

Provision of quality early childcare services (Czech Republic, 10-11 November 2015)¹

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Introduction

Increasingly, childcare provision and use involves multiple factors. Childcare systems in EU countries combine elements of labour market and parental leave policies, as well as a broad range of childcare possibilities. Parental leave is relevant, as are employment regulations in terms of whether they allow for flexibility in the labour market, with opportunities to work part-time, flexible or atypical hours, which can help parents with childcare provision.

Preschool childcare or Early Childhood Education and Care (ECEC) has two major functions. Firstly the availability of childcare is a major factor determining parents' participation in the labour market. Secondly ECEC can play a role in influencing children's short-term and potentially long-term development. Governments frequently focus on one of these functions, and neglect the other. This is a mistake as preschool childcare or ECEC will inevitably have an influence on both parental employment and children's development and it is negligent for a government to ignore this fact.

The nature of societies is changing and, as change occurs, employment patterns change, cultural values change, and the demand for particular levels and kinds of skills and attributes for the future population, will also change. There are various estimates of the nature of employment in the future. However it appears that the need for skills will increase, and those skills that are needed will change so that adaptability in the workforce will be a great advantage. How can governments prepare their populations for such a future? It is increasingly apparent that the preschool period plays a critical role in the formation of adult skills and attributes. As the Nobel Prize winning economist James Heckman put it, "Like it or not, the most important mental and behavioural patterns, once established, are difficult to change once children enter school" (Heckman & Wax, 2004). The importance of ECEC in the development of skills amongst the population, as well as for reducing social inequalities, has been recognised in reports of the OECD. To quote one OECD report on PISA results, "Widening access to pre-primary education (ECEC) can improve both overall performance and equity by reducing socio-economic disparities among students, if extending coverage does not compromise quality" (OECD, 2010).

The use of childcare on a part-time (<30 hours) or full-time (30+ hours) basis in European countries for 2011 is shown in Table 1.

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Table 1: Use of childcare on a part-time (1-29 hours) and full-time (30+ hours) basis

Countries	1 to 29 hours	30 hours or over	Total
Austria	11	3*	14*
Belgium	19	20	39
Bulgaria	0*	7*	7*
Cyprus	7*	16*	23*
Czech Republic	4*	1*	5*
Germany	9	15	24
Denmark	5*	69	74
Estonia	4*	15	19
Greece	4*	15*	19*
Spain	20	19	39
Finland	6*	20	26
France	18	26	44
Hungary	1*	7*	8
Ireland	10*	11*	21
Italy	9	17	26
Lithuania	1*	6*	7*
Luxemburg	16	28	44
Latvia	1*	14	15
Malta	8*	3*	11*
Netherlands	46	6*	52
Poland	0*	3*	3*
Portugal	1*	34	35
Romania	1*	1*	2*
Sweden	19	32	51
Slovenia	3*	34	37
Slovakia	1*	3*	4*
UK	30	5*	35
EU-27 *	15	15	30
Switzerland	4	20	24
Norway	7*	35*	42
Iceland	4	35	39

*- estimated from limited data

It is clear from Table 1 that some countries, including the Czech Republic, fall far behind other European countries, particularly those that are economically most successful, in childcare use. This paper deals with issues concerning childcare for young children under three years of age.

Part 1 of this paper deals with types of childcare, childcare use, parental leave, and parents' participation in the labour market.

Part 2 provides a summary of evidence related to the use of childcare by children under three years of age, and links childcare use with later child outcomes. In dealing with possible effects upon child outcomes, the potential role of quality, individual versus group care, and specific aspects of quality are considered.



Part 1: Childcare, forms and use; parental leave; parents' participation in the labour market

It is common to distinguish between childcare provision for children under 3 years old and preschool children (from 3 years until compulsory school age). This distinction appears to be because of the differing developmental needs of children. The younger children have more need for physical care and are less able to express their needs through spoken language. There are many types of childcare, which may be formal and recognised officially through registration, or informal and unregistered. The types of childcare used in Europe include group settings and individual child settings. Group settings include day nurseries, nursery schools, nursery classes (attached to school), playgroups, preschools, kindergartens, children's centres and family centres. The latter two often offer additional services beyond childcare, such as family support or health services. Individual childcare settings typically may be for a single child or a small number of children looked after by one caregiver in the private home. Individual childcare settings include grandparents or relatives, unregistered nannies and childminders.

Formal childcare is regulated whereas informal childcare is not. Group care refers to groups of children being cared for by several caregivers. Individual childcare refers to a single caregiver looking after one or a small number of children. Most formal childcare is group care (plus regulated childminders) whereas informal care is almost always individual care. In some countries childminding in the private home is also regulated and there seen as formal (e.g. Belgium, United Kingdom). The distinction of formal versus informal care is made at an administrative and legal level. However from the point of view of children's experience the group versus individual distinction is more important.

