net reduction in the proportion of children with SDQ scores in the clinical range of over 11 percentage points (see Figure 2 on page 53). That is, of the 482 study children for whom pre-intervention SDQ Total Problems scores were available, there were 170 (or 35%) with scores falling within the clinical range. There were 311 study children with complete SDQ scores available after completing Triple P, and 77 (or 25%) of these had scores within

the clinical range, a statistically significant improvement.

These positive changes were reflected in responses to the qualitative telephone surveys of a small sample of Triple P participants, which aimed to complement the evaluation's quantitative data with insights into parents' perceived confidence and reported changes in parenting behaviours. Most parents felt that after participating in Triple P, their child's behaviour had improved (91% of the 45 respondents), they had changed their parenting practices (87%) and were more confident in their parenting (93%).

Practitioners also reported positive effects on their own practice. Practitioners surveyed who were actively delivering Triple P felt it had helped them do their job better, enhancing the services they could offer clients and increasing their confidence in helping families. Almost 90% would recommend Triple P to their colleagues. The practitioner and regional consultations reflected system benefits from Triple P through:

- increased knowledge of other agencies and services;
- the spread of a common language;
- building relationships and trust with clients;
- promoting referrals;
- enhanced peer support;
- co-facilitation and mentoring; and
- sharing resources, such as space, child care and transportation.

The Triple P philosophy, training and resources were commonly cited as being useful tools for strengthening casework and, in some instances, promoting more consistent practices within agencies.

The literature points to significant long-term social benefits and cost savings resulting from Triple P (Access Economics, 2010), and this evaluation's extrapolation of the outcome data suggests that by the end of 2010, the NSW implementation had already moved 1,150 children from the clinical to the non-clinical range of behaviour and emotional difficulties.

At what cost?

The evaluation's costing analysis of the resources contributed by partner agencies and non-government service providers to delivering Triple P shows that in addition to a direct public investment of approximately \$5 million, the government leveraged around a further \$8 million of value towards the implementation. However with attendance rates low, the cost

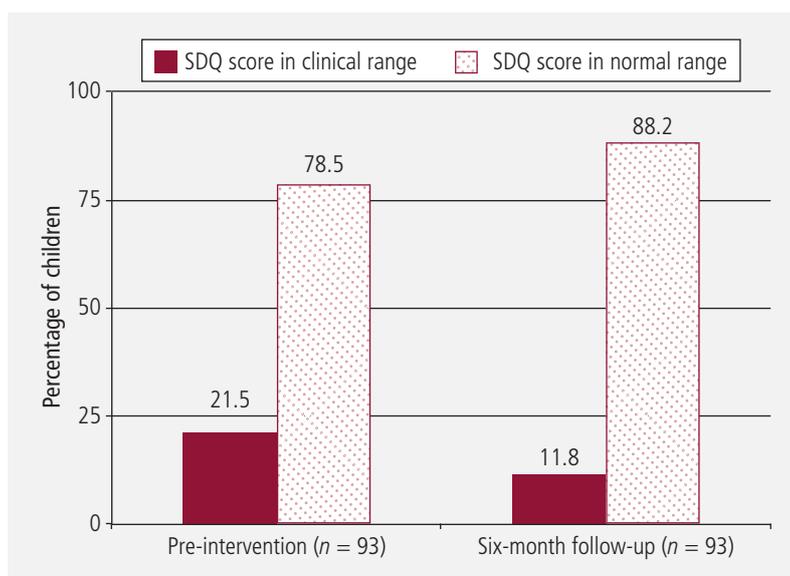


Figure 1: SDQ clinical status before Triple P intervention and at six-month follow-up, Triple P Level 2 Seminar Series families

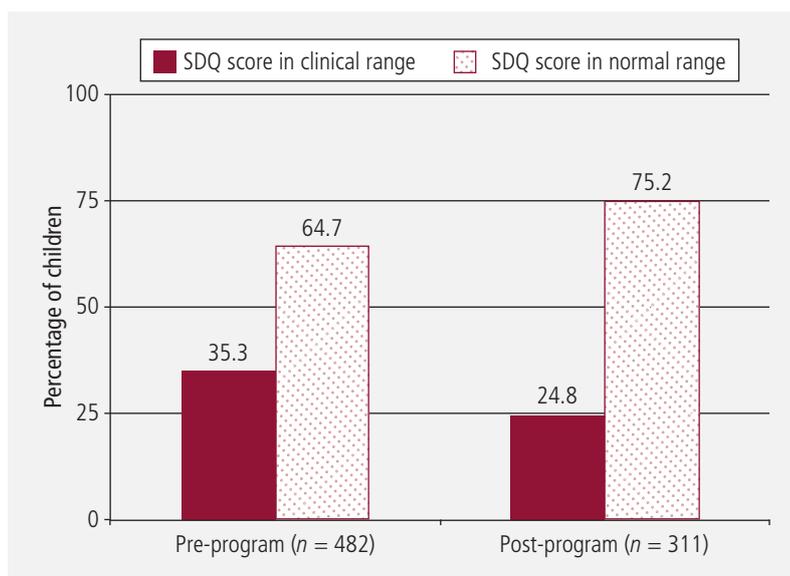


Figure 2: SDQ clinical status before Triple P intervention and at completion, Triple P Level 4 Group Series families

per child was estimated at a comparatively high \$641.

Moreover, the benefits to families, the practices and the service system come at the major cost of increased time pressure among committed practitioners. A quarter of those surveyed noted that their involvement in Triple P had added time pressure to their work, and the evaluation consultations highlighted a key challenge for individual practitioners of balancing the commitment to Triple P with day-to-day work and core commitments.

The “magic” of practice transformation (the transition from good science to better service) happens when evidence-based programs are supported by implementation drivers that back up the training.

The implementation challenge

While the implementation of Triple P in NSW successfully trained a multidisciplinary workforce and achieved positive results for the clients it reached, two years in, too few practitioners were delivering courses, only a fraction of the target group families had attended (estimated at 14% of the target families), and those who did attend were not representative of the general NSW population. The implementation was facing two key hurdles in transforming practice to create a population-based public health improvement (captured in Figure 3):

- *translating training into delivery* of the program to families; and
- *achieving reach into the population* by engaging a sufficiently broad range of families.

The evaluation report flagged that with the global movement away from restricting parenting interventions to the clinical paradigm, evidence-based programs are developing to strengthen the skills, knowledge and confidence of parents in order to achieve improvements in the health and wellbeing of children at a population level.

The increasing demands being placed on statutory child protection systems across Australia led, in 2009, to the Council of Australian Governments endorsing the application of a public health model to child protection in 2009 (Australian Government,

2009). In NSW, Triple P is cited as being a key part of the universal service system that is helping to reduce child abuse and the numbers of children in out-of-home care (New South Wales Government, 2009).

Shifting parenting support from a clinical intervention to a public health initiative is no mean feat; and while it takes more work to set up, and involves major organisational, structural and systemic changes (Sanders & Murphy-Brennan, 2010), it proffers a much greater payoff for the community, and greater health and broader social gains for children and families (Prinz, Sanders, Shapiro, Whitaker, & Lutzker, 2009).

The NSW experience with Triple P illustrates the point made in the literature examining the implementation of human services programs—that to achieve an effect on the population, it is not enough to train practitioners in high-fidelity, effective and efficient evidence-based programs (Shapiro, Prinz, & Sanders, 2010). The “magic” of practice transformation (the transition from good science to better service) happens when evidence-based programs are supported by implementation drivers that back up training with:

- targeted practitioner selection;
- ongoing coaching;
- consultation and support;
- data systems to support decision-making; and
- system interventions, such as the promotion of collaboration and peer support (Fixsen, & Blase, 2009; Gagliardi et al., 2009; Holt, 2009; Li et al., 2009; Ziviani, Darlington, Feeney, & Head, 2010).

The evaluation identified strengths within the NSW Triple P implementation that could be developed to establish the infrastructure needed to support delivery and increase population reach. These five key steps to practice transformation are:

- *universal* engagement;
- broad and strategic program *promotion*;
- integrated *data* collection (program output and client outcome data);
- active central delivery *management*; and
- concerted and consistent *practitioner support* at all levels.

Universal engagement

Universal entry points provide a foundation for the broad engagement that is critical to the success of public health programs, and international experience with Triple P emphasises the importance of having an education sector

	Target	Actual 2010
Practitioners trained:	1,180	On track
Expected to deliver:	Full-time: 2 seminars & 2 groups Part-time: 1 seminar & 1 group	About one-third achieving expected delivery
To achieve a total of:	1,674 seminars per year 1,674 groups per year	301 groups 287 seminars
To reach:	92,790 by end 2010 300,000 families by end 2015	12,580 families 14% of expected reach
To result in:	Improved family and population outcomes	Improved family outcomes

Figure 3: Snapshot of Triple P implementation targets and actual 2010 outcomes

that embraces and funds parenting support in school settings, and health care settings that offer parenting support (Sanders, Prinz, & Shapiro, 2009). While the evaluation found that many practitioners were delivering Triple P in community health settings, fewer than one-fifth were from the NSW Department of Education and Communities. There is scope to broaden engagement strategies beyond the welfare sector, integrate Triple P with transition-to-school programs, promote Triple P internally within the DEC, make direct approaches to principals and parents and citizens committees to promote Triple P, and deliver Triple P in neutral venues such as local government services and libraries.

Program developments following the evaluation have focused on strengthening relationships between the regional offices of NSW Community Services and DEC staff. Increasing numbers of Level 2 Seminars are being delivered to school communities, and efforts are underway to promote Triple P through DEC internal databases, its intranet and the Parents and Citizens Federation's newsletter.

Liaison with local government services is also being stepped up, with a Triple P support and development project in southwest Sydney working with Children's Services managers to organise collaborative Triple P sessions, and local neighbourhood centres providing free venue hire for Triple P courses on the NSW Central Coast.

Promotional material about Triple P courses and their availability was mailed to school counsellors in primary schools and libraries across NSW and to services already funded through Families NSW to deliver universal programs in July 2012.

Broad and strategic promotion

Promotion in the mass media has traditionally been regarded as being critical to attaining population reach, and online campaigns and social media now also lend themselves to broad engagement. Triple P incorporates a proven mass media component (Level 1), but this was not part of the NSW implementation. Narrowly focused engagement strategies focused on the welfare sector likely contributed to the low reach of the implementation, and so the evaluation recommended a mass media campaign to create positive social norms around attending parenting programs and to drive parents and carers to an easily accessible website where they could book into a course. The campaign would need to be supported

by targeted public relations campaigns, community service announcements and online advertising.

Families NSW has since improved its website to make it easier for parents to find and register for a Triple P course, and a promotional campaign was developed with online advertising driving traffic to the site. New promotional materials that focus on a "call to action"—encouraging parents to visit the website or call a 1800 number—were distributed in a statewide letterbox drop to over 800,000 households and schools, libraries, community centres, children's services and a range of other stakeholders. Early reports of the number of families registering for a Triple P event using the online search and booking features of the improved website are encouraging.

Integrated data collection

Embedding the application, recording and reporting of input, output and outcome data is a critical element of optimal implementation in most fields, and is also essential for assessing and improving a public health program's ability to meet the two key challenges of delivery and reach. Both the internal FaCS Triple P program database and the scoring application for practitioners to manage client outcome data were not established until more than two years into the implementation, which may have discouraged practitioners from routinely collecting critical program and client outcome data. Around one-fifth of practitioners surveyed did not ask parents to complete demographic instruments or the key outcomes instrument.

The evaluation recommended introducing some incentives to encourage practitioners to collect and record each client's demographic, satisfaction and outcome data, such as delaying payment of assistance funding (for refreshments, venue costs and child care) until after the scoring application is completed for the clients of each registered course. The evaluation also recommended more proactive tracking of each practitioner's course delivery rate in order to increase the number of courses delivered, and an annual survey of practitioners, both of which have been instigated.

Central delivery management

The systems-contextual approach to improving the reach of public health programs emphasises the importance of using organisational and infrastructural supports to overcome individual, organisational, funding and policy barriers to delivery (Sanders & Murphy-Brennan, 2010). Active central delivery management—liaising

There is scope to broaden engagement strategies beyond the welfare sector, integrate Triple P with transition-to-school programs, promote Triple P internally within the DEC, make direct approaches to principals and parents and citizens committees to promote Triple P, and deliver Triple P in neutral venues.

The evaluation underlined the need for governance bodies to extend their involvement to the management of program delivery to clients, in an active partnership with service providers and community organisations.

closely with service provider organisations to reinforce delivery requirements, backed up by systems to track actual delivery—has helped improve delivery and reach of Triple P implementations internationally (Shapiro, Prinz, & Sanders, 2012). The evaluation underlined the need for governance bodies to extend their involvement to the management of program delivery to clients, in an active partnership with service providers and community organisations. This goes beyond the more traditional focus on simply delivering training in an evidence-based program.

Practitioner support and collaboration

Practitioner self-efficacy is associated with higher delivery rates (Turner, Nicholson, & Sanders, 2011). Four levels of support are available for practitioners delivering Triple P in NSW:

- *departmental support* via assistance funding, practitioner development days and regional coordination projects;
- *support from within a practitioner's own organisation* and their manager in managing workloads, maintaining self-efficacy and program fidelity; however, the survey and consultations indicated the level of this support was generally low, and that in many cases managers were unaware of the Triple P delivery commitments. The recommendations for more active central delivery management are aimed at improving this support;
- *peer support* initiatives on a local level, as well as having a practitioner website to promote networking and collaboration. Central support from governance and funding bodies for active peer support groups was recommended to increase practitioner confidence, delivery rates and program fidelity; and
- *collaborative delivery*, cited by practitioners surveyed as being very helpful for managing the workload involved in delivering Triple P courses, sharing costs, engaging attendees, administering and scoring outcome instruments and, most importantly, sharing learnings and lending confidence. This can be promoted by dedicated coordinator staff (as in the Western Australian implementation) or by active peer support groups.

Peer support groups or networks now operate in most regions across NSW, supported by the practitioners' website. In Sydney's Metro Central region, Parenting Program Coordination

Projects funded by Families NSW have been gathering information about barriers and issues faced by practitioners and holding practitioner workshops. The Resourcing Parents website, a project also funded by Families NSW, has had a significant effect on the coordination, collaboration and delivery of parenting programs and has improved access by parents and carers to available programs. This project was originally funded in the Metro Central region and later expanded to Metro West and Metro South West to cover metropolitan Sydney.

Conclusion

As governments seek to work more and more closely with the community sector, and our frontline of service delivery is peopled increasingly by non-government practitioners, the lessons of implementation provide a useful path through the myriad challenges involved.

Like any family-focused public health intervention, the implementation of Triple P in NSW is no small feat. The joint effort is providing seminars and courses to parents across the state free of charge, and engaging an enthusiastic and committed workforce, with a limited budget and across a diffuse system network.

Providing high-quality training in a proven intervention is only the start. A creative and flexible approach to developing implementation drivers and infrastructure is necessary to harness individual and organisational goodwill, to build on the inherent strengths of the effort, and to generate genuine productive partnerships. Training needs to be augmented by promotion and delivery methods that take the intervention to the population (through the media, schools, libraries and community centres), by tracking and measuring implementation data as well as outcome data, and by ongoing vertical and horizontal practitioner support. Implementation drivers like these help transform practice to create a healthier population from our community's richest resource: families.

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The summary report on the evaluation of the NSW Triple P implementation is available at <www.families.nsw.gov.au/assets/triple_eval_report.pdf>. This article is based on a presentation given by the authors at the 12th annual conference of the Australian Institute of Family Studies in July 2012 on the results of and response to the evaluation of the NSW Government's implementation of the Triple P Positive Parenting Program conducted between 2008 and 2011 by Nexus Management Consulting. The project sponsor was Janet Schorer for the NSW Department of Family and Community Services. The Nexus evaluation team was: Greg Masters, Director, Nexus Management Consulting; Sally Gaven, Director, Sally Gaven Consulting; Dr Louise Askew, Research Assistant, Nexus Management Consulting; Ashley Pennington, Zyhber Business Solutions; Professor Sven Silburn, Menzies School of Health Research; Associate Professor Stephen Jan, The George Institute for International Health, Faculty of Medicine, University of Sydney.

A creative and flexible approach to developing implementation drivers and infrastructure is necessary to harness individual and organisational goodwill, to build on the inherent strengths of the effort, and to generate genuine productive partnerships.



Workplace support, breastfeeding and health

Julie P. Smith, Ellen McIntyre, Lyn Craig, Sara Javanparast, Lyndall Strazdins, Kate Mortensen

This paper aims to identify best-practice strategies for breastfeeding support in the Australian workplace. It uses data from Australian employers and their female employees who had initiated breastfeeding and returned to work. Our aims were to (a) identify key barriers to and enablers of combining breastfeeding with employment, including employment arrangements and workplace factors linked with exclusively breastfeeding for six months; and (b) explore the implications for maternal/child health and absenteeism of infant feeding practices among employed women.

Breastfeeding, health and employment

Breastfeeding is important to both maternal and child health. The World Health Organization (WHO; 2003) recommends six months of exclusive breastfeeding and continued breastfeeding to two years and beyond. However, the most recent national survey of

infant feeding practices in Australia, conducted in 2010, showed that just 2% of Australian infants are exclusively breastfed for six months, with only 15% to six months (Australian Institute of Health and Welfare [AIHW], 2011). The effects of premature weaning on maternal and child health, and child cognitive development are now well-established (Büchner, Hoekstra, & van Rossum, 2007; Horta, Bahl, Martinez, & Victora, 2007; Ip et al., 2007; Kramer et al., 2008). Low breastfeeding rates translate directly into higher illness and disease, with substantial health system cost effects (Bartick & Reinhold, 2010; Renfrew et al., 2012; Smith & Harvey, 2011; Smith, Thompson, & Ellwood, 2002).

In Australia, as in many industrialised countries, exclusive and sustained breastfeeding has become a public health priority (European Commission Directorate Public Health and Risk Assessment, 2008; National Health and Medical Research Council [NHMRC], 2003; National Breastfeeding Advisory Committee of New Zealand, 2009; United States Department of Health and Human Services, 2011).

In 2010, national health ministers endorsed an Australian National Breastfeeding Strategy to increase breastfeeding, including among employed mothers (Australian Health Ministers' Conference [AHMC], 2009). This followed a federal parliamentary inquiry that investigated links between premature weaning, illness and chronic disease, and the sustainability of Australia's health system (House of Representatives Standing Committee on Health and Aging, 2007).

Lack of accommodation of women's needs in employment results in lower national productivity growth because this source of highly educated labour—in scarce supply—is underused (Toohey, Colosimo, & Boak, 2009). Poor maternal or child health may also affect employers through parental absenteeism if breastfeeding is not catered for (Cohen, Mrtek, & Mrtek, 1995). As Sex Discrimination Commissioner Elizabeth Broderick (2012) has pointed out, if national productivity growth is to be maintained, there is a need to recognise the different life cycles of men and women and apply that knowledge to develop good policy solutions and business practices:

[In 2012], there is still a fundamental mismatch between unpaid caring work and workplace structures and cultures. If we continue to refuse to recognise that workplaces are part of the social context in which individuals make their decisions on work and family, we will struggle to achieve significant progress. Our seemingly "private" decisions are in fact shaped by the public context in which they are made. (p. 207)

For over a decade, increased public attention has been given to helping employees balance work and family, though this has not been evenly spread throughout the economy (Earle, 2002). Analysis and documentation of "best practice" breastfeeding support in workplaces provides a potentially useful tool. Such documentation can inform workplaces and managers on the extent and nature of effective supports currently available, shaping community expectations and encouraging a wider adoption of such practices. It is also important to identify any potential payoffs to employers and the health system from such measures, to ensure family-friendly strategies become embedded in business practices and public policy.

Breastfeeding, employment and workplace support: Policy and research context

Workforce participation rates among new mothers have risen in Australia in recent years

(Eldridge & Croker, 2005), with the proportion of mothers of infants who are employed rising from 30% in 1991 to 41% in 2011 (Baxter, 2013). Around one-fifth of Australian mothers return to work by six months (Baxter, 2008). International research has shown lower rates of breastfeeding among employed than non-employed mothers, especially those returning before breastfeeding is established or to full-time employment (self-employment and part-time work hours affect breastfeeding less) (Berger, Hill, & Waldfogel, 2005; Chatterji & Frick, 2003; Fein & Roe, 1998; Gielen, Faden, O'Campo, Brown, & Paige, 1991; Guendelman et al., 2009; Hawkins, Griffiths, & Dezateux, 2007; Kurinij, Ezrine, & Rhoads, 1989; Lindberg, 1996; Roe, Whittington, Fein, & Teisl, 1999; Ryan, Zhou, & Arensberg, 2005; Thulier & Mercer, 2009; Visness & Kennedy, 1997; Winicoff & Castle, 1988). In the United States, a lack of post-partum leave leads to early cessation of breastfeeding, especially among women who are non-managerial employees, lack job flexibility or are experiencing high psychosocial distress (Guendelman et al., 2009).

In Australia, similarly, mothers returning to work before six months are less likely to be breastfeeding at six months than mothers who are not employed (Baxter, Cooklin, & Smith, 2009; Cooklin, Donath, & Amir, 2008). A study of breastfeeding and employment using data from the Longitudinal Study of Australian Children showed that mothers of infants aged 4–12 months who worked 15 hours or more had considerably lower breastfeeding rates than not-employed mothers, after controlling for background characteristics (Baxter, 2008). Job characteristics such as working flexible hours were also associated with higher breastfeeding rates (Baxter, 2008). Occupational status was not a significant determinant of breastfeeding at six months in Australia. Self-employed Australian mothers were more likely to be breastfeeding than employees, as was found in the UK (Hawkins et al., 2007).

In 2010, the Australian Infant Feeding Survey found that while 60% of all infants were breastfed at age six months, fewer (52%) were breastfed if the mother had been employed at any time since the birth of the child (AIHW, 2011). Likewise, 42% of all 7–12 month olds were breastfed, but only 34% were breastfed if the mother was employed. Mothers who wish to breastfeed may delay returning to work if their workplaces do not provide a supportive environment (Mandal, Roe, & Fein, 2012).

