

# Quality in the Baby Room: Actionable Findings from a Global Evidence Review

Dr Mona Sakr, Middlesex University

Dr Sara Bonetti, Independent Researcher

Kayla Halls, Middlesex University

## How to cite this report:

Sakr, M., Bonetti, S. & Halls, K. (2025) Quality in the Baby Room: Actionable Findings from a Global Evidence Review. Available online:

[www.thebabyroom.blog/report-1](http://www.thebabyroom.blog/report-1)



The Nuffield Foundation is an independent charitable trust with a mission to advance social well-being. It funds research that informs social policy, primarily in Education, Welfare, and Justice. The Nuffield Foundation is the founder and co-funder of the Nuffield Council on Bioethics, the Ada Lovelace Institute and the Nuffield Family Justice Observatory. The Foundation has funded this project, but the views expressed are those of the authors and not necessarily the Foundation.

Bluesky: @nuffieldfoundation.org

X: @NuffieldFound

LinkedIn: Nuffield Foundation

Website: [www.nuffieldfoundation.org](http://www.nuffieldfoundation.org)

## Contents

Executive Summary .....	3
Introduction .....	7
Research Design.....	8
Approaching the Desktop Review.....	8
A note on Language .....	8
Search 1: Academic Literature .....	8
Search 2: Grey Literature .....	9
Recommendations and Final Searches.....	11
Analysis .....	12
Findings.....	13
Types of Research, Geographical Context and Age Range .....	13
Defining Quality in the Baby Room.....	16
Implicit definitions of quality .....	16
Elements of quality provision .....	17
Defining quality in relation to purpose.....	18
Theory-driven definitions of quality .....	19
Visions of quality according to other stakeholders.....	21
Summary .....	22
Measuring Quality in the Baby Room .....	22
Supporting Quality in the Baby Room.....	25
Conclusion: What we know at this point and how it relates to current provision in England.....	28
Recommendations for policy-makers .....	29
Recommendations for training and advocacy sector organizations .....	30
Recommendations for nurseries .....	30
Recommendations for the research community.....	30
Bibliography .....	32

# Executive Summary

In the March 2023 budget, the Conservative government committed to expanding the funded early childhood education and care entitlement to 15 hours per week for working parents of two-year olds starting in April 2024 and for all children from nine months of age from September 2024. The full expansion will be completed by September 2025, when all children under the age of five with working parents meeting the established criteria will be eligible for 30 hours of funded provision. Importantly, for the first time, public funding is directed towards the provision for children under two. This provides an opportunity to address a complex and largely unexplored conversation in England about quality early childhood education and care in the baby room.

In response to this context, our project kickstarts the conversation about how we define, measure and support high-quality provision in the baby rooms of English nurseries. In this report, we open up the debate about quality in the baby room by drawing together existing academic and grey literature discussing quality in relation to out-of-home provision for children under two around the world. Our review of the literature comprised analysis of 165 academic articles and 20 grey literature items, and focused on three key areas:

- whether a definition or vision of quality is offered and, if so, in which terms,
- how quality is assessed and measured, and
- which suggestions are provided to support quality in the baby room.

## Key findings

Our analysis shows that the vast majority of the literature on this topic comes from the USA and Australia, with England (and indeed, the whole UK) contributing relatively little literature on this topic. Looking at the age range of the babies focused on in the studies, there is a marginalisation of the youngest babies with few studies centred on the experiences of 0-1 year olds. Most research is quantitative in nature, with a tendency to focus on those elements of quality that are more easily regulated by the government, such as ratios, group size and workforce qualifications, rather than the quality of the relationships in the baby room, despite the latter having a more direct impact on children's experiences and outcomes.

### Defining quality

A deeper look at the literature reveals that articles often avoid offering an explicit definition of quality in the baby room and instead rely on implicit or circular definitions of quality that take tools for measuring quality as the basis for defining quality. Some articles present a clearer vision of quality but do this with a particular focus brought to the fore, such as attachment-based practice or outdoor provision. There is growing

recognition that how we think about quality in the baby room needs to come from the bottom up, through a more ambitious consultation with babies, families and educators in the baby room. However, this is difficult when there is confusion around the purpose of the baby room and competing agendas about what provision for 0-2 year olds is designed to do.

### **Measuring quality**

There are validated tools available that can be used in the baby room to examine process quality. The most popular measures, both of which were developed in the USA, the ITERS-R and CLASS-Toddler, enable measurements of process quality within the baby room but do need to be adapted for cultural sensitivity. Interestingly, these measures have not been used in English baby rooms and this is a gap that needs to be addressed. Having said that, it is also fair to conclude that the global literature on measuring quality has not kept pace with shifts in thinking about how we understand quality. We have not, for example, developed measures that can be used with various stakeholders to explore quality in a more dynamically and in more depth. Part of developing a vision and framework for quality in the baby room is, therefore, about exploring alternative approaches to measuring quality.

### **Supporting quality**

The conditions for achieving quality have been explored mostly in terms of structural levers, such as the qualifications held by baby room educators, group sizes and ratios. The academic literature on these topics demonstrates that there is enough evidence to conclude that educator qualifications matter for quality in the baby room and that baby-specific professional learning is of importance. The literature also shows a strong connection between lower group sizes and lower ratios when it comes to supporting high-quality practice in the baby room. While the statistical evidence is important, we also need to bear in mind that much of the literature points toward the need for a clear vision around the social purpose of the baby room (i.e. what the baby room provides, for whom, and for what reason it is provided) and what quality looks and feels like in relation to this purpose.

## **Recommendations**

### **Recommendations for policy-makers**

- Defining and therefore regulating quality is dependent on a clear vision for what quality looks and feels like in the baby room. In turn, this relies on transparency around the purpose fulfilled by care and education in the baby room. How we define quality in the baby room depends on whether the emphasis is on babies' learning and development, babies' wellbeing, support for families or working

parents, or all of these potential outcomes. The government has a key role in providing a clearer steer in relation to this purpose and should learn from other countries about how to develop a collaborative sector-led vision of practice in the baby room, which in turn advances quality.

- The government should support high-quality provision through a renewed focus on the workforce and more specific support for baby room educators. The government must ensure that there is professional learning specifically for baby room educators which is accredited and recognised. With public funding now entering the baby room, there is a great opportunity for government to plan and launch a qualification pathway that demonstrates the significance of what happens in the baby room. A qualification that meets these criteria would need to be free to practitioners and settings to support uptake.
- In consultation with the sector, the government should introduce regulation of group size in the baby room and maintain current ratios (1:3). This is particularly relevant as many baby rooms rapidly expand their provision. Group size has been shown to be a structural indicator that significantly impacts on process quality, with smaller group sizes being more conducive to high-quality practice with babies. Similarly, smaller ratios have been shown to significantly impact on process quality. Consultation with the sector is needed to ensure that any new requirements (e.g. relating to group size) are aligned with what is viable and can be supported among providers.

### **Recommendations for training and advocacy sector organizations**

- Training and advocacy organizations play an important role in supporting and coordinating the sector to develop a bottom-up, multi-perspectival vision of quality that can be translated into a framework for policy-makers.
- There is currently a lack of baby-specific knowledge and expertise being shared across the sector. Therefore, there is a need to work closely with government to develop qualification pathways and professional learning that specifically relates to the baby room and to working with babies.

### **Recommendations for nurseries**

- Nurseries should develop a clear plan for supporting the workforce in the baby room, recognising the particular demands and requirements of working with under twos. Such a plan needs to include a baby-room-specific approach to recruitment, retention, working conditions, and career progression. Nurseries must support baby room educators to access high-quality professional learning that is specific to the needs of children under two.
- Group size is a structural indicator that has been shown to significantly impact quality, with smaller group sizes in the baby room being more conducive to high-quality practice with babies. Nurseries can act immediately to improve quality in the baby room by opening multiple baby rooms with small group sizes

or, when not possible, at the very least by clustering babies and educators in smaller groups within the existing baby room. This is particularly relevant as baby room provision rapidly expands due to new government funding for eligible parents of babies as young as nine months.

- Nurseries need to work with baby room educators to identify specific challenges and co-create practical solutions that can support educators. For example, the settling in of babies into group provision can be a source of stress for babies, families and educators. Nurseries should develop practical approaches to support the transition, such as limiting the number of babies that can settle in at any one time.

### **Recommendations for the research community**

- There is an urgent need for more research situated in an English context that opens up and facilitates discussions of what quality in the baby room looks and feels like according to different stakeholders. This needs to include a focus on the experience and perspectives of baby room educators, families and babies themselves, as well as on how these perspectives are not fixed in time. The scope of such research needs to extend to include babies and families who are accessing provision via a childminder.
- As researchers, we need to grow our confidence in using currently available measures of process quality in English baby rooms and seeing what results are yielded. This should open up new possibilities regarding ways to measure process quality that are dynamic, multi-perspectival and multi-faceted. That is, we need to be innovative when it comes to measuring quality in the baby room but this innovation can flow from an experimentation with measures that are currently available.

The findings presented here are the first output from our project on achieving high-quality provision in the baby room of English nurseries, and the recommendations we make feed into the subsequent parts of our research. Our next step is to engage directly with 300+ baby room educators and nursery managers across England to probe their experiences of working in and managing the baby room and their perspectives on quality in the baby room. The project will culminate in a series of workshops designed to generate a sector-led vision of what quality looks and feels like in the baby room and a framework for achieving this vision.

# Introduction

As we write, the English government is undertaking a significant expansion of subsidised early childhood education and care (ECEC), with provision extending to children as young as nine months of age for the first time. This opens the door to a complex and largely unexplored conversation in England about what high-quality care and education in the baby room looks and feels like, and how this compares with current realities. In response to this context, this project aims to kickstart the conversation about how we define, measure and support high-quality provision in the baby rooms of English nurseries. It focuses particularly on the experiences, qualifications and skills of the workforce serving 0-2-year-olds, and aims to develop a cohesive and collaborative vision for the future of this workforce. We are focused on group-based provision of all kinds (including state-maintained nurseries, private nurseries and social enterprise or charitable settings). Childminders though, who provide care in domestic or non-domestic premises, are outside the scope of this study.

The project is divided into three parts. First, we open up the debate about quality in the baby room by drawing together existing academic and grey literature discussing quality in relation to provision for children under two around the world. Second, recognising that a qualified and skilled workforce are a key element of high-quality provision at any stage of the education system, we will explore status, sense of professionalism and professional learning among educators working in the baby room of English nurseries. This will help us to assess the strengths, weaknesses, and gaps in the current preparation of and support for baby room educators. Finally, we will bring sector leaders together in workshops designed to develop an exciting and realistic vision of the future of developing quality in the baby room. From these three strands of work, a clear vision will be translated into concrete recommendations for government bodies and training providers regarding how to support ECEC providers to work towards high-quality provision in the baby room.

This report shares findings from the first strand of research, which comprised a desktop review of both the academic and grey literature focused on ECEC provision for 0-2-year-olds around the world.

# Research Design

## Approaching the Desktop Review

The first part of the work brings together academic and grey literature from around the world focused specifically on group-based ECEC provision for children aged 0-2 years old. This enables us to provide a snapshot of the broad issues related to the definition and operationalization of quality in provision for infants and toddlers, as well as examining the professionalism, status and professional learning of baby room educators in different parts of the world.