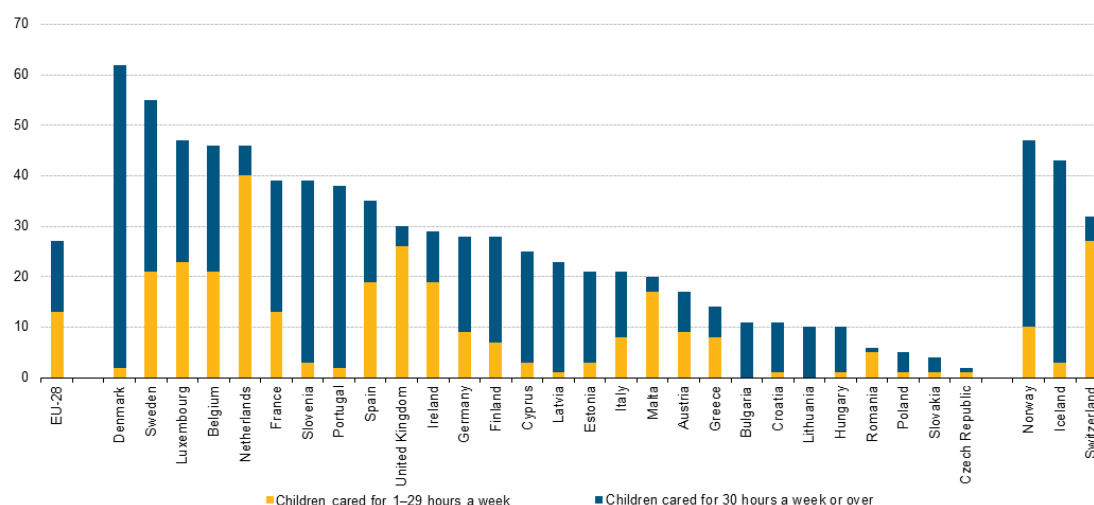
Formal childcare

Provision of good-quality formal childcare can contribute to child development and well-being, and is essential for equal opportunities in employment between women and men (Esping-Andersen 2009). The Barcelona Summit in 2002 set targets for provision of childcare in EU Member States (European Commission. 2013a), such that at least 90 % of children between 3 years old and the compulsory school age, and at least 33 % of children under 3 years of age, should have access to formal childcare provision. However, over a decade after the targets were set, there are still large differences in childcare provision across EU States, particularly for the under threes (European Commission 2013b). Note that formal childcare is largely group childcare, with the addition of registered child-minders in private homes (family day care) in some countries. The use of formal care in European countries is shown in Figure 1.

For children under 3 years old, Mills et al. (2013) report on childcare provision in 2010 for EU countries. At that time the 33 % Barcelona target had been met in Denmark, Sweden, the Netherlands, France, Spain, Portugal, Slovenia, Belgium, Luxembourg and the UK. In some countries, such as Denmark, Poland, Estonia and Latvia, there is a predominantly full-time use (30 or more hours per week) of formal childcare, whereas in the Netherlands, the UK and the Czech Republic, parents mostly use childcare part-time (under 30 hours per week).



Figure 1: Percentage of children under 3 cared for in formal childcare 2013



For children aged 3 to mandatory school age, Mills et al. (2013) report that the Barcelona target of 90 % of children has been met or surpassed in 11 Member States, i.e., Belgium, Spain, France, Sweden, Germany, Estonia, the Netherlands, Slovenia, Ireland, Denmark and the UK. In Estonia, Slovenia, Italy, Norway and Portugal, children mostly receive full-time care, with part-time care being more common in the Netherlands, Ireland, the UK and Austria. Also an OECD study (2012) found considerable variation in the hours of childcare used. For example children in Sweden typically attend childcare for six hours a day, five days a week, whereas in the Netherlands it is common for children to participate for only one or two days a week.

Part-time childcare can help women into part-time employment, which is popular with many mothers with young children. Formal childcare arrangements may not help women with children to enter full-time paid employment if they only cover a few set hours per week, provided for only part of the day. Even part-time employment may require care for extended hours on specific days. Hence participation rates alone do not necessarily indicate whether the demand for childcare has been fully met. For example full-time care is usually defined as 30 hours or more per week, and this is inadequate with a full-time job of 40 hours or more per week. The Eurydice (2009) report points out, in most EU countries childcare settings generally provide extensive hours that take account of the working parents' needs, but this provision is often only provided for older children and also often only part-time provision is subsidised. This can reflect the perspective that such childcare has early learning benefits for the children and that parental employment needs are not addressed.

It also needs to be considered that low participation in formal childcare does not necessarily mean that there is a shortage of childcare as many parents may use alternative or multiple strategies to care for young children, using a mix of formal, informal and grandparent care.

While availability of formal childcare is a factor determining women's employment, other factors also influence participation in the labour market. These factors include cultural values and norms, affordability, flexibility and quality of childcare. OECD analyses (2011) show that in most EU States childcare cost is high but is usually partly offset by childcare subsidies and/or benefits. The European Quality of Life Survey (EQLS, 2011) indicates that 59 % of those wanting childcare in Europe