In Australia, as in many industrialised countries, exclusive and sustained breastfeeding has become a public health priority.

Lack of accommodation of women's needs in employment results in lower national productivity growth because this source of highly educated labour—in scarce supply—is underused.

Policy concerns and responses

Achieving public health policy goals and maintaining national productivity will require identifying and addressing employment and workplace barriers to exclusive and sustained breastfeeding. Alongside the leave offered by Australia's new Paid Parental Leave scheme, ensuring adequate workplace support for breastfeeding is another option. For example, a study analysing the 2005 Parental Leave in Australia Study found that while needs were diverse, women (especially full-time employees) saw better breastfeeding facilities as a work–family policy that would help after the birth of a child, while work-based child care was also cited in relation to assisting breastfeeding (Renda, Baxter, & Alexander, 2009).

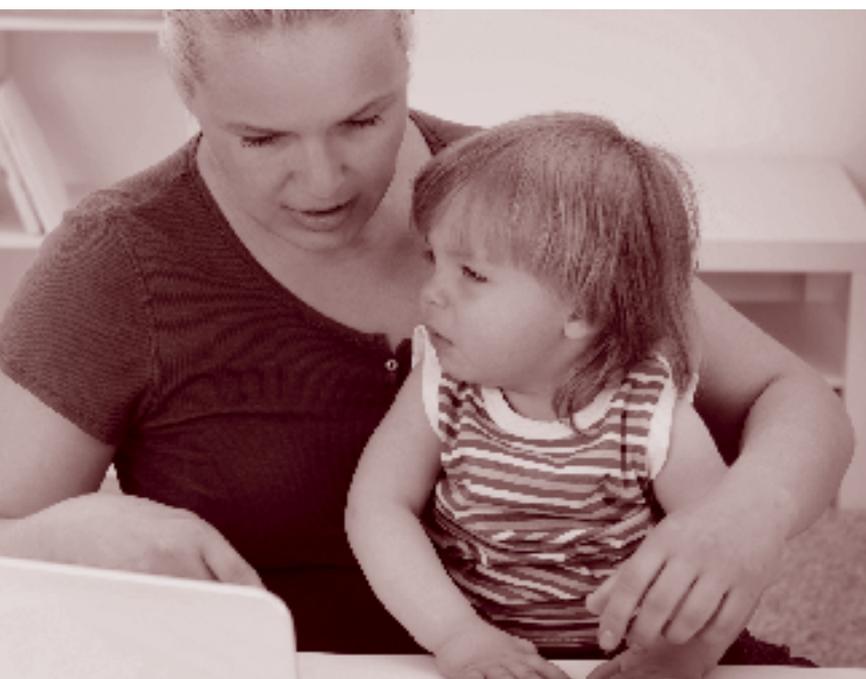
Governments around the world have responded to the potential conflict of maternal paid employment and breastfeeding in three main ways. Firstly, since at least 1919, they have regulated employment conditions to provide maternity protection, such as through requiring employers to provide maternity leave (Brodribb, 2012). Secondly, anti-discrimination legislation imposes responsibilities on employers to accommodate lactation and breastfeeding by their employees. The third approach has been through promoting best practice in breastfeeding support, such as by educating and supporting interested employers.

The most recent International Labour Organization (ILO) convention regarding maternity protection (C183) contains minimum standards for lactation breaks and paid

maternity leave (ILO, 2000). It recommends a right for women to have a minimum of 14 weeks' paid maternity leave and one or more daily lactation breaks or a daily reduction of hours of work to breastfeed. It also recommends the establishment of facilities for nursing under adequate hygienic conditions at or near the workplace. In some countries, such as Norway, generous maternity leave means women face less financial pressure to return to employment while they are still breastfeeding, and around 40% still breastfeed at 12 months (Grosvlien & Gronn, 2009).

Australian public health policy since the mid-1990s has explicitly promoted exclusive and sustained breastfeeding to six months (NHMRC, 2003), and was recently strengthened by the endorsement of a National Breastfeeding Strategy by all Australian Health Ministers (AHMC, 2009). However, national legislation on employment conditions and workplace protection for breastfeeding has been lagging, and Australia is yet to ratify the ILO Convention 183 regarding lactation breaks. There is no nationally legislated entitlement to lactation breaks in Australia, though some state government awards now include paid lactation break provisions. However, from January 2011, following public inquiries by the Commonwealth Parliament (House of Representatives Standing Committee on Health and Aging, 2007) and the Productivity Commission (2009), a publicly funded Paid Parental Leave scheme provides eligible employees with up to 18 weeks of paid parental leave at the national minimum wage rate. The new federal government elected in September 2013 is promising to introduce a more generous employer-funded scheme that provides 26 weeks of paid leave to eligible employees. National Employment Standards also reflect the long-established entitlement of most employees to unpaid maternity leave of 12 months, and now include the right to request a further 12 months of leave (Fair Work Australia, 2009).

Anti-discrimination law is a second policy tool that has provided some protection for breastfeeding employees in Australia since the early 1980s. Courts in Australia have generally viewed breastfeeding as a condition associated with pregnancy or gender, and therefore broadly covered by provisions regarding discrimination on these grounds. Sex discrimination legislation has existed at both federal and state level since 1984 (Brodribb, 2012). In 1999, a Human Rights and Equal Opportunity Commission (HREOC) report into discrimination in pregnancy recommended that breastfeeding be specifically included



as grounds for unlawful discrimination in federal legislation (Recommendation 43). Commonwealth legislation to this effect was finally passed in May 2011 (HREOC, 2011).¹ The amendments widened the scope of protection against direct discrimination against employees on the grounds of family responsibilities, and also for the first time specifically addressed direct and indirect discrimination on the grounds of breastfeeding in employment. Employers must now reasonably accommodate the needs of breastfeeding women in the workplace. A recent study found that some breastfeeding women have experienced lack of support in child care services in Australia that could now be considered unlawful discrimination (Smith et al., 2013).

Australia has been at the forefront of a third approach, using community-based efforts to help mothers combine breastfeeding and paid work since the early 1980s (Eldridge & Croker, 2005). At that time, the Australian Breastfeeding Association (ABA), then known as the Nursing Mothers' Association, identified the need to support the growing number of women returning to paid employment, and developed the Mother Friendly Workplace Award (MFWA) program to encourage employers to provide facilities that supported their breastfeeding employees. The one-off awards were presented to workplaces that provided lactation breaks and facilities enabling women to express breast milk in private. The association developed evidence-based guidelines for employers on achieving a "breastfeeding-friendly" workplace in the mid-1990s (Horton, 1995; Nursing Mothers' Association of Australia & Department of Industrial Relations, 1995). To facilitate ongoing partnerships between the association and employers, the ABA replaced its MFWA program with Breastfeeding Friendly Workplace (BFW) accreditation from 2002.

In the late 1990s the Australian Government initiated a health promotion campaign targeting employers and employed mothers as part of a three-year National Breastfeeding Strategy. This developed a widely distributed information resource on combining breastfeeding and work to employers and women. Evaluation showed that more than two-thirds of the 202 employers surveyed found the kit provided useful solutions to combining breastfeeding and work (McIntyre, Pisaniello, Gun, Sanders, & Frith, 2002)

These initiatives have contributed substantially to a change in workplace culture and made breastfeeding support part of workplace best practice in Australia. Employers anticipate cost savings from supporting their staff to combine

work and breastfeeding, and a number of high-profile private and public employers have sought accreditation under the ABA's BFW program (Eldridge & Croker, 2005). ABA experience has been that employers value the improved retention of female employees after maternity leave, which reduces the loss of skilled staff and costs associated with recruitment and retraining or replacement. Improved health of mother and baby and increased staff loyalty from this family-friendly intervention are also seen to provide benefits, including reduced absenteeism and staff turnover. Businesses also value the benefits to their corporate image from the public promotion and media recognition of BFW employers (Eldridge & Croker, 2005).

Most recently, responding to the issues identified in a parliamentary inquiry into breastfeeding, a 2007 Australian parliamentary report recommended increasing the number of workplaces that met the particular needs of mothers combining breastfeeding and work, by funding and extending the BFW accreditation program (House of Representatives Standing Committee on Health and Aging, 2007). The Committee on Health and Ageing (2007) commented that:

Female employees have needs related to pregnancy, birth and lactation which need to be recognised. There is a real risk that if women are not supported, returning to employment can be an obstacle to breastfeeding to the point of affecting the duration and exclusivity of breastfeeding, or even to the degree of weaning their infants (p. 78).

The committee's (2007) recommendation has not yet been acted upon, though the parliament accepted it should be "showing leadership in the area of breastfeeding and work" (p. 81) and achieved accreditation for workplaces at Parliament House under the BFW program in 2008. Provisions to support breastfeeding employees, including lactation breaks, also have been introduced within a growing number of workplaces in Australia. For example, reflecting public health strategies to protect and support breastfeeding in the Public Service in New South Wales and in Queensland, employees are entitled to take up to 60 minutes a day for expressing milk or breastfeeding.

While there is some evidence that policy measures such as those outlined above will enable more new mothers to establish and maintain breastfeeding (Baker & Milligan, 2008; Guendelman et al., 2009), there is little research identifying the full range of breastfeeding support strategies that are used by employers, workplaces and employees. There is also a lack of population-level studies identifying

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Employers value the improved retention of female employees after maternity leave, which reduces the loss of skilled staff and costs associated with recruitment and retraining or replacement.

the measures that are most crucial for helping employed women maintain breastfeeding as recommended during the first year. While case studies in the US have shown potential benefits through reduced staff illness and absenteeism for breastfeeding-friendly employers (Cohen et al., 1995), there remains a dearth of studies evaluating effects of these strategies across a sample population of employers or workplaces.

This paper redresses that gap. Using data from Australian employers and their female employees who had initiated breastfeeding, we investigated:

- the employment arrangements and workplace factors that were linked with exclusively breastfeeding for six months;
- whether maternal and child health outcomes and work absences differed for employees who exclusively breastfed for the first six months, among those who returned to work during the first year; and
- what helped or hindered women who returned to paid work before six months to achieve their intentions about breastfeeding.

Method

Design and implementation

The workplace study took place between November 2010 and April 2011. It was a mixed-method design, and comprised two surveys: one targeted at employers and another targeted at their female employees with children aged two years or younger.² The employer survey aimed to collect information from employers on the perceived costs and benefits of family-friendly and breastfeeding-friendly workplace policies and practices. The employee survey aimed to obtain information from female employees with young children about the main barriers to and enablers of breastfeeding experienced after return to work, and the potential effects of these on the health and wellbeing of their infant/young child and themselves.

The study sample of employees was drawn from 207 employing organisations, including 73 that had received BFW accreditation, 25 that had applied for accreditation, and 109 that had neither received nor applied for accreditation. These latter 109 organisations were participants at the 2010 Australian Human Resources Institute (AHRI) Convention in Melbourne, which had provided contact details to the ABA at a session on work and family issues. AHRI is the national association representing human resource and people management professionals in Australia. The employer questionnaire collected information about the

organisation, such as industry characteristics, size, and public or private ownership.

Employers were requested to publicise an employee survey to their female employees with children aged less than two years. The employee questionnaire comprised 69 questions asking for information on demographic characteristics, infant feeding practices, and employment, job quality and workplace variables known to influence breastfeeding by employees. It also collected information on maternal and child health and wellbeing outcomes. The questionnaires could be completed either online or on paper and were pre-tested for validity and reliability.

Measures

Socio-demographic characteristics, employment and workplace factors

Key socio-demographic and employee factors considered relevant to infant feeding practices were maternal age, occupation, education level and family income. Employer factors included the industry, ownership and size of the company in which the employee worked.

To identify which employment arrangements, job quality and workplace factors were associated with exclusive breastfeeding at six months, we used variables including full- or part-time employment status, job quality and other workplace support indicators. Job quality was measured by job control (“freedom over how I work”, “good deal of say in work decisions”), perceived security (difficult to get a comparable job, risk losing job if breastfeeding), flexibility, and access to paid family-related leave (Strazdins, Shipley, Clements, Obrien, & Broom, 2010). Workplace support was measured by a range of variables, including having a breastfeeding policy; supervisor and colleague attitudes to breastfeeding workers; having time flexibility (such as through lactation breaks, flexibility in hours worked or start and finish times, or being able to still attend mothers’ groups or maternal child health clinics); type of job (standard hours versus weekends or shiftwork); being able to work at home; and having access to suitable facilities for expressing or storing milk.

These variables were identified from previous academic research on workplace support for breastfeeding, as well as from documentation of Australian experiences with programs such as the ABA’s BFW accreditation program (Bar-Yam, 1998a, 1998b; Dabritz, Hinton, & Babb, 2009; Eldridge & Croker, 2005; Heinig, 2007; Horton, 1995; McIntyre et al., 2002).



Child health, and maternal health and wellbeing

We also examined whether employee mothers and their infants who had exclusively breastfed at six months reported different health and wellbeing outcomes to those who had not exclusively breastfed at six months. Child health status was measured by mothers' reports of the infant's general health status, and episodes up to infant age 12 months of several common childhood illnesses or conditions. For example, the mothers reported whether their infant had experienced hearing problems, eye problems, eczema, ear infections or other infections, diarrhoea or colitis, food/digestive allergies or asthma.

Maternal health and wellbeing was indicated by self-reported health status and measures of psychological distress. Mothers' health was measured from their reports of whether their health was "excellent", "very good", "good", "fair" or "poor". Maternal psychological distress was measured with items from the Kessler K6 screening scale (Kessler et al., 2002). Mothers reported how often they experienced symptoms of depression (six items, e.g., "Did you feel hopeless?") in five response categories, ranging from 0 (*none of the time*) to 5 (*all of the time*).

Qualitative data collected from the 304 employee participants were thematically analysed to explore experiences, identify themes, and illustrate key barriers to and enablers of breastfeeding, as experienced by employed mothers of infants. A preliminary review identified descriptive categories from

the patterns of employee responses to open-ended questions about barriers to and enablers of their continuing breastfeeding. Up to three barriers or enablers were identified from each of the responses. After review by investigators with expertise in breastfeeding and work issues, data were organised under themes, including mother- and baby-related factors (attitude, knowledge, preferences), employment hours or leave access, and workplace factors (including time flexibility, supervisor support for breastfeeding, and facilities for expressing and storing milk at the workplace), as well as social support available for combining breastfeeding and work (e.g., partner, ABA, child care, health professionals). Comments that illustrated the quantitative variables and the potential maternal and child health and wellbeing effects were identified.

Productivity implications

Individual workplace productivity and health system cost implications of exclusive breastfeeding were measured through mothers' reports of the number of infant-related work absences (Cohen et al., 1995), and the number of times the infant had been hospitalised since birth for reasons other than accident or injury (Smith et al., 2002).

Data analysis

Descriptive statistics are presented on how return-to-work influenced infant feeding practices and infant feeding outcomes for mothers who returned to work within two

Improved health of mother and baby and increased staff loyalty from family-friendly interventions are seen to provide benefits, including reduced absenteeism and staff turnover.

years of their child's birth ($n = 304$). Data for two subgroups, those who returned to work before six months ($n = 92$), and those who returned to work between 7 and 12 months (181), are also presented. The ages at which formula and solids were introduced, and the age at which breastfeeding ceased were also measured retrospectively by self-report.

Descriptive statistical analysis (Pearson's χ^2) was used to explore the unadjusted relationships between maternal socio-demographic, employment and workplace factors, and exclusively breastfeeding at six months.³ The relationships between exclusive breastfeeding and child health and maternal health and wellbeing outcomes were also compared. Comparative analysis of means using two-tailed t -tests and chi-squared tests assessed whether there were differences in work days lost and hospitalisations for employees who had exclusively breastfed at six months and those who had not. Statistical significance was set at the .05 α -level.

Results

Participants

Employer characteristics

A total of 64 of the 207 employers participated in the employer survey, giving a response rate of 31%. Among the employer respondents, 34 organisations (or 55%) were accredited, 3 organisations had applied for accreditation and 25 organisations (40%) were not accredited. Accredited organisations had a higher response rate (47%) than either non-accredited organisations (23%) or those which had only applied for accreditation (12%). A summary of key characteristics of these employers is in Appendix Table A1.

Employee characteristics

A total of 356 employees from these organisations participated in the employee survey. Those who had not initiated breastfeeding and had not returned to work at the time of the survey were excluded from this analysis; the remaining 304 had breastfed and were in paid employment by the time their child was 2 years old, and are the focus of the analyses below.

A total of 273 employees had returned to work within 12 months. Of these, 92 had returned to work by the time the infant was six months old, and 181 between 7 and 12 months. Key socio-demographic characteristics are summarised in Appendix Table A2.

There was also no significant relationship between the proportion of employees

exclusively breastfeeding at six months and whether the employer was a small/medium or large employer, whether the employer was privately or publicly owned, and whether the industry in which the mother was employed was gender-segregated (male- or female-dominated or inclined).

Among mothers who returned to work within six months ($n = 92$), there was no apparent relationship between exclusive breastfeeding at six months, and whether the employee was in a professional occupation, or in a sales, clerical, administrative, community or personal services occupation. There were also no statistically significant relationships between socio-demographic characteristics such as age, education or income, and exclusive breastfeeding at six months. However, a higher proportion of those with post-secondary education exclusively breastfed to six months (53%), compared to those with lower education (30%), and this difference approached significance ($p = .071$).

Breastfeeding intentions and outcomes

Table 1 presents data on the age of the infant at maternal return to work, alongside mothers' breastfeeding intentions and outcomes. It compares stated intentions for breastfeeding and key breastfeeding indicators for those who returned to work when their infant was six months or younger, those back at work within 7 to 12 months, and for the group as a whole.

For those who returned at six months or earlier, the age of the infants when the women returned to work averaged four months, compared to nine months for those returning between seven and 12 months. A higher proportion of mothers returning to work at six months or earlier (compared to those who returned at 7–12 months) reported they had planned to breastfeed "as long as possible" rather than specifying a duration, suggesting they had been less confident of their breastfeeding plans. A lower proportion reported that they had intended breastfeeding to at least 12 months, showing that they expected a shorter duration of breastfeeding than those women returning to work between 7 and 12 months.

Among those returning to work at six months or earlier ($n = 92$), a lower proportion than those who returned at 7–12 months (29% vs 45%) were exclusively breastfeeding at six months. Likewise a lower proportion (48% vs 54%) continued any breastfeeding to 12 months.

Mothers' views/intentions about breastfeeding also interacted with return-to-work plans.

Table 1: Employment effects on breastfeeding, and breastfeeding intentions and outcomes

	Mothers returning to work by 6 months (n = 92)	Mothers returning to work at 7–12 months (n = 181)	All mothers (n = 304)
Average age of baby when mother returned to work (months)	4	9	8
Breastfeeding intentions (%)			
As long as possible	23	19	20
6 months	19	20	18
At least 12 months	51	57	55
Breastfeeding practice			
Exclusive breastfeeding at 6 months (%)	48	54	54
Breastfeeding at 12 months (%)	29	45	45
Return to work influenced: (%)			
Breastfeeding initiation	13	4	7
Reducing or stopping breastfeeding	58	47	48
Would have returned to work sooner if breastfeeding supported	8	5	6

Among mothers returning to work at six months or earlier, 13% reported that returning to work influenced breastfeeding initiation, 58% reported reducing or stopping breastfeeding to return to work, and 8% reported that they would have returned to work earlier if breastfeeding had been supported. Among those returning to work after six months, somewhat fewer reported such compromises between returning to work and breastfeeding.

Employment effects on breastfeeding

Figure 1 compares infant feeding milestones reported by employees who returned to work at six months or earlier compared to those back at work within 7 to 12 months, or by 2 years.

Figure 1 shows solids were introduced at a similar infant age for the three groups, at around six months. However, the later the mother returned to work, the later the child ceased breastfeeding. In particular, those returning to work at six months or earlier introduced formula two months sooner and discontinued breastfeeding around two months sooner than those returning to work in the second half of the first year, differences that were statistically significant ($p = .009$ and $p = .007$ respectively). This may be because breastfeeding was not fully established for the mothers who returned within the first 12 weeks or so, so that maintaining milk supply was more difficult in later months. Alternatively, employees returning at six months or earlier may have found maintaining exclusive breastfeeding too time-intensive, as exclusive breastfeeding

takes around 17 hours a week at 6 months of age (Smith & Forrester, 2013), and providing expressed breast milk for someone else to feed the baby is likely to take the mother at least a comparable amount of time overall.

Return to work, maternity leave arrangements

The relationships between returning to work and maternity leave factors, and exclusive breastfeeding at six months, were analysed for those returning to work by six months, ($n = 92$). This showed that, on average, mothers who

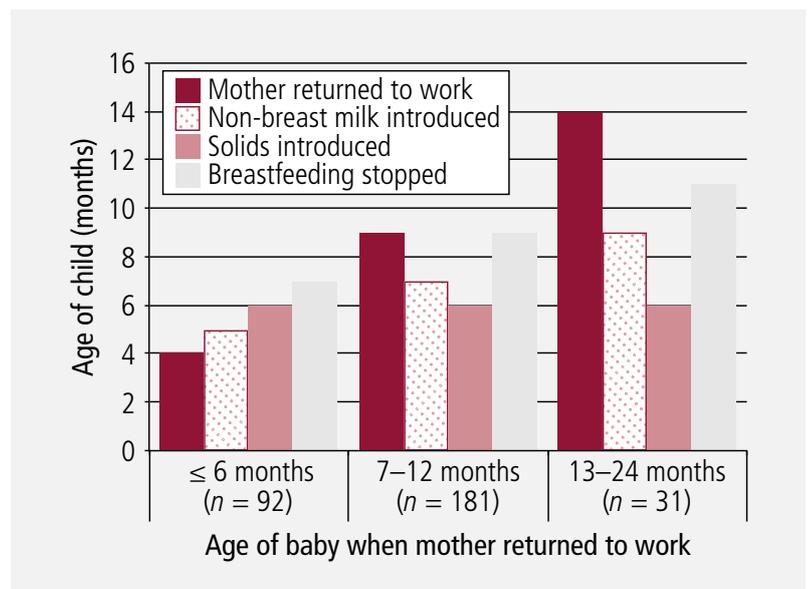


Figure 1: Infant feeding milestones by average age of baby when mother returned to work

On average, mothers who returned to work before six months would have preferred leave of around 40–46 weeks, rather than the 21–22 weeks actually taken.

returned to work before six months would have preferred leave of around 40–46 weeks, rather than the 21–22 weeks actually taken. No statistically significant relationship was found between the likelihood of exclusive breastfeeding at six months and whether the employee took ≤ 18 weeks or 19+ weeks of leave, or whether the employee *preferred* leave that was ≤ 18 weeks or 19+ weeks, though among those preferring ≤ 18 weeks leave, 78% (versus 49% among those preferring 19+ weeks) did not exclusively breastfeed

to 6 months. The analysis also found no statistically significant relationship between exclusive breastfeeding and actual leave taken, and whether a gradual/flexible return to work was available to the employee.

