



Encouraging Quality in Early Childhood Education and Care (ECEC)

RESEARCH BRIEF: WORKING CONDITIONS MATTER

What are “working conditions”?

Working conditions in ECEC settings are often referred to as structural quality indicators (e.g., wages, staff-child ratio, maximum group size, working hours, etc.) and other characteristics (e.g., non-financial benefits, team-work, manager’s leadership, workload, etc.) that can influence the ability of professionals to do their work well and their satisfaction with the workplace, work tasks and nature of the job.

What is at stake?

Attracting, training and retaining suitably qualified ECEC staff is a challenge. Good working conditions are strong incentives for qualified staff to enter the profession. Structural quality indicators have received ample attention because they can usually be regulated or guided at the national level. For staff quality, it is also crucial that practitioners are motivated and supported in applying what they have learned.

The European Commission’s Early Matters symposium (European Commission, 2009) concluded that many research findings indicate that, in addition to training and education of staff, staff working conditions are important in providing safe, healthy and good learning environments for children. In spite of these findings, the ECEC sector is usually associated with relatively poor working conditions and poor compensation leading to high turnover rates. ECEC centres often experience turnover rates exceeding 40% annually, undermining the quality of care (Moon and Burbank, 2004).

Why do working conditions in ECEC matter?

Research points out that the ability of staff to attend to the needs of children is influenced not only by their level of education and training but also by external factors, such as their work environment, salary and work benefits (Shonkoff and Philips, 2000). Working conditions can have an impact on staff job satisfaction and their ability to carry out their tasks; and their possibilities to positively interact with children, give them enough attention and stimulate their development.

Strongly associated with stable, sensitive and stimulating interactions with children are the context and conditions in which staff member works. One study found that low wages: i) effect the ways in which staff interact with children, and ii) are related to high turnover rates (Huntsman, 2008). High turnover rates can have a negative effect on ECEC quality since staff provision is less stable, which, in turn, can impact child development. When staff members regularly change within a group of children, staff and children are less able to develop stable relationships; and nurturing, stimulating interactions take place less often (CCI, 2006).

The body of research on the effects of working conditions on child development is not very extensive, and findings do not always point in the same direction. This is mainly because there is a complex inter-relationship between staff-child ratios, staff qualifications, quality and type of provision that makes it difficult to single out the effect of a particular characteristic of working conditions (Sammons, 2010).

What matters most?

Firstly, it is important to point out that more research is needed in this area. Available research findings focus on the effects on staff satisfaction rather than on child development. Many aspects of working conditions are found to be related to the quality of ECEC services, while a few aspects have been found to be related to child development. Table 1 presents an overview of research findings, pointing to characteristics of working conditions that matter.

Table 1. Which staff working conditions improve ECEC?

Optimal staff working conditions	Areas of improvement	
	<i>ECEC services</i>	<i>Child outcomes</i>
1. High staff-child ratio and low group size	X	X
2. Competitive wages and benefits	X	unclear
3. Reasonable schedule/workload	X	unclear
4. Low staff turnover	X	X
5. Stimulating and playful physical environment	X	unclear
6. Competent and supportive centre manager	X	unclear

Note: Areas of improvement that remain “unclear” present important opportunities for future ECEC research.

Source: Ackerman, 2006; Burchinal *et al.*, 2002; De Schipper *et al.*, 2004; De Schipper *et al.*, 2006; De Schipper *et al.*, 2007; Diamond and Powell, 2011; Huntsman, 2008; Litjens and Taguma, 2010; Loeb *et al.*, 2004; Moon and Burbank, 2004; Sheridan and Shuster, 2001; Sheridan *et al.*, 2009; Torquati *et al.*, 2007.

Staff-child ratio

Higher staff-child ratios, referring to a smaller number of children per staff, are usually found to enhance ECEC quality and facilitate better developmental outcomes for children (Burchinal *et al.*, 2002, De Schipper *et al.*, 2006; Huntsman, 2008; Torquati *et al.*, 2007). While there have been some older studies with contradictory results, the weight of evidence favours the conclusion that staff-child ratio in an ECEC setting is significantly associated with quality (Huntsman, 2008). Findings on “quality” can be summarised as follows.

Better staff-child interactions and less stress for staff

Larger staff-child ratios are associated with better working conditions and less stress. Staff are found to be more supportive when they are responsible for a smaller group of children (De Schipper *et al.*, 2006). A higher staff-child ratio improves working conditions within ECEC settings, as staff can give sufficient attention to different developmental domains and create more caring and meaningful interactions with children. As the number of children per staff member increases, staff spend more time in restrictive and routine communication with children and less in positive verbal interactions (Litjens and Taguma, 2010; Rao *et al.*, 2003).