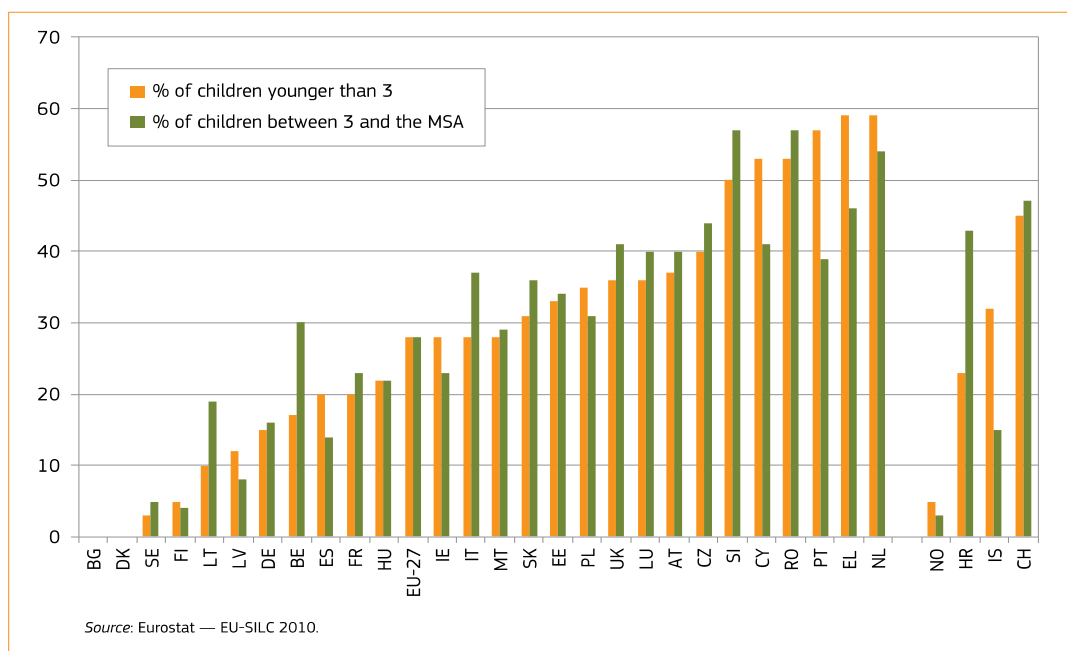


report cost as a major issue in accessing childcare (Eurofound 2013). Similarly Mills et al. (2013) find that the main reason for parents in the EU not entering the workforce, full-time or part-time, is the cost of childcare. Only a small proportion of parents reported that the quality of childcare was an obstacle for working. While different surveys may present differing pictures of the situation, overall, across EU states, 53 % of parents report that they do not work full-time because childcare is too expensive, 25 % mention lack of childcare availability and only 4 % mention quality of childcare. Apart from Denmark, Sweden, Slovenia and Germany, in other EU countries use of childcare is linked to household income, with the highest income families using formal childcare more often.

Informal childcare

Informal childcare plays an important role in all EU countries and may be provided by grandparents and other relatives, friends, neighbours, unregistered child-minders, nannies and au-pairs. Grandparents are the most common providers of informal childcare. Use of informal childcare varies, sometimes being the main form of childcare, sometimes intermittent and sometimes used in combination with formal childcare; e.g. in the UK, it is quite common for children to use formal childcare in the morning and be picked up by a child-minder who provides childcare until parents return from work. In around half of EU countries informal childcare use exceeds the 33 % Barcelona target for under threes, and is usually used for less than 30 hours per week. The use of informal childcare in Europe for 2008-2010 is shown in Figure 2.

Figure 2: Informal care by child-minders, grandparents, relatives, friends, or neighbours.



In the Mills et al. (2013) study it was found that more than half of children younger than 3 in the Netherlands, Greece, Portugal, Romania and Cyprus are cared for informally; in contrast, in countries such as Norway, Sweden and Finland, only a small proportion of children is cared for in an informal setting.

The use of informal childcare is related to both the lack of formal childcare, and cultural values about childcare and the role of extended family members. In



countries with little formal childcare, it is generally only possible for parents, particularly mothers, to become employed if they have grandparents providing childcare (Herlofson & Hagestad 2012). A study by Aassve et al. (2012) indicates that mothers' decisions to work are frequently dependent on having access to grandparent childcare in Hungary, Bulgaria, France, and Germany, but not in the Netherlands, Russia and Georgia. While the involvement of grandparents is likely to be beneficial, if it is the main source of childcare this limits options for parents living at a distance from their own parents.

Regular childcare is mostly provided by grandparents who live close to their grandchildren, are younger and healthier, and not employed. Disadvantaged families including lone parents, parents working extensive hours and poor families more often use grandparent care. Jappens and Van Bavel (2012) analysed the European Social Survey (ESS2) from 2004-2010, and found that generally in Northern and Western Europe, the frequency of grandparents living with grandchildren was less than 15 %, while in Southern, Central, and Eastern Europe, and Ireland it occurred in over 47 % of cases. Inevitably such co-residence will influence support for childcare. Jappens & Van Bavel report that mothers in Hungary, Greece, Italy, and parts of Austria and Spain are most likely to rely on grandparents for childcare, whereas mothers in Denmark, France, Iceland and Sweden are least likely to use grandparent care. Other studies report similar findings.

Rutter and Evans (2011) concluded that informal childcare has an important role in enabling mothers to enter the labour market. It also has a socio-economic impact, it facilitates intergenerational relationships, builds social capital and provides family support.

Parental leave

Maternity leave is typically provided for the health of the mother and newborn child, and occurs just before, during and following childbirth. Paternity leave is typically taken soon after the birth, and is intended to enable a father to spend time with his family while still supporting them.

Parental leave is for both parents, and is intended to give parents more time with a young child. Often it is taken after the end of maternity leave. In different countries parental leave may be either non-transferable but available to both parents, or transferable between parents, or be available for parents to use as they wish.

All EU countries have maternity leave for the period after childbirth. The length varies from 1.8 months in Germany and Austria to 12 months in Poland and the UK. Paternity leave varies, and is usually two weeks or less, but is longer in Scandinavia.

Using data that are more than five years old, Moss (2011) finds that fewer than 3 % of fathers take parental leave in Austria, the Czech Republic, Finland and Poland. More often mothers will use the parental leave, and it can be used as an alternative to childcare. In the Czech Republic, women receive 28 weeks of maternity leave with compensation of 69 % of salary and up to 4 years of parental leave. Also in Hungary, parental leave is up to 2 years, and in such countries Robila (2011) suggests that parental leave compensates for the limited availability of subsidised childcare.