Workplace support

Table 2 shows the relationships between various kinds of workplace support or job quality factors, and exclusively breastfeeding at six months, for those returning to work by six months.

Table 2: Relationship between workplace support and exclusive breastfeeding at 6 months among mothers returning to work within 6 months

Workplace support factors	Exclusively breastfeeding at 6 months (%)	Not exclusively breastfeeding at 6 months (%)	<i>p</i> value
Current work status			
Part-time	62	38	.030 *
Full-time	38	63	
I have a say over how many hours worked			
Agree	56	44	.067
Disagree	43	57	
Neither agree nor disagree	18	82	
I can adjust hours to accommodate need to breastfeed or express milk			
Agree	65	35	< .001 **
Disagree	43	57	
Neither agree nor disagree	14	86	
I have a say over start and finish times			
Agree	56	44	.052
Disagree	24	77	
Neither agree nor disagree	38	63	
Able to take long enough, or frequent enough, lactation breaks			
Yes	70	30	.077
No	36	64	
Does your organisation have a written policy of supporting mothers who express breast milk or breastfeed at work?			
Yes	61	40	.016 *
No/unsure	34	66	
I would have returned to work sooner if my workplace was supportive of breastfeeding			
Agree	0	100	.027 *
Disagree	57	43	
Neither agree nor disagree	39	62	
My manager/supervisor and colleagues think more poorly of workers who express breast milk or breastfeed at work			
Agree	43	57	.075
Disagree	57	43	
Neither agree nor disagree	29	71	
A mother risked losing her job if breastfeeding or expressing milk in this workplace			
Agree	0	100	.045 *
Disagree	54	46	
Neither agree nor disagree	25	75	

Notes: χ^2 test of independence: ** $p < .001$, two-tailed test; * $p < .05$, two-tailed test.

A higher proportion of mothers who worked part-time were exclusively breastfeeding at six months than those working full time ($p = .030$). Among those who reported working part time, 38% were not exclusively breastfeeding at six months, compared to 63% of those working full time. Women who agreed/strongly agreed that they could adjust working hours for breastfeeding or expressing milk were more likely (65% vs 35%) to have exclusively breastfed at six months ($p < .001$). Likewise, those who had a say over start and finish times were more likely to be exclusively breastfeeding at six months (56% vs 44%) ($p = .052$). Being able to take lactation breaks also approached significance ($p = .077$), as did having a say over hours worked ($p = .067$).

A supportive workplace culture was also associated with higher proportions of employees having exclusively breastfed at six months, and vice versa. Among those who agreed they would have returned to work sooner if their workplace had been more supportive, none had exclusively breastfed ($p = .028$). Likewise, among those who agreed that “a mother risked losing her job if breastfeeding or expressing milk in this workplace”, none exclusively breastfed ($p = .045$). Whether managers and work colleagues were perceived to think more poorly of workers expressing milk or breastfeeding at work also showed a negative trend relationship with exclusive breastfeeding at six months ($p = .075$). On the other hand, being aware of a workplace policy supporting breastfeeding was significantly associated with higher rates of exclusive breastfeeding. For example, in workplaces where mothers knew there was a breastfeeding policy, 61% exclusively breastfed at six months. In workplaces where the employees were unsure or knew there was no such policy, only 34% had exclusively breastfed ($p = .016$).

Other workplace or job quality factors were not significantly different between the two feeding groups, among mothers returning to work before six months. For example, there were no significant differences in responses on the following variables: whether standard hours worked, having the opportunity to work at home, never having enough time to get job done, freedom over how to do work, having a say in work decisions, perceived difficulty of getting another job with the same pay and hours, and being able to attend maternal child health services and community support groups' activities. There were also no significant differences on whether suitable facilities would be available at work for breastfeeding or expressing milk.



Maternal and child health outcomes

Previous research has suggested that infant health influences employee productivity through absenteeism (Cohen et al., 1995). Such effects could occur directly, for example, due to children being unwell (therefore perhaps being excluded from their child care service), or hospitalised (and requiring parental attendance), as well as because of employees experiencing stress related to their family responsibilities, which could indirectly affect their productivity in the workplace. Hospitalisation of an infant, for example, is likely to be a major problem for a mother at work, and could detract substantially from productivity.

Analysis of health indicators for exclusively breastfed infants compared with those not exclusively breastfed showed no statistically significant differences, though there was a slight trend towards better health in the exclusively breastfed group ($p = .15$). Among those returning to work at six months or earlier, 90% of those who had exclusively breastfed at six months reported their child's health as excellent or very good, and the other 10% as good, whereas among those not exclusively breastfeeding at 6 months, 9% reported their child's health as fair/poor.

Regarding differences in hospitalisation and maternal days off work, among women returning to work at between 7–12 months, the number of days off work spent caring for a sick infant was around four days for both feeding groups. For those returning at six months or earlier, among the exclusively breastfeeding group, an average of four days had been lost from work due to infant illness since the child had been born, compared to seven days among those who did not exclusively breastfeed at six

A higher proportion of mothers who worked part-time were exclusively breastfeeding at six months than those working full time.

We found a trend to lower absenteeism among employees who exclusively breastfed for six months.

months. This difference was in the expected direction and approached but did not reach statistical significance ($p = .075$).

There was a statistically significant difference ($p = .022$) in child hospital admissions since birth between the exclusively breastfeeding and not exclusively breastfeeding groups of mothers returning to work at 7–12 months. Among those who had not exclusively breastfed infants at six months, 22% reported one or more hospitalisations of the child, compared to only 9% of those who had exclusively breastfed to 6 months. Statistical testing (two-tailed t -tests) showed no significant difference in hospitalisation rates were found by age of the infants who were exclusively breastfed at 6 months compared to those not exclusively breastfed. While, as noted above, the overall health of the children was similar, we are unable to exclude reverse causation; that is, hospitalisation of the infant may have resulted in rather than been caused by not exclusive breastfeeding at 6 months.

Self-reported health of the mother was little different in the proportions reporting they had excellent/very good health between the feeding groups for mothers who returned to work before 12 months (not shown). Likewise,

maternal psychological stress showed only a weak relationship to feeding category; among those returning to work at 7–12 months, a higher proportion of the non-exclusively breastfeeding mothers (22% vs 12%) reported that “everything was an effort” ($p = .063$). Notably, though, around two-thirds of all mothers (65–71%) who had returned to work by 12 months reported feeling rushed or pressured all or most of the time (not shown).

Barriers to and enablers of breastfeeding

Employees who had returned to work before their child was 2 years old ($n = 304$) reported on factors that helped them to achieve their breastfeeding intentions, including:

- support for ongoing breastfeeding from workplaces and supervisors;
- workplace facilities for expressing or storing milk;
- hours of work and flexible schedules; and
- maternal or infant preferences to breastfeed.

Mothers reported, for example, being helped by “having support from my manager, having a dedicated quiet room at work with proper facilities, fridge, sink and storage cupboard”.



Another stated that “a good breast pump” helped her achieve her intentions. “Flexibility to manage work and take breaks” was reported as being helpful. For another, what helped was “knowing it’s the best thing for my child”.

On the other hand, employee intentions to breastfeed were mainly hindered by time pressures and mother–infant separation arising from returning to work. Many experienced difficulties expressing sufficient milk and maintaining their milk supply, with problems maintaining breastfeeding reported to arise from separation during the work day. For example, “baby had breast refusal. [I] expressed for 2 months, but eventually dried up”, “returning to work forced me to feed expressed milk in a bottle which both my children became [*sic*] to prefer to the breast”, or “kids tend to wean themselves when their breast milk comes in a bottle. I had to work, I couldn’t arrange leave to go and feed my baby, ergo he weaned himself”. Another mother reported that:

although I still breastfeed, I have had to reduce the frequency. I do not breastfeed during the day due to lack of support from the workplace, unable to fit in milk expression with time constraints and lack of facilities (a private room and storage facility).

Mothers also cited lack of access to lactation breaks, having nowhere suitable to breastfeed, and lack of support from co-workers or managers as being barriers to their breastfeeding intention. One mother starkly illustrated the difficulties and adverse health consequences of an unsupportive workplace with her comment that:

Management is not agreeable to breaks being taken to express so I have been not expressing at work. This has led to mastitis and pain due to engorgement of my breasts and a reduction in the amount of milk I am able to produce. In essence, I am limited in my access to breaks and facilities which has led to detrimental health issues and a reduction in my ability to breastfeed my child.

Discussion

The purpose of this paper was to identify important workplace supports for exclusive breastfeeding in the first six months, and the potential implications for workplace productivity.

It has previously been shown that part-time work and flexible hours are important for employed mothers to maintain any breastfeeding (Baxter et al., 2009; Cooklin et al., 2008). Our qualitative and quantitative analysis shows that part-time work is also important for

mothers to sustain exclusive breastfeeding to six months.

Other key findings are:

- breastfeeding reality was often less than breastfeeding intention, and mothers would have preferred longer leave;
- returning to work at or before six months meant formula started two months earlier and breastfeeding stopped two months earlier;
- where employees reported more workplace support for breastfeeding, more had exclusively breastfed at six months;
- a trend for employees who had exclusively breastfed for six months to have fewer days off work to care for a sick baby; and
- those who exclusively breastfed for six months and returned to work at between 7 and 12 months reported fewer hospitalisations of their infant.

This study also adds new understandings of how workplaces support breastfeeding, and how specifically accommodating the physiological needs of breastfeeding employees benefits employers as well as families. A comparative strength of our study is the relatively large and diverse sample of employees who initiated breastfeeding and returned to work within the first 12 months. Data for mothers returning in the first six months show that flexibility in start and finish times, work hours and timing of breaks to accommodate the employee expressing milk or breastfeeding are particularly important for exclusive breastfeeding. Workplace attitudes and job security also mattered: mothers who perceived they could lose their job for breastfeeding were less likely to exclusively breastfeed at six months.

Workplaces that have been accredited as being breastfeeding-friendly are overrepresented in workplaces from which the sample employees were recruited. Further analysis is needed to evaluate whether the findings reflect selection factors that influence employees’ responses regarding infant feeding practices and workplace support. Our findings regarding infant health consequences for absenteeism are important, and corroborate the results of a previous small-scale study (Cohen et al., 1995). We found lower absenteeism among employees who exclusively breastfed for six months. However, our study was not sufficiently powered to reliably identify differences in the incidence of infant illness between feeding groups; there remains a need for analysis using larger, representative datasets of employed women and their infants that collect more comprehensive health data, as well as information on infant feeding status.

Most female employees with infants required various time accommodations, including part-time and adjustable hours and lactation breaks, in order to maintain exclusive breastfeeding to six months.

Extending paid parental leave to 26 weeks would redress the tension between employment commitments and breastfeeding.

It is important to note that the infants in this sample were all initially breastfed, and our comparison is with exclusive breastfeeding at six months compared with not-exclusive breastfeeding at six months. Some of the latter group will be partially breastfeeding at six months; hence the outcomes are a conservative reflection of the difference between exclusively breastfed infants and those who are fully weaned from breastfeeding.

It should also be noted that “reverse causation” may explain the relationships between infant ill health and exclusively breastfeeding at six months, where poor infant health may be a cause of not establishing or maintaining exclusive breastfeeding. For example this could occur if breastfeeding was disrupted by infant disability or illness, resulting in early hospitalisation. Likewise, it has been suggested in the United States that breastfeeding mothers may differ from not breastfeeding mothers in their propensity to take their ill child to hospital (Bauchner, Leventhal, & Shapiro, 1986; Kovar, Serdula, Marks, & Fraser, 1984), though it is not clear if this applies in the Australian setting.

A study limitation is that the organisations from which the mothers were recruited self-selected into the study. It is likely that these organisations over-represent organisations that attend to human resource management and work and family balance issues. Their employees also self-selected into the survey, so may not be fully representative of all employed new mothers, and may also cluster within the sampling units. However, it is difficult to recruit employees within organisations as was necessary for this study.

Conclusion

This paper has used quantitative and qualitative data from 304 employed new mothers drawn from 62 different workplaces to explore and assess the relationship between exclusive breastfeeding and workplace support or job quality factors, which address key barriers to breastfeeding. It has also examined health and productivity implications of exclusive breastfeeding for infants and mothers who return to work in the first post-natal 12 months.

The analyses showed that most female employees with infants required various time accommodations, including part-time and adjustable hours and lactation breaks, in order to maintain exclusive breastfeeding to six months. Extending paid parental leave to 26 weeks would help redress this tension between employment commitments and breastfeeding.

As well as part-time work opportunities and flexibility in start and finish times, specific workplace accommodations for breastfeeding are also linked to women being able to maintain exclusive breastfeeding to six months. In this regard, the 2011 amendments to federal discrimination legislation regarding breastfeeding are of considerable potential importance, and their application in workplaces as well as child care should be monitored.

Finally the analysis shows potential links between exclusively breastfeeding and reduced absenteeism, suggesting that employers as well as the health system and families may benefit from specific workplace accommodation of the needs of breastfeeding employees. Breastfeeding-friendly workplace policy initiatives could therefore be cost-effective for employers as well as governments, and may support an earlier return from maternity leave by some employees.

Endnotes

- 1 Laws regarding discrimination on the grounds of breastfeeding previously varied between states. In some states, breastfeeding was specifically included as grounds for discrimination in employment while in others, such as Queensland, discrimination on the grounds of breastfeeding was only prohibited for the goods and services area, not for work and work-related areas.
- 2 Ethics approval to conduct the study was obtained from the Human Research Ethics Committee of the Australian National University (ANU Human Ethics Protocol 2010/159, 22/04/2010).
- 3 Analysis was undertaken using SPSS Statistics version 19. Analyses did not take account of the clustering of individual employees within workplaces.

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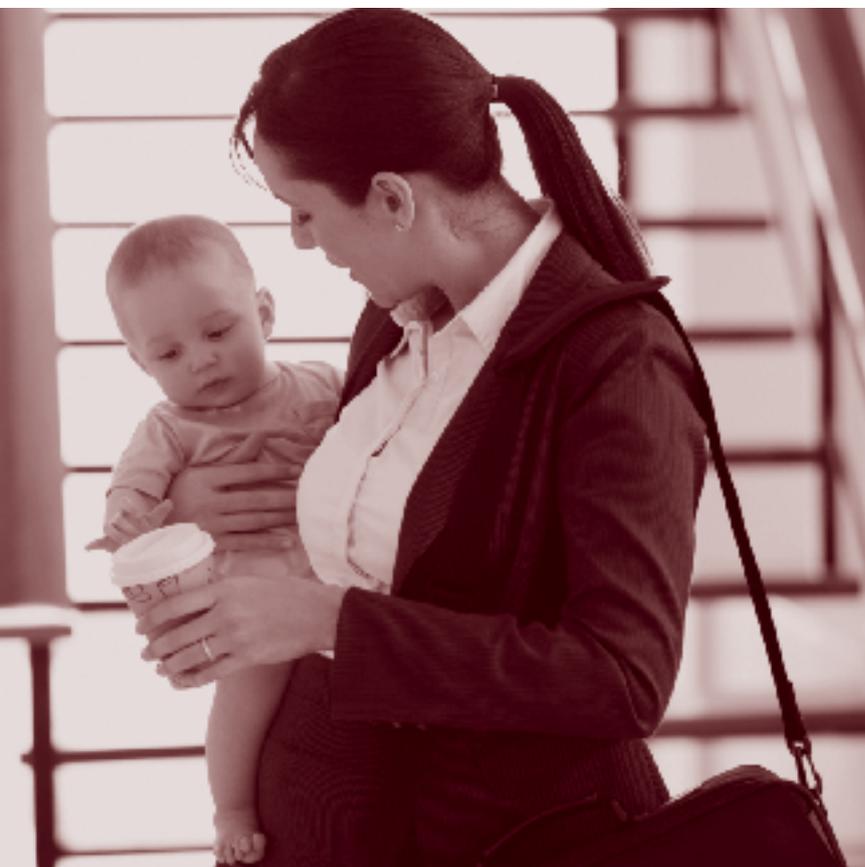
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Appendix

Table A1: Key characteristics of participating workplaces

	% of all workplaces (n = 64)
Size	
Small (< 20 staff)	13
Medium (20–200 staff)	39
Large (> 200 staff)	48
Ownership	
Public	43
Private	57
Industry	
Government administration and defence	30
Education, health and community services	28
Property and business services	14
Finance and insurance	11
Communication, electricity, gas and water supply	6
Manufacturing	6
Cultural and recreational services	5

Table A2: Employee new mothers' sample characteristics, by age of infant at return-to-work date

Socio-demographic characteristics	Returned by 6 months (%) (n = 92)	Returned at 7–12 months (%) (n = 181)	Returned at 13–24 months (%) (n = 31)
Maternal age groups			
≤ 29 years	19	15	7
30–34 years	50	49	45
35–39 years	24	28	36
≥ 40 years	7	7	13
Mother's education post-secondary	77	77	77
Family income			
≤ \$599 weekly (\$31,199 p. a.)	6	2	0
\$600–999 weekly (\$31,200–51,999 p. a.)	7	5	3
\$1000–1,499 weekly (\$52,000–77,999 p. a.)	23	9	14
\$1,500–2,199 weekly (\$78,000–114,399 p. a.)	29	38	24
≥ \$2,200 weekly (≥ \$114,400 p. a.)	36	47	59
Maternal occupation			
Manager/professional	66	63	58
Clerical/administrative, community/personal services, sales workers	34	37	42

Flexibility in start and finish times, work hours and timing of breaks to accommodate the employee expressing milk or breastfeeding are particularly important for exclusive breastfeeding.



An extended family for life for children affected by parental substance dependence

Menka Tsantefski, Anne Parkes, Anne Tidyman and Maureen Campion

The scale of the problem of parental alcohol abuse alone is such that it cannot be solved solely by services (Scott, 2009, p. 38).

Parental substance use features among 50–80% of families involved with child welfare services in Australia (Battams & Roche, 2011), and has, unsurprisingly, been referred to as the most critical issue facing the Australian child protection system (Ainsworth, 2004; McGlade, Ware, & Crawford, 2012). Children for whom parental drug use is problematic are not only more likely to be brought to the attention of child protection services but also to be repeatedly reported. This group of children tends to be placed in out-of-home-care earlier and to remain longer; reunification is often delayed while parents undergo assessment and treatment (Jeffreys, Hirte, Rogers, & Wilson, 2009). The resulting “bottle-neck” effect, coupled with difficulty in the recruitment and retention of foster carers (McHugh, 2005), has led to an unsustainable out-of-home care system and an urgent need to reduce the number of children entering state care.

This article briefly describes the effects of problematic parental substance use on children; it discusses the provision of support to substance-dependent parents and their children, and briefly reviews policy directions in child protection in Australia. The article then presents the conceptual outline for a new model for working with families affected by parental substance use, one that is less reliant on the service sector to address children’s long-term needs. The Odyssey House Victoria Mirror Families program, a professionally led, time-limited, intervention in the informal network of substance-dependent parents and their children is presented.

The relationship between parental substance use and outcomes for children is complex and involves an array of risk and protective factors; assumptions should therefore not be made that parental substance use is invariably detrimental to children’s wellbeing. Negative effects can be avoided or mitigated by providing support to parents and/or children, or through direct actions being made by parents to protect

children (Richter & Bammer, 2000). With the exception of children with foetal alcohol spectrum disorder, who may have suffered irreparable brain damage (Riley & McGee, 2005), there is evidence to suggest that the caregiving environment is the key factor in individual children's long-term outcomes (Berger & Waldfogel, 2000).

This article addresses problematic parental alcohol or other drug use, particularly the use of illicit substances, which often results in financial strain, child neglect, poor school attendance and social isolation (Fraser, McIntyre, & Manby, 2009; Gruenert, Ratnam, & Tsantefski, 2004). Many children in such families are exposed to family violence; some are exposed to crime, including drug dealing; and a smaller number witness their parents overdosing or lose them to overdose (Gruenert et al., 2004). Harm can be cumulative and may result in complex trauma that predisposes children to a range of additional long-term problems; for example, their own addictive behaviours, psychiatric disorders, chronic illnesses, legal issues, unemployment, and family and other relationship difficulties (Cook et al., 2005). Outcomes are particularly bleak for children who remain with parents whose substance use is problematic and who become isolated from the wider family (Bancroft, Wilson, Cunningham-Burley, Backet-Milburn, & Masters, 2004; Gruenert et al., 2004).

Supporting the children of substance-dependent parents through formal and informal intervention

Child protection in Australia is considered “everybody’s business” (Council of Australian Governments, 2009). The policy of Australian Governments is to exhort the alcohol and other drug sector to attend to the needs of clients’ children (Council of Australian Governments, 2009); however, unlike the child and family welfare sector, the potential of the alcohol and other drug sector as a site of primary prevention and secondary intervention for children at risk of abuse and neglect has been largely underdeveloped (Battams & Roche, 2011). The public health model has been proposed as a means of integrating these two sectors (Higgins & Katz, 2008). In addition to population-based measures, such as taxing alcohol and placing restrictions on its advertising and availability, the public health approach requires building the capacity of adult-focused services, including the alcohol and other drug sector, to be “child and parent sensitive” in order to reduce the

incidence of child maltreatment and, by implication, demand on the out-of-home care system. It also requires child-focused services to be more responsive to adult problems (Scott, 2009).