## A note on Language

We recognise that terminology in this field is complex and context-specific. We use the term 'babies' to refer to 0-2 year olds and the phrase 'the baby room' to refer to the nursery provision dedicated to this age group. In other parts of the world, the language around this provision is different. For example, in the USA the terms 'infants' (0-1 year olds) and 'toddlers' (1-3 year olds) are used, and this is echoed in many other parts of the world. Our focus on 0-2 year olds is unusual in the global context, with the exception of Australian and New Zealand systems, which appear to operate with similar age categories to the English system. We use 'babies' and 'the baby room' because these are familiar terms to the English sector and our work is co-produced with this sector.

## Search 1: Academic Literature

The searches for academic literature on high-quality provision for 0-2 year olds were conducted via the database Education Research Complete. We searched for permutations of the following terms:

- Babies OR Toddlers OR Infants AND
- Early Childhood Education and Care

We did not use the search term 'quality' because we found that by doing this, we were excluding many articles we knew to be relevant. For example, various articles discussed how to support high-quality provision in the baby room without using the language of 'quality'; instead, they talked about 'best practice' or 'principled practice' or more specific terms, such as 'meaningful interactions'. By keeping the search broad, we could be sure that we were not leaving out important literature that would inform our findings.

The results were filtered to include only peer-reviewed journal articles published in English in 2010 or later. The search produced 982 results. After sifting by title, 241 articles were identified as potentially relevant. Following a further process of sifting by



abstract and excluding articles to which we did not have full access, we were left with a total of 137 relevant articles.

When sifting, our inclusion criteria were that the article focused on what happens in group-based ECEC rather than home-based provision or the home-learning environment for babies. The article needed to have relevance for children aged 0-2 years, but we recognised that sometimes the age group of focus would straddle this category (e.g. with a focus on 1-3 year olds, or 0-5 year olds). Finally, the article needed to have an implication for our discussions of quality, such as: sharing perceptions of quality among various stakeholders; offering a definition or a vision of quality for this age group; exploring the conditions for quality; assessing quality in a particular context; or evaluating a programme designed to improve quality. The most common reasons we had for excluding articles were that they did not focus on the right age group, that they were focused on babies' development but not on ECEC provision, or that the focus did not have a clear implication for quality. For example, where the article was an open-ended exploration of babies' or educators' experiences in the baby room without an implication for our discussions of quality, it was excluded.

To make it feasible to approach the 137 articles identified as relevant, we separated this list into two rounds of reading: List A and List B. List A comprised those articles that, based on the title and abstract, would help us to understand the field more broadly. They were more directly relevant to our questions about high-quality provision. Additionally, where an author had produced many papers on a similar topic, List A limited our selection of their outputs to just 1-2 key articles that would help us to understand their overall perspective and contribution to the field. Articles that focused on a more specific aspect of quality (such as mathematical learning, or outdoor play) were left for consideration in the second round of reading.

List A included 56 articles, which were read and analysed first. For each article, we made notes on the ways in which quality was defined and conceptualised, whether quality was measured (and if so, how) and any implications for our understanding of how high-quality provision can be supported. Through this in-depth analysis, we developed a categorisation system to help us understand how the literature in the field is organised. Our categories distinguished between articles that were presenting a particular vision of high-quality provision, versus those that were interested in measurements of process quality, or those which looked for relationships between structural variables and performance on process quality measures. List B, which included 81 articles, was then categorised in the same way, which enabled us to identify any items on List B that appeared to do something novel and needed to be read in more depth.

## **Search 2: Grey Literature**

To search the grey literature, we used a generic Google search, filtering items published in English since 2010. The search terms used were similar to the ones used for the academic literature. The first search used the following terms:

- Infants OR Babies OR Toddlers AND
- Early Childhood Education

We reviewed the first 10 pages of results, excluding duplicate and irrelevant results. We tested a slightly expanded search by adding the words 'and care' to Early Childhood Education, in line with the search terms of the academic literature. This addition produced similar results, just listed in a slightly different order. The only change of note was that it produced more 'generic' results, for example leading to the main page or the ECEC section of an organization's website. It also led to a few government documents from Wales and Scotland focused on children aged birth to five, which we retained for context.

In the case of the grey literature, we decided to run a second search including the word 'quality'. The second search, therefore, used the terms:

- Infants OR babies OR toddlers AND
- Quality

Interestingly, adding 'quality' to the search terms produced few new results.

In total the Google search results for these iterations produced 300 results. After sifting the list to exclude results that belonged to the peer-reviewed literature or with links that were not working, 206 items were identified as potentially relevant.

As with the academic literature, we reviewed these results applying the following inclusion criteria: the item had to focus on children aged 0-2 years in group provision (not home-based provision, or in the home learning environment), with some flexibility on the age range, and it needed to be about quality or have an implication for our discussions of quality. Applying these criteria, we retained and downloaded 41 items and proceeded with a more in-depth review. A further 21 items were then excluded. The key reasons for exclusion were that despite the mention of 'quality' in the title or the intention, the focus of the item was strictly health-related or generic on early childhood development; focused on activities, play ideas or milestones, usually as a simple list with a brief explanation. Some items were excluded because they were short blogs, opinion pieces or lacking in-depth discussion or the source was a government or large-scale training provider. In the latter case, we agreed to return to these items in the second phase of this project.

We were left with a final count of 20 items of grey literature to review. Each item was read and analysed following a template with key areas of interest to note such as: whether quality was defined and/or conceptualised (and, if so, how); whether quality was measured (and if so, how) and whether any implications for how quality can be supported were provided.

The grey literature search comprised two additional steps. First, we carried out a targeted search and analysis of websites that either emerged from the Google search or the team had identified to be of key organizations working in the pedagogical,

research and policy space on quality provision for babies. This led us to analyse the websites of the following organizations:

- Zero to Three <https://www.zerotothree.org/>
- The Education Hub <https://theeducationhub.org.nz/>
- National Association for the Education of Young Children <https://www.naeyc.org/>
- European Education Area - quality education and training for all <https://education.ec.europa.eu/education-levels/early-childhood-education-and-care>
- Early Head Start <https://eclkc.ohs.acf.hhs.gov>
- CLASP <https://www.clasp.org>

Second, we reviewed regulatory and guidance documents produced by English government bodies relating to ECEC provision with the goal of using them as an important framework to contextualize the work we will carry out in phase two and three of the project. Key documents reviewed were:

- The early years foundation stage (EYFS) statutory framework <https://www.gov.uk/government/publications/early-years-foundation-stage-framework--2> [both the EYFS statutory framework for group and school-based providers valid until Nov. 1 2024 and the one in use from Nov. 1 2024]
- Development matters <https://www.gov.uk/government/publications/development-matters--2/development-matters>
- Birth to 5 matters <https://birthto5matters.org.uk/wp-content/uploads/2021/03/Birthto5Matters-download.pdf>
- Ofsted Best Start in Life series <https://www.gov.uk/government/publications/best-start-in-life-a-research-review-for-early-years>

While Birth to 5 matters is not a government document, and therefore not official guidance, we wanted to acknowledge it as a key document when it comes to supporting practice in England.

## Recommendations and Final Searches

We presented our preliminary findings to the project advisory group and asked them to recommend their top readings in this field, whether academic literature or grey literature. We also spoke with six local authorities about relevant literature that needed to be included. This led us to identify a further two items that were integrated into the academic literature analysis.

Discussions with the advisory group and six local authorities made us acutely aware of the presence of a previous English project that specifically focused on practice in the baby room, led by Sacha Powell and Kathy Gouch. Research for this project took place more than 10 years ago but it is fascinating to see the resonances between that and this project and to see our own findings in light of what Powell and Gouch produced. We will continue to reflect on the similarities between these projects and understand what has changed in the time between the two projects.

The advisory group also suggested we re-run the searches outlined above using the term 'childcare' rather than 'early childhood education and care' as they suspected that this change in language would produce additional results. We took their advice and found that using the term 'childcare' led us to identify 26 additional items that were integrated into the academic literature analysis, while no additional items were integrated into the grey literature analysis. Interestingly, applying the term 'childcare' in the grey literature search produced many more results that were targeting parents and carers, particularly around the discussion of whether childcare is an appropriate choice in the case of babies. We did not include these items as they do not match our criteria, but it is potentially a helpful observation for understanding the wider context of this research. This made for a total of 165 academic articles and 20 grey literature items.

## **Analysis**

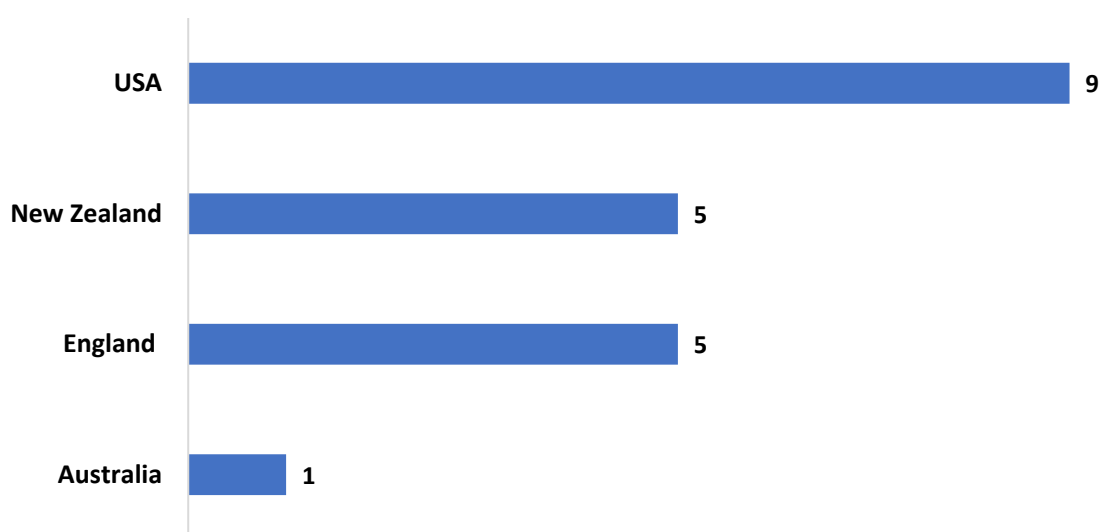
In the first round of analysis, we developed conclusions that were specific to each type of literature, distinguishing between conclusions we could draw from the academic literature and conclusions we could draw from the grey literature. However, as expected, there was a lot of overlap between the academic and grey literature and we present our findings below without making this distinction. Conclusions emerged through a series of presentations and dialogues occurring among the team and with the advisory group. To elucidate our findings, we home in particular examples of literature below that either help to illustrate a particular point we wish to make or for pieces of literature that stand out as particularly insightful in understanding the field and the topic.

# Findings

## Types of Research, Geographical Context and Age Range

Before delving into the key findings relating to the conceptualisation, measurement and conditions of quality, we present a brief overview of the key features of the literature we analysed. This includes the type of research, its geographical context and the age bracket of children included in the literature.