The financial compensation that goes with parental leave affects uptake. When the compensation is high, fathers' use is higher, but still lower than mothers' use. In Denmark in 2005, 24 % of fathers took parental leave, typically for 8 weeks, while 94 % of mothers took parental leave, typically for 28 weeks. Similar figures apply



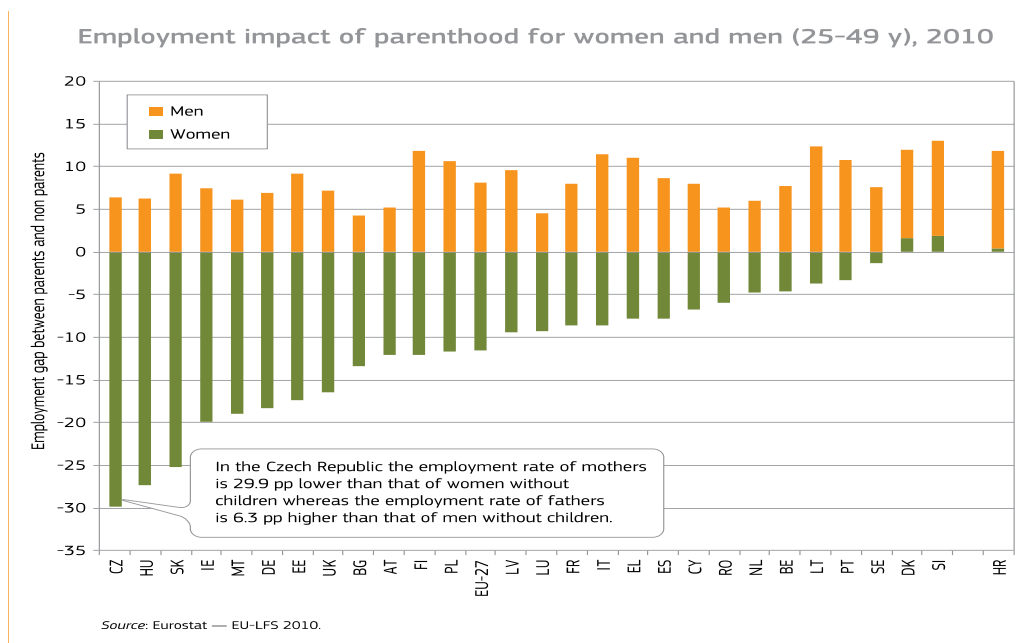
to Sweden also. Sometimes countries have part of the leave restricted to fathers to increase parental leave among fathers. In Germany a 2007 reform to raise father uptake of leave worked, with an increase from 3 % in 2006 to 28 % in 2011.

In some countries, such as Finland, Norway, Belgium, Austria, Greece and (if more than 1 child) France, after parental leave parents may receive a childcare allowance to allow parents to care for their own child or to use non-family childcare. This allowance is usually at a flat rate and is lower than the average wage. This approach can be seen as consolidating mothers' role as the main carer, strengthening social class differences and the informal care market as the allowance often pays for informal care. This strategy was introduced in Germany in 2013. Parents who do use childcare, whether employed or not, receive 150 EUR for a child aged 15 to 36 months. This was justified as a measure to allow freedom of choice for parents who may not desire formal childcare. While freedom of choice is to be applauded, some critics have argued that the money would be better spent on increased childcare, and that the subsidy conveys a particular ideology regarding family roles, discouraging mothers with a migrant background from entering the labour market (Boll & Reich 2012).

Parents labour force participation

The impact of parenthood upon employment for women and men (25-49 years) is shown in Figure 3. It is clear that overall parenthood is likely to reduce employment for women substantially, while for men parenthood is associated with increased employment. Only in Denmark and Slovenia is parenthood associated with increased employment for women and the increase is very small. For all other EU countries there is a decrease in employment for women associated with parenthood. This effect is greatest in the Czech Republic, Hungary and Slovakia. For men there is comparatively little variation across countries in terms of the effect of parenthood upon employment.

Figure 3: Employment impact of parenthood for women and men (25-49 years), 2010 data.



Flexible labour markets, i.e., options for part-time and flexible hours employment, help parents, and mothers in particular, to combine being a parent with being employed. Several studies, e.g., Miani & Hoorens (2013), find that mothers often reduce working hours when their children are young. Mothers are much more likely than fathers to reduce working hours for this reason, and the differences are more apparent in Austria, Germany, the Netherlands, and the UK.

Part-time employment helps with combining employment and childcare responsibilities but could also be perceived as society benefitting from the parental care, essentially representing unpaid parental leave. From the Labour Force Survey, it appears that over 3 million Europeans aged 15 to 34 switched from full-time to part-time employment because of childcare problems children and also for older relatives (Eurofound 2013). There is a greater proportion of mothers working part-time than women without children in half of EU countries. In the more affluent nations such as the Netherlands, Germany, Austria and the UK, most mothers with young children work part-time. High levels of female part-time employment can also be seen as a way to combine family and professional responsibilities in Germany and Austria. However in Bulgaria, Poland, Portugal and Romania, there is little difference in hours of work for women with and without children. It appears that in richer countries you see high rates of part time work, while in poorer countries is part time work for women less common but in these countries overall employment of mothers is also low. In work by Miani & Hoorens and (2013) and Eurofound (2012), the link between motherhood and working less hours appears to be very strong in Austria, Cyprus, Germany, Lithuania, the Netherlands and the UK. At the other extreme mothers in Slovenia, Croatia, Lithuania, Romania, Latvia, Portugal and Denmark are more likely to work full-time than women without children. Also full-time working increases as children get older and with fewer children. Mothers frequently change to part-time work, returning to full-time when their child is older, and this is clear in the Netherlands, Sweden and Norway. Such effects seem to be stronger for lone parents.