In a UK review of the evidence base for working with substance-using parents and their children, Asmussen and Weizel (2009) highlighted the importance of addressing multiple risk and protective factors for children, parents, families and communities, and the need for intensive, long-term interventions for parents. At the same time, they suggested being cautious regarding the involvement of extended family members in treatment plans and alternative care of children on the grounds that those family members may themselves have substance use or parenting problems.

In the Australian context, kinship care—which is almost synonymous with grandparent care (Horner, Downie, Hay & Wichmann, 2007)—is the preferred policy option for children unable to live with their biological parents, as these placements tend to be more stable and therefore better for children (Baldock, 2007). Indeed, most grandparents who are caring for their grandchildren are doing so due to alcohol and other drug use by parents (Baldock, 2007). Rather than drawing upon the informal network of kith and kin after child maltreatment has occurred, or when placement in out-of-home care is imminent, an alternative approach would be to build a protective network of adults around children while they remain in parental care.

Gilligan (2006) argued that helping children involves understanding them within their social context, and that reliance on formal services may be both a cause and a consequence of reduced access to informal social support. He stated, “helping a child is not about delivering *services*. It is about a stance and a mindset” and goes on to say, “our role in professional helping services may need to be less about doing things *for* and *to* people, and more about restoring and reinvigorating their own capacity, and recharging the solidarity of the natural social systems that surround them” (p. 41, emphasis in original).

Research with substance-using parents and their children indicates that informal support plays a key role in promoting children’s safety and wellbeing and that, while the network may contain a significant number of problematic substance users, it is nevertheless possible to identify supportive individuals (Bancroft et al., 2004; Fraser et al., 2009; Moore, Noble-Carr, & McArthur, 2010). For example, Fraser et al.’s (2009) qualitative study with substance-

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using parents and young children (4–14 years) established that grandparents provided essential support over a protracted period and that other family members and non-using adults also provided valuable support. Similarly, Bancroft et al.'s (2004) UK study of 38 young people affected by parental substance use found that most had support from at least one extended family member, usually a grandmother or aunt—a relationship often formalised in fostering. These relationships, while important, were often fragile due to intra-family conflict over substance-using parents. Most young people expressed a need and desire for family-type relationships and felt embarrassment at the absence of family ties. Relationships with service providers varied significantly in intensity and duration and were rarely described as unanimously positive.

Australian young people who have lived with parental substance use describe the need to feel safe, have someone trusted to confide in, and receive emotional and other support, including assistance with education, reducing caregiving responsibilities for parents and siblings, and ameliorating the negative effects of parental substance use on the family. Importantly, they have expressed the need to reconnect with family, friends and community (Moore et al., 2010). They have also suggested that services intervene only when the informal network is unable to ensure their safety and wellbeing (Colverson, 2009).

While it has been reasonably argued that the best way to help children is to help their parents (Bokony et al., 2010), children also have interests separate from those of their parents. Network intervention may increase support for parents and help to buffer children from

adult problems by building their resilience—greater numbers of enduring, reciprocal relationships have been shown to enhance human development and to reinforce coping (Garbarino, 1983). The following section introduces Mirror Families, an innovative, early intervention approach originally devised in the out-of-home care sector to avoid unnecessary disruption to children's care and adapted by Odyssey House Victoria for use with substance-dependent parents and their children. Theoretical and practice frameworks underpinning the model are presented prior to a description of the program and reflections upon implementation to date, with consideration for further development and diffusion to other sectors and services.

Mirror Families: Supporting vulnerable children and their families through network intervention

The original concept for Mirror Families was devised by Claire Brunner and premised on the assumptions that lack of a robust extended family or kinship network is a significant feature of vulnerable families and that in well-functioning, naturally occurring extended families, there are a number of adults who play a significant role in contributing to children's development while simultaneously supporting parents (Brunner & O'Neill, 2009). Rather than ending when the child turns 17 or 18 years of age, as is the case for many children exiting the out-of-home care system (Mendes, Johnson, & Moslehuddin, 2011), children's family relationships tend to endure throughout the lifespan. In Mirror Families, the objective is to create, together with the child or young person and their parents, a functional "extended family" that reflects what happens in naturally occurring extended family structures (hence, the term "mirror families"). Mirror Families "is *not* a care team, a therapeutic placement, nor a care circle" (Brunner & O'Neill, 2009, p. 9, emphasis in original), nor is it a mentoring program. Instead, the aim is to create an extended family for life by recruiting and supporting those with an existing connection to the child and/or others who can commit to the child's future (Brunner & O'Neill, 2009).

Each mirror family comprises members who commit to a role in the life of a child or young person. These roles are divided into three broad groupings, depending on the level and frequency of engagement and current or potential role. The "A" family, who may be the child's birth family or alternative carers,



provides daily care; the “B” family provides respite or emergency care for the child and has potential to become the “A” family, if required; and the “C” family comprises individuals who offer a diversity of supporting roles, such as baby-sitting, attending family celebrations, accompanying the child or young person to sporting events or other functions, sending birthday cards, mentoring, advocacy and/or educational support.

Each family defines its own social network composition, which may include kin, fictive kin (i.e., individuals considered “family” but who are not related by biology or marriage), and/or friends. The number of members in the B or C families is not limited; that is, more than one individual or family member may be able to provide the type of support required by these roles. Should the child’s living arrangements deteriorate, and removal from the home prove necessary, a nominated B family member assumes the A position and provides for the child’s daily care, either on a continuous basis, or until the child’s parents or regular carers are able to resume care. This not only spares the child the additional trauma of placement with unknown carers, it helps maintain the child’s attachment relationships, as network members remain in contact with the child until the child reaches adulthood and, ideally, beyond.

The intended outcome is to reduce the likelihood of a breakdown in care arrangements and for children to have enduring relationships, receive responsive support and experience a sense of belonging. The overall goal is for each mirror family to become self-managing and to function like a natural family, thereby helping to break intergenerational disconnection by supporting children until they become adults and perhaps parents themselves. Theoretically, supportive, self-sustaining networks reduce the need for professional intervention, including child protection services and out-of-home care (Brunner & O’Neill, 2009).

Mirror Families at Odyssey House Victoria

Mirror Families was introduced to Odyssey House Victoria, an alcohol and other drug treatment provider, as a pilot program adapted from the original concept outlined by Brunner and O’Neill (2009). The Mirror Families program at Odyssey House Victoria is informed by a number of theoretical approaches that place children in the context of family and community. The program is also underpinned by international, national and state practice frameworks, as discussed below.

Theoretical framework

Attachment theory (Bowlby, 1971), which considers how early experiences in infancy and childhood shape the way relationships are formed and helps to explain adult attitudes and behaviours, is central to the Mirror Families model. As substance dependence, particularly among women, is associated with a history of physical and sexual abuse and other types of traumatic experiences (Heffner, Blom & Anthenelli, 2011), the trauma perspective, closely related to attachment theory, largely informs practice (Cook et al., 2005).

To facilitate the interventions necessary to work with families when forming their network, workers need knowledge of child development across physical, social, emotional, cognitive, spiritual and cultural dimensions. While it is vital to know what milestones need to be achieved at different stages of a child’s life to enable workers to assess child development, safety and wellbeing, workers also need to explore the effects of relationships between the child and their immediate family, their educational setting and other significant social groups. Understanding the significance of these multiple contexts requires familiarity with Bronfenbrenner’s (1979, as cited in Bowes & Hayes, 2004) Social Ecology Model. The strengths-based perspective ensures that workers help individuals and families draw on existing strengths, resources and capacities to foster change and positive development (Saleeby, 2005). Resilience is developed by building children’s own social networks (Gilligan, 1999, 2006).

International practice framework

Mirror Families upholds children’s rights under the United Nations Convention on the Rights of the Child (UNCRC) across all three principles: the right to protection, the right to participation and the right to provision. While *all* the rights expressed in the UNCRC are interdependent and indivisible, and children’s safety and wellbeing is promoted in their convergence (Reading et al., 2009), the Mirror Families program strongly supports the following articles:

- Article 3: the child’s best interests as a primary consideration in matters concerning children;
- Article 5: the need to respect the responsibilities, rights and duties of parents and, where applicable, members of the extended family and community, to provide direction and guidance in the exercise of the child’s rights;
- Article 8: the right of the child to preserve his or her identity and family relations;

The aim is to create an extended family for life by recruiting and supporting those with an existing connection to the child and/or others who can commit to the child’s future.

Odyssey House Victoria's Mirror Families model is consistent with best interests principles: supporting and assisting families to keep children safe and meet their needs; promoting children's stability; and promoting children's cultural identity and connectedness.

- Article 9: children should not be separated from parents without their approval, except when such removal is necessary in order to uphold the child's best interests;
- Article 18: both parents and legal guardians hold responsibility for bringing up children; the state is required to provide appropriate assistance, including institutions, facilities and services, to parents and legal guardians in the discharging of their child-rearing responsibilities; and
- Article 19: appropriate measures are to be taken to protect children from all forms of physical or mental violence, injury or abuse, neglect or negligent treatment, maltreatment or exploitation, including sexual abuse, while in the care of parents or legal guardians; this includes the provision of social programs to support the child, parents and legal guardians, and for services to identify, report, refer, investigate and treat child maltreatment, with judicial involvement, if necessary.

State and federal policy frameworks

At the national level, the policy of harm minimisation informs the alcohol and other drug sector. In acknowledgement of the fact that, in the short-term, drug use frequently is an ongoing issue, harm minimisation seeks to ameliorate the adverse consequences of substance use for the individual user, their extended family and the broader community (Commonwealth of Australia, 2011). The child and family welfare sector is informed by the National Framework for Protecting Australia's Children 2010–2020 (the National Framework), which requires adult-focused services—including, but not limited to, alcohol and other drug treatment—to be more responsive to children's needs (Council of Australian Governments, 2009). Traditionally, the alcohol and other drug sector and child welfare services have operated within very different paradigms, each with its own (and frequently conflicting) policies, values and assumptions. For example, relapse is normative from the perspective of the alcohol and other drug sector, but can be seen as parental "failure" in child welfare practice. The sectors also have different timelines for practice: the alcohol and other drug sector accepts that problematic substance use is a chronic condition, whereas child protection services can impose timelines for the cessation of alcohol and other drug use so that reunification of children to parental care can occur and permanent care avoided.

At the state level, best interests principles in the *Children, Youth and Families Act 2005* (Vic.) underpin practice in family support

services, Child Protection, placement services and the Children's Court. Odyssey House Victoria's Mirror Families model is consistent with the three themes of the best interests principles: supporting and assisting families to keep children safe and meet their needs; promoting children's stability; and promoting children's cultural identity and connectedness (Victorian Department of Human Services, 2007). The program works within the cycle of recovery, recognising that lapses may occur and implementing strategies to reduce the risk, severity or occurrence of harm. In accordance with the UNCRC, the National Framework and the *Children, Youth and Families Act 2005*, it also keeps the child's best interests at the forefront of all interactions with children and families. This focus on children's interests by an agency primarily funded to provide substance abuse treatment to parents is an example of practising a child aware approach (Scott, 2009).

Implementation of the Odyssey House Victoria Mirror Families program

Odyssey House Victoria's Mirror Families program began its pilot operation within Kids in Focus, a specialist child-centred early intervention service for families affected by parental alcohol and other drug use, funded through the Australian Government's Family Support Program and administered by the Department of Social Services. Most referrals to Kids in Focus are received directly from the statutory Child Protection service or from Child FIRST agencies. A substantial number come from within Odyssey House Victoria. The Women's Alcohol and Drug Service at the Royal Women's Hospital, the State of Victoria's major provider of obstetric services to substance-dependent pregnant women, also regularly refers to the program. The program complies with the agency's Child Protection Reporting Policy, which reflects requirements of service providers specified in the *Children, Youth and Families Act 2005*.

The Mirror Families pilot program was delivered by a caseworker with qualifications in community development, and who came with extensive experience in family support and out-of-home care services.

Six families self-elected to participate in the pilot program, which operated for 18 months from the beginning of 2011. Five families were exiting Odyssey House Victoria's residential Therapeutic Community, where they had been resident with their children, and the sixth was referred to the program from the agency's Supported Accommodation program. Five

families were sole female-headed families; the sixth was headed by a sole-parent father. The gender bias was not unexpected: most children whose parents receive services from the alcohol and other drug sector live in sole-parent households, typically with their mothers (Gruenert et al., 2006; Jones, 2004). The sole-parent father was unable to be meaningfully engaged in the formation of a mirror family and the process was not pursued beyond initial assessment. Five women and a total of seven children participated in the program. Children's ages ranged from 2 to 12 years. All families were historically known to Child Protection. Two were involved with the service at the commencement of the program; of these, one case was closed following successful family reunification of the child, and the remaining family's case was closed and subsequently re-opened following a family violence incident.

As part of the Mirror Families program, the five women and their children received home visits, mostly on a weekly basis. Visits tended to be of two hours' duration, but could last up to several hours depending on each family's needs. Visits became less frequent as reliance on the informal network increased, reducing from weekly to fortnightly and finally to monthly until mothers considered they no longer needed the program. The women's participation in Mirror Families ranged from seven to 22 months, with an average of 14 months (median 7.5).

A number of criteria were important for admission to the program:

- the family self-identified as being isolated, dislocated or estranged from extended family and/or community networks;
- agreement was reached that work would focus on the needs of a child or children up to 13 years of age;
- the child was in parental care and the parent had the capacity to provide continuous care, or a reunification plan to parental care had been made;
- the parent or carer was committed to establishing and maintaining a mirror family for the child; and
- Mirror Families was assessed as being the most beneficial option for the child.

The aim was to reduce the likelihood of parental relapse and to break often intergenerational disconnection from extended family and community, while improving children's safety and wellbeing.

Unlike the original Mirror Families model (Brunner & O'Neill, 2009), the Odyssey House Victoria Mirror Families model did not use the



terms A, B or C family to describe roles within networks. Some of the women participating in the program had experienced past removal of their children and found reference to an "alternative" family to be threatening. Instead, a "layered" level of support and connection was referred to, in which network members provided more or less support to the child and parent, depending on their role within the network. The process involved family progression through sequential stages, from relative isolation to engagement, development, connection and, ultimately, to sustainability.

After receiving a referral, a follow-up conversation was held with the referrer to establish appropriateness, following which the caseworker undertook the dual task of assessment and engagement. Engagement was the most important step in the process: this was where the client's investment in Mirror Families commenced, and in the intense dialogue, a working relationship developed. Timing was of the essence as the pace was set by the client's comfort with the process. After initial conversations, in which the family's "story" was elicited and respected, practice tools were administered, including:

- the genogram;
- the eco-map;
- the Norbeck Social Support Questionnaire (NSSQ) (Norbeck, Lindsey, & Carrieri, 1983); and
- the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997, 2001).

The genogram was used to obtain a historic picture of the individual child/family and the links across and between generations. The eco-map provided a graphic representation of the child and family's connection to other people and/or systems and located the individual and/or family in their current social context. The genogram and the eco-map were also used to explore the strength of relationships, whether relationships were conflicted or positive, and where there were gaps or areas of isolation or disconnection where resources needed to be

The aim was to reduce the likelihood of parental relapse and to break often intergenerational disconnection from extended family and community, while improving children's safety and wellbeing.

The caseworker supported parents to rebuild relationships with “safe” family members, to reconnect with and to reactivate dormant, but formerly positive, friendships, as well as establishing connections with the wider community.

augmented or strengthened. Additionally, the tools provided an invaluable foundation for often difficult, but necessary, conversations while building a supportive network. The NSSQ measured emotional and tangible support, as well as overall functional support, and network properties including network size, category of relationship (e.g., family, friends or professionals), the duration of relationships, and frequency of contact. Loss of support was also measured. The SDQ is a widely used measure of children’s social and emotional wellbeing. The NSSQ and the SDQ, along with scoring instructions for each instrument, are available free online.

During development, the most intensive stage of the process, the caseworker facilitated the nexus between initial discoveries made during engagement and the establishment of relationships in the connection phase. As the relationship between caseworker and family developed, more information was made available. It became evident that some of the women participating in the program had experienced childhood trauma, including sexual abuse, and that it was therefore necessary to enlist support from beyond the family. As children’s participation in social and recreational activities or family events was unlikely to occur or be maintained without support, parents were empowered to connect

with significant others, to form new friendships and to engage more fully in civic life.

In the connection phase, the caseworker supported parents to rebuild relationships with “safe” family members, to reconnect with and to reactivate dormant, but formerly positive, friendships, as well as establishing connections with the wider community by recognising social settings that had possibilities for new links. The caseworker accompanied women as they ventured into the community, modelling appropriate social behaviours and demonstrating it was possible for them to overcome fears of stigma and rejection. As a result, mothers who previously avoided entering the school ground subsequently volunteered for children’s reading groups in the classroom, while others attended recreational and sporting events with their children, activities they had not engaged in prior to the program. Throughout, the caseworker remained “in the background, valuing and affirming what others are doing” (Gilligan, 2006, p. 41). This “walking” alongside women also allowed for “understanding of risk” and intervention in the “everyday actions of practice” (Ferguson, 2010, p. 1101).

While still essential, at this stage the caseworker’s role began to diminish. This was mostly a very positive time, with children and families forming connections and establishing reconnections; it did, however, elicit difficult emotions and realisations among some parents, who found creating an extended family heightened feelings of grief and loss regarding their own family-of-origin experiences. These issues were addressed through counselling as part of the program. As women came to understand the risks of social isolation, and the importance of obtaining support for parenting, they negotiated “back-up” from their B and C supports. Typically, this involved a phone call to organise a social event when mothers required emotional support or to request child-minding. Only one of the five women lapsed during the program. To ensure her child’s safety and to hold herself “accountable” for her actions, the mother in question informed her network members, who were then able to provide timely and appropriate support.

At completion of the program, a further eco-map was constructed and the NSSQ and SDQ were re-administered. Results were compared with those from the assessment phase to assess any gains made during the program. Evaluation was an important step in the process, both for the specific family and for the program. A follow-up call was made to the family a few months after the last session. Evaluation



provided an opportunity for families to reflect on their experiences and achievements and to consider areas they may still have needed to work on. It also encouraged them to focus on the future for their child and family. Evaluation also assisted individual caseworkers to reflect on their practice, contributed to continuous program improvement and quality assurance, and provided information for administrative purposes, such as when reporting to funding bodies.

Reflections on implementation and considerations for further development or diffusion

Families needed a level of stability to fully benefit from the model. In some instances, intensive case management may need to be conducted prior to attempting a mirror family when serious problems or child maltreatment have been identified. There may be times during the process when suspension of the program may prove necessary due to illness, relapse, incarceration or other crisis, including family violence, which was the case for one family. In that instance, the process was suspended until the children's safety was ensured by temporary placement with extended family with whom the mother had reconnected during the Mirror Families program. If serious problems occur during the sustainability phase, the child and family should, ideally, be supported by a well-functioning social network. If the family is yet to perform the necessary functions of a safe mirror family, referrals may need to be made to other services, including child protection, until problems are addressed. When parenting capacity is compromised by acquired brain injury, mental illness or intellectual disability, promotion of children's safety and wellbeing may require more direct and frequent contact with network members and the caseworker, and when professional involvement in the mirror family has concluded, between network members.

Ideally, termination of practitioner involvement occurs when the caseworker and the family assess that the mirror family is safe, self-managing and sustainable. In some instances, mirror families may prove to be an inappropriate model for working with families; for example, when the child's safety and wellbeing is compromised and the family is unable to prioritise the child's needs. Scott (2009) noted that several key questions need to be answered prior to further replication or diffusion of any model:

- Is it effective?

- How is it effective?
- Is it cost-effective?
- Is it sustainable?
- Is it transferable?

In regard to efficacy, all children in the program were safely in maternal care at the end of the intervention. Efficacy was largely due to empowering mothers to improve naturally occurring networks by developing a more sophisticated understanding of networks and their risks and resources. Together with the caseworker, mothers considered the risks associated with the presence of substance users or family members, friends and partners who had perpetrated abuse, and identified individuals able to provide instrumental and/or tangible support. New relationships were forged as mothers gained confidence in approaching other parents at their children's schools and community groups, and dormant, but safe, relationships were reactivated. Increased network involvement improved risk and protective factors for children: children, and their home environments, became more visible to a larger number of protective adults while their mothers simultaneously received assistance with child care—key factors in prevention of child maltreatment (Dubowitz & Bennett, 2007; Seng & Prinz, 2008).

Children's own networks also improved. Social contacts, including friendships with peers, increased as they participated in more social and recreational activities, with and without their parents' presence.

The program was formally evaluated, and results based on the NSSQ and the SDQ at baseline and after twelve months of intervention, together with qualitative data from interviews with participating mothers, are being prepared for publication.¹

Building and sustaining informal social networks required the development of trust between caseworker and families, which was time-consuming and consequently expensive. The model also required a highly experienced caseworker who was able to identify when clients were receptive to "teachable moments" and was open to having difficult conversations, including on parental drug use and its effects on children. Despite the expense, the potential for improved outcomes for children, the reduction in child protection investigation and intervention, including use of the Children's Court, and the prevention of avoidable placement in out-of-home care, make Mirror Families a worthwhile model for further development and implementation.

Termination of practitioner involvement occurs when the caseworker and the family assess that the mirror family is safe, self-managing and sustainable.

Mirror Families may prove particularly useful as an after-care component for families exiting residential alcohol and other drug treatment services or at the conclusion of intensive family preservation or other family support programs.

The naturally occurring networks with which Mirror Families works are more likely to be sustained than constructed social support, such as attendance at groups for socially isolated parents. The Mirror Families model has been integrated with practice in the Kids in Focus program, and staff members deliver training on network intervention to other service providers to facilitate practice change.

Mirror Families may prove particularly useful as an after-care component for families exiting residential alcohol and other drug treatment services or at the conclusion of intensive family preservation or other family support programs. The model is also likely to sit well with Indigenous Australian families. Elders can be respectfully involved and acknowledged as being pivotal for children's wellbeing and to their connection to culture. Mirror Families could be used with newly arrived and refugee groups to build social networks for parents and children.

The model may also prove highly beneficial in a range of practice settings beyond child welfare. For example, positive family social support is associated with a reduction in recidivism in the resettlement of offenders with mental illness and substance use problems (Spjeldnes, Jung, Maguire, & Yamatani, 2012). Mirror Families could also help to avoid premature or unnecessary placement of disabled or elderly people in institutional care.