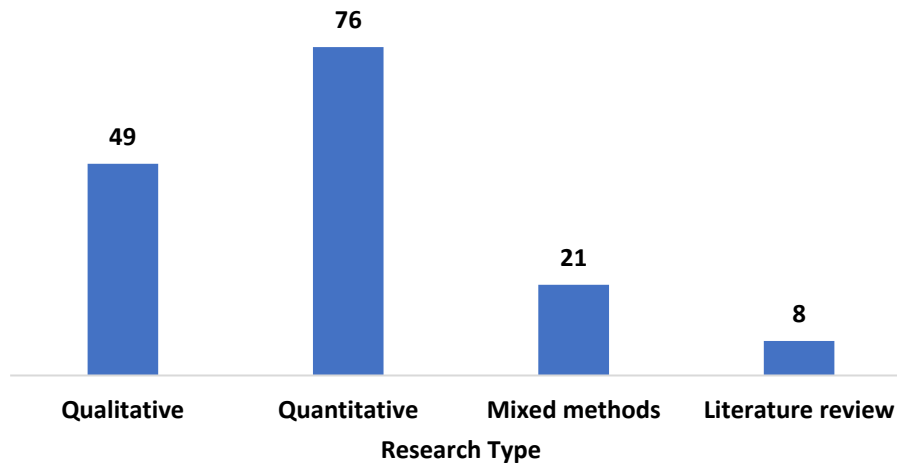
The majority of the grey literature originated from the USA (nine), with a smaller number from New Zealand and England (five) and only one in Australia.



**Figure 1. Number of items across the grey literature, by country of origin**

The age range discussed in the grey literature reflects the way the country of origin classifies different age groups. In many cases, the age was not even specified beyond the general reference to ‘infants and toddlers’, which in the USA-based literature refers to children ages zero to three, or ‘babies’, which in the other three countries refers to children ages zero to two. None of the items in the grey literature focused on any specific subgroup of these children (zero to one, one to two etc.) and one of the items from England related to the Early Years Foundation Stage, therefore to children ages zero to four.

In the academic literature, the majority of the research conducted was quantitative (76 articles), followed by qualitative (49 articles).



**Figure 2. Number of items across the academic literature, by type of research**

The majority of academic articles (43) were based on research conducted in the USA, followed by Australia (35). The UK contributed 7 articles to this list. This geographical distribution in the data flags the need to think deeply about how national context influences the conceptualisations, measures, and supports for quality across the world. As a result of this geographical bias, how quality is understood in the USA and Australia becomes the basis for how it is conceptualised and researched in other parts of the world. Moreover, this data shows that the UK has a large opportunity to contribute in a more robust way to the literature around quality for children under two years old. We acknowledge that due to us including only articles that have been published in English, this has skewed the numbers towards English-speaking countries.

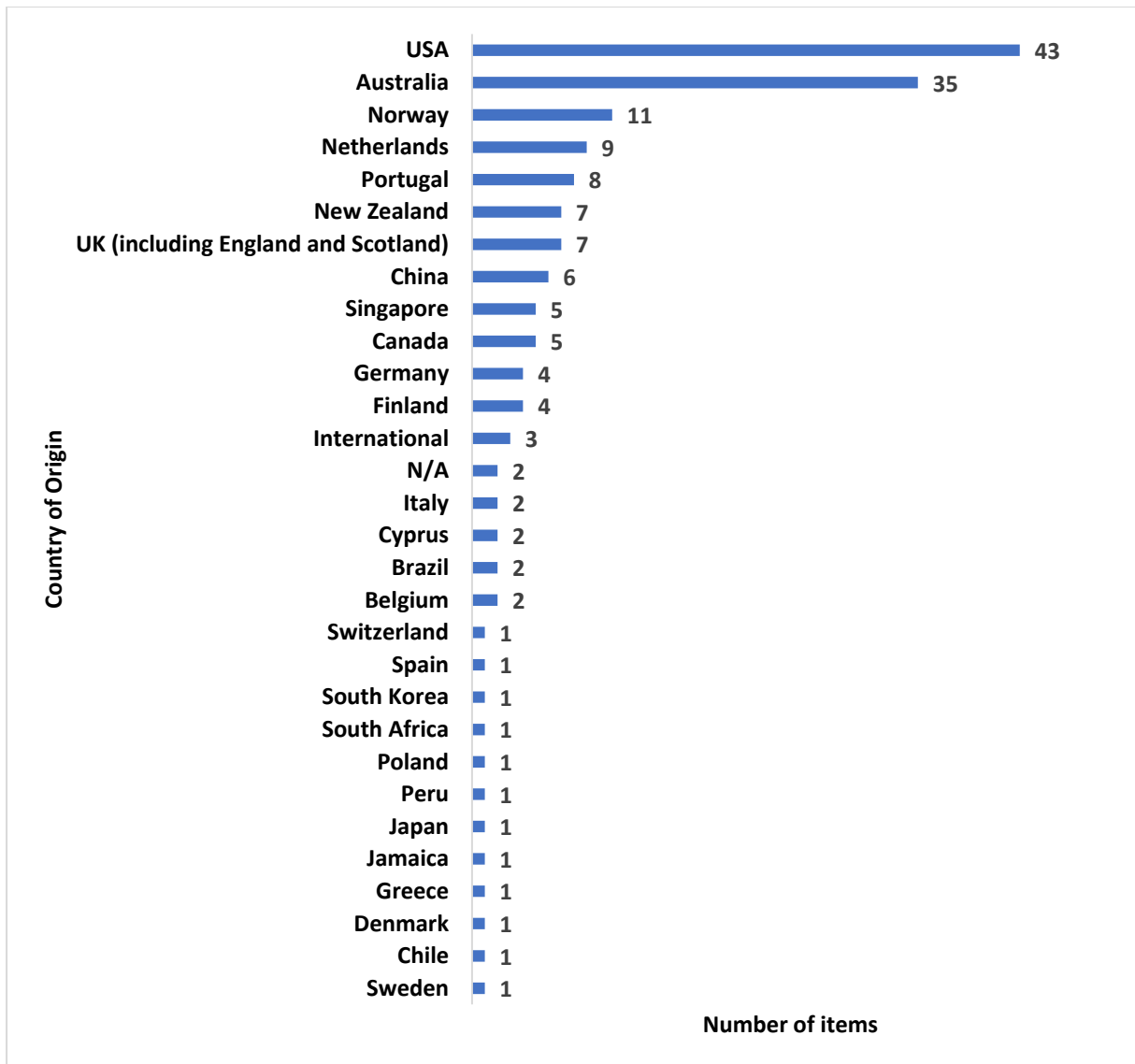


Figure 3. Number of items across the grey literature, by country of origin

Of the academic articles in this desktop review, 58 were squarely within our desired age range (0-1 years old, 0-2 years old, 1 year old, 1-2 years old). As noted in the section titled *A note on language*, this is due partially to the context-specific understandings of how old a ‘baby’, ‘infant’, and ‘toddler’ are. Two thirds of the literature in this review attend to slightly older children in addition to children under the age of 2, showing how the youngest children are most likely to be marginalised.

Age range	Count
0-1 years old	15
0-2 years old	37
0-3 years old	49

0-4 years old	5
0-5 years old	4
0-6 years old	1
0-8 years old	1
1 year old	2
1-2 years old	4
1-3 years old	24
1-5 years old	2
2 years old	3
2-3 years old	5
Age not specified	2

**Table 1. Chart displaying the age range of children across the academic articles**

## Defining Quality in the Baby Room

Across the grey and academic literature, many of the items discussed quality without offering a clear, stand-alone definition of what quality meant.

### Implicit definitions of quality

Quality was often defined implicitly through authors' broader discussions and how they referenced particular elements of practice. In the following articles, for example, quality is linked implicitly with these aspects of practice:

- Shin and Partyka (2017:127) linked quality with the importance of planning infant-specific curricula that draw on the power of **play**. They state that 'many theorists believe that a play-based curriculum is the most powerful means to support young children's language, social-emotional, representational-symbolic, and cognitive development as well as self-regulation (Casby 2003; Chowdhury and Rivalland 2012; Copple and Bredekamp 2009; Fromberg 2002; Piaget [1951] 1977).' By drawing links between play and supporting child development, Shin and Partyka (2017) position play as an integral aspect of quality provision for babies.
- Degotardi (2017:42) makes a similar case for **joint attention**. She states that 'joint attention episodes potentially motivate and support learning in the present while simultaneously providing infants with opportunities to develop a language capacity that will enable them to engage in collaborative-learning interactions in the future.' By linking joint-attention episodes to child development in her research, she makes a case for the role of joint attention in quality provision.



- Cheeseman (2017:58) links **interacting with infants in ways that acknowledge and respond to their agency** to quality, challenging the readers to move beyond ‘care-as-curriculum’ models of pedagogy: ‘Close attention to infants’ expressions of interest and intent enables the infant educator not only to be responsible for the care, safety and welfare of the infant, but also to be ‘response-able.’ Their research, therefore, positions quality provision as involving ‘response-able’ interactions.
- White et al. (2020:372) explores the expectations and emotions around **infants’ transition into nursery**: ‘These results underscore the importance of teacher–parent–child visits and dialogues prior to the infant starting ECEC, as these enable all parties to build rapport. Similarly, the earliest days call for a more intense and intimate relationship-building process – a need that often goes unrecognised in curriculum, pedagogy or policy.’ From their perspective, quality provision begins with how parents and educators work together to settle babies into care.

### **Elements of quality provision**

On the other hand, in several items of the grey literature, the authors do not attempt to define quality or to provide a framework for how to reach a consensus around definitions, but instead lay out a series of **key elements of quality provision**. Implicitly, these elements become the definition of quality (Pepper Pot Baby Unit, 2023; Child Development Council, n.d.; The Florida State University, n.d.; Hargraves, 2018b) or a guidance for leaders and managers on how to improve quality in their setting (Guard, 2024b).

While reminding us that defining quality is not straightforward, Dalli’s (2014) work provides a useful timeline of the evolution of ECEC research on the topic, which the author organizes in three waves. The first wave, dating back to the 1960s and 1970s was focused on understanding whether out-of-home care was bad for children, particularly for those under the age of one. It is this strand of work, which concluded that what mattered was not where care happened (in the home or outside the home) but the quality of provision, that led the second wave to focus on identifying the key elements that make for high-quality ECEC provision. The second wave of research identified the three components of the ‘iron triangle’, or what is commonly known as ‘structural quality’: group size, adult:child ratios, and workforce qualifications. From the late 1980s, the third wave of research started to focus on the connections between structural and process quality, the latter being about the relationships a child engages in and affecting their developmental outcomes. Process quality was referred to frequently in the academic literature as a way to conceptualise quality. It is in what Dalli identifies as the ‘second wave’ of research that many of the articles we reviewed are situated: that is, they identify structural elements of quality that have the potential to act as policy levers and can be shown to enable improvements in overall levels of (process) quality in settings.

In an English project carried out by Kathy Goouch and Sacha Powell on the baby room conducted more than ten years ago, a 'baby room charter' was developed in collaboration with baby room educators to draw attention to facets of quality in the baby room, such as continuity of care, knowledgeable teams, and a buddy system (Goouch & Powell, 2013). This charter breaks the mould of most of the literature we reviewed in that the list of quality indicators is not circular and dependent on measurement tools, but rather comes about through collaborative reflection with those in practice.

For many of the articles, quality was defined through the scales and items presented as part of a process quality measure. That is, defining and measuring quality became a circular process. This is noted as a phenomenon in Fenech's (2011) literature review of quality in early childhood education and care for 0-5 year olds. For example, the scales and items that comprise a popular measure of quality among 0-3 year olds, such as the Infant/Toddler Environmental Rating Scale (ITERS-R) or the Classroom Assessment Scoring System (CLASS-Toddler), are often taken up as a defining list of what comprises quality. That is, if the measurement tool offers a score for warm interactions, hygienic and safe sleeping arrangements and resource-intensive learning, these simultaneously became how quality was defined and conceptualised. The issue with this circular approach is that it becomes impossible to critique the measurement tools or the conceptualisations of quality underpinning these measures.