EQLS 2011 data indicates that, while many parents want to reduce their working hours, there are around 18 % who would like to work more hours, but are limited by childcare problems. However this area does have differing pictures created by differing surveys. For 60 % of parents, obstacles to employment were mainly high cost and availability, and also many reported problems of distance, with around 27 % mentioning the quality of care as problematic (Eurofound 2013). Also women are more likely to interrupt employment to care for children. In EU countries, over 40 % of women (versus 2 % of men) have stopped working to look after their child for at least one month (Miani & Hoorens, 2013). This is partly explained by the traditional view of women's role, but this area requires further research.

Factors affecting parents' labour market participation

The cost of childcare is an important factor, particularly for low-income families. Where the cost of childcare is too high, it can result in a dilemma, where parents, especially mothers, can be better off not working and caring for children themselves. For instance, in Ireland the cost of childcare seems to have substantial impact on the use of childcare. Similarly, in Slovakia and the Czech Republic the high cost of childcare seems to have an impact on childcare use, and parents move to part-time work or leave employment.

Parental leave affects childcare use. In the UK the extension of parental leave from 5 months to 12 months after childbirth led to reduction in demand for childcare for the child's first year of life. Similar effects have occurred in Scandinavian countries when parental leave was extended. In those countries the demand for childcare during the child's first year of life is very low. After the child's first birthday there is



a steady increase in use of childcare as the child becomes older. It reaches a peak around the time the child is three years old, when almost all children are using childcare for at least part of the week. It is apparent that the majority of parents will take parental leave and not use childcare when paid leave is available, having a desire to maximise the time spent with their children. However the situation in many countries is more fluid with parents combining leave and employment in differing ways where they have this flexibility. In the UK and Scandinavia the few parents who use childcare rather than taking the full parental leave entitlement are predominantly those in high status occupations where they feel that taking longer leave may harm their future careers. Also very long parental leave appears to be a factor leading to lower use of childcare in Romania, Lithuania, Hungary, Estonia, and to a lesser extent in Germany. It also appears to be a factor linked to low childcare use in the Czech Republic, Hungary and Slovakia, which have some of the most generous parental leave schemes of any country.

The characteristics of childcare services, such as availability, access and quality of care are also potentially important determinants of service use. Difficulties in accessing childcare related to inadequate opening hours or lack of capacity in rural areas seem to be of particular relevance for parents in Hungary, Greece, Romania, Poland and the Czech Republic. Issues related to quality of service are noted in particular in Greece, Romania, Slovakia, Poland and Italy.

Some of these factors are also relevant for childcare service use in countries that have reached the Barcelona target for children aged 0 to 3. For instance, in the UK, the Netherlands, Germany, Sweden, Denmark, Austria and other richer countries, a large proportion of mothers move voluntarily to part-time employment due to familial responsibilities. Parents in France are dissatisfied with opening hours of childcare facilities, whereas parents in Slovenia and Spain report issues related to the quality of care.

Part 2: Summary of evidence on Early Childhood Education and Care (ECEC) for children 0-3 years and effects upon children's development

Early research was primarily concerned with whether children attending non-parental care developed differently from those not receiving such care. Later work recognised that childcare is not unitary and that the quality or characteristics of experience matters. Further research drew attention to the importance of the interaction between home and out-of-home experience and the child's own characteristics. High-quality childcare has been associated with benefits for children's development, with the strongest effects for children from disadvantaged backgrounds. There is also evidence that sometimes negative effects can occur, and this seems to be linked to high numbers of hours of poor quality group care, particularly in the first year of life. The results of studies partly depend upon the context and ECEC systems in place in different countries, but there is sufficient commonality of findings across countries to indicate that many results are not culture-specific.

While the research on preschool education (over three years) is fairly consistent, the research evidence on the effects of childcare (zero to three years) upon development has been equivocal with some studies finding negative effects, some no effects and some positive effects. Different effects on socio-emotional development may be affected by cultural differences in expectations for parent-child attachment. Discrepant results relate partly to age of starting and partly to differences in the quality of childcare. In addition childcare effects are moderated by family background and negative, neutral and positive effects may occur



depending on the relative balance of quality of care at home and in childcare. Recent large-scale studies find effects related to both quantity and quality of childcare. The effect sizes for childcare are about half that for family factors. Note that an extremely comprehensive review of research in this area is available by Melhuish et al. (2015).

Quality of Early Childhood Education and Care (ECEC) for children 0-3 years

The European Commission (2014) produced a report on Quality in Early Childhood Education and Care (http://ec.europa.eu/education/policy/strategic-framework/archive/documents/ecec-quality-framework_en.pdf). The report is based on work that is summarised here. Also the European Platform for Investing in Children (EPIC) programme has considered the role of Early Childhood Education and Care (ECEC) in terms of breaking the cycle of disadvantage. An EPIC report (Guerin 2014) has used the evidence as summarised in this document and reached the following conclusions:

- In the context of economic uncertainty, investing in high-quality ECEC appears to be an effective evidence-based social policy tool, although it should not be considered a panacea.
- The level of ECEC provision is very unequal across the EU: and to be effective, it needs to be of high quality.
- One way to break the cycle of disadvantage would be to develop ambitious indicators and policy goals, that link ECEC provision for underrepresented groups to access to higher education.

Children's daily experiences drive child development. To optimise the child's experience it is possible to act upon several factors to improve the quality of ECEC. Aggregating evidence across research indicates that following quality characteristics of Early Years provision are important for enhancing children's development:

- Adult-child interaction that is responsive, affectionate and readily available;
- Well-trained staff who are committed to their work with children;
- A developmentally appropriate curriculum with educational content;
- Ratios and group sizes that allow staff to interact appropriately with children;
- Supervision that maintains consistency in the quality of care;
- Staff development that ensures continuity, stability and improving quality;
- Facilities that are safe and sanitary and accessible to parents;
- Staff providing support for parents to provide early learning in the home.