More rigorous testing of the model will need to be conducted to determine if it is effective and financially feasible prior to further disseminating and transplanting the program (Scott, 2005, as cited in Salveron, Arney, & Scott, 2006). This is particularly important considering that all women who received the program were referred from within the same agency.

Conclusion

The public health approach to child protection provides a foundation for prevention and early intervention efforts (for an in-depth discussion, see Higgins & Katz, 2008). Yet, stemming the flow of children entering the tertiary child protection and out-of-home care system remains a stubborn challenge. Clearly, "a different type of engagement between frontline caseworkers and the children and families who come into contact with the child protection/child welfare systems" is needed (Higgins & Katz, 2008, p. 49).

The Mirror Families program helps shift child protection closer to a community-building approach by working directly with vulnerable

families alongside "natural or potential allies of the child and parent in their everyday domains" (Gilligan, 2006, p. 43). The highlight of the program was the self-construction of positive informal networks and integration into the community by formerly socially isolated women, and the benefits this conferred for their children. The low point was the need to suspend the program with one family following an incident of intimate partner violence and placement of the children with extended family. However, even if removal of children from parental care, either temporarily or permanently, is ultimately warranted, the model provides some continuity of relationships, the importance of which cannot be understated.

Endnotes

1 Please contact the first author for publications details.

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The highlight of the program was the self-construction of positive informal networks and integration into the community by formerly socially isolated women, and the benefits this conferred for their children.



Multi-type maltreatment and polyvictimisation

A comparison of two research frameworks

Rhys Price-Robertson, Daryl Higgins and Suzanne Vassallo

Child maltreatment and child protection have commanded much public attention in recent years. From persistent media scrutiny of child protection systems to public outrage such as that in 2008 surrounding the photographs of artist Bill Henson,¹ the protection of Australia's children is a topic that ignites popular interest like few others. It is easy to forget, then, that academic interest in child abuse and neglect² only gathered momentum relatively recently, catalysed by Kempe and colleagues' seminal 1962 article on "battered child syndrome" in the *Journal of the American Medical Association* (described in Feerick & Snow, 2006; James, 2000). Although concern about child maltreatment dates back centuries, it is only in the last few decades that it has been widely acknowledged, systematically studied and recognised as a public policy issue (Feerick & Snow, 2006; Miller-Perrin & Perrin, 2007).

One of the defining features of the first few decades of child maltreatment research was a focus on individual forms of abuse and neglect, and the attempt to identify risk factors and

outcomes specific to these forms (Anderson, 2010; Higgins, 2004a). In the 1960s and 1970s, much child maltreatment research focused on physical abuse and, to a lesser extent, neglect (Herrenkohl & Herrenkohl, 2009; James, 2000). The 1980s saw the focus of attention move to child sexual abuse and paedophilia (James, 2000), which grew out of a strong emphasis of second-wave feminism on rape and sexual assault. In the 1990s, more attention was directed towards understanding the nature, prevalence and consequences of psychological (or emotional) maltreatment (Higgins, 2004a), and many began to consider the witnessing of family violence as an independent subtype of abuse (James, 1994; Miller-Perrin & Perrin, 2007). Although understanding of the different forms of abuse increased markedly in this period, attempts to identify risk factors and outcomes specific to individual forms of maltreatment were largely unsuccessful (Higgins, 2004a, 2004b).

While it is useful to distinguish between the different subtypes of child maltreatment in

order to understand them more thoroughly, it can also create the misleading impression that there are always strong lines of demarcation between the different childhood adversities, or that they usually occur in isolation (Miller-Perrin & Perrin, 2007; Price-Robertson, 2012). There is a growing body of evidence, however, to suggest that experiences of abuse or neglect seldom occur in isolation; the majority of individuals with a history of maltreatment report exposure to two or more subtypes (Arata, Langhinrichsen-Rohling, Bowers, & O'Farrill-Swails, 2005; Higgins & McCabe, 2000a; Ney, Fung, & Wickett, 1994). Indeed, some individual acts of violence against children involve multiple forms of maltreatment. For example, an adult who sexually abuses a child may also hit them (physical abuse) and belittle them (emotional abuse). There is also evidence to suggest that broader experiences of victimisation tend to cumulate for certain individuals or in certain environments. For instance, children who have been maltreated in a family context may be more susceptible than others to peer violence or exposure to crime, while those who have been sexually abused may be more susceptible than others to re-victimisation (Finkelhor, Ormrod, & Turner, 2007a; Tseloni & Pease, 2003).

One of the most recent major shifts in the focus of child maltreatment research has been the recognition of the interrelatedness of childhood victimisation experiences (Anderson, 2010; Higgins, 2004a). Two main frameworks have been developed to better understand and measure this interrelatedness: multi-type maltreatment, which provides a theoretical framework for the inclusion of five forms of maltreatment in a single measure (i.e., sexual abuse, physical abuse, psychological maltreatment, neglect, and witnessing family violence); and polyvictimisation, which focuses not only on different forms of maltreatment, but also on broader experiences of victimisation, such as bullying and exposure to neighbourhood conflicts.

The purpose of this paper is to compare these two frameworks. This is important because although they share many features, they also differ in significant ways, and may have more or less utility in different research contexts. This paper first compares multi-type maltreatment and polyvictimisation conceptually, outlining the history of the development of the two frameworks, the measurement tools used to operationalise them, and a selection of illustrative findings from some pivotal studies in their respective histories. And second, this study compares these frameworks empirically, using data from the Australian Temperament

Project (ATP) to explore the respective utility of the concepts in identifying the long-term psychosocial outcomes associated with childhood adversity.

Multi-type maltreatment

In order to convey the interconnectedness of childhood maltreatment experiences, Australian researchers introduced the term "multi-type maltreatment" (Higgins & McCabe, 1998). Initially, these researchers investigated multiple forms of abuse and neglect as a way of accounting for the effects of sexual abuse; by the mid-1990s, the hope of identifying symptoms specific to sexual abuse were not being realised,³ so attention shifted to the ways in which other forms of maltreatment may either mediate or contribute to the negative outcomes associated with sexual abuse. However, the case for adopting a framework that encompassed multiple forms of maltreatment became so compelling that Higgins and McCabe began to focus on the co-occurrence of maltreatment subtypes as an independent topic, rather than simply an adjunct to sexual abuse research. They reasoned that measuring multi-type maltreatment could help researchers account for variability in the short- and long-term psychological adjustment of children and adults who had experienced various forms of child abuse and neglect.

In 2001, Higgins and McCabe conducted a systematic review of studies that had measured more than one type of child abuse or neglect (Higgins & McCabe, 2001b). They identified only 29 such studies, the majority of which measured two or three types of maltreatment. Indeed, at that time, Higgins and McCabe's (2000b) and McGee, Wolfe and Wilson's (1997) studies were the only ones to have measured all five forms of maltreatment. Although the studies included in the 2001 systematic review varied considerably in their aims and methodologies, they tended to share two key findings. First, a large proportion of adults who experienced maltreatment in childhood were subjected to more than one type. In other words, maltreatment subtypes tended to be correlated. Second, those adults who reported experiencing more than one form of maltreatment demonstrated significantly poorer wellbeing than adults reporting a single form of abuse, or those reporting none.

These two key findings were confirmed when Higgins and McCabe (1998, 2001a) developed and used the Comprehensive Child Maltreatment Scale (CCMS), a research tool designed to measure multi-type maltreatment. The CCMS measured five forms of child

While it is useful to distinguish between the different subtypes of child maltreatment in order to understand them more thoroughly, it can also create the misleading impression that there are always strong lines of demarcation between the different childhood adversities, or that they usually occur in isolation.

Multi-type maltreatment provides a theoretical framework for the inclusion of five forms of maltreatment in a single measure (i.e., sexual abuse, physical abuse, psychological maltreatment, neglect, and witnessing family violence).

maltreatment using continuous scales, and comprised separate versions for adults (i.e., CCMS-A: retrospective reports of their own childhood experiences) and parents (i.e., CCMS-P: reports on the experiences of their children aged 5–12). Studies using the CCMS demonstrated significant overlap in the occurrence of all types of child abuse and neglect, ranging from $r = .24$ (for sexual abuse and witnessing family violence) to $r = .74$ (for physical abuse and psychological maltreatment) (Higgins & McCabe, 1998). They also found that those with high scores on scales for two maltreatment types had poorer outcomes (e.g., internalising and externalising behaviours) than those with only a single type, and those with high scores on three or more abuse types had poorer outcomes still (Higgins & McCabe, 2000a). Indeed, Higgins (2004a) noted that:

Results from an analysis of parent-report and adult self-report data suggest that the degree (frequency and severity) to which young people experience a range of abusive/neglectful behaviours is more important than the particular sub-type of maltreatment in explaining subsequent psychological problems. (p. 50)

Subsequent multi-type maltreatment research has built upon these initial findings. Table A1 (in the appendix, page 96) outlines a selection of the main studies that have used multi-type maltreatment as a conceptual framework. As can be seen in this table, the majority of studies that have investigated correlations between multi-type maltreatment and psychosocial outcomes have focused on internalising problems (e.g., depression, anxiety) and externalising problems (e.g., antisocial behaviour, aggression). A small number of studies have explored the predictors

of multi-type maltreatment, indicating that the quality of family relationships (e.g., low family cohesion, low family adaptability) and parental attitudes (e.g., traditional parental family values, parental sexual punitiveness) tend to influence the likelihood of the occurrence of multi-type maltreatment. The lifetime prevalence rates of multi-type maltreatment range from 8% (Price-Robertson, Smart, & Bromfield, 2010) to over 57% (Sesar, Zivcic-Becirevic, & Sesar, 2008).⁴

Polyvictimisation

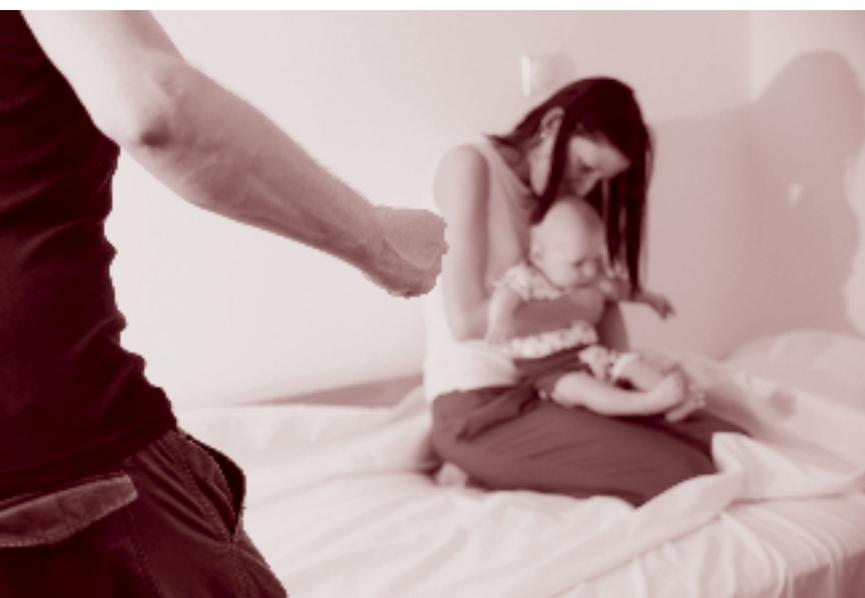
David Finkelhor was among the first to advocate for an approach to child maltreatment research that considered multiple forms of victimisation together. In 1983, he said:

It may be important, both for the benefit of research and theory, and also to counteract some of the divisive tendencies, for researchers on the disparate forms of domestic violence to see what they can find in the way of commonalities. (p. 17)

However, it was not until more than 20 years later—in 2005—that Finkelhor and colleagues at the University of New Hampshire introduced the concept of polyvictimisation (Finkelhor, Ormrod, Turner, & Hamby, 2005). Polyvictimisation has been defined as “having experienced multiple victimizations of different kinds, such as sexual abuse, physical abuse, bullying, and exposure to family violence” (Finkelhor, Turner, Hamby, & Ormond, 2011, p. 4). As this definition suggests, polyvictimisation includes not simply child maltreatment (e.g., sexual and physical abuse), but also a broad array of other adversities, including peer bullying, witnessing community violence and property crime.

The reasons why Finkelhor and colleagues began investigating polyvictimisation were similar to those that saw Higgins and McCabe introduce multi-maltreatment almost a decade earlier: a number of independent lines of research pointed to the fact that children who experienced multiple forms of victimisation were at a particularly high risk of additional victimisation (whether of the same or different kind) and ongoing negative psychological effects (Finkelhor et al., 2011). Also, similarly to Higgins and McCabe, they hypothesised that measuring polyvictimisation would help account for large variations in the traumatic symptoms seen in children subjected to various forms of childhood adversity.

The main research tool used to measure polyvictimisation to date has been the Juvenile Victimization Questionnaire (JVQ) (Finkelhor et al., 2005). The JVQ measures 34 individual forms of victimisation,⁵ which



can be grouped into five general categories: conventional crime (e.g., robbery), child maltreatment (including physical, emotional, and neglect), peer and sibling victimisation (e.g., bullying), sexual victimisation (including peer or adult perpetration), and witnessing and indirect victimisation (e.g., witnessing family violence, witnessing an assault with a weapon). As opposed to the CCMS, which was originally developed to measure either adults' retrospective experiences or parents' reports of their children, the JVQ was initially developed for self-reports of 10–17 year olds. However, more recent “caregiver” and “adult retrospective” versions, as well as abbreviated and reduced item versions, of the JVQ have been developed.⁶

Table A2 (in the appendix, page 97) outlines an illustrative selection of the key studies that have used polyvictimisation as a conceptual framework. Most of the studies with outcome measures focused on short-term trauma symptoms (i.e., anxiety, depressive symptoms, and anger/aggression). These studies tended to find that polyvictimisation was highly predictive of trauma symptoms, and when taken into account, greatly reduced or eliminated the association between individual victimisations (e.g., sexual abuse) and symptomatology. However, when assessing lifetime prevalence of victimisation, maltreatment experiences have been found to uniquely predict adult outcomes, even when controlling for polyvictimisation (Finkelhor, Ormrod, & Turner, 2009). (The implications of this finding are discussed in detail in the Implications for Research on page 91.)

Studies measuring predictors of polyvictimisation have generally focused on broader socio-demographic factors (e.g., socioeconomic status, place of residence), which have been found to significantly influence the likelihood that polyvictimisation will occur. Finally, the incidence and prevalence rates have varied considerably, depending on how polyvictimisation has been defined or the particular study sample used. However, in the largest representative studies, it was found that almost a quarter (22–23%) of all US children had been subjected to four or more different forms of victimisation in the past year.

Summary of the two research frameworks

The main similarities and differences between multi-type maltreatment and polyvictimisation are outlined in Table 1. The central feature of

both research frameworks is their focus on multiple forms of victimisation; in this sense they are very similar. The central difference is one of scope: while multi-type maltreatment concentrates on experiences of child abuse and neglect, polyvictimisation measures a larger number of childhood victimisation experiences. This central difference has led to a number of divergences in the types of measurement tools and methods used. For instance, while it is feasible to measure five types of maltreatment using multiple questions for each type (which is important for measuring severity and understanding the sub-components of maltreatment types), it is much less feasible to include detailed measurement of 34 forms of victimisation (e.g., the JVQ has only one item per victimisation type, whereas the CCMS has between 2 and 11 items each).

Empirical comparison

One aim of this paper was to compare the utility of the multi-type maltreatment and polyvictimisation frameworks by using existing data collected as part of the Australian Temperament Project. To this end, three separate analyses were conducted. First, a measure of multi-type maltreatment was developed in order to examine its utility in explaining psychosocial outcomes in young adulthood. (See the “Group formation” section for a description of all the measures used in the current study). For the same purpose, a measure of polyvictimisation

Table 1: Summary comparison of multi-type maltreatment and polyvictimisation frameworks and research

Multi-type maltreatment	Polyvictimisation
Developed to measure overlap in maltreatment experiences, and account for explainable variation in psychosocial outcomes associated with maltreatment	Developed to measure overlap in victimisation experiences (inc. maltreatment), and account for explainable variation in traumatic symptoms
Detailed measurement of five forms of maltreatment (i.e., sexual abuse, physical abuse, psychological maltreatment, neglect, and witnessing family violence)	Brief measurement of up to 34 forms of victimisation (e.g., conventional crime, child maltreatment, peer and sibling victimisation, sexual victimisation and witnessing and indirect victimisation)
Main measurement tool: Comprehensive Child Maltreatment Scale; adult or parent report; continuous scales	Main measurement tool: Juvenile Victimization Questionnaire; child self-report, caregiver, or adult report; dichotomous measures
Focuses on lifetime prevalence	Often focuses on 12-month incidence, although some recent studies on lifetime prevalence
Tends to focus on long-term psychosocial outcomes (e.g., internalising and externalising behaviour problems)	Tends to focus on short-term trauma symptoms (e.g., child anxiety, depressive symptoms and anger/aggression)

Box 1: Questions used to measure young people's childhood victimisation experiences and psychosocial outcomes

Victimisation experiences ^a

1. *Physical abuse*: Your parent/s used harsh physical treatment (e.g., smacking, hitting) to discipline you > (If yes) > Did you ever suffer effects that lasted to the next day or longer (e.g., bruising, marking, pain, soreness)?
(Note: "Yes" to second question was used to indicate physical abuse.)
2. *Intra-familial sexual abuse*: A family member did, or tried to do, sexual things to you.
3. *Extra-familial sexual abuse*: You had a sexual experience with a person who was not a family member before you were 16 > (If yes) > Was this consensual?
(Note: "No" to second question was used to indicate sexual abuse.)
4. *Emotional maltreatment*: You experienced verbal treatment from your parent/s that made you feel embarrassed, humiliated, or scared (e.g., shouting, name calling, threats).
(Note: Responses of "somewhat true" and "very true" were taken as indicating emotional maltreatment.)
5. *Neglect*: The care taken of you by your parent/s was the right amount (e.g., they watched out for you, fed you properly, gave you attention).
(Note: Reverse scored; responses of "somewhat untrue" and "not at all true" were taken as indicating neglect.)
6. *Witnessing family violence*: There was physical violence between the adults caring for you.
(Note: Responses of "somewhat true" and "very true" were taken as indicating witnessing family violence.)

You were bullied by schoolmates > (If yes) > In what way? (circle all that apply)

7. *Bullying 1*: Verbal abuse or insults
8. *Bullying 2*: Isolation or exclusion
9. *Bullying 3*: Physical bullying

Psychosocial outcomes at 23–24 years

1. *Depression* (e.g., "Over the past month I felt that life was meaningless"): 16% of ATP sample ^b
2. *Anxiety* (e.g., "Over the past month I felt scared without any good reason"): 16% of ATP sample ^b
3. *Illicit substance use* in the previous month (e.g., marijuana, ecstasy, amphetamines): 20% of ATP sample
4. *Antisocial behaviour* in past 12 months (e.g., "sold illegal drugs"): 7% of ATP sample ^c
5. *Long-term health problems* (the presence of a long-term health problem or disability, e.g., diabetes): 22% of ATP sample

Notes: ^a Question 1–3 and 7–9 were measured using dichotomous (yes/no) measures. Questions 4–6 were measured using a 5-point Likert scale (1 = very true, 5 = not at all true) and then converted into dichotomous variables. ^b From Lovibond & Lovibond (1995). ^c Adapted from Elliott & Ageton (1980), Self Report Delinquency Scale.

was developed; this measure contains the same forms of maltreatment as the multi-type maltreatment measure, but also includes three forms of peer victimisation, or bullying. Finally, a "victimisation type" measure was developed, which separates the different forms of maltreatment measured by multi-type maltreatment from the peer victimisation experiences specific to the polyvictimisation measure, in order to identify their unique influence on the outcomes.

The findings presented here come from the Australian Temperament Project, a longitudinal community study that has followed the development of a large group of Australians from infancy into adulthood.⁷ In the 2006–07 survey—conducted when study members were 23–24 years of age—young people were asked to reflect on their family experiences prior to age 18, both positive and negative. The findings presented in this paper are based on a sample of 1,000 study members (390 males, 610 females).

This empirical comparison was not intended to be exhaustive or definitive, but is perhaps best considered a demonstration of these frameworks, designed to accompany the above conceptual comparison. Nonetheless, the current analysis still adds to the limited evidence base of multi-type maltreatment and polyvictimisation in Australia, and effectively illustrates some of the differences between them.

Measures

The questions used to measure young peoples' experiences while growing up are shown in Box 1. Items 1–6 reflect differing forms of maltreatment, while items 7–9 indicate different types of bullying. The table also shows the five psychosocial outcome measures at 23–24 years. Following Price-Robertson, Smart et al. (2010), these measures were chosen as they have previously been shown to be associated with childhood experiences of abuse and neglect. All outcomes were composites of items, with the exception of "long-term health problems", which was measured with a single item.

Group formation

A multi-type maltreatment measure was developed by summing the six different types of reported abuse and neglect (i.e., physical abuse, intra-familial sexual abuse, extra-familial sexual abuse, emotional maltreatment, neglect, witnessing family violence). Three groups were formed:

- *no maltreatment* group, who did not report any experience of child maltreatment ($n = 768$, 77% of the sample);
- *single maltreatment* group, who reported one form of maltreatment ($n = 153$, 15% of the sample); and
- *multi-type maltreatment* group, who reported two or more forms of maltreatment ($n = 79$, 8% of the sample).⁸

A polyvictimisation measure was created by summing the number of types of victimisation experiences reported out of the nine provided (i.e., physical abuse, emotional maltreatment, neglect, witnessing family violence, intra-familial sexual abuse, extra-familial sexual abuse, bullying (verbal abuse), bullying (exclusion), and bullying (physical)). Four groups were formed:

- *no victimisation* group, who did not report any form of maltreatment or bullying ($n = 465$, 47% of sample);
- *single victimisation* group, who reported one form of either maltreatment or bullying ($n = 219$, 22% of sample);
- *low polyvictimisation* group, who reported two types of maltreatment or bullying ($n = 181$, 18% of sample); and
- *high polyvictimisation* group, who reported three or more types of maltreatment or bullying ($n = 135$, 14% of sample).