### **Defining quality in relation to purpose**

A few articles discussed the difficulty of defining quality when there is a lack of national or international vision for 0-2 year olds' provision. Without a stronger sense of purpose driving practice in the baby room, it becomes impossible to define what high-quality provision is. We see this echoed in the work of McDowall Clark and Bayliss (2012) where they speak with early years professionals. They highlight that care for our youngest children is ensnared in a context of competing agendas about the purpose of the baby room, making it impossible to move in one direction as a sector. We see this echoed in the work of Elfer and Page (2015) where their study highlights nursery managers who presented conflicting views on what quality means for babies. Without a clear vision, the managers faced competing discourses that vied for attention in practice such as social anxieties around babies being in non-parental care, competing agendas of the baby as agentic or fragile, and a vast array of policy objectives. Both of these articles make a clear point: defining quality depends on a shared sense of purpose in baby room provision.

One way of thinking about the purpose of the baby room is to focus wholly on child development. That is, that the purpose of the baby room is to support, ensure and possibly even accelerate a baby's development. Of the academic articles reviewed, 76 made the connection between quality and child development. As Fenech (2011) points out, development in these articles tends to be seen in a narrow way with a focus on behavioural outcomes (i.e. the appearance or not of 'problem behaviours' among toddlers and older children) and cognitive outcomes, measured through traditional and

problematic non-verbal reasoning assessments. There was little to no focus on a more holistic understanding of development, which could take into account other facets of learning such as emotional regulation, a wider gamut of social skills, physical development and markers of mental and physical wellbeing. While narrow visions and measures of child developmental outcomes may be a way of thinking about purpose in the baby room and quality provision, it is our contention that this view fails to place value on babies' experiences as they unfold in the here and now and make sense of the baby as purely a 'becoming-child', who in turn is a 'becoming-adult'.

In our analysis of the grey literature, New Zealand stood out as a system that had developed a clear vision of high-quality provision for babies based on a fundamental respect for babies and their families as they exist in the here and now. The 2017 Early Childhood Curriculum sets itself apart from other national curricula we analysed through the language used and the goals set in the document. The key principles set in the curriculum are empowerment, holistic development, family and community, and relationships. The strands, goals and learning outcomes rather than being set in terms of commonly used children's outcomes of physical, socio-emotional and cognitive development, revolve around the five areas of wellbeing, belonging, contribution, communication and exploration. Relationships are central to the curriculum, to pedagogy and to the vision of children as valued from birth. This is reflected in the grey literature we found originating from New Zealand, which regards the document as "a curriculum with relational connections at its centre." (Hargraves, 2018b). The relationships | ngā hononga principle plays a big part even in the process of assessing children's outcomes whereby "the assessment process will recognise the people, places and things that support a child's learning. Assessment is more likely to be valid when the child is assessed by someone who knows them well and is able to recognise significant learning over time. All those involved in the education and care of a child will be involved in assessment." (Ministry of Education, 2017: 64).

### **Theory-driven definitions of quality**

Some articles defined quality in relation to a particular theoretical lens or focus. In these examples, quality was not defined through a measure and was explicitly brought to the fore. However, the definition of quality given was driven by a particular view of babies and the baby room. For example, six of the articles in the academic literature focused on attachment-based practice whereby quality was defined through the lens of attachment theory. Dolby et al. (2023) looked at a quality intervention that rested on attachment theory, asserting that having an adult as a secure base who can contain a child's difficult emotions can be effective in promoting quality in daily transitions. White and Redder (2015) also operationalised attachment theory to explore how educator proximity is key in pedagogy with babies, specifically if the educator proximity occurs between a child and adult with a deep attachment relationship. In these cases, the conceptualisations of quality were driven by the focus of the article, i.e., attachment, as opposed to a broader understanding of what quality means for babies.

Other ways in which quality was seen through a particular theoretical lens or focus in the academic literature are included below.

- 19 articles focused on quality through the lens of **training for educators and professional learning**. Part of this body of work, as evidenced through Rockel (2014) and Gilken, Longley, and Crosby (2023) note that qualification programs should have elements that specifically focus on the infants and toddlers, giving baby room educators space to develop the specific knowledge and skills they need to provide high quality provision to babies. This is discussed further in the 'supports for quality section'.
- Eight articles looked at quality through the lens of **workforce conditions**. For example, Henry, Hatfield, and Chandler (2023) and Kwon et al. (2020) posit that workforce wellbeing needs to be seen as a fundamental component of quality in early childhood education, including in the baby room. A workforce in distress is a classroom in distress, creating low quality environments for children as well as educators. Therefore, quality provision involves reducing work-based stress and fostering supportive factors for educators. In the grey literature, Chaudry and Sandstrom (2020) offer a similar perspective. Discussing the US context, Jessen-Howard, Malik, and Falgout (2020:10) posit that low pay, a key feature of the ECEC workforce, not only harms the quality of care but also contributes to racial inequity within the ECEC workforce in the USA, where most baby room educators are women of colour.
- In addition to being important for the wellbeing of the workforce, good **workforce conditions** were remarked as being crucial to retain the workforce and, therefore, to ensure child care **stability and the continuity** of child-caregiver relationships, a crucial element of process quality (Chaudry and Sandstrom, 2020; Zero to Three, 2021)
- Five articles focused on quality through the lens of **transitions** (both into group provision for the first time and daily transitions). For example, Macagno and Molina (2020) and Tebet et al. (2020) take a particular interest in the settling in process, called *inserimento* in Italian. They take a particular interest in the relationships that develop during the settling in process, the role of attachment during this time, and the vast array of factors that can shape the settling in period. White et al. (2020) also reveals a complicated web of emotions and expectations that families and educators navigate as a baby enters group provision. Their work implies that quality involves intentionally and thoughtfully navigating transitions and building strong, reciprocal relationships between families, educators, and babies.
- Quality was considered twice through the lens of **outdoor provision**. Josephidou, Kemp, and Durrant (2021) and Kemp and Josephidou (2023) describe how outdoor provision is highly regarded in research for children over the age of two, but that the research for under twos is lacking. They describe

and add to ‘a small but growing body of research starting to explore how ‘quality’ can be understood in relation to very young children and how their developmental needs of moving, sensing and sleeping can be met in the outdoor environment.’ (Josephidou, Kemp, and Durrant, 2021:927).

- The importance of **relationships and relational pedagogy** features in several items of the literature (Zero to Three, 2021), but it is the literature originating in New Zealand that brings them centre stage (Hargraves, 2018b; Higgins, 2010). Hargraves (2018a) discussed at length how strong, attuned relationships support children’s resilience and security, and refer not only to relationships with other people, but also with places and things.

While it is important to recognise how these articles might feed into a broader understanding of quality, they may also narrow in on a specific aspect of practice in the baby room and explore what quality looks and feels like in this particular domain – but they do not offer an overarching vision of quality in the baby room.

### **Visions of quality according to other stakeholders**

By and large, conceptualisations of quality presented in the articles and reports were top-down in that they came from researchers or policy-makers. There were some exceptions to this, which highlight the need to develop a vision of quality that emanates from various stakeholders in the sector including babies, families and educators. We have included a few examples of this below:

- Cheeseman (2017), Fukkink (2022), and Seland, Sandseter, and Bratterud (2015) consider how quality is constructed from the perspective of **babies**. We see a view of quality where educators view and respond to children as active and capable agents in their learning. This involves paying attention to their wellbeing in the present, not just what their learning and development means for their future, when thinking about quality. Their work comes together to say that children’s voices should be listened to when measuring quality in ECEC settings as they are the receivers of the quality we are measuring.
- Similarly, Guard (2024a) examines the ways **babies** communicate their needs and experiences in nursery environments and how educators respond to these interactions. The author emphasizes that babies are active, communicative beings whose voices can significantly shape their environments when appropriately supported. Babies use distinct, strategic patterns of communication—such as gestures, vocalizations, teasing, and humour—to engage adults and foster a sense of belonging. These actions are intentional and draw upon their relational histories. The quality of interactions depends heavily on educators’ emotional availability and responsiveness. However, the study also highlights tensions between educators’ aspirations for meaningful interactions and the demands of institutional practices and policies, which often prioritize efficiency over relational caregiving.

- Scopelliti & Musatti (2013:1037) specifically researched the elements that **parents** value when thinking about quality. Parents valued their children's educational experiences, being connected to other parents, and having opportunities to chat with educators. In this way, the families presented nuanced, holistic considerations of quality that went beyond traditional measures. Furthermore, to quote the authors, 'Parents emerge as competent evaluators of child care quality, as they express differentiated judgments about the various dimensions of the service.'
- Alvestad et al. (2014) in particular considered **educator** reflections on quality for children aged 1-3 years old. Pulling on the experiences of the educators, the authors make a strong case for placing more focus on younger children and their needs, and to achieve this through a revised curriculum and through in-service courses and initial training. Educators are on the ground everyday with children, and they are well versed in the needs of their classrooms and what they need to achieve and maintain high quality provision. Listening to their expert voices, alongside babies and families, is necessary in conversations around high-quality provision.

## Summary

To summarise, our review shows that the literature often avoids offering an explicit definition of quality in the baby room, and instead relies on implicit and circular definitions of quality that over-rely on tools for measuring quality. Some articles present a clear vision of quality but do this with a particular focus brought to the fore, such as attachment-based practice or outdoor provision. There is a growing recognition that how we think about quality in the baby room needs to come from the bottom-up, through a deeper consultation with babies, families and educators in the baby room. However, this is difficult when there is confusion around the purpose of the baby room and competing agendas about what provision for 0-2 year olds is designed to do.

## Measuring Quality in the Baby Room

Most of the grey literature does not offer a critical discussion of how to measure quality in the baby room beyond a simple reference to commonly used measurement tools. In a few readings, particularly those originating in the USA, the focus is mostly on structural quality, which can easily be measured through licensing and monitoring. Process quality can be measured through tools, such as ITERS and the CLASS-Toddler instruments, which we will explore below, but because collecting reliable data through these tools is expensive, structural quality indicators are often used as proxy measures for quality (Chaudry and Sandstrom, 2020). In some cases, early childhood programme accreditations can end up serving as a proxy measure for high-quality ECEC (Harris, Pines, and Diamond, 2023; Workman and Jessen-Howard, 2018; NAEYC, n.d.).

The evidence is clear though, that while structural quality is a key enabler for process quality, in itself it is not enough to guarantee high-quality ECEC provision, whereby process quality has the most proximal impact. The most common measures of process quality in the academic literature were:

- The infant, toddler, and where needed, preschool version of the Environment Rating Scale (ITERS or the ECERS) was used in 31 articles.
- The infant, toddler, and where needed, preschool version of the CLASS was used in 20 articles.
- The Caregiver Interaction Profile/Scale (CIP/CIS) was used in 10 articles.

The most popular measures, ITERS-R and CLASS-Toddlers, are both US-based tools developed to support continuous quality improvement initiatives. The ITERS-R looks at the following domains: space and furnishing, personal care routines, listening and talking, activities, interactions, programme structure, and parents and staff. (Environmental Rating Scale, n.d.). The CLASS-Toddler looks at two domains: emotional and behavioural support and engaged support for learning (Castle et al., 2016). There is a wealth of evidence demonstrating their reliability and validity as measures of process quality. Having said this, both measures have been criticised for the way in which particular items are weighted in the tool.