To promote stronger outcomes, ECEC can be developed through improving both structural features of quality and ongoing supports to teachers to assure that the immediate experiences of children, those provided through activities and interactions, are rich in content and stimulation, while also being emotionally supportive, and adapted to the children's developmental level. In addition to in-classroom professional development support, the pre-service training and education of ECEC staff should be considered. However, here evaluation research is still limited. There are several recent innovations. However, these innovations have yet to be fully evaluated for their impact on staff capacities or ECEC quality.

For disadvantaged families, while most evidence focuses on cognitive outcomes there is evidence on ECEC in the first three years indicating that high-quality ECEC can produce benefits for emotional, cognitive, language and social development. Low-quality childcare produces either no benefit or negative effects. In terms of



early intervention for disadvantaged families, high-quality childcare with associated home visits appears to be an effective package of services.

The evidence on ECEC in the first three years for the general population indicates high-quality ECEC benefits children's cognitive, language and social development in both the short- and long-term, but low-quality childcare can be a risk factor and may lead to a dual risk for children from low-income families, leading to possible deficits in language or cognitive development. There has been some evidence that high levels of childcare, particularly group care in the first two years, may elevate the risk for developing antisocial behaviour. However subsequent research indicates that this may be related to high levels of poor quality care, particularly in childcare centres in the first year.

Vandell et al. (2010) have argued that the evidence of the long-term effects of early childcare quality on 15 year old outcomes in the large NIHCD study in the USA is extremely important because 'it occurred in a large economically and geographically diverse group of children who participated in routine non-relative childcare in their communities' rather than in high-quality interventions, and this suggests that 'the quality of early childcare experiences can have long-lasting (albeit small) effects on middle class and affluent children as well as those who are economically disadvantaged' (Dalli et al., 2011). Such findings are supported by the PISA results indicating that 15-year-olds with preschool centre experience appear to be one year in advance of those without such experience (OECD, 2010).

The low level of much ECEC quality is of concern. Some have argued (e.g. see Haskins & Barnett, 2010) that, in the US for example, government-funded preschool programmes (e.g. childcare centres, Head Start and state-funded prekindergarten) offer services that are of 'mediocre or worse' quality, that children attending the average programme may gain little cognitive boost, although non-cognitive benefits may be longer lasting and greater benefits could be gained by improving the quality of these programmes.

Individual versus group care 0-3 years

Reviews on the effects of childcare have concluded that differences in effects of centre-based and home-based care settings may be due to differences in quality (Anders, 2013; Melhuish, 2004b). This has recently been confirmed by an analysis of a nationally representative sample of US children (Early Childhood Longitudinal Study-Birth Cohort) (Ruzek et al., 2014). Also an analysis of 353 centres and home settings that serve poor families in five US cities found wide disparities in centre- and home-based care quality. Positive caregiver interaction was often not higher in centre-based care (Fuller, Kagan, Loeb, & Chang, 2004). Also the NICHD study (NICHD Early Childcare Research Network, 2000a) found that at six months, in-home caregivers offered the highest levels of positive caregiving, while caregivers in centres offered the lowest. Between 15 and 36 months, positive caregiving in centre-based care increased, while it decreased for home-based care, and by 36 month, no differences in positive caregiving were found between the two types of care. Across the infant, toddler, and preschool age group, children in centre-based care experienced more cognitive stimulation, but also less frequent language interaction with adults than children in other types of care (Dowsett et al., 2008). In the UK, the FCCC study (Leach et al., 2008) found that at ten and 18 months, observed quality of care, (particularly the quality of interactions), was lowest in nurseries (except that at 18 months nurseries offered more learning activities than childminders). The sensitivity of interactions was similar across different types of home-based care (childminders, relatives and nannies). Similarly in Germany, the quality of home-based care was not found to be lower than the quality of centre-based care for under-threes (Tietze et al., 2013). Moreover, caregivers in Dutch



home-based care were found to be more sensitive compared to caregivers working in centre-based care (Groeneveld et al., 2010). The Eurofound (2015) study found that continuing professional development plays a key role, both in improving the outcomes of children using ECEC services and making services more inclusive. Training on inclusion also helps. However the Eurofound (2015) study also draws attention to the limitations in the evidence currently available.

The potential advantage of grandparent care as a supplement to other forms of care is highlighted by Australian research, which found a tendency for children using either 'long day care' (day nurseries) or family day care (childminders) in combination with grandparent care to have better early communication skills than children who used long day care only (Wise et al., 2005).

To conclude, home-based care for under-threes may have some benefits for children's language development although evidence is mixed for socio-emotional development. Although evidence here is limited, there is some support for the argument that younger children may develop optimally 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 programmes (Dowsett et al., 2008). Some findings have shown that home-based care can be of good quality (e.g., Melhuish & Otero, 2015). Yet, carers in home-based settings may not receive the same amount of peer support, or ongoing professional training as practitioners in centre-based care, and may miss out on support from leadership. They are fairly isolated, and with low pay, which can leave them feeling undervalued (Mooney, Boddy, Statham, & Warwick, 2008). Undeniably, home-based care can be of high quality especially if it is closely monitored, based on national standards (e.g. Belgium, United Kingdom), but we do not know enough how home-care settings relate to children's development, and how to support carers in home-based care.