Finally, a victimisation type measure was designed to compare the outcomes of those experiencing different types of victimisation (i.e., maltreatment, bullying or both):

- *no maltreatment or bullying* group, who reported neither maltreatment nor bullying ($n = 456$, 46% of sample);
- *bullying only* group, who reported at least one form of bullying but no forms of maltreatment ($n = 306$, 31% of sample);
- *maltreatment only* group, who reported at least one form of maltreatment but no forms of bullying ($n = 89$, 9% of sample); and
- *maltreatment and bullying* group, who reported at least one form of both maltreatment and bullying ($n = 143$, 14% of sample).⁹

Results

Rates of victimisation

Almost a quarter (23%) of participants had experienced one or more of the five forms of child maltreatment. Fifteen per cent reported experiencing a single type of maltreatment, while 8% had experienced multi-type

maltreatment (i.e., two or more forms). The most common type of maltreatment was emotional maltreatment (17%), while neglect was the least common (3%).

Bullying was also prevalent, with 45% of participants indicating that they had been victims of bullying at least once during their school years. The most common form of bullying reported was verbal abuse or insults (39%), although social isolation or exclusion was also frequently reported (23%).

In total, 54% of participants had been bullied or maltreated prior to age 18. Almost a third (31%) had experienced bullying only, 9% experienced child maltreatment, but not bullying, and 14% reported both bullying and maltreatment (i.e., polyvictimisation).

Outcomes in early adulthood

The multi-type maltreatment, polyvictimisation and victimisation type groups described earlier were compared on a range of problematic outcomes at 23–24 years (i.e., depression, anxiety, illicit substance use, antisocial behaviour and long-term health problems) to determine whether they exhibited different profiles. Separate logistic regression analyses were used to compare groups (e.g., the no, single and multi-type maltreatment) on rates of each outcome (e.g., depression).

The results of these comparisons are described in terms of odds ratios (OR). Odds ratios can be used to estimate the likelihood of an outcome occurring (e.g., depression) if a particular factor is present (e.g., child maltreatment). Values close to 1 indicate that there is no relationship between a factor and an outcome, values greater than 1 suggest that as levels of a factor increase, so does the likelihood of the outcome occurring, while values less than one suggest that an outcome is less likely to occur as levels of a factor increase.

Table 2 (on page 90) summarises the results of these comparisons while Table A3 in the appendix (page 98) provides more detailed statistical data. The crosses (X) in Table 2 indicate where groups that had experienced some form of maltreatment or victimisation significantly differed on a particular outcome from the groups that had not. The more crosses, the higher the OR, indicating a relatively higher likelihood of the outcome occurring. For example, the table shows that the single- and multi-type maltreatment groups were significantly more likely than the no maltreatment group to experience depression, with the multi-type maltreatment group being the most likely to do so.

Polyvictimisation includes not simply child maltreatment (e.g., sexual and physical abuse), but also a broad array of other adversities, including peer bullying, witnessing community violence and property crime.

Table 2: Comparison of the multi-type maltreatment, polyvictimisation, and victimisation type groups on adverse psychosocial outcomes at 23–24 years

Groups	Outcomes at 23–24 years				
	Depression	Anxiety	Illicit substance use	Antisocial behaviour	Long-term health problems
Multi-type maltreatment (ref. = no maltreatment)					
Single maltreatment	X	X			
Multi-type maltreatment	XXX	XX			
Polyvictimisation (ref. = no victimisation)					
Single victimisation					
Low polyvictimisation					X
High polyvictimisation	XX	XX		XX	XX
Victimisation type (ref. = no maltreatment or bullying)					
Bullying only					X
Maltreatment only			XX		
Maltreatment and bullying	XXX	XX		XX	XX

Note: X = a significant positive association, $p < .05$; XX = OR > 2.0; XXX = OR > 3.0. See Table A3 for detailed data.

Comparison of multi-type maltreatment groups

Significant associations were found between the number of forms of maltreatment a person experienced in childhood and his/her likelihood of becoming depressed and/or anxious in early adulthood (Table 2).

Young people who experienced multi-type maltreatment were 3.7 times more likely than those who were not maltreated to be depressed at 23–24 years, and 2.7 times more likely to be anxious. Those who experienced one form of maltreatment prior to age 18 were also at heightened risk of subsequent depression and anxiety, although the odds of this occurring were lower than for the multi-type maltreatment group (ORs of 1.9 and 1.6, respectively).

The maltreatment groups did not significantly differ in their likelihood of engaging in illicit substance use, antisocial behaviour or having a long-term health problem.

Comparison of polyvictimisation groups

The number of victimisation experiences individuals faced prior to age 18 was significantly related to their likelihood of experiencing a range of problematic outcomes in early adulthood (Table 2). Young people who had experienced three or more forms of victimisation in childhood were almost three times as likely as those who had not been victimised to be depressed at age 23–24, and more than two and a half times as likely to be subsequently anxious, antisocial and have a chronic health problem. Young people who had experienced two different forms of

victimisation were also at heightened risk of having chronic health problems (OR = 1.8).

No significant associations were found between polyvictimisation severity and later illicit substance use.

Comparison of victimisation type groups

Significant associations were found between the form of victimisation a person experienced in childhood and their likelihood of experiencing a range of negative outcomes in early adulthood (Table 2).

Young people who had been both bullied and maltreated prior to age 18 were more than three times as likely as those who had not been victimised to be depressed at 23–24 years, and approximately two and a half times as likely to be antisocial and/or have a long-term health problem. Furthermore, this group was more than twice as likely as those who had not been victimised to be anxious.

Study members who were bullied, but not maltreated (the bullied only group) were also more likely than those who were not victimised to have a chronic health problem in early adulthood (OR = 1.9), while those who were mistreated but were not bullied (the maltreatment only group) were at heightened risk of engaging in illicit substance use at 23–24 years (OR = 2.0).

The comparison of the victimisation type groups revealed some interesting patterns. In general, rates of adverse outcomes among the bullying only group, were similar to those among the no victimisation group (an exception to this was the significant association with long-term

health problems).¹⁰ On the other hand, there was a trend for a higher proportion of those in the maltreatment only group to experience adverse psychosocial outcomes than among the no maltreatment or the bullying only groups (see Figure 1).

Strengths and limitations of the current study

The current study has a number of strengths. Firstly, in contrast to many similar studies that use self-selected or clinical samples, the findings of this study are based on a relatively large community sample, which helps to decrease the biases that can arise from the former types of sampling. A further strength is that the ATP is a longstanding study in which a strong history of trust has been developed with study members. Such trust is particularly important when respondents are asked to disclose very sensitive information, such as whether or not they experienced child maltreatment. A third major strength is the breadth of data collected, allowing a range of childhood experiences and early adult outcomes to be examined, and cumulative measures of adverse experiences to be developed.

However, the research reported in this paper also has several limitations. As with many longitudinal studies, attrition over the course of the ATP has resulted in a slight under-representation of families from lower socio-demographic backgrounds or with a non-Australian-born parent. Thus, the current study's findings are likely to slightly underestimate the effects of growing up in a low socioeconomic status or immigrant family. Attrition has also resulted in there being a lower proportion of males in the ATP sample (i.e., 310 males compared to 610 females), which might have had some influence on the strengths of associations found. However, as the focus of this project was a comparison between two conceptual frameworks, an examination of gender differences was considered beyond its scope.

Secondly, the measures used to assess multi-type maltreatment and polyvictimisation were not as detailed as those used in some other studies. This is especially true of the polyvictimisation measure; although it measured aspects of four out of the five general categories covered by the JVQ, it was not nearly as extensive as the JVQ. The ATP is a life course study, collecting information on a wide range of aspects of child and youth development. Other more narrowly focused studies are able to include more in-depth measures than those used here. While it would

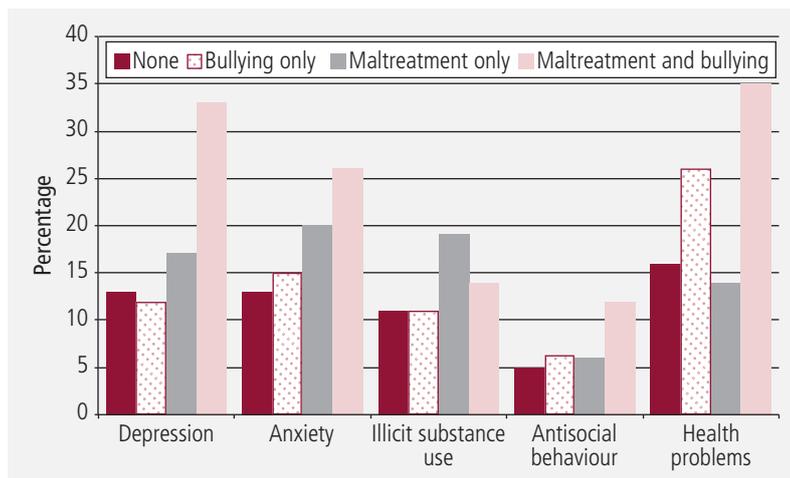


Figure 1: Percentage of victimisation type groups reporting adverse outcomes at 23–24 years

have been preferable to use detailed measures such as the CCMS (for multi-type maltreatment) and the JVQ (for polyvictimisation), to our knowledge no studies have been conducted that used both of these measurement tools while also measuring adult outcomes.

It should also be noted that the measures used in the current study were not subjected to reliability or validity testing. However, the purpose of this paper was comparison, rather than original research into multi-type maltreatment and polyvictimisation per se. Although data from the ATP were considered sufficient for this purpose, these limitations affect the extent to which the findings from the current study can be extrapolated or be taken to represent rigorous new findings supporting either the multi-type maltreatment or polyvictimisation frameworks.

Finally, as in many other studies in this area, childhood family experiences were retrospectively reported in the current study. There has been debate about the accuracy of such reports, with memory loss and recall bias being commonly identified problems (Beckett, DaVanzo, Sastry, Panis, & Peterson, 2001). However, previous research with members of the current study has found high concordance between retrospective reports and other sources of data (e.g., between self-reports of contact with the police for offending and official police records; Smart et al., 2005), suggesting retrospective reports can provide useful and reliable information.

Implications for research

The current paper has demonstrated the value of using both the multi-type maltreatment and polyvictimisation frameworks for understanding

Significant associations were found between the form of victimisation a person experienced in childhood and their likelihood of experiencing a range of negative outcomes in early adulthood.

The breadth of polyvictimisation makes it well suited to measurement of the short-term incidence of victimisation experiences and trauma.

child victimisation and its effects on wellbeing. Consistent with research on both multi-type maltreatment (e.g., Higgins & McCabe, 1998, 2003) and polyvictimisation (e.g., Finkelhor et al., 2009; Richmond, Elliott, Pierce, Aspelmeier, & Alexander, 2009), victimisation among ATP participants was found to be strongly associated with internalising behaviour problems (i.e., anxiety and depression) in adulthood. For example, compared to those who did not experience maltreatment, participants in the multi-type maltreatment group were almost four times more likely to be depressed, and almost three times more likely to be anxious. The high polyvictimisation group were also at heightened risk for depression and anxiety in early adulthood, as well as antisocial behaviour and long-term health problems.

An obvious question to ask, then, is: Which framework is the best to use in child victimisation research?

The answer to this appears to depend on the aims of the research in question. There are times when a broad measure of a wide variety of victimisation experiences will be most appropriate (i.e., polyvictimisation), and there are other times when detailed measurement of specific child maltreatment experiences will be preferable (i.e., multi-type maltreatment).

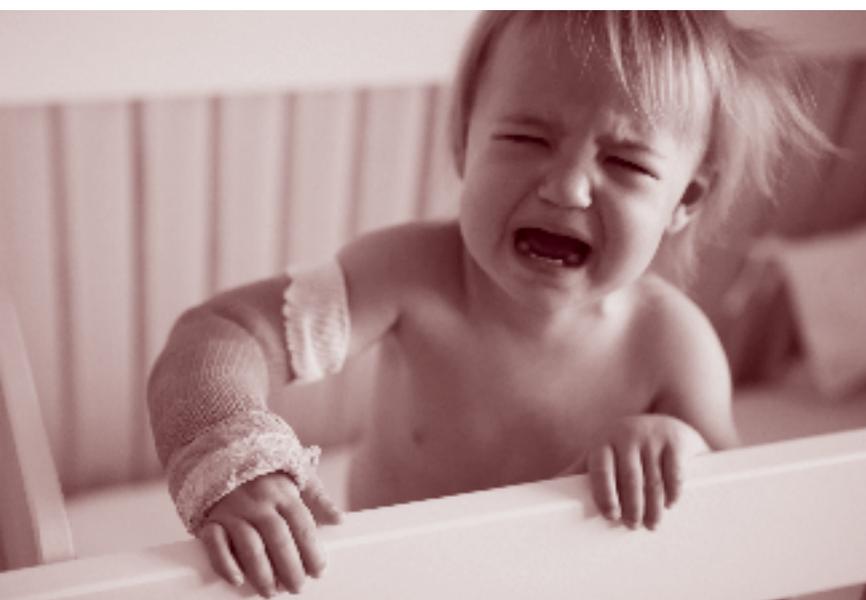
For instance, if the aim of research is to provide an accurate assessment of the immediate risk environment children are facing, polyvictimisation will likely be the best option. The current findings suggest that, when compared to measures of multi-type maltreatment, measures of polyvictimisation may capture a greater range, or at least different forms, of adversity. Compared to multi-type maltreatment, polyvictimisation was associated

with a greater number of problematic outcomes in early adulthood. Specifically, those in the high polyvictimisation group were significantly more likely to engage in antisocial behaviour and experience chronic health problems, while those in the multi-type maltreatment group were not.¹¹

The breadth of polyvictimisation makes it well suited to measurement of the short-term incidence of victimisation experiences and trauma. Some children will generally be at high risk of adversity in their lives. Although they may not have been maltreated (i.e., as measured by multi-type maltreatment) in the past year, they might have been subjected to a number of other victimisation experience (e.g., peer bullying, property crime), which polyvictimisation measures will be able to identify.

If researchers have the capacity to include in-depth measures of many of the adversities covered by polyvictimisation, then it appears that it would be sensible to do so. The current analysis suggests that the more child victimisation experiences that are measured, the more sensitively researchers will be able to detect relationships with later outcomes.

On the other hand, if the purpose of research is to identify those experiences (i.e., the different forms of child maltreatment) that tend to have the most profound long-term influences on individuals' lives, then measures of multi-type maltreatment may be preferable. Research by Finkelhor and colleagues (2009) found that when studying short-term outcomes (within 12 months), aggregated measures of victimisation (i.e., polyvictimisation) "eclipsed or greatly reduced the contribution of any particular type of victimization in the prediction of mental health symptoms" (p. 407). However, when investigating the lifetime prevalence of polyvictimisation, they found that any form of child maltreatment or sexual assault continued to be a significant predictor of later trauma symptoms, even after controlling for lifetime polyvictimisation. "This suggested", according to the authors, "that in the lifetime assessment of polyvictimization as a predictor of negative outcomes, *child maltreatment and sexual assault had a particular traumatic salience*, and therefore should be given additional weight in the summing of victimizations" (p. 408, emphasis added). The results of the current study would appear to offer some support for Finkelhor et al.'s (2009) observations, with those in the maltreatment only group being more likely to report a range of adverse long-term outcomes than those who experienced bullying only (see Figure 1).



When compared to the wide scope of polyvictimisation, the primary benefit of multi-type maltreatment's limited breadth is that it allows a much more in-depth measurement of maltreatment experiences. Research has demonstrated that multiple questions are required to accurately measure a subtype of abuse. For instance, the number of questions that researchers ask can have a strong effect on prevalence estimates. Peters, Wyatt, and Finkelhor (1986) found that studies that asked four or more questions on sexual abuse produced the highest estimates. Similarly, differences in the wording of questions can lead to dramatic differences in prevalence figures. For example, a question such as "Were you sexually abused as a child?" requires people to categorise themselves as "victims of sexual abuse". Many will resist this categorisation, even if they have been subjected to behaviours that constitute sexual abuse (Sorsoli, Kia-Keating, & Grossman, 2008). Alternatively, questions that involve behavioural descriptions (e.g., "When you were a child did an adult touch or fondle your body in an inappropriate way?") are more likely to elicit an accurate response, although multiple behavioural questions will often be required to cover the range of behaviours that constitute a particular form of maltreatment (Goldman & Padayachi, 2000).

Whether one chooses multi-type maltreatment, polyvictimisation, or some other framework that accounts for multiple experiences of victimisation, it is clear that the era in which researchers routinely measure only one form of child victimisation is drawing to a close. There is simply too much evidence suggesting that experiences of victimisation routinely co-occur. This evidence gives reason to question any research that only measures one form of maltreatment and attempts to draw conclusions about outcomes or risk factors associated with this form of maltreatment. For instance, if researchers only measure physical abuse, how can they be sure that any correlations they find with long-term psychosocial outcomes are not actually the effect of various other victimisation experiences that are likely to co-occur with physical abuse? The answer is: they cannot be sure.

Of course, this does not mean that all forms of child victimisation are the same, or that they should not be investigated separately. To be sure, research has identified some unique outcomes associated with specific forms of victimisation (e.g., greater sexualised behaviour among sexually abused young people). It does mean, however, that researchers investigating the consequences of a specific form of victimisation should at least control for the

effects of other victimisation experiences, as well as for the effects of cumulative experiences of victimisation, such as by using measures of multi-type maltreatment or polyvictimisation.

Endnotes

- 1 For those unaware of this controversy, the opening night of a 2008 exhibition of prominent Australian photographer Bill Henson was cancelled after police received numerous complaints regarding a photograph of a nude 13-year-old girl, which was featured on the invitation to the exhibition. The police subsequently seized a number of photographs from the cancelled exhibition, with the intention of charging Henson with "publishing an indecent article". This incident catalysed an intense national debate over censorship and the depiction of children in art and advertising. For extended treatment of this controversy, see Marr (2008).
- 2 Following Finkelhor, Turner, and Hamby (2012), child victimisation can be broadly defined as "harm caused by other persons, in this case, peers, acting outside of the norms of appropriate conduct" (p. 273). In order to enhance readability, the terms "child maltreatment", "child abuse and neglect", "childhood adversity" and "victimisation" are generally used interchangeably in this paper. However, on some occasions "child maltreatment" is used to denote a limited subcategory (i.e., the five forms of abuse and neglect measured in multi-type maltreatment) of broader "victimisation" experiences (i.e., the 34 forms of victimisation measured in polyvictimisation). It should be clear from the context which type of use is intended.
- 3 One exception to this is the finding that sexually abused youth display greater sexualised behaviour (Miller-Perrin & Perrin, 2007).
- 4 Such large discrepancies in prevalence figures primarily reflect differences in sampling strategies (e.g., clinical samples versus representative community samples), but could also be related to differences in measurement (e.g., the continuous maltreatment scales of the CCMS versus dichotomous measures of maltreatment).
- 5 That is: exposure to war or ethnic conflict, sexual assault by peer, rape (attempted or completed), flashing/sexual exposure, verbal sexual harassment, nonspecific sexual assault, bias attack, witness to parent assault of sibling, kidnapping, witness to murder, exposure to random shootings etc., custodial interference/family abduction, physical abuse by caregiver, dating violence, robbery, gang or group assault, witness to assault with weapon, attempted assault, psychological/emotional abuse, nonsexual genital assault, murder of family member or friend, assault with weapon, personal theft, witness to assault without weapon, witness to domestic violence, vandalism, assault without weapon, sexual assault by known adult, burglary of family household, neglect, emotional bullying, bullying, peer or sibling assault.
- 6 For a full description of the different versions of the JVQ, see: <www.unh.edu/ccrc/juvenile_victimization_questionnaire.html>.
- 7 For more details, see Prior, Sanson, Smart, and Oberklaid (2000) or visit the ATP study website: <www.aifs.gov.au/atp>.
- 8 As two forms of child sexual abuse were measured in this study (i.e., intra- and extra-familial), it would

If the purpose of research is to identify those experiences (i.e., the different forms of child maltreatment) that tend to have the most profound long-term influences on individuals' lives, then measures of multi-type maltreatment may be preferable.

have been possible for participants to be included in the multi-type maltreatment group when they had only experienced one of the five forms of abuse or neglect included in the multi-type maltreatment framework. Thus, participants who experienced both intra- and extra-familial sexual abuse but no other forms of maltreatment ($N = 2$) were included in the single maltreatment group.

- 9 As six participants were missing relevant data, the number of participants in these four groups equals 994. Percentages for the victimisation type groups were therefore calculated using a total of 994.
- 10 It was not possible from this finding to ascertain whether, or to what extent, bullying was a consequence, as opposed to simply a cause, of long-term health problems. In other words, it is possible that participants with long-term health problems may have been more likely to be targeted by peers.
- 11 As many of the multi-type maltreatment studies outlined in the introduction and in Table A1 have found connections between multi-type maltreatment and externalising behaviour problems, it is feasible that measurement or sample issues in the current study led to a lack of statistical sensitivity with which to detect such relationships.