For example, some researchers argue that there may not be enough of an emphasis on warm and loving interactions in these measures of process quality (Bjornestad et al., 2020; Eliassen et al. 2018; Eckhardt and Egert, 2020). Alternative tools address this concern to some extent. For example, the Caregiver Interaction Profile (CIP) was developed by Arnett in 1986 (Colwell et al., 2014). This tool focuses on how particular individuals interact with the babies in their care by looking at the following domains: sensitive responsiveness, respect for children's autonomy, structuring and limit setting, verbal communication, developmental stimulation, and fostering positive peer interactions (Helmerhorst, 2015; Reijman et al., 2024). In contrast to the ITERS-R and the CLASS-Toddler, the CIP focuses exclusively on the nature of educator-child interactions.

Furthermore, when the ITERS-R and CLASS-Toddler measures are used in other parts of the world, particular items and scales can be problematic. For example:

- Biersteker et al. (2016) describes how these tools needed to be adapted to the **South African context**, with some elements of the measures still falling short. Many elements of the scale were inappropriate for the realities of ECEC in South Africa. For example, the ITERS and ECERS place an emphasis on free play in a resource rich environment, and there was uncertainty about the extent to which this translates to localized understandings of quality. Moreover, these measures did not address important components of South African ECEC, such as multilingualism and linking centre provision to health and social services.

- Bjornestad and Os (2018:117) offer a clear description of how they adapted the ITERS-R to the **Norwegian context**: ‘Given the cultural bias in the ITERS-R scale, it has been adapted for use in a Norwegian context. Some of the adjustments take the form of clarifications concerning how indicators express themselves in Norwegian ECEC. Other minor adjustments have to do with Norwegian cultural beliefs concerning childhood (e.g. an emphasis on outdoor play and sleeping outside regardless of weather conditions, along with the expectation that every Norwegian child should appreciate nature from a very young age (Kaarby and Tandberg in progress).’ After the tool was adjusted and used for evaluations, it revealed that Norwegian toddler care in this study had low quality scores; the authors wondered if part of these low scores may be attributed to cultural bias in the ITERS-R. Both examples in the Norwegian and South African context lead to questions about how the cultural specificity of quality measures weigh heavily on the outcomes of quality evaluations.

Another criticism of the most common tools was that they depended on intensive observation of practice and a trained observer, leading to lengthy and expensive investments to use the tools. Some of the articles we reviewed offered less time-intensive measures:

- Linberg et al. (2019) compared **staff questionnaires** (specifically the second and third wave of the National Education Panel Study Starting Cohort 1) with the German version of the ITERS-R. They found that staff-reported quality is, to a certain extent, a reliable quality indicator, particularly for assessing structural quality and offering snapshots of overall quality. This is useful as the staff questionnaires are more cost and time efficient than observational methods which tend to dominate measures of quality.
- Perlman et al. (2017) explored how the **AQI** (a classroom measure for structural and process quality) is an efficient measure of global classroom quality. It has several domains that considers elements such as the materials available, the activities planned, and interactions between peers, children and staff, and colleagues. As the AQI is a more efficient quality measure (based on this study), it can be used more often. Efficient measures of quality are key to regular quality testing, which can support quality improvement efforts and potentially become a tool of reflection for educators.

To summarise, there are validated tools available that can be used in the baby room to examine process quality. It is important to remember that these are just tools and that they cannot offer us a deeper conceptualisation of what quality looks and feels like. The most popular measures, ITERS-R and CLASS-Toddler, enable global scores of process quality within a setting’s baby room, but they need to be adapted for cultural sensitivity. Other measures have been developed to more specifically focus on caregiver interactions, and these can be used in conjunction with ITERS-R and CLASS-Toddler to develop a more thorough understanding of the adults’ interactions with babies. The literature offers some experimental ways of measuring process



quality in the baby room that are less time-intensive and therefore less expensive to carry out, but these developments are in an early stage.

A few items from the grey literature open up the conversation around the need to move beyond these measurement tools and even beyond a narrow focus on ECEC-related components. Dalli's (2014:1) description of the third wave of research on quality is that of a move to a 'definition and conceptualization that quality is not static nor universal.' The third wave of research brings together structural and process quality and links to socio-cultural context, 'leading to a new philosophical orientation that asked "Who says what is quality?" (Moss and Pence, 1994; Woodhead, 1996). This positioned the notion of quality as multi-perspectival, contestable and multi-dimensional'. With this in mind, it is fair to conclude that the literature on measuring quality has not kept pace with this shift in thinking. We have not, for example, developed measures that can be used with various stakeholders to explore quality in a more dynamic and richer way. Part of developing a vision and framework for quality in the baby room is therefore about exploring alternative approaches to measuring quality.

## **Supporting Quality in the Baby Room**

The grey literature we analysed can be split into two groups based on its approach to proving recommendations for how to support quality in the baby room. On one side is the literature that discusses quality in terms of a set of elements that need to be present for out-of-home provision to be of high quality. On the other side is the literature that looks at quality mostly in terms of structural elements that can be regulated and monitored by the government, and therefore have straightforward policy implications.

In the first group of readings, supporting quality is understood in terms of supporting settings and educators in ensuring the elements identified as key for quality provision are in place. Some of the factors discussed are: health and safety practices, age-appropriate environments, stimulating and developmentally appropriate materials, relational pedagogy, a primary caregiver approach and continuity of care, parental involvement, play-based learning approach, established routines, the promotion of inclusivity and diversity, and more (Pepper-pot Baby Unit, 2023; Dalli et al., 2011; Child Development Council, n.d.; Hargraves, 2018a). In all these cases there is also a general acknowledgment, either implicitly or explicitly stated, that first and foremost overarching systemic regulations need to be in place to ensure key structural elements of quality are in place. The literature addressing structural quality, and in particular the three areas of the 'iron triangle' agreed about the parameters that government regulations should impose. Below are the key ones:

- Adult:child ratio should be very low, preferably at 1:3, albeit acknowledging that 'on their own ratios are not sufficient to guarantee good outcomes; they interact with higher levels of staff satisfaction, which interact with factors like appropriate levels of remuneration, pre-service and in-service training.' (Dalli, 2014:3)

Some conceded that with older babies/toddler ratios could be pushed to 1:4 at maximum.

- Beyond ratios, a small group size is also important and while an optimal size was not identified in many items we reviewed, a group size of no more than 6 – 8 babies was suggested as good practice (Banghart et al., 2002; Zero to Three, 2021; Dalli et al., 2011).
- It was widely agreed that higher level and specialised training for work with infants and toddlers is required to ensure their knowledge of very young children remains current and in tune with a changing society (Banghart et al., 2002; Dalli, 2014).
- At national level, a high-quality curriculum (Ofsted, 2023) and in particular ‘a curriculum with relational connections at its centre’ is needed (Hargraves, 2018a, b), in recognition that children learn from birth but that to thrive they need sensitive, responsive caregiving and emotionally attuned interactions as well as low stress environments (Dalli et al., 2011; Gaunt; 2024).

In the academic literature, 28 of the articles examined the relationship between at least one structural variable and scores on a measure of process quality. The most common structural variables that were investigated were:

- Educator qualifications/education/training (21 articles)
- Adult:child ratios (12 articles)
- Group sizes (8 articles)

Of these investigations, there was conclusive evidence that the following structural variables influence process quality in 0-2 year old provision:

- Training, professional learning and qualifications have been repeatedly shown to positively correlate with process quality (Degotardi, 2010; Baron et al., 2023, Bjornestad and Os, 2018). The case has also been made by Rockel (2014) and Gilken, Longley, and Crosby (2023) that qualifications must be specifically targeted to baby room educators. Training for working with pre-schoolers and older toddlers cannot be ‘trickled down’ to babies; baby room educators require and deserve specialised training that speaks to the strengths, needs, and experiences of our youngest children.
- Low adult:child ratios have been shown to correlate with higher process quality for young children (Wysłowska & Slot, 2020; Luo et al., 2024; and Coleman, Hestenes, and Ozdemir, 2022).
- Small group size has been shown to correlate with higher process quality in studies by Barros et al. (2016), Degotardi, Han, and Torr (2018), and Helmerhorst, Colonnese, and Fukkink (2019).

Beyond statistically determined relationships, many of the articles that challenged dominant perceptions of what quality is and how we think about it put forward the case

that in order to support quality we first need to have a clear vision of quality underpinned by a shared sense of purpose (McDowall Clark and Bayliss, 2012). Once we understand more clearly what we are trying to achieve in the baby room and what the ideal outcomes are, we can develop a clear sense of the conditions required to achieve this.

To summarise, the conditions for quality have been explored mostly in terms of structural levers, such as the qualifications of baby room educators, group sizes and ratios. The academic literature on these topics demonstrates that there is enough evidence to conclude that educator qualifications matter for quality in the baby room and that baby-specific professional learning is of importance. The literature also shows a strong connection between lower group sizes and lower ratios when it comes to supporting high-quality practice in the baby room. While the statistical evidence is important, we also need to bear in mind that much of the literature points toward the need for a clear vision around the social purpose of the baby room (i.e. what the baby room provides, for whom, and for what reason it is provided) and what quality looks and feels like in relation to this purpose.

# Conclusion: What we know at this point and how it relates to current provision in England

Our findings show that defining quality is not straightforward and that how we conceptualise high-quality provision in the baby room depends ultimately on having a clear vision of what purpose the baby room serves. In relation to this point, England needs to take inspiration from other parts of the world to clarify the purpose of the baby room and the lens through which we make sense of it. The baby room may be conceptualised as primarily a support system for a) child developmental outcomes, b) a more holistic approach to child learning and wellbeing, c) babies in the context of their families, d) as whole, complete people in the context of their communities or e) as childcare to enable parents to undertake paid work, and it would be possible to imagine other purposes not listed here. Without clarity around the purpose of the baby room, it becomes difficult to state what we mean by high-quality provision. Our review of the literature shows that this is not an uncommon situation among national contexts, but there are also global cases that we recommend drawing inspiration from. New Zealand, for example, has developed a clear and thoughtful pathway through articulating purpose and vision for quality provision with babies, which then translates into frameworks and quality improvement initiatives.

In terms of measuring process quality, we can see that there are validated tools available that are being used around the world: most notably, the ITERS (and its latest editions), the CLASS-Toddler, and the Caregiver Interaction Profile. None of the English literature we reviewed had applied any of these process quality measures in English baby rooms. It would be helpful to do this; but simultaneously, there is clearly a need to develop measures of quality that draw on the perspectives and experiences of various stakeholders. How we think about, and measure, quality needs to draw on multiple perspectives, and so parents/carers, educators and babies themselves need to be part of the next iteration of research on how to measure quality. We cannot rely exclusively on top-down, researcher-created measures of quality in the baby room.