Better child development

Children become more co-operative in activities and interactions with larger staff-child ratios. They also tend to perform better in cognitive and linguistic assessments when staff-child ratios are higher. Furthermore, academic development seems to be enhanced by higher staff-child ratios, although there are not many (recent) studies that have investigated this topic (Huntsman, 2008; Sylva *et al.*, 2004). A limitation of the research mentioned above is that most findings are almost exclusively correlational and there have been very few experimental studies (Huntsman, 2008). An experimental study carried out by Chetty *et al.* (2011) found that even though smaller staff-child ratios of three-to-four-year-olds improved

outcomes, there were no long-lasting effects on adult earnings. However, the *overall* quality of the ECEC setting did have an effect on adult earnings.

High staff-child ratios are considered particularly important for younger children; there is evidence indicating that infants and toddlers especially benefit from high staff-child ratios (De Schipper, 2006). In many countries staff-child ratios have been regulated with higher staff-child ratios for the very young and lower ratios for older children (NICHD, 2002). Research is lacking, however, on exactly which ratio is most favourable to enhance teacher job satisfaction, ECEC quality and child outcomes. Nevertheless, many early childhood educators believe that anything less than a 1:3 or 1:4 ratio for children up to two years old is insufficient to allow staff to interact effectively with each child (Litjens and Taguma, 2010).

Group size

Increased process quality, although the direct effect remains unclear

Group sizes are often regulated, prescribing the number of children to be arranged and supervised as a group. Not all studies find effects of group size on the quality of ECEC: effect sizes are usually small, and the “size” factor is often difficult to single out when staff-child ratios are included in the same analyses. Another research limitation on group size is that it rarely takes into account the age mixing of children, which may be an important factor (with homogeneous age groups being easier to handle). The overall research conclusion, however, is that group size has an effect on process quality (e.g., staff-child relationship, staff-parent communication). If staff experience their working conditions as more pleasant, this will result in more caring and stimulating behaviour (Huntsman, 2008; Burchinal *et al.*, 2002; Clarke-Stewart *et al.*, 2002).

Classroom quality and staff job satisfaction

Research suggests that it is not only the staff-child ratio but also the number of adults in a classroom that impacts quality and job satisfaction. The quality of the classroom environment is found to improve with every additional adult in the room. When practitioners work together in a classroom, this provides opportunities for supervision, consultation and discussing work challenges (Goelman *et al.*, 2006). Clear roles and expectations must be defined to optimise teamwork in ECEC settings. Under current practice, the hiring of assistants has generally failed to compensate for larger groups and less contact with teachers (Chartier and Geneix, 2006; Finn and Pannozzo, 2004).

Remunerations: wages and other benefits

Higher wages and better working conditions affect people’s job satisfaction, work motivation and, indirectly, the quality of their teaching, caring and interactions with children (Huntsman, 2008; Moon and Burbank, 2004).

Low wages leading to less process quality for child development

Research has indicated that where there are very low wages in ECEC, it “impacts quality primarily by preventing qualified and committed individuals from considering working in child care or early education in the first place” (Manlove and Guzella, 1997). Low wages are, as mentioned above, related to high staff turnover rates (Moon and Burbank, 2004), which influence children’s language and socio-emotional development as well as the relationships they form with practitioners (Whitebook 2002; Torquati 2007). Low wages are also correlated with the perception that working in the ECEC sector is not a high-status profession (Ackerman, 2006).

Although pay in ECEC-related professions in most OECD countries is not very high (OECD, 2006), this is not the case in all OECD countries. In Scandinavian countries, for instance, where a bachelor’s degree is needed to work as an ECEC teacher, staff receive better pay, and their job has a higher status than in

countries with lower pay. Countries with split systems often have lower education requirements and lower wages for practitioners working with very young children (up to three or four years of age) and higher educational requirements and better pay (and better status) for those working with children ages three or four to primary school age.

Non-financial incentives leading to better job satisfaction and better process quality

The number of vacation days and the compensation that ECEC practitioners receive for additional work hours are also found to have a positive effect on job satisfaction. This, in turn, is related to the quality of teacher-child interactions (Doherty *et al.*, 2000).

Social status and professional identity

Even when preschool teachers experience higher status within the sector, they do not necessarily experience improved recognition from the outside world, something seen in Denmark and Sweden (Berntsson, 2006). In order to raise the value attributed to the profession and counter gender stereotypes, it is suggested that the “professional identity” of the ECEC workforce must change (OECD, 2006).

Turnover rate

Stability in care has been found to be strongly and consistently positively related to child outcomes (Loeb *et al.*, 2004). High staff turnover is pronounced across studies of child care in various countries, somewhere between 30% and 50% annually (Huntsman, 2008; Moon and Burbank, 2004).

High staff turnover is associated with lower quality service and poorer child outcomes. Centres with low staff turnover rates have staff that engage in more appropriate and attentive interactions with children. High turnover rates disrupt the continuity of care. Moon and Burbank (2004) argue that when turnover rates are high, children spend less time being engaged in meaningful activities.

Workload

Heavy workloads are associated with stressed staff. Workload refers to the number of working hours, indicating the extent to which staff’s schedules are compatible with family life and the physical demands of the job. Large group sizes, low staff-child ratios and a heavy workload are potential stressors for ECEC practitioners. In general, stressed staff perform less well. Some research findings show the effects of workload on ECEC quality, indicating that practitioners with a heavy workload perform less well than colleagues with lighter schedules (De Schipper *et al.*, 2007).