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Appendix

Table A1: Selection of studies using multi-type maltreatment as a conceptual framework

Authors	N	Age (years)	Sample	Measure	Childhood prevalence	Outcomes associated with MM	Predictors of MM
Higgins & McCabe (1998) (Australia)	50 (43 females)	M = 40.6 (SD = 16.0)	Self-selected parents of primary-school-aged children	FLEQ-P (including items that form the later CCMS-P)	MM = 42% (30% for 3 forms)	MM > externalising, internalising	N/A
Higgins & McCabe (2000b) (Australia)	175 (128 females)	M = 31.46 (SD = 11.01)	Self-selected community	CCMS-A	N/A	MM > trauma symptomatology, self-deprecation	Family background (gender, quality of childhood relationships, physical and verbal affection, parental divorce, family adaptability, family cohesion, parental sexual punitiveness, quality of interpersonal relationship, traditionality of father/mother)
Bevan & Higgins (2002) (Australia)	36 males	M = 41.9 (SD = 9.45)	Self-selected (from counselling agency, history of domestic violence)	CCMS-A	N/A	MM > physical spouse abuse, trauma symptomatology	N/A
Higgins (2003) (Australia)	(a) 50 (43 females)	(a) M = 39.6 (SD = 7.2)	(a) Self-selected caregivers	(1) CCMS-P	N/A	(1) MM > externalising, internalising, sexual behaviour problems (in children)	(1) Family background (family adaptability, family cohesion, sexual punitiveness, divorce)
	(b) 138 (119 females)	(b) M = 46.1 (SD = 11.17)	(b) Self-selected community	(2) CCMS-A		(2) MM > psychological adjustment problems	(2) Family background (gender, quality of childhood relationships, physical and verbal affection, parental divorce, family adaptability, family cohesion, parental sexual punitiveness, quality of interpersonal relationship, traditionality of father/mother)
	(c) 95		(c) Self-selected community	(3) CCMS-A		(3) MM < positive relations with others, purpose in life	(3) N/A
Vranceanu, Hobfoll, & Johnson (2007) (USA)	100 females	M = 28.92 (SD = 10.52)	Recruited from gynaecological treatment centre for low-income women	CCMS-A	N/A	MM > stress, PTSD symptoms MM < social support	N/A
Sesar et al. (2008) (Bosnia-Herzegovina)	458 (61% females)	15–20 (M = 17)	Third grade high-school students	Based on CCMS-A	MM = 57%	N/A	N/A
Price-Robertson, Bromfield, & Vassallo (2010) (Australia)	1,000 (610 females)	23–24	Representative community sample	Self-developed scale, adapted from Cawson, Wattam, Brooker, & Kelly (2000)	MM = 8%	MM > depression, anxiety	N/A

Notes: M = mean; SD = standard deviation; MM = multi-type maltreatment; FLEQ-P = The Family and Life Experience Questionnaire—Parent Version; N/A = not applicable; CCMS-A = Comprehensive Child Maltreatment Scales for Adults; CCMS-P = Comprehensive Child Maltreatment Scales for Parents; PTSD = post-traumatic stress disorder.

Table A2: Selection of studies using polyvictimisation as a conceptual framework

Authors	N	Age (years)	Sample	Measure	12-month incidence/childhood prevalence	Outcomes associated with PV	Predictors of PV
Finkelhor et al. (2005) (USA)	2,030	10–17 (M = 1,000); caregivers of 2–9 year olds (N = 1,030)	Representative community sample	JVQ	Incidence: PV (4+ forms of victimisation) = 22%	PV > trauma symptomology (depression, anxiety, anger/aggression)	Low socioeconomic status, one-parent household, residing in large city
Finkelhor et al. (2007a) (USA)	2,030	10–17 (M = 1,000); caregivers of 2–9 year olds (N = 1,030)	Representative community sample	JVQ	Incidence: PV (4+ forms of victimisation) = 22%	PV > trauma symptomology, re-victimisation in following year	Low socioeconomic status, gender (boys), race (African-American), one-parent household, residing in large city
Finkelhor, Ormrod, & Turner (2007b) (USA)	1,467	10–17 (children 10–17 and caregivers of 2–9 year olds)	Representative community sample	JVQ	Incidence: PV (4+ forms of victimisation) = 23%	PV > re-victimisation in following years	Family problems (alcohol misuse, homelessness, family member imprisonment)
Richmond et al. (2009) (USA)	(a) 311 female	(a) 18–23 (M = 19.1, SD = 1.33)	Female undergraduates	JVQ adult retrospective	(a) Prevalence: 97% (at least 1 type of PV); 40% (at least one type of victimisation in at least 5 of the 6 main PV categories)	(a) PV > psychological symptomology and distress (e.g., depression, anxiety, phobic anxiety, psychoticism), relationship quality, trauma symptomology (b) As above	N/A
Finkelhor et al. (2009) (USA)	(b) 321 female	(b) 18–23 (M = 19; SD = 1.32)	Representative community sample	JVQ adult Retrospective	Prevalence: 80% (at least 1 type of PV). Mean: 3.7 types of victimisation of lifetime.	PV > trauma symptomology	One-parent household, step-families
Ellonen & Salmi (2011) (Finland)	13,459 (50% female)	10–17 (children 10–17 and caregivers of 2–9 year olds)	Representative sample of students from mainland Finland	Modified JVQ	Incidence: PV (4 forms of victimisation) = 7%	PV > externalising, internalising, and social behaviour problems	Individual characteristics (e.g., factors of health, ways of spending free time, delinquency, alcohol, and drug use), family characteristics (e.g., family's socioeconomic situation, parental social control, and alcohol use)
Ford, Wasser, & Connor (2011) (USA)	295 (38% female)	5–17 (M = 11.5, SD = 3.5)	Recruited from adolescent outpatient psychiatry clinic	Self-developed measure, using clinic admissions data	Incidence: PV (2+ of 7 forms of victimization) = 8%	PV > clinically severe externalising behaviour problems, psychiatric impairment, and PTSD diagnosis	N/A
Cuevas, Sabina, & Milloski (2012) (USA)	2,000	18–95 (M = 47.76, SD = 16.24)	National sample of Latino women living in USA	ITVH	40.3% reported at least one childhood victimisation experience	Re-victimisation in adulthood	N/A

Notes: PV = polyvictimisation; JVQ = the Juvenile Victimization Questionnaire; M = mean; SD = standard deviation; PTSD = post-traumatic stress disorder; ITVH = Lifetime Trauma and Victimization History questionnaire.

Table A3: Comparison of the multi-type maltreatment, polyvictimisation, and victimisation type groups on adverse psychosocial outcomes at 23–24 years, odds ratios

Groups	Depression		Anxiety		Illicit substance use		Antisocial behaviour		Long-term health problems	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Multi-type maltreatment (ref. = no maltreatment)										
Single maltreatment	1.95 **	[1.26–3.02]	1.58 *	[1.01–2.47]	1.54	[0.94–2.51]	1.70	[0.91–3.19]	1.37	[0.91–2.05]
Multi-type maltreatment	3.75 ***	[2.26–6.23]	2.72 ***	[1.61–4.58]	1.63	[0.86–3.07]	1.90	[0.86–4.20]	1.52	[0.90–2.56]
Polyvictimisation (ref. = no polyvictimisation)										
Single victimisation	1.06	[0.67–1.69]	1.14	[0.72–1.80]	1.30	[0.79–2.12]	1.26	[0.64–2.48]	1.48	[0.99–2.22]
Low polyvictimisation	0.99	[0.59–1.63]	1.08	[0.66–1.77]	1.24	[0.73–2.10]	1.08	[0.50–2.29]	1.77 **	[1.16–2.68]
High polyvictimisation	2.92 ***	[1.86–4.60]	2.63 ***	[1.66–4.16]	1.39	[0.79–2.46]	2.65 **	[1.38–5.09]	2.58 ***	[1.67–3.99]
Victimisation type (ref. = no victimisation)										
Bullying only	0.85	[0.54–1.33]	1.13	[0.74–1.72]	1.06	[0.67–1.69]	1.18	[0.62–2.22]	1.85 **	[1.30–2.65]
Maltreatment only	1.32	[0.71–2.44]	1.68	[0.94–3.02]	2.01 *	[1.09–3.68]	1.12	[0.41–3.03]	0.82	[0.42–1.58]
Maltreatment and bullying	3.18 ***	[2.05–4.95]	2.31 ***	[1.46–3.68]	1.38	[0.79–2.42]	2.54 **	[1.32–4.90]	2.72 ***	[1.78–4.17]

Note: OR = odds ratios; CI = 95% confidence intervals; * $p < .05$; ** $p < .01$; *** $p < .001$. See Table 2 for summary.



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Sharnee Moore and Rachel Carson

When does a de facto relationship exist?

Determining whether two people have lived together in a de facto relationship ... is not always straight forward.

This was the observation made by O'Sullivan FM (now O'Sullivan J) in the decision of *Gissing and Sheffield* [2012] FMCAfam 1111 [para. 2]. As of 1 March 2009, de facto property/financial matters arising in most Australian states can be dealt with by the Family Court of Australia or Federal Circuit Court of Australia, pursuant to the *Family Law Act 1975* (Cth) (*FLA*).¹ Since this time, there has been a developing body of case law applying the definition of a de facto relationship. The decision in *Gissing and Sheffield*, together with the decision of the Full Court of the Family Court of Australia in *Jonab and White* [2012] FamCAFC 200, provide recent examples of situations where courts have considered whether a de facto relationship had been established on the facts. The questions of whether a de facto relationship exists or when a de facto relationship commenced, are issues that may emerge as being pivotal in de facto relationship cases. This is because parties may seek to argue that there was no de facto relationship or that the de facto relationship was for a period of less than two years and that in either of such circumstances, there is no basis for property adjustment or maintenance orders pursuant to Part VIIIAB of the *Family Law Act 1975* (Cth).²

In *Gissing and Sheffield* the applicant alleged that he was in a de facto relationship with the respondent, whereas the respondent maintained that "the parties were in a business relationship which ended badly" [para. 3]. In *Jonab and White* the applicant was appealing from the decision of Murphy J in *Jonab and White* [2011] FamCA 221 not to declare de facto relationship, in circumstances where the respondent asserted that his relationship with the applicant "was nothing more than 'an affair'" [para. 15]. The preliminary issue for the courts in each of these cases was to determine the nature of the relationship between the parties.

Section 4AA of the *FLA* defines a de facto relationship as arising where two people "have a relationship as a couple living together on a genuine domestic basis" but are not legally married to each other and are not related to each other by family. The question of whether a de facto relationship has been established is to be considered "having regard to all the circumstances of their relationship". *FLA* s 4AA(1)(c) and s 4AA(2) provides that these circumstances may include any or all of the following circumstances:

- (a) the duration of the relationship;
- (b) the nature and extent of their common residence;
- (c) whether a sexual relationship exists;

- (d) the degree of financial dependence or interdependence, and any arrangements for financial support, between them;
- (e) the ownership, use and acquisition of their property;
- (f) the degree of mutual commitment to a shared life;
- (g) whether the relationship is or was registered under a prescribed law of a State or Territory as a prescribed kind of relationship;
- (f) the care and support of children;
- (g) the reputation and public aspects of their relationship.

No specific findings are required in relation to the above circumstances when determining whether a de facto relationship exists and s 4AA(5) clearly states that a de facto relationship can exist between two persons of the same sex or two persons of different sexes and that a de facto relationship can exist even if one person in the relationship is married to or in a de facto relationship with another person. The onus of proving the existence of a de facto relationship on the balance of probabilities lies with the person making the application for property adjustment or maintenance orders pursuant to Part VIIIAB of the *FLA*.

The discussion in *Gissing and Sheffield* (which refers to earlier FCoA and FCC decisions) makes it clear that the court must determine the question of whether there exists a de facto relationship, by reference to the *FLA* definition set out above rather than by reference to other definitions, to "external society views of what constitutes a de facto relationship ... or by what the parties themselves thought their relationship to be".³ O'Sullivan J's consideration of the meaning of "living together" when determining whether a de facto relationship exists, referenced the notion of "coupledom", which was identified in the earlier trial decision of Murphy J in *Jonab and White* [2011] FamCA 221 as "the core of a de facto relationship", and which involves the "merger of two lives" [para. 60].

The parties in *Gissing and Sheffield* had been in a relationship for 17 years, and in reaching the finding that this relationship was indeed a de facto relationship for the purposes of the *FLA*, O'Sullivan pointed to the following features:

- That although "both parties lived in several properties during this period together and separately" [para. 147], the parties shared common residences for "significant periods of time" [para. 197] and the evidence "bear(s) out the manifestations of 'coupledom'" [para. 155].⁴
- That there was an ongoing financial relationship between the parties until 2010 [para. 167], "a very high degree of financial dependence by the respondent on the applicant and more importantly interdependence between the parties" [para. 163]. The parties also conducted joint bank accounts and intermingled their finances [para. 197]. O'Sullivan J held that "the parties

business continued throughout the period of the relationship” and that “despite changes during that time to living arrangements the evidence revealed the parties’ financial dependence and interdependence was largely unaffected” [para. 168], and noted that the respondent was almost completely reliant on the applicant for financial and other advice [para. 197].

- That throughout the relationship the parties purchased and sold a number of properties together and although on each occasion the title was in the respondent’s name, “joint funds were applied by the parties to expand their property interests” in relation to many of these purchases [para. 151], with the applicant organising many of these transactions [para. 173].
- That the evidence indicated a degree of commitment to a mutual shared life, with the parties “carrying on a mutual enterprise of sharing income ... and shared payment of expenses for their mutual support and in relation to their homes” [para. 197]. O’Sullivan J noted the “wealth of evidence that the parties acted and were treated by others as owing [*sic*] property together and carrying out work or renovations on those assets together” [para. 179].
- That the relationship was not clandestine in nature [para. 188].
- That “the parties had so merged their lives that they were for all practical purposes living together as a couple on a genuine domestic basis” [para. 197].

Evidence of inconsistent representations of the nature of the relationship to bodies such as Centrelink were also not considered to be fatal to arguments in favour of the existence of a de facto relationship. In this case of *Gissing and Sheffield* it was alleged that the applicant had represented to Centrelink that he was not in a de facto relationship and, as such, he should not be permitted to claim that he was in such a relationship in the context of family law proceedings. In response, the applicant argued that his representation to Centrelink was done with the respondent’s knowledge and that she benefited from this representation. In considering this aspect of the case, O’Sullivan J referred to authorities, including *Elias v Elias* (1977) FLC 90-267 and *Christofis and Zorbas* [2011] FMCAfam 571,⁵ that identify that it is “a logical and understandable consideration for a court in evaluating evidence” (rather than a mandatory principle of estoppel) that a party “may not rely on a representation at a point in time for their own benefit and then later deny the substance of that representation so as to achieve an alternative benefit” [*Christofis and Zorbas* [2011] FMCAfam 571 [106]. When applying this “*Elias* principle” in the context of all of the evidence (including evidence of the respondent’s inclusion of assets owned by the applicant on an application that she had made

to a financial institution for finance), O’Sullivan J held the “Centrelink issue” was not fatal to the applicant’s case and the existence of the de facto relationship was established pursuant to s 4AA in this case.

The opposite outcome arose in *Jonah and White* [2011] FamCA 221, a case where the concept of “coupledom” was identified as a necessary keystone for a finding in favour of the existence of a de facto relationship. In this case, the parties had also been in a relationship for 17 years and their relationship had begun shortly after the applicant had commenced employment in a business conducted by the respondent. The respondent had supported the applicant financially by way of a \$24,000 payment to assist her with the purchase of a property, and from 1999 until early 2010, the respondent paid her a monthly financial sum. The parties saw each other for around two or so days every second or third week and they travelled overseas together on one occasion for approximately two and a half weeks, although on other occasions where the parties spent similar time periods together, the respondent returned to his marital home to attend to his children’s weekend commitments. The appellant regarded her relationship with the respondent as exclusive and the respondent conceded that the relationship was “exclusive (save for ‘a few one night stands’) and his relationship with his wife” [para. 28].

While acknowledging these features of the relationship between the parties, Murphy J pointed to a number of factors that supported his finding at trial that it was not a de facto relationship, including that the parties lived separately, maintaining distinct households, that they did not own any joint property or pool resources, that the relationship between the parties was clandestine, that there was no evidence of any relationship or intended relationship between the applicant and the respondent’s children, who were young when the relationship commenced, and that the parties rarely mixed with each other’s friends [para. 69]. His Honour also accepted the respondent’s evidence that “he continued to emphasise the limits of the relationship with the applicant and, in particular ... his evidence to the effect that, he told the applicant that, if circumstances ever required him to ‘make a choice’ he would choose his wife and family over the applicant” [para. 69]. Murphy J also found that the parties did not have a “‘reputation’ as a couple; indeed, there [were] ... very few public aspects to their relationship” [para. 69]. While the maintenance of separate residences was identified as not “necessarily inconsistent with parties having a de facto relationship” [para. 65], underpinning Murphy J’s decision was the concept of “coupledom” noted above, whereby “it is the nature of the union—the merger of two individual lives into life as a couple—that lies at the heart of the statutory considerations and the non-exhaustive nature of them

and, in turn, [underpins] a finding that there is a ‘de facto relationship’” [para. 66].

The decision of Murphy J at trial was upheld on appeal in *Jonah and White* [2012] FamCAFC 200 per May, Strickland and Ainslie-Wallace JJ, stating that “the touchstone for the determination of whether a de facto relationship exists is the finding that the parties to it are a “couple living together on a genuine domestic basis” [para. 32]. The applicant argued that Murphy J had not properly appreciated that the extent to which the parties could live together was curtailed by the respondent’s maintenance of his marriage or that the parties had an “emotional communion which occurred not only in each other’s physical presence, but by telephone and otherwise” [para. 41]. The Full Court did not accept that the notion of “emotional communion” fell within the definition of “living together on a genuine domestic basis”, and held that Murphy J was alive to the variety of circumstances (including the short time periods of that nature involved in this case, and the coexistence of more than one relationship) that could be encompassed in this concept of living together. The Full Court held that Murphy J was correct in concluding that “the proper focus ... was the nature and quality of the asserted relationship rather than a quantification of time spent together” [para. 44], and more broadly that His Honour was entitled to make the findings of fact based on the evidence before him [para. 61].

The cases discussed above provide recent examples of situations where courts have considered the definition of a de facto relationship with differing outcomes. The significant point arising from these cases is that demonstrating the existence of the concept of coupledom is fundamental to a finding that a de facto relationship exists for the purposes of s 4AA of the *FLA*. While the establishment of a specific constellation of circumstances identified in s 4AA(2) is not mandatory for a finding that a de facto relationship exists, financial dependence/interdependence and the intermingling or pooling of finances and whether the parties have a reputation as a couple or maintain a clandestine relationship, emerged as pivotal considerations when assessing the degree of commitment to a mutual shared life in these cases.

Substitute decision-makers in family law matters: *McKenzie & McKenzie*, *Price & Underwood* and *Stanford & Stanford*

The provisions of the *Family Law Act 1975* are often framed in terms of the parties to a marriage (or de facto relationship), and the right to make or contest an application arises from that status. However, there are a number of decisions illustrating that courts with family

law jurisdiction will allow substitute decision-makers to agitate a variety of family law matters on behalf of the person they represent. Substitute decision-makers may be appointed by a court to represent the interests of another person (who is often a family member) in a legal matter because that person is not legally competent (because of their age, illness or other disability). The representative is known as a case guardian or litigation guardian. Often, but not always, the person appointed as a case guardian is someone who is already a substitute decision-maker in relation to other aspects of the person’s affairs; for example, because they hold a power-of-attorney or have been assigned as an administrator or guardian for that person.⁶ Three such decisions are summarised in the next sections.

In August 2013, in *McKenzie & McKenzie* [2013] FCCA 1013, the Federal Circuit Court in Brisbane considered an application for divorce initiated by the wife’s mother, acting as case guardian. Although there are other examples of a case guardian participating in divorce or property settlement proceedings on behalf the person whose interests they represent,⁷ the circumstances of *McKenzie* were unique in that neither party to the marriage was directly involved in the proceedings.

The parties had married in 2003 and separated in 2011, when the husband vacated the matrimonial home and had been unable to be located since. The court accepted evidence that at the time of separation the wife, who suffered a mild disability, had sought her mother’s assistance to prepare an application for divorce and had expressed an intention to obtain a divorce at the earliest opportunity. Shortly thereafter, the wife suffered a significant brain injury and her brother and sister were appointed as joint guardians and administrators. The wife’s mother successfully applied to be appointed as her case guardian and filed an application for divorce from the husband. The husband’s whereabouts were unknown and substituted service was ultimately made on his mother. The husband did not respond to the application.

Cassidy J determined that the mother had satisfied the criteria for divorce—namely that the parties had been separated for 12 months and the wife had earlier expressed an intention to be divorced—and granted the divorce.

Some of the circumstances in *McKenzie* were similar to the 2009 matter, *Price & Underwood (Divorce Appeal)* [2009] FamCAFC 127. In that case the Full Court of the Family Court considered an appeal in relation to an application for divorce initiated by the husband’s daughter from his first marriage, acting as case guardian. The family situation was somewhat complex, there were significant assets involved and the decision to grant the

divorce or not had implications for the beneficiaries of the husband's estate.

In *Price & Underwood*, the parties had married in 1986 and had two children. Each had been married previously and the husband also had two children from his previous marriage. The husband applied for a divorce in December 2007, citing a separation date in October 2005, which was initially granted by the Federal Magistrate's Court (now Federal Circuit Court) on 9 April 2008. The wife appealed to the Full Court against the divorce, asserting that the date of separation was 3 April 2007, and on 15 April 2008 the divorce order was set aside. On 16 April 2008, the husband's daughter from his first marriage, acting as the husband's case guardian, filed a new application for divorce. At that stage, the husband was unconscious in hospital and medical advice was provided to the effect that he was likely to be deceased within three days. The daughter sought an urgent hearing and, if the application was successful, an abridged time to give effect to the divorce so that her father could die without a spouse.

The trial judge determined that the daughter, as case guardian, could bring an application for divorce on behalf of her father, and accepted evidence that he had clearly expressed a desire for a divorce prior to losing capacity. In granting the divorce, the trial judge noted the exceptional circumstances of the case and abridged the usual month-long period for it to take effect; instead making it effective from that day. This was significant because the husband died the following day.

The appeal considered by the Full Court of the Family Court was brought by the wife on a number of grounds and was concerned with staying the orders of the trial judge. Notably, the grounds included that there was no authority for a case guardian to initiate an application for divorce. The Full Court dismissed the wife's appeal entirely, concluding that "no authority was provided for the proposition that a case guardian may not bring an application for divorce ... there is no reason why the role of the case guardian should be so limited" [para. 96]. However, the court noted that "such an application would be nugatory unless the case guardian can satisfy the Court that the marriage has irretrievably broken down and by demonstrating that the applicant ... had the requisite intention to bring the marriage to an end" [para. 145]. The Full Court was satisfied that the case guardian led sufficient evidence to meet these pre-requisites.

The decision in this case had significant implications because it meant the husband died without a spouse; this is important in respect of the law concerning wills and estates, which privilege the position of "spouse" in determining the distribution of an estate. In effect, the decision operated to minimise the wife's claim to a share of the husband's assets.