Finally, the research is conclusive in its demonstration that certain structural variables matter for process quality in the baby room. The education and qualifications of baby room educators are important and make a difference to the quality of provision for babies' day to day. In particular, qualifications and professional learning that have an explicit focus on the youngest age group, make a difference to the practice that unfolds in the baby room. With this finding in mind, the English context is concerning, since the majority of staff employed in nursery are educated to Level 3 standard. In the baby room, we tend to find the least qualified and least experienced practitioners (Guard, 2024a; Gooch & Powell, 2013). Furthermore, the professional learning landscape in England relating to babies is relatively barren. There are no widely recognised and accredited qualifications that relate specifically to practice with babies. This is a gap that needs to be addressed with urgency. When we look at the research on ratios, we

find that England has requirements in line with many parts of the world. However, when we consider the research on group size, it is concerning that England makes no requirement regarding the size of the group of babies. We are aware from our conversations with baby room educators and managers that many baby rooms are rapidly expanding due to the new subsidies; this could potentially increase group size in a way that remains unchecked. There is a need to consider whether a recommendation or requirement around group size in the baby room would be appropriate.

In light of our findings, below we provide a few recommendations targeted at different stakeholders.

## **Recommendations for policy-makers**

- Defining and therefore regulating quality is dependent on a clear vision for what quality looks and feels like in the baby room. In turn, this relies on transparency around the purpose fulfilled by care and education in the baby room. How we define quality in the baby room depends on whether the emphasis is on babies' learning and development, babies' wellbeing, support for families or working parents, or all of these potential outcomes. The government has a key role in providing a clearer steer in relation to this purpose and should learn from other countries about how to develop a collaborative sector-led vision of practice in the baby room, which in turn advances quality.
- The government should support high-quality provision through a renewed focus on the workforce and a more specific support for baby room educators. The government must ensure that there is professional learning specifically for baby room educators which is accredited and recognised. With public funding now entering the baby room, there is a great opportunity for government to plan and launch a qualification pathway that demonstrates the significance of what happens in the baby room. A qualification that meets these criteria would need to be free to practitioners and settings to support uptake.
- In consultation with the sector, the government should introduce regulation of group size in the baby room and maintain current ratios (1:3). This is particularly relevant as many baby rooms rapidly expand their provision. Group size has been shown to be a structural indicator that significantly impacts on process quality, with smaller group sizes being more conducive to high-quality practice with babies. Similarly, smaller ratios have been shown to significantly impact on process quality. Consultation with the sector is needed to ensure that any new requirements (e.g. relating to group size) are aligned with what is viable and can be supported among providers.

## **Recommendations for training and advocacy sector organizations**

- Training and advocacy organizations play an important role in supporting and coordinating the sector to develop a bottom-up, multi-perspectival vision of quality that can be translated into a framework for policy-makers.
- There is currently a lack of baby-specific knowledge and expertise being shared across the sector. Therefore, there is a need to work closely with government to develop qualification pathways and professional learning that specifically relates to the baby room and to working with babies.

## **Recommendations for nurseries**

- Nurseries should develop a clear plan for supporting the workforce in the baby room, recognising the particular demands and requirements of working with under twos. Such a plan needs to include a baby-room-specific approach to recruitment, retention, working conditions, and career progression. Nurseries must support baby room educators to access high-quality professional learning that is specific to the needs of children under two.
- Group size is a structural indicator that has been shown to significantly impact quality, with smaller group sizes in the baby room being more conducive to high-quality practice with babies. Nurseries can act immediately to improve quality in the baby room by opening multiple baby rooms with small group sizes or, when not possible, at the very least by clustering babies and educators in smaller groups within the existing baby room. This is particularly relevant as baby room provision rapidly expands due to new government funding for eligible parents of babies as young as nine months.
- Nurseries need to work with baby room educators to identify specific challenges and co-create practical solutions that can support educators. For example, the settling in of babies into group provision can be a source of stress for babies, families and educators. Nurseries should develop practical approaches to support the transition, such as limiting the number of babies that can settle in at any one time.

## **Recommendations for the research community**

- There is an urgent need for more research situated in an English context that opens up and facilitates discussions of what quality in the baby room looks and feels like according to different stakeholders. This needs to include a focus on the experience and perspectives of baby room educators, families and babies themselves, as well as on how these perspectives are not fixed in time. The scope of such research needs to extend to include babies and families who are accessing provision via a childminder.

- As researchers, we need to grow our confidence in using currently available measures of process quality in English baby rooms and seeing what results are yielded. This should open up new possibilities regarding ways to measure process quality that are dynamic, multi-perspectival and multi-faceted. That is, we need to be innovative when it comes to measuring quality in the baby room but this innovation can flow from an experimentation with what is currently available when it comes to measuring quality with babies.

# Bibliography

Adams, E.J. and Parlakian, R. (2010) 'Movin' On: Supportive Transitions for Infants and Toddlers', *YC young children*, 65(3), pp. 54–55.

Alvestad, T. *et al.* (2014) 'Challenges and dilemmas expressed by teachers working in toddler groups in the Nordic countries', *Early child development and care*, 184(5), pp. 671–688. Available at: <https://doi.org/10.1080/03004430.2013.807607>.

Araujo, M.C., Dormal, M. and Schady, N. (2019) 'Childcare Quality and Child Development', *The Journal of human resources*, 54(3), pp. 656–682. Available at: <https://doi.org/10.3368/jhr.54.3.0217.8572R1>.

Araújo, S.B., Elfer, P. and Quiñones, G. (2023) 'Preparing and supporting professionals working with infants and toddlers', *Early years (London, England)*, 43(3), pp. 443–454. Available at: <https://doi.org/10.1080/09575146.2023.2240668>.

Araújo, S.B., Esteves, S. and Marta, M. (2023) 'On becoming an infant-toddler pedagogue: perceived contributions of heuristic play in initial professional education', *Early years (London, England)*, 43(3), pp. 545–560. Available at: <https://doi.org/10.1080/09575146.2023.2235096>.

Australian Children's Education & Care Quality Authority (2019) *Babies and outdoor play*. National quality standard. Information sheet. [https://www.acecqa.gov.au/sites/default/files/2020-10/QA3\\_InfoSheetBabiesAndOutdoorPlay.pdf](https://www.acecqa.gov.au/sites/default/files/2020-10/QA3_InfoSheetBabiesAndOutdoorPlay.pdf)

Banghart, P. *et al.* (2020) A review of the literature on access to high-quality care for infants and toddlers. Child Trends. [https://cms.childtrends.org/wp-content/uploads/2020/05/HighQualityCareLitReview\\_ChildTrends\\_May2020.pdf](https://cms.childtrends.org/wp-content/uploads/2020/05/HighQualityCareLitReview_ChildTrends_May2020.pdf)

Baron, F., Linberg, A. and Lehrl, S. (2023) 'Interaction quality in German early childcare settings: investigating the domains of CLASS Toddler and the associations with structural characteristics', *Early child development and care*, 193(13–14), pp. 1485–1502. Available at: <https://doi.org/10.1080/03004430.2023.2256997>.

Barros, S. and Aguiar, C. (2010) 'Assessing the quality of Portuguese child care programs for toddlers', *Early childhood research quarterly*, 25(4), pp. 527–535. Available at: <https://doi.org/10.1016/j.ecresq.2009.12.003>.

Barros, S. and Leal, T.B. (2015) 'Parents' and teachers' perceptions of quality in Portuguese childcare classrooms', *European journal of psychology of education*, 30(2), pp. 209–226. Available at: <https://doi.org/10.1007/s10212-014-0235-4>.

Barros, S. *et al.* (2016) 'Infant child care quality in Portugal: Associations with structural characteristics', *Early childhood research quarterly*, 37, pp. 118–130. Available at: <https://doi.org/10.1016/j.ecresq.2016.05.003>.



- Barros, S. *et al.* (2018) 'The quality of caregiver-child interactions in infant classrooms in Portugal: the role of caregiver education', *Research papers in education*, 33(4), pp. 427–451. Available at: <https://doi.org/10.1080/02671522.2017.1353676>.
- Beijers, R. *et al.* (2013) 'Early non-parental care and toddler behaviour problems: Links with temperamental negative affectivity and inhibitory control', *Early childhood research quarterly*, 28(4), pp. 714–722. Available at: <https://doi.org/10.1016/j.ecresq.2013.06.002>.
- Berlin, L.J. *et al.* (2020) "'I'm Literally Drowning": A Mixed-Methods Exploration of Infant-Toddler Child Care Providers' Wellbeing', *Early education and development*, 31(7), pp. 1071–1088. Available at: <https://doi.org/10.1080/10409289.2020.1766915>.
- Bernard, K. *et al.* (2014) 'Examining Change in Cortisol Patterns During the 10-week Transition to a New Childcare Setting', *Child development*, 86(2), pp. 456–471. Available at: <https://doi.org/10.1111/cdev.12304>.
- Biersteker, L. *et al.* (2016) 'Center-based early childhood care and education program quality: A South African study', *Early childhood research quarterly*, 36, pp. 334–344. Available at: <https://doi.org/10.1016/j.ecresq.2016.01.004>.
- Bigras, N. *et al.* (2010) 'A Comparative Study of Structural and Process Quality in Center-Based and Family-Based Child Care Services', *Child & youth care forum*, 39(3), pp. 129–150. Available at: <https://doi.org/10.1007/s10566-009-9088-4>.
- Bjørnestad, E. and Os, E. (2018) 'Quality in Norwegian childcare for toddlers using ITERS-R', *European early childhood education research journal*, 26(1), pp. 111–127. Available at: <https://doi.org/10.1080/1350293X.2018.1412051>.
- Bjørnestad, E. *et al.* (2020) 'Interaction Quality in Norwegian ECEC for Toddlers Measured with the Caregiver Interaction Profile (CIP) Scales', *Scandinavian journal of educational research*, 64(6), pp. 901–920. Available at: <https://doi.org/10.1080/00313831.2019.1639813>.
- Bratsch-Hines, M.E. *et al.* (2020) 'Infant and Toddler Child-Care Quality and Stability in Relation to Proximal and Distal Academic and Social Outcomes', *Child development*, 91(6), pp. 1854–1864. Available at: <https://doi.org/10.1111/cdev.13389>.
- Brebner, C. *et al.* (2015) 'Using relationships as a tool: early childhood educators' perspectives of the child-caregiver relationship in a childcare setting', *Early child development and care*, 185(5), pp. 709–726. Available at: <https://doi.org/10.1080/03004430.2014.951928>.

Cárcamo, R.A. et al. (2014) 'The Quality of Childcare in Chile: Its Stability and International Ranking', *Child & youth care forum*, 43(6), pp. 747–761. Available at: <https://doi.org/10.1007/s10566-014-9264-z>.

Cassidy, D.J. et al. (2017) 'Teacher work environments are toddler learning environments: teacher professional well-being, classroom emotional support, and toddlers' emotional expressions and behaviours', *Early child development and care*, 187(11), pp. 1666–1678. Available at: <https://doi.org/10.1080/03004430.2016.1180516>.

Castle, S. et al. (2016) 'Teacher-Child Interactions in Early Head Start Classrooms: Associations With Teacher Characteristics', *Early education and development*, 27(2), pp. 259–274. Available at: <https://doi.org/10.1080/10409289.2016.1102017>.

Chaudry, A. & Sandstrom, H. (2020) Child care and early education for infants and toddlers. *The Future of Children*. Vol. 30(No.2/Fall 2020), pp. 165-190. <https://files.eric.ed.gov/fulltext/EJ1293558.pdf>

Cheeseman, S. (2017) 'Narratives of infants' encounters with curriculum: Beyond the curriculum of care', *Contemporary issues in early childhood*, 18(1), pp. 55–66. Available at: <https://doi.org/10.1177/1463949117692243>.