Quality and caregiver-child interactions

Interactional experience is part of what is termed process quality, which refers to the child's immediate experiences on a daily basis. In the first three years of life language development and socio-emotional development are possibly the most critical aspects of development for the future well-being of children. Both of these aspects of development are strongly influenced by patterns of children's interactional experience. Interactions drive development. For the 0-3 age group, interactions where adults respond appropriately to the behaviour and communications of the child are a particularly important aspect of the quality of care, and this is related to children's language development. This aspect of quality of care is important for language development both in the home and in childcare (Melhuish, Lloyd, Martin, & Mooney, 1990; Melhuish, Martin, & Mooney, 1991; Hart & Risley, 1995). One of the earliest studies of the effects of ECEC process quality investigated the effects caregiver-child interaction upon child outcomes. It was found that higher levels of communication and responsiveness by caregivers was linked to higher language development at both 18 months (Melhuish, Lloyd, Martin, & Mooney, 1990) and three years of age (Melhuish, Martin, & Mooney, 1991) and that these effects persisted until at least six years of age (Melhuish, 2001), after allowing for family demographic differences.

Curriculum and Pedagogy 0-3 years

There is general consensus that children in the first three years of life who participate in ECEC need predictable activities and routine care, provided within a balanced curriculum (Dalli et al., 2011; Melhuish, 2004a), involving play-based activities and routines, use of narrative and story-book reading, and informal



conversations – both within child-caregiver interactions and peer relationships and interactions. However, research provides limited evidence on pedagogical practices that can be used to support children’s language. Also, little systematic evidence concerns how specific pedagogical strategies can be best combined with sensitive, responsive and warm interactions and relationships in order to ensure healthy all-round development of infants and toddlers (Downer, Sabol, & Hamre, 2010). Recent research is now progressing to fill these gaps (e.g., Siraj, Kingston & Melhuish, 2015).

Today, pedagogy for infants and toddlers focuses strongly on relationships, attunement, sensitive responsiveness, interactional synchrony, and the role of the caregiver as an attachment figure, and also a partner, observer, investigator or mediator (Dalli, White, Rockel, & Duhn, 2011). The emphasis is on the notion that the youngest children in ECEC need warm reliable adult support, and sensitive and responsive interaction attuned to their subtle cues, preferences, temperamental and age characteristics (Dalli & Rockel, 2012; Stephen, Dunlop, Trevarthen, & Marwick, 2003; Trevarthen et al., 2003)

Stability of care

Reviews on the quality of ECEC for young children name continuity and stability of care arrangements as core factors contributing to good quality care (Huntsman, 2008; Melhuish, 2004a; National Scientific Council on the Developing Child, 2009; Phillips & Lowenstein, 2011; Whitebook, Gombay, Bellm, Sakai, & Kipnis, 2009). The importance of stability of caregiving arrangements and the continuity of caregivers for infants and toddlers is partly based on the view that young children need to form bonds of attachment and trust, and also that interactions with children need to involve clear caregiver understanding of the individual child and its idiosyncrasies (Melhuish, 2004a; Trevarthen et al., 2003), and that caregiver experience and teamwork are important for the quality of care (Whitebook et al., 2009).

Unfortunately, stability in ECEC settings is often unavailable (Dalli et al., 2011; Whitebook et al., 2009). Staff retention and staff turnover, changes in childcare arrangements, staff working hours and infants’ and toddlers’ weekly ECEC attendance patterns all affect the continuity of relationships. While there is clear evidence that stability and continuity affect quality of care, direct or indirect impacts on children’s behaviour and development are not well researched. High staff turnover in ECEC poses challenges to teamwork and quality. The EPPE case studies showed that particularly effective centres had long serving staff (Siraj-Blatchford, Sylva, Muttock, Gilden, & Bell, 2002). The International IEA-Pre-Primary Project (Montie et al., 2006) reported that staff years of experience in ECEC were related to children’s cognitive and language development at age seven. Lower staff turnover rates have been associated with higher process quality, especially in day care (Goelman et al., 2006; Melhuish et al., 1990; Phillips, Mekos, Scarr, McCartney, & Abbott-Shim, 2001).

Physical environment

The physical environment of ECEC settings is considered to be one of the structural factors, i.e., relatively stable characteristics that do not change day to day, that enable good quality care and education. Indoor and outdoor spaces, and equipment and learning materials, which are appropriate and stimulating, safe and protective, have an impact on children’s learning opportunities, their physical activity, and their health and safety (Dalli & Rockel, 2012; Dalli et al., 2011; Expert Advisory Panel on Quality Early Childhood Education and Care, 2009).

Another aspect of the physical environment concerns how it stimulates children or offers opportunities for stimulation and exploration. Reviews on ECEC for infants



and toddlers (Dalli & Rockel, 2012; Dalli et al., 2011; Trevarthen et al., 2003) emphasise that environments need to be calm, quiet, and not over-stimulated and allow for uninterrupted sleep, for comfort and feeding. Furthermore, they need to offer an environment rich in things to explore, and facilitate a range of activities including physical movement, dance, storytelling and drawing and painting.

The facilitating function of the physical early childhood environment may be of particular relevance for young children from disadvantaged backgrounds, because ECEC settings can offer children access to learning materials and experiences not provided in their homes (Dearing et al., 2009). This proposal seems important in the light of the view that multiple risk exposure to suboptimal physical (and social) environments may be a particular critical aspect of the adverse developmental effects of childhood poverty (Evans, 2006).

Another aspect of the physical environment is the spatial organisation of children and groups. A recent Norwegian study illustrates the potential importance of grouping and spatial organisation in preschool settings. Skalicka, Belsky, Stenseng, and Wichstrøm (2015) tested whether the new open-group Norwegian day-care centres would affect child social behaviour differently to traditionally organised centres. Open-group centres have no physical barriers between different groups within a centre. They found that children from open-group centres (a) experienced less teacher-child closeness in preschool and (b) more teacher-child conflict in first grade of school, and (c) that high levels of preschool problem behaviour forecast especially high levels of future teacher-child conflict, but only for children from open-group centres, suggesting that they may not be the best way to provide child-care.