The third decision, *Stanford v Stanford* [2012] HCA 52, is significant for a number of reasons that have been the subject of extensive online commentary from a variety of sources. But the decision is also an example of a case guardian agitating for a family law outcome that effectively operates as a proxy for estate planning. In *Stanford*, the High Court allowed an appeal against two decisions of the Full Court of the Family Court concerning the settlement of property between a husband and wife. In the decision, the High Court held that more than mere physical separation is needed for a family law property settlement to be "just and equitable". Following that reasoning, the High Court declined to separate the assets of an elderly married couple solely because they were involuntarily separated when the wife was forced by ill health to move into a nursing home. One of the effects of that property settlement would have been to defeat the legal wills made by the husband and the wife concerning the intended distribution of their respective estates.

The parties married in 1971; it was the second marriage for both, and each had children from their previous marriages. The parties lived in a home owned by the husband that was transferred to him following the end of his first marriage. Each had a will; the husband's left the house to his children, subject to a life tenancy in the wife's favour, and the wife left her estate to her children.

In 2008, the wife suffered a stroke that caused her to live in residential care. The husband remained living in the parties' home. While in care, the wife developed dementia and was moved to a higher care facility. The husband continued to provide for his wife's care and placed approximately \$40,000 into a bank account to pay for her medical needs or requirements.

In 2009, the wife's daughter, acting as case guardian, applied to the Family Court of Western Australia seeking orders that the matrimonial home, valued at approximately \$1,300,000, be sold and the proceeds distributed equally between the parties, along with the husband's superannuation and the parties' joint savings. The magistrate hearing the matter at first instance made orders that the wife receive \$612,931, or 42.5% of the asset pool.

The husband appealed the decision to the Full Court of the Family Court of Australia. The Full Court determined that the magistrate had not sufficiently considered the effect of the orders on the husband or the fact that the marriage was still intact. However, before the final orders were made, the wife died and her daughter, acting as case guardian, continued the proceedings.⁸ Subsequently, the Full Court reconsidered its position and ordered that upon the husband's death, the \$612,931 be paid to the wife's legal representative.

The husband applied for, and was granted, special leave to appeal the decision of the Full Court to the High Court. Following a detailed consideration of the operation of section 79 of the *Family Law Act 1975* (which concerns the alteration of property interests of parties to a marriage), the High Court found that:

the bare fact of separation, when involuntary, does not show that it is just and equitable to make a property settlement order. It does not permit a court to disregard the rights and interests of the parties in their respective property and to make whatever order may seem to it to be fair and just. [para. 43]

That is, that there was no basis to conclude that it would have been “just and equitable” to make a property settlement order had the wife been alive, particularly because she had never expressed a wish to divide the family property. The decision illustrates that physical separation alone, particularly if it is involuntary, does not give rise to a power to consider a property settlement between parties; something more in the circumstances is needed to enliven the jurisdiction of the court.

Recognising gender for transsexual, transgender and intersex persons

Legal issues concerning the needs of transsexual, transgender and intersex people arise in a number of areas, including in the context of official recognition of gender identity and the legal requirements surrounding decisions to undertake medical treatment that responds to a gender identity that is different to the biological sex a person has been born with. This section examines recent developments in these areas, first by providing a summary of new Federal Government guidelines on how government departments should approach issues involving sexual identity, second through an analysis of a Family Court of Australia appeal decision on the parameters of court power in relation to gender re-assignment surgery, and third through a discussion of a court decision dealing with how gender identity is recognised on birth certificates.

New guidelines for Australian government departments and agencies

New guidelines have been introduced by the Attorney-General to simplify the process for people who wish to establish or change their sex or gender in personal records held by Australian Government departments and agencies.

The *Australian Government Sex and Gender Recognition Guidelines* (the Guidelines) came into operation on 1 July 2013 and Australian Government departments

and agencies are to progressively align their existing processes by 1 July 2016. They support the amendments contained in the *Sex Discrimination Amendment (Sexual Orientation, Gender Identity and Intersex Status) Act 2013*, which seek to prevent discrimination against intersex, transgender and gender diverse people, and the Australian Government passport policy for applicants who are sex and gender diverse.

The Guidelines provide guidance to staff of Australian Government departments and agencies on the collection, use and alteration of sex and gender information contained within an individual’s personal records. The explanatory materials indicate that the Guidelines also aim to improve the consistency of the sex and gender information collected by the Australian Government, which in turn has the effect of strengthening Australia’s identity security system by improving the integrity of individual personal records.

The Guidelines define sex and gender by contrasting a person’s physical attributes (the chromosomal, gonadal and anatomical characteristics) (sex) with a person’s feeling about their personal and social identity, as well as other external markers such as their name, appearance and dress (gender).

The Guidelines acknowledge that a person’s sex and their gender may not align; that is, a person may identify with a different gender to their birth sex or may not identify as either male or female. A person who identifies as transsexual or transgender may have the physical characteristics of one sex, but identifies with a different gender. A person who is intersex may have physical characteristics that do not identify them as either male or female. A person who is intersex, may also identify as transsexual or transgender.

The Guidelines specify that the preferred Australian Government approach is to collect and use information about gender, rather than sex. Information about an individual’s sex should only be collected where there is a particular need to do so. To that end, the Guidelines specify that where sex and/or gender information is to be collected, individuals should be given the opportunity to nominate M (male), F (female) or X (indeterminate/intersex/unspecified).

Where a person wishes to amend their recorded sex and/or gender, the Guidelines state that departments and agencies must take all reasonable steps, relying on the nominated evidence, to ensure the accuracy of personal records. Individuals are also encouraged to ensure that their personal records reflect their preferred gender.

A copy of the Guidelines is available at <www.ag.gov.au/Publications/Pages/AustralianGovernmentGuidelinesontheRecognitionofSexandGender.aspx>

Gender reassignment and family law courts

The decision of the Full Court of the Family Court of Australia in *Re Jamie* [2013] FamCAFC 110 has had the effect of streamlining the court processes in matters concerning the treatment of childhood gender identity disorder. This decision is also an example of the kind of circumstances that might give rise to the application of the Guidelines discussed in the previous section. In *Re Jamie* the Full Court of the Family Court of Australia, considered an appeal against the decision of Dessau J giving authorisation for parental consent to the treatment of the child “Jamie” (aged 11) who had been diagnosed with childhood gender identity disorder. The Full Court considered a point of law, namely whether treatment of childhood gender identity disorder is a medical procedure, which requires court authorisation pursuant to the court’s welfare jurisdiction under s 67ZC of the *Family Law Act 1975* (Cth).

Jamie had been born male but identified very strongly and from a very young age as female. Medical treatment (consisting of the administration of hormones in two stages) was proposed that would enable her to live as a female. Although Dessau J had given authorisation for Jamie’s parents to consent to the first stage of hormone treatment, which has the effect of suppressing the onset of male puberty (the effects of which are reversible), her parents were required to make another application when Jamie was older to seek approval for the second stage of treatment (which is the administration of female hormone and has effects that are not reversible, or not reversible without surgery).

Although childhood gender identity disorder is a medically recognised condition with well-recognised treatment strategies, the treatment is usually categorised as a “special medical procedure”, which falls beyond the parameters of parental responsibility and requires the authorisation of the court. The appellants in this case, Jamie’s parents, first challenged the view that the treatment of childhood identity disorder is a “special medical procedure”; arguing that “where there is unanimous agreement between the relevant people involved with the welfare of the child, including if appropriate, the child” [para. 17] parents should have authority to decide on the appropriate treatment for their child. An alternative argument raised on behalf of Jamie’s parents, was that, if childhood gender identity disorder was found to be a “special medical procedure”, then authorisation for the two stages of treatment should be considered as one court application.

The appeal had particular importance because of the implications of the decision for a wider range of children than just Jamie. This is because the central issue is whether the treatment of gender identity disorder is

a medical procedure for which parental authority is displaced by the authority of the court. A decision in favour of the appellants would mean the elimination of the need to make an application to the court for consent for the procedure.

The Independent Children’s Lawyer opposed the appeal and made submissions adopting the decision of Nicholson CJ in *Re Alex: Hormonal Treatment for Gender Identity Dysphoria* (2004) FLC 93–175. That is:

there are a number of medical procedures that have been held by the court to be procedures that are beyond parental power to authorise and require the approval of the court. The treatment of Gender Identity Disorder ... by the administration of hormonal therapies has been held to be such a procedure, the first such case being the decision of Nicholson CJ in *Re Alex*. A [para. 35]

The Independent Children’s Lawyer also cited *Secretary, Department of Health and Community Services v JWB and SMB* (1992) 175 CLR 218 (*Marion’s Case*), arguing that the treatment in question is distinguished from treatment of “bodily malfunction or disease”, for which parental authority is clearly established, and is instead a treatment “where an otherwise healthy body’s functioning is altered to address a dissonance between a belief as to gender and the actual gender of a person” [para. 36].

A public authority, intervening due to the potential for the decision to affect other children, also opposed the appeal on similar grounds.⁹

The Australian Human Rights Commission (AHRC) also intervened in support of the first ground of appeal, but submitted that it is open to the court to consider separately whether authorisation is required for each of the two stages and that it may be appropriate for a further application to be made to the court in relation to the stage two treatment. The AHRC suggested that, as stage two treatment normally commences when a child is 16 years of age, the child may be able to make informed mature decisions about their own treatment. As such, the first question before the court would be whether the child is Gillick¹⁰ competent.

Following detailed written and oral submissions, the court found that, where there is no dispute between relevant parties about whether treatment should be provided or the form of that treatment, stage one of the treatment for gender identity disorder was not a “special medical procedure” of the kind described in *Marion’s Case*. However, the court found that court authorisation for parental consent was appropriate for stage two of the treatment, unless the child concerned was Gillick competent. If a child is Gillick competent, the child can consent to stage two treatment and no court authorisation is required. However, the question of whether or not a

child is Gillick competent is a matter to be determined by the court.

Birth certificates and the recognition of sex

In *Norrie v NSW Registrar of Births, Deaths and Marriages* [2013] NSWCA 145, the NSW Court of Appeal recognised that for the purpose of registering a person's sex on their birth certificate, "sex" could have something other than the binary meaning of male or female. The court considered an appeal brought by the appellant, known as Norrie, from the Appeal Panel of the Administrative Decisions Tribunal (the Tribunal). The appeal considered a question of law; that is, whether the Registrar of Births, Deaths and Marriages has the power under the *Births, Deaths and Marriages Registration Act 1995* (the Act) to register the a change of sex by a person from the sex recorded on the register to "non-specific" or "non-specified". The core question was whether the construction of the relevant provision within Part 5 of the Act holds the Registrar to registering a change to a person's "sex" from male to female, or from female to male, but not from male or female to a non-specific designation.

In a decision canvassing a range of statutory construction issues and implications, the court ultimately found that the word "sex" in Part 5 of the Act does not hold a binary meaning of male or female; a person is entitled to seek registration of other sexual identifiers. However, although the court found that it was open to the Tribunal to register a person's sex as something other than male or female, it also found that the Tribunal had not made a determination on the factual question of what sexual identifier should be registered in respect of Norrie. As such the court remitted the matter to the Tribunal for determination in accordance with the law.

In remitting the matter to the Tribunal, the court noted that it would be inappropriate for the Registrar to make a decision to register Norrie's sex as "not specified", which implies that the sex of a person is not stated. Instead, the court felt "the question for the Tribunal was whether there is evidence to support an entry on the register of Norrie's sex as 'non-specific'" [para. 203], which implies that a person identifies with being neither male nor female. Furthermore, the court commented that in future matters the Tribunal might be asked to make a determination about the registration of other recognised designations such as "intersex", "androgynous" or "transgender" and decisions on those matters would be made on whatever material is before the Tribunal at that time. At the time of writing, this matter was still awaiting decision by the Tribunal.

Endnotes

- 1 The *Family Law Amendment (De Facto Financial Matters and Other Measures) Act 2008* (Cth) together with the *Family Law Amendment (Validation of Certain Orders and Other Measures) Act 2012* (Cth) provided for de facto property/financial matters to be dealt with pursuant to the *Family Law Act 1975* (Cth) from 1 March 2009 for de facto relationships with a geographical connection to New South Wales, Victoria, Queensland, South Australia, Tasmania or the Northern Territory, and from 1 July 2010 for de facto relationships with a geographical connection to South Australia.
- 2 *FLA* section 90SB provides that the Family Court of Australia and the Federal Circuit Court of Australia may make orders in relation to property settlement and maintenance where: (a) the de facto relationship has existed for a period of at least two years; or (b) where there is a child of the de facto relationship; or (c) where one party to the de facto relationship has made contributions of a substantial nature (see further s 90SM(4)) and a failure to make the order would result in serious injustice; or (d) the relationship was registered under a prescribed law of a state or territory.
- 3 *Gissing and Sheffield* [2012] FMCAfam 1111 [21], quoting *Bender FM in Dakin and Sansbury* [2010] FMCAfam 628 [13].
- 4 O'Sullivan J held that even if the respondent's evidence was that the parties had lived together for only a short period of time, such a finding would not necessarily have prevented a finding that there existed a de facto relationship [para. 155].
- 5 In the context of this discussion, O'Sullivan J also referred to *Jordan and Jordan* (1997) FLC 92-736, *Dandridge and Barron* [2012] FMCAfam 141, and *H v H* [2002] FMCAfam 381.
- 6 Guardians and administrators are appointed by court order under the relevant guardianship legislation of each state or territory. Guardianship is the appointment of a guardian to make lifestyle decisions for an adult with a decision-making disability and they are unable to make these decisions themselves. Administration is the appointment of an administrator to make financial and legal decisions for an adult with a decision-making disability and they are unable to make these decisions themselves.
- 7 See for example, *Babich & Sokur & Anor* [2007] FamCA 236 and *In the marriage of D* [2001] FMCAfam 46.
- 8 In accordance with the *Family Law Act 1975*, if a party to proceedings dies before judgment, the Family Court can still make a property settlement order as it would have when the party was alive and if it was still appropriate to do so despite the party's death.
- 9 The court suppressed the identity of the public authority.
- 10 The Gillick test is the test of competence established by the House of Lords in *Gillick v West Norfolk and Wisbech Area Health Authority and Another* [1986] 1 AC 112. In delivering the House's leading judgment, Lord Scarman noted "parental right yields to the child's right to make his own decisions when he reaches sufficient understanding and intelligence to be capable of making up his own mind on the matter requiring decision" [p. 186].

Family law and family violence



Professor Richard Chisholm

Seminar held at the Institute on 15 May 2013

Report by John De Maio

In this seminar, Professor Richard Chisholm, an Adjunct Professor of Law at the ANU College of Law, reviewed the recent 2011 amendments to the *Family Law Act*, which attempt to maintain the involvement of both parents in children's lives after parental separation, while strengthening the provisions relating to protection of children and adults against violence. Professor Chisholm highlighted the complexities of the Act and made suggestions for simplifying the legislation to better meet the needs of children.

Professor Chisholm began by noting that family violence is a pervasive problem and is relevant in many areas of law, including criminal law, child protection and family law legislation. He described the changes to specific sections of the *Family Law Act* relating to family violence, which involved the inclusion of definitions of family violence and abuse, an increased priority for protection, and removal of the "friendly parent" and cost provisions (section 117AB). He placed these changes in the context of the 2006 family law amendments, which he argued had a greater focus on the involvement of both parents in children's lives. His view was that the amendments made in 2011 went some way to providing a greater emphasis on violence and protection concerns.

Where new definitions have been given in the legislation, he noted that such definitions "lived" in two worlds, the first involved the practical implications of the legislation providing legal or operative guidance and the second facet was that definitions had a role in terms of ideology and public education. He noted that widening the definition of child abuse to include children witnessing family violence is an example of the legislature wanting the law to recognise the importance of this aspect. In terms of the practical implications, Professor Chisholm suggested that widening legislative definitions had the potential to lead to a diversion of resources. He pointed out, for example, that the number of Form 4s (a notice of allegation of family violence or abuse) to the Melbourne Registry of the Family Court had increased from 86 in July–October 2011 to 264 such notices in the corresponding period in 2012.

In conclusion, Professor Chisholm described some other possible reforms that could be made to family law

legislation that would lead to improved outcomes for families and children. These centred on:

- better education for professionals in terms of child development and working with family violence;
- improved coordination, particularly at the state–federal level;
- providing safety information to the courts; and
- improved risk assessment and court procedures.

He also emphasised the importance of legislation meeting children's developmental needs. This could be achieved by removing the two "primary considerations" relating to meaningful involvement of both parents in children's lives and protection from violence and harm. This approach would remove "family violence" as a separate legal category, though of course these issues would still be very important in determining parenting orders. This, he argued, would simplify and shorten the *Family Law Act*, while having a greater focus on children and less distraction by legal categories and notions of parental entitlement. In his view, parenting orders should be based on the child's current and developmental needs, and the capacity of parents and others to meet them.

An introduction to Australian Indigenous psychology



Implications for responding to violence in Aboriginal communities

Victoria Hovane

Seminar held at the Institute on 11 June 2013

Report by Liz Wall

Australian Indigenous psychology is an emerging field in Australia. Presenter Vickie Hovane described it as an interpretation of general Western psychology that can accommodate consideration of the psychologies of culturally diverse peoples who live within the culturally diverse settings of Indigenous life in Australia.

Vicki Hovane is a psychologist, practitioner, researcher, advisor and an Indigenous woman from the Broome region of the Kimberly. She outlined a conceptualisation of what Australian Indigenous psychology may look like, including a framework to work with individuals and communities. She noted the importance of Indigenous Australians having a voice and the need for Indigenous people of Australia to be able to contribute the articulation of an Indigenous psychology in this country.

An Australian Indigenous psychology reorients Western psychology to reflect culturally relevant frameworks that better meet the needs of Aboriginal and Torres Strait Islander peoples, particularly in the context of the experiences of colonisation, including oppression, exploitation and the imposition of a foreign culture. This reorientation includes many aspects of Western psychology, such as universal needs, neurobiological factors and standard therapeutic practice that can be applied universally to all people.

Australian Indigenous psychology must incorporate the relationship between colonisation and oppression and their effects on contemporary issues. At the same time, an Indigenous psychological framework can be used to emphasise the positive legacy of traditional Aboriginal culture that can be incorporated to form a strengths-based approach to working with communities and individuals. Ms Hovane sees the wider positive acceptance of Aboriginal culture today as providing an important basis to enhance Aboriginal peoples' cultural identity and providing cultural strength to feed into the Indigenous psychological model.

The Social and Emotional Wellbeing Framework is a classification of core aspects of Aboriginal culture under relevant values, principles, practices and traditions that make up the various elements of culture. These can then be contextualised and weighted to accord with the values of particular communities. This approach enables flexibility to adapt the framework to apply to each group or individual. The aim of the framework is to support individuals and communities to thrive by embracing the positive historical legacy of Aboriginal culture rather than being encumbered by the negative historical legacy of colonisation and oppression.

The framework can acknowledge the stress that many Indigenous people live under while providing a basis for emphasising the positive core principles of Aboriginal culture. It promotes opportunities for positive transformations by providing a rationale and a motivation to create environments that are safe and to build sustainable change for communities that give people strength to acknowledge the positive legacy of Indigenous culture.

Determinants of Indigenous wellbeing under this model enable social, historical, political and cultural determinants to be considered. These include community, family and individual cultural schemes, such as kinship structures, respect and the observation of roles and reciprocal obligations. This approach provides a way to acknowledge the obligation of collectivism and reciprocity in Aboriginal culture and put in place healthy boundaries that are consistent with responsibility and accountability in the relevant local context.

The aim of an Australian Indigenous psychology is to work from within to provide a positive emphasis on supporting transformation rather than to impose change. The discourse must enable Indigenous people to create mechanisms from their own culture, that enable people to share their own improvements and develop their own positive changes.

Demographic consequences of Nordic family policy



Evidence from administrative data

Dr Trude Lappegård

Seminar held at the Institute on 6 August 2013

Report by Killian Mullan

Trude Lappegård, a senior researcher at Statistics Norway, gave a fascinating talk on the effects of Nordic family policy on fertility and partnership breakdown. In particular, the research focused on the influence of quotas for paternity leave introduced in Norway and Sweden in the early 1990s on these demographic outcomes. Using administrative data on the entire population from Norway and Sweden, the study randomly assigned families into a pre-reform group and a post-reform group. This random assignment facilitated the investigation of potential causal links between the policy changes and fertility and partnership breakdown.

The study found a clear positive association between father involvement and having a second child, and a clear negative association between father involvement and partnership breakdown. However, the study found little evidence of a causal link between the introduction of quotas for paternity leave and either increased fertility or partnership breakdown.

The presentations raised a number of interesting talking points, one of which focused on the role of social norms. It was suggested that following the implementation of the policy, as more and more fathers claimed what was now considered a "right" to stay at home and help with raising children, the normative societal expectations of fathers' role in raising children changed. Dr Lappegård alluded to future work that will seek to explore the role of changing social norms in this policy arena. It was also refreshing to hear that these policies are the subject of strong political debate in Norway.

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Australian Institute of Family Studies

The Institute is a statutory authority that originated in the Australian *Family Law Act 1975*. It was established by the Australian Government in February 1980.

The Institute promotes the identification and understanding of factors affecting marital and family stability in Australia by:

- researching and evaluating the social, legal and economic wellbeing of all Australian families;
- informing government and the policy-making process about Institute findings;
- communicating the results of Institute and other family research to organisations concerned with family wellbeing and to the wider general community; and
- promoting improved support for families, including measures that prevent family disruption and enhance marital and family stability.

The objectives of the Institute are essentially practical ones, concerned primarily with learning about real situations through research on Australian families.



John Graham (*Family Matters 92*)
Three Kings
Oil on linen 151 cm × 121 cm.
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Drawing by Emma, 11 years old,
2010, study child from *Growing Up in
Australia* (*Family Matters 91*)
"It is my imagination running wild"
From the *Growing Up in Australia*
2012 calendar
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Lucette Dalozzo (*Family Matters 90*)
Ainsi Va La Vie 16, November 2011
Acrylic on board 90 × 120 cm
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