Cheeseman, S., Press, F. and Sumsion, J. (2015) 'An encounter with "sayings" of curriculum: Levinas and the formalisation of infants' learning', *Educational philosophy and theory*, 47(8), pp. 822–832. Available at: <https://doi.org/10.1080/00131857.2014.940825>.

Cheeseman, S., Sumsion, J. and Press, F. (2015) 'Infants of the productivity agenda : Learning from birth or waiting to learn?', *Australasian journal of early childhood*, 40(3), pp. 38–45. Available at: <https://doi.org/10.1177/183693911504000306>.

Chen, J.J., Martin, A. and Erdosi-Mehaffey, V. (2017) 'The Process and Impact of the Infant/Toddler Credential as Professional Development: Reflections from Multiple Perspectives and Recommendations for Policy', *Early childhood education journal*, 45(3), pp. 359–368. Available at: <https://doi.org/10.1007/s10643-015-0767-5>.

Child Development Council. (n.d.) *10 components of infant and toddler care*. <https://www.childdevelopmentcouncil.org/resources/10-components-of-infant-and-toddler-care/>

Choi, J.Y. et al. (2019) 'Do Stability of Care and Teacher-Child Interaction Quality Predict Child Outcomes in Early Head Start?', *Early education and development*, 30(3), pp. 337–356. Available at: <https://doi.org/10.1080/10409289.2018.1546096>.

Chu, M. (2016) 'What's missing in most of our early childhood degrees? Focusing more deeply on relationships and learning with infants, toddlers, and their families',

*Journal of Early Childhood Teacher Education*, 37(4), pp. 264–281. Available at: <https://doi.org/10.1080/10901027.2016.1241966>.

Coleman, H., Hestenes, L. and Ozdemir, M.K. (2022) 'Quality in Inclusive and Non-Inclusive Infant and Toddler Classrooms: What Are the Trends After 15 Years?', *Journal of research in childhood education*, 36(1), pp. 126–142. Available at: <https://doi.org/10.1080/02568543.2021.1880995>.

Coley, R.L., Lombardi, C.M. and Sims, J. (2015) 'Long-Term Implications of Early Education and Care Programs for Australian Children', *Journal of educational psychology*, 107(1), pp. 284–299. Available at: <https://doi.org/10.1037/a0037456>.

Colwell, N. *et al.* (2013) 'New evidence on the validity of the Arnett Caregiver Interaction Scale: Results from the Early Childhood Longitudinal Study-Birth Cohort', *Early childhood research quarterly*, 28(2), pp. 218–233. Available at: <https://doi.org/10.1016/j.ecresq.2012.12.004>.

Dalli, C. (2014) Quality for babies and toddlers in early years settings. TACTYC Occasional paper 4. [https://f5399c09-650a-4610-a190-ee23b0ba1b36.usrfiles.com/ugd/f5399c\\_e6bcc6b3e44242c5a5429dca43ab8f9a.pdf](https://f5399c09-650a-4610-a190-ee23b0ba1b36.usrfiles.com/ugd/f5399c_e6bcc6b3e44242c5a5429dca43ab8f9a.pdf)

Dalli, C. *et al.* (2011) Quality early childhood education for under-two-year-olds: What should it look like? A literature review. New Zealand Ministry of Education. [https://thehub.sia.govt.nz/assets/documents/41442\\_QualityECE\\_Web-22032011\\_0.pdf](https://thehub.sia.govt.nz/assets/documents/41442_QualityECE_Web-22032011_0.pdf)

Davis, B. and Degotardi, S. (2015) 'Educators' understandings of, and support for, infant peer relationships in early childhood settings', *Journal of early childhood research : ECR*, 13(1), pp. 64–78. Available at: <https://doi.org/10.1177/1476718X14538600>.

Davis, B. and Dunn, R. (2019) 'Professional identity in the infant room', *Australasian journal of early childhood*, 44(3), pp. 244–256. Available at: <https://doi.org/10.1177/1836939119855222>.

Davis, B. and Dunn, R. (2022) 'Educators working with infants and toddlers from low socio-economic status families', *Cogent education*, 9(1). Available at: <https://doi.org/10.1080/2331186X.2022.2042988>.

Davis, B. and Torr, J. (2016) 'Educators' use of questioning as a pedagogical strategy in long day care nurseries', *Early years (London, England)*, 36(1), pp. 97–111. Available at: <https://doi.org/10.1080/09575146.2015.1087974>.

De Marco, A. and Vernon-Feagans, L. (2013) 'Rural Neighborhood Context, Child Care Quality, and Relationship to Early Language Development', *Early education and development*, 24(6), pp. 792–812. Available at: <https://doi.org/10.1080/10409289.2013.736036>.

Degotardi, S. (2010) 'High-quality interactions with infants: relationships with early-childhood practitioners' interpretations and qualification levels in play and routine contexts', *International journal of early years education*, 18(1), pp. 27–41. Available at: <https://doi.org/10.1080/09669761003661253>.

Degotardi, S. (2017) 'Joint attention in infant-toddler early childhood programs: Its dynamics and potential for collaborative learning', *Contemporary issues in early childhood*, 18(4), pp. 409–421. Available at: <https://doi.org/10.1177/1463949117742786>.

Degotardi, S. and Gill, A. (2019) 'Infant educators' beliefs about infant language development in long day care settings', *Early years (London, England)*, 39(1), pp. 97–113. Available at: <https://doi.org/10.1080/09575146.2017.1347607>.

Degotardi, S. and Han, F. (2020) 'Quality of educator-infant conversational interactions among infants experiencing varying quantity of linguistic input', *European Early Childhood Education Research Journal*, 28(5), pp. 743–757. Available at: <https://doi.org/10.1080/1350293X.2020.1817245>.

Degotardi, S., Han, F. and Torr, J. (2018) 'Infants' experience with “near and clear” educator talk: individual variation and its relationship to indicators of quality', *International journal of early years education*, 26(3), pp. 278–294. Available at: <https://doi.org/10.1080/09669760.2018.1479632>.

Degotardi, S., Torr, J. and Han, F. (2018) 'Infant Educators' Use of Pedagogical Questioning: Relationships With the Context of Interaction and Educators' Qualifications', *Early education and development*, 29(8), pp. 1004–1018. Available at: <https://doi.org/10.1080/10409289.2018.1499000>.

Degotardi, S., Torr, J. and Nguyen, N.T. (2016) 'Infant-toddler educators' language support practices during snack-time', *Australasian journal of early childhood*, 41(4), pp. 52–62. Available at: <https://doi.org/10.1177/183693911604100407>.

Dolby, R. *et al.* (2023) 'Supporting educators' emotional work with infants and their families around transitions at the start of the day', *Early years (London, England)*, 43(3), pp. 576–589. Available at: <https://doi.org/10.1080/09575146.2023.2235911>.

Doudna, K.D. *et al.* (2015) 'Preparing for Change: Individualizing Transition Plans for Young Children and Their Families', *YC young children*, 70(4), pp. 70-.

Drugli, M.B. *et al.* (2018) 'Elevated cortisol levels in Norwegian toddlers in childcare', *Early child development and care*, 188(12), pp. 1684–1695. Available at: <https://doi.org/10.1080/03004430.2016.1278368>.

Ebbeck, M. *et al.* (2022) 'Continuity of Care: Primary Caregiving in Singapore', *Early childhood education journal*, 50(2), pp. 291–300. Available at: <https://doi.org/10.1007/s10643-021-01156-7>.

- Ebbeck, M., Warrier, S. and Goh, M. (2018) 'Early Experiences Matter : A Relationships-Based Curriculum for the Birth-to-Three Age Group', *Early childhood education journal*, 46(1), pp. 83–92. Available at: <https://doi.org/10.1007/s10643-017-0847-9>.
- Eckhardt, A.G. and Egert, F. (2020) 'Process quality for children under three years in early child care and family child care in Germany', *Early years (London, England)*, 40(3), pp. 287–305. Available at: <https://doi.org/10.1080/09575146.2018.1438373>.
- Elfer, P. and Page, J. (2015) 'Pedagogy with babies: perspectives of eight nursery managers', *Early child development and care*, 185(11–12), pp. 1762–1782. Available at: <https://doi.org/10.1080/03004430.2015.1028399>.
- Eliassen, E., Zachrisson, H.D. and Melhuish, E. (2018) 'Is cognitive development at three years of age associated with ECEC quality in Norway?', *European early childhood education research journal*, 26(1), pp. 97–110. Available at: <https://doi.org/10.1080/1350293X.2018.1412050>.
- Elicker, J. et al. (2022) 'Toddlers' Developmental Trajectories as a Function of QRIS Rated Child Care Quality', *Child & youth care forum*, 51(3), pp. 633–660. Available at: <https://doi.org/10.1007/s10566-021-09643-z>.
- Elwick, S. et al. (2023) 'Feasibility and potential benefits of the Observe, Reflect, Improve Children's Learning (ORICL) tool: Perspectives of infant-toddler educators', *Australasian journal of early childhood*, 48(3), pp. 203–216. Available at: <https://doi.org/10.1177/18369391231186169>.
- Environmental Rating Scale (n.d.) Infant/Toddler Environment Rating Scale®, Revised (ITERS-R™). Available at: <https://ers.fpg.unc.edu/infanttoddler-environment-rating-scale%20ae-revised-iters-r%e2%84%a2.html> (Accessed: 11.27.2024).
- Eshelman, V.T. et al. (2023) 'An examination of patterns of caregiver responsiveness and toddler communication in early childhood classrooms', *Journal of early childhood teacher education*, 44(1), pp. 80–94. Available at: <https://doi.org/10.1080/10901027.2021.2005189>.
- Evensen Hansen, J. (2020) 'Characteristics of educational language practices observed in four toddler groups in Norwegian ECEC', *International journal of early years education*, 28(4), pp. 382–396. Available at: <https://doi.org/10.1080/09669760.2018.1548347>.
- Fenech, M. (2011) 'An analysis of the conceptualisation of "quality" in early childhood education and care empirical research : promoting "blind spots" as foci for future research', *Contemporary issues in early childhood*, 12(2), pp. 102–117. Available at: <https://doi.org/10.2304/ciec.2011.12.2.102>.