Adult-child Ratio and Group Size

Adult-child ratios cannot be viewed in isolation from group size, and group size may mediate effects of ratios; furthermore, the influence of group size and ratios need to be considered alongside other structural variables, such as staff education and training, or organisational characteristics of the setting.

There is considerable evidence that more favourable adult-child ratios (fewer children per practitioner in a group) provide conditions that promote higher quality adult-child interaction (see recent reviews by Dalli et al., 2011; Huntsman, 2008; Phillips & Lowenstein, 2011). Evidence for direct links between group size (number of children in a group) and process quality is less clear, but still evident (Munton et al., 2002). Most research focuses primarily on centre-based care. However, the NICHD SECCYD study in the USA found that across all non-maternal settings, more favourable adult:child ratios and group sizes were the best predictors of positive infant caregiving (NICHD Early Childcare Research Network, 2000a). However evidence is not consistent reflecting differing patterns of provision across countries and the frequent confounding of ratio, group size and other quality-related variables make the evidence difficult to evaluate.

While many studies encompassed in existing reviews focus on preschool-age children, it is consistently argued across a number of reviews that the impact of adult-child ratios and group sizes is greater for younger children (infants and toddlers) (Expert Advisory Panel on Quality Early Childhood Education and Care, 2009; Huntsman, 2008).

The optimum recommended ratios for under two year-olds in ECEC settings is relatively consistently stated as 1:3 (Dalli & Rockel, 2012; Dalli et al., 2011; Expert Advisory Panel on Quality Early Childhood Education and Care, 2009); for two to three year-olds, recommendations on ratios are 1:4 or 1:5, and for three to five year-olds, recommendations from American professional associations are between



1:10 and 1:17. Ideal group sizes for under two year-olds in ECEC settings are recommended to be six to eight children, and for two to three year-olds, ten to 12; three year-olds, 14 to 18, and for four to five year-olds, 20 to 24 (Dalli & Rockel, 2012; Munton et al., 2002).

Staff qualifications, training and professional development

Studies that have been carried out in England provide evidence in relation to staff qualifications, which partly predict higher quality and/or better child outcomes for under-threes, including the presence of a graduate practitioner with qualified teacher status (QTS) the overall mean for qualification level of the staff team, and whether the staff team is qualified to Level three or higher (approximately 1-2 years post school training) on average (Mathers et al., 2011; Mathers & Sylva, 2007; Smith et al., 2009).

The NICHD research (NICHD Early Childcare Research Network, 1999b) found that care settings meeting recommended standards for caregiver education and training (education must include some college, and formal, post high school training, including certification or a college degree in Early Childhood Education) appeared to have modest positive effects on higher school readiness and language comprehension scores and fewer behaviour problems at 36 months of age.

Recent UK research has found that professional development courses are associated with better quality childcare by childminders (Melhuish & Otero, 2015) and in group care (Melhuish, Gardiner & Otero, 2015). Additionally in comparing the period of rapid development of ECEC services in the UK over the last 15 years, a comparison of data for childcare centres in 2000 and 2015 is informative (Melhuish, Gardiner & Otero, 2015). Staff qualifications have increased substantially from 2000 to 2015. Data from observations of quality in settings indicate a parallel increase in the observed quality of care in centres. This indicates that increasing staff qualifications may have led to increased quality of early year childcare.

Research evidence of specific qualities and attributes that are important in terms of preparing adults to provide high-quality care for infants and toddlers is sparse. Three elements are mentioned in a number of reviews on the quality ECEC for young children. First, that training programmes for work with infants and toddlers need to include content that is relevant to the age group and reflects what is known about infant learning and development (Dalli et al., 2011). Second, and relevant to the whole age range of preschool education and care, the content of undergraduate programmes of early childhood teacher education should include foci on critical reflection and self-evaluation and awareness of diversity (Dalli et al., 2011; Learning and Teaching Scotland, 2010; Mooney et al., 2008). Third, awareness of diversity is an especially important issue, and there is an increasing criticism that practitioner training may not prepare students sufficiently to cope with issues faced by children and families in poverty and may not keep up with the multiple needs of the increasingly diverse population of children and families (Hallam, Buell, & Ridgley, 2003; Morgan & Fraser, 2007; Siraj-Blatchford & Siraj-Blatchford, 2010).

Issues for Discussion

There are several possible issues for discussion in the Peer Review process, and here a few are mentioned, that may be particularly relevant for the Czech Republic.

- The interaction of parental leave policies and the demand for childcare 0-3 years. To what extent is the demand for childcare determined by existing parental leave policies? How does this vary for full-time and part-time employment? Where parental leave policies allow very extensive leave from work, to what extent does



this reduce the likelihood of meeting targets for increases in parental employment?

- The evidence indicates that the quality of childcare has an impact upon child development. In the years 0-3, the most likely impact of poor quality childcare is upon children's language development. As language development is a foundation for later educational and social development, then there are likely to be longer-term consequences for these aspects of development. Such impacts may well affect longer-term goals such as early school-leaving and access to higher education (e.g., Guerin, 2014). How can policies foster good quality childcare?
- Specifically, the evidence indicates that policy related to childcare regulation, quality monitoring/inspection, adult-child ratios, staff training and continuing professional development can improve the quality of childcare. How can policies in this area be improved?
- How can the provision and quality of childcare in both formal and informal settings be improved, and can the system be structured to better integrate use of informal and formal care?
- To what extent should policy for ECEC 0-3 years be integrated with policy for ECEC 3-6 years, to enable consistent practices across the whole age range?



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