Physical aspects of the setting

A rich playing and learning environment is found to be of importance. More space is considered beneficial for child development, although the full impact or effects of physical aspects remain unclear. The United States National Institute of Child Health and Human Development (NICHD, 2002) found a significant link between positive care giving behaviour and the physical characteristics of their environment, *e.g.*, the space requirements in more general terms and the instruments and materials available within the setting. Children were found to be less easily distracted in settings where they had more space available to them. Also, in these circumstances, staff provided more age-appropriate practices and behaviour.

Cross-cultural studies of ECEC quality highlight the fact that differences in physical space and staff-child ratio create different opportunities for staff. With more space, staff are better able to organise children into smaller groups, which, in turn, creates better learning conditions and opportunities for children to play, relax and learn in a variety of ways (Sheridan and Shuster, 2001; Sheridan *et al.*, 2009). Research appears to provide little or no guidance regarding the appropriateness of space requirement regulations (Huntsman, 2008), and further research on the importance of space for child development is needed.

Role of the manager in supporting professional development

Managers are important in facilitating conducive working conditions and supporting professional development. Although part of working conditions are subject to regulation, another part is centre-specific. ECEC providers who provide better working conditions are observed to provide better care and education (Litjens and Taguma, 2010; Diamond and Powell, 2011). The role of managers of ECEC centres is important in this, as they are the key factor in providing favourable working conditions for their staff.

Evidence shows that ECEC practitioners who experience little professional support from the centre's management have lower job satisfaction and perform their teaching and care-giving tasks less well than those that are professionally supported (Ackerman, 2006). Professional support usually means that the centre supports, stimulates and subsidises professional development, there are regular staff meetings with the management of the centre, and there is encouragement and consultation by colleagues (Ackerman, 2006). The importance of ongoing professional development in making sure that practitioners stay up-to-date with evidence-based practices (staff meetings, conferences and workshops, supervised practices, etc.) has been found in various studies (Litjens and Taguma, 2010; see also "Research Brief: Qualifications, Education and Training Matter").

What are the policy implications?

Investing in ECEC to improve working conditions

Research findings indicate that staff who are happy in their job provide better care and are better practitioners. Group size and staff-child ratio are important quality factors in facilitating good working conditions as well as staff having enough time and attention to spend on the children under their supervision. Smaller groups and higher staff-child ratios can facilitate this. Time for staff to plan, document, analyse and reflect – individually and collectively – on their work with children is seen to improve quality. However, increasing staff-child ratios and reducing group size is expensive. For example, reducing the average class size from 15 to 10 requires a 50% increase in the number of teachers and, thus, total teacher salaries paid. Plus there is little clarity on exactly which group sizes or staff-child ratios are most favourable or optimal (Chetty *et al.*, 2011).

In order to enhance the status and quality of early childhood work, governments may wish to consider introducing equal working conditions (salaries, benefits and professional development opportunities) for equivalent qualifications across the early childhood and primary education fields. Care should be taken that in-service training is linked to career progression and to obtaining further qualification (OECD, 2006).

Giving financial and non-financial incentives to keep well-trained staff

Compensation is one important factor in facilitating good working conditions. Increased salaries will most likely reduce staff turnover rates and attract better qualified staff. Additionally, it increases job satisfaction. Providing non-financial support and incentives for practitioners is also likely to improve staff well-being and encourage ongoing professional development.

Turnover should only be welcomed if the lowest-quality ECEC staff are leaving the profession; this practice opens the door to more high-quality staff. New research suggests that the "forcing out" of low-quality ECEC staff may dramatically improve student outcomes (Hanushek, 2010).

Raising awareness of ECEC centre managers

Going beyond the regulations, centre managers can be seen to play an important role in providing good working conditions for their staff, facilitating professional development and further training of staff. Raising awareness among managers on the importance of ensuring favourable working conditions and how they can actually facilitate these are important in raising ECEC quality (OECD, 2006).

What is still unknown?

Relationship between working conditions and child development

The research evidence for the impact of working conditions on child outcomes is not yet very strong. Working conditions have not often been at the heart of studies. Researchers have linked certain workplace characteristics (staff-child ratios and staff compensation) to differences in programme quality and/or to staff turnover and less often to measures of child development (Whitebook, 2009). Research on how working conditions affect ECEC quality and child outcomes could shed new light on the importance of working conditions.

More research on which aspects of working conditions matter most for which children

Staff-child ratios are found to be important for all young children, but there is evidence that infants and toddlers especially benefit from high staff-child ratios (De Schipper, 2006). The exact role of space in facilitating better working environments and enhancing child development also remains largely unknown, and the role of multiple adults in ECEC settings is not sufficiently defined to maximise the impact on child outcomes. Additionally, no studies have specifically investigated whether working conditions (and which aspects of working conditions) have different effects on different groups of children, e.g., migrant children or children at risk.

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