- Fleet, A. and Farrell, L. (2014) 'The place of infants in the evolving Australian policy context', *Australasian journal of early childhood*, 39(4), pp. 81–88. Available at: <https://doi.org/10.1177/183693911403900411>.
- Fukkink, R.G. (2022) 'Exploring children's well-being in daycare: how do children feel all day?', *European early childhood education research journal*, 30(5), pp. 730–744. Available at: <https://doi.org/10.1080/1350293X.2021.2007971>.
- Fusaro, M. *et al.* (2022) 'The role of practice-based experiences in undergraduates' infant/toddler caregiving competencies', *Journal of early childhood teacher education*, 43(4), pp. 540–553. Available at: <https://doi.org/10.1080/10901027.2021.1954566>.
- Gardner-Neblett, N., De Marco, A. and Sexton, S. (2021) "At First I Wouldn't Talk so Much...": Coaching and Associated Changes in Language-Supportive Self-Efficacy among Infant/Toddler Educators', *Early education and development*, 32(8), pp. 1220–1239. Available at: <https://doi.org/10.1080/10409289.2020.1823769>.
- Garvis, S. and Lemon, N. (2015) 'Enhancing the Australian early childhood teacher education curriculum about very young children', *Early child development and care*, 185(4), pp. 547–561. Available at: <https://doi.org/10.1080/03004430.2014.939652>.
- Garvis, S. and Pendergast, D. (2015) 'What do early childhood teacher graduands say about working with infants and toddlers? : An exploratory investigation of perceptions', *Australasian journal of early childhood*, 40(4), pp. 104–111. Available at: <https://doi.org/10.1177/183693911504000413>.
- Gath, M.E. *et al.* (2024) 'Infants' emotional and social experiences during and after the transition to early childhood education and care', *Journal of early childhood research : ECR*, 22(1), pp. 88–105. Available at: <https://doi.org/10.1177/1476718X231195706>.
- Gilken, J., Longley, J. and Crosby, J. (2023) 'Finding Space for Infants and Toddlers in Early Childhood Teacher Preparation Programs', *Early childhood education journal*, 51(2), pp. 333–344. Available at: <https://doi.org/10.1007/s10643-021-01299-7>.
- Gonzalez-Mena, J. (2013) 'Infants and Toddlers: What Works? Assessing Infant and Toddler Play Environments', *YC young children*, 68(4), pp. 22–25.
- Goouch, K. and Powell, S. (2013) *The baby room principles, policy and practice*. Maidenhead, England: McGraw-Hill Education.
- Guard, C. (2024a) *Hearing the voices of babies in baby-educator interactions in Early Childhood Settings*. [Doctoral Thesis, University of Roehampton] [https://pure.roehampton.ac.uk/ws/portalfiles/portal/24944038/CGUARD\\_Final\\_submission\\_Awarded\\_2023.pdf](https://pure.roehampton.ac.uk/ws/portalfiles/portal/24944038/CGUARD_Final_submission_Awarded_2023.pdf)

Guard, C. (2024b) *Thinking about babies. A Froebelian approach. Guidance for leaders and managers of early years settings*. Froeble Trust.  
<https://www.froebel.org.uk/uploads/documents/Froebel-Trust-Thinking-about-babies-Interactive.pdf>

Hallam, R.A. *et al.* (2016) 'Teacher–Child Interactions During Mealtimes: Observations of Toddlers in High Subsidy Child Care Settings', *Early childhood education journal*, 44(1), pp. 51–59. Available at: <https://doi.org/10.1007/s10643-014-0678-x>.

Han, F. and Degotardi, S. (2021) 'Infant Educators' Reported Conceptions of, and Approaches to, Infant Language Development: How do They Relate to Educator Qualification Level?', *Early childhood education journal*, 49(2), pp. 259–271. Available at: <https://doi.org/10.1007/s10643-020-01070-4>.

Hansen, J.E. and Broekhuizen, M.L. (2021) 'Quality of the Language-Learning Environment and Vocabulary Development in Early Childhood', *Scandinavian journal of educational research*, 65(2), pp. 302–317. Available at: <https://doi.org/10.1080/00313831.2019.1705894>.

Hargraves, V. (2018a, June 8) *What matters in infant and toddler pedagogy?* The Education Hub <https://theeducationhub.org.nz/what-matters-in-infant-and-toddler-pedagogy/> Retrieved on 12 August 2024

Hargraves, V. (2018b, June 8) *Eight features of quality caregiving for infants and toddlers*. <https://theeducationhub.org.nz/8-tips-for-providing-quality-caregiving-for-infants-and-toddlers/>

Harris, P., Pines, A., & Diamond, Z. (2023) Selected state approaches to support infant and toddler care and education. Child Trends. [https://cms.childtrends.org/wp-content/uploads/1980/11/SelectedStateApproaches\\_ChildTrends\\_Nov2023.pdf](https://cms.childtrends.org/wp-content/uploads/1980/11/SelectedStateApproaches_ChildTrends_Nov2023.pdf)

Harrison, L.J. *et al.* (2017) 'Flourishing on the margins: a study of babies and belonging in an Australian Aboriginal community childcare centre', *European early childhood education research journal*, 25(2), pp. 189–205. Available at: <https://doi.org/10.1080/1350293X.2017.1288015>.

Helmerhorst, K.O.W. *et al.* (2015) 'Child Care Quality in The Netherlands Over the Years: A Closer Look', *Early education and development*, 26(1), pp. 89–105. Available at: <https://doi.org/10.1080/10409289.2014.948784>.

Helmerhorst, K.O.W., Colonnese, C. and Fukkink, R.G. (2019) 'Caregiver's Mind-Mindedness in Early Center-based Childcare', *Early education and development*, 30(7), pp. 854–871. Available at: <https://doi.org/10.1080/10409289.2019.1593076>.

Henly, J. R. and Adams, G. (2018) Insights on access to quality child care for infants and toddlers. Urban Institute.

[https://www.urban.org/sites/default/files/publication/99147/insights\\_on\\_access\\_to\\_quality\\_child\\_care\\_for\\_infants\\_and\\_toddlers\\_0.pdf](https://www.urban.org/sites/default/files/publication/99147/insights_on_access_to_quality_child_care_for_infants_and_toddlers_0.pdf)

Henry, A.J.L., Hatfield, B.E. and Chandler, K.D. (2023) 'Toddler teacher job strain, resources, and classroom quality', *International journal of early years education*, 31(4), pp. 844–858. Available at: <https://doi.org/10.1080/09669760.2021.1892596>.

Higgins, C. (2010) Settling infants and toddlers into early care and education. *Early Childhood Folio*, 14(1), 23–27. doi:10.18296/ecf.0169

Hooper, A. and Hallam, R. (2017) 'Exploring the Relationship Between Global Quality and Group Engagement in Toddler Child Care Classrooms', *Journal of research in childhood education*, 31(2), pp. 215–226. Available at: <https://doi.org/10.1080/02568543.2016.1273287>.

Hu, B.Y. et al. (2019) 'Global quality profiles in Chinese early care classrooms: Evidence from the Shandong Province', *Children and youth services review*, 101, pp. 157–164. Available at: <https://doi.org/10.1016/j.childyouth.2019.03.056>.

Hu, J. et al. (2019) 'Reasoning as a Pedagogical Strategy in Infant-Addressed Talk in Early Childhood Education Centres: Relationships with Educators' Qualifications and Communicative Function', *Early education and development*, 30(7), pp. 872–886. Available at: <https://doi.org/10.1080/10409289.2019.1607449>.

Jamison, K.R. et al. (2014) 'CLASS-Infant: An Observational Measure for Assessing Teacher-Infant Interactions in Center-Based Child Care', *Early education and development*, 25(4), pp. 553–572. Available at: <https://doi.org/10.1080/10409289.2013.822239>.

Janssen, J., Spruyt, B. and Vandenbroeck, M. (2021) 'Is everybody happy? Exploring the predictability of parent satisfaction with childcare in Flanders', *Early childhood research quarterly*, 55, pp. 97–106. Available at: <https://doi.org/10.1016/j.ecresq.2020.11.006>.

Jessen-Howard, S., Malik, R., & Falgout, M.K. (2020) Costly and unavailable. America lacks sufficient child care supply for infants and toddlers. Center for American Progress. <https://www.americanprogress.org/wp-content/uploads/sites/2/2020/08/Costly-and-Unavailable.pdf>

Johnston, K. and Degotardi, S. (2022) "More than "more": quantity and quality of mathematical language used by educators in mealtimes with infants', *International Journal of Early Years Education*, 30(4), pp. 796–812. Available at: <https://doi.org/10.1080/09669760.2020.1848529>.

Josephidou, J., Kemp, N. and Durrant, I. (2021) 'Outdoor provision for babies and toddlers: exploring the practice/policy/research nexus in English ECEC settings',



*European early childhood education research journal*, 29(6), pp. 925–941. Available at: <https://doi.org/10.1080/1350293X.2021.1985555>.

Jung, J. and Recchia, S. (2013) 'Scaffolding Infants' Play Through Empowering and Individualizing Teaching Practices', *Early education and development*, 24(6), pp. 829–850. Available at: <https://doi.org/10.1080/10409289.2013.744683>.

Kemp, N. & Josephidou, J. (2020) *Where are the babies? Engaging the under twos with the outdoors*. The Froebel Trust. <https://oro.open.ac.uk/69869/>

Kemp, N. and Josephidou, J. (2023) 'Babies and toddlers outdoors: a narrative review of the literature on provision for under twos in ECEC settings', *Early years (London, England)*, 43(1), pp. 137–150. Available at: <https://doi.org/10.1080/09575146.2021.1915962>.

Kim, Y. (2016) 'Relationship-based developmentally supportive approach to infant childcare practice', *Early child development and care*, 186(5), pp. 734–749. Available at: <https://doi.org/10.1080/03004430.2015.1057579>.

Kinkead-Clark, Z. (2024) 'The quality of nursery settings in Jamaica using ITERS-3; harnessing the lessons for improved practices in childcare facilities', *Early years (London, England)*, 44(2), pp. 356–369. Available at: <https://doi.org/10.1080/09575146.2022.2145599>.

Kleppe, R. (2018) 'Characteristics of staff-child interaction in 1-3-year-olds' risky play in early childhood education and care', *Early child development and care*, 188(10), pp. 1487–1501. Available at: <https://doi.org/10.1080/03004430.2016.1273909>.

Klette, T., Drugli, M.B. and Aandahl, A.M. (2018) 'Together and alone a study of interactions between toddlers and childcare providers during mealtime in Norwegian childcare centres', *Early child development and care*, 188(3), pp. 387–398. Available at: <https://doi.org/10.1080/03004430.2016.1220943>.

Kwon, K.-A. *et al.* (2020) 'Turnover and retention of infant-toddler teachers: Reasons, consequences, and implications for practice and policy', *Children and youth services review*, 115, pp. 105061-. Available at: <https://doi.org/10.1016/j.chilyouth.2020.105061>.

La Paro, K.M., Williamson, A.C. and Hatfield, B. (2014) 'Assessing Quality in Toddler Classrooms Using the CLASS-Toddler and the ITERS-R', *Early education and development*, 25(6), pp. 875–893. Available at: <https://doi.org/10.1080/10409289.2014.883586>.

Laevers, F. *et al.* (2011) 'Promoting language in under 3s. Assessing language development and the quality of adult intervention', *European early childhood education research journal*, 19(2), pp. 269–297. Available at: <https://doi.org/10.1080/1350293X.2011.574415>.

- Lang, S.N. *et al.* (2016) 'A cocaring framework for infants and toddlers: Applying a model of coparenting to parent–teacher relationships', *Early childhood research quarterly*, 34, pp. 40–52. Available at: <https://doi.org/10.1016/j.ecresq.2015.08.004>.
- Lang, S.N. *et al.* (2020) 'Associations Between Parent–Teacher Cocaring Relationships, Parent–Child Relationships, and Young Children’s Social Emotional Development', *Child & youth care forum*, 49(4), pp. 623–646. Available at: <https://doi.org/10.1007/s10566-020-09545-6>.
- Lawrence, P. and Gallagher, T. (2015) “Pedagogic Strategies”: a conceptual framework for effective parent and practitioner strategies when working with children under five', *Early child development and care*, 185(11–12), pp. 1978–1994. Available at: <https://doi.org/10.1080/03004430.2015.1028390>.
- Lee, J.Y. and Sung, J. (2023) 'Multiple Determinants of Interaction Quality among Childcare Providers', *Child & youth care forum*, 52(4), pp. 955–982. Available at: <https://doi.org/10.1007/s10566-022-09713-w>.
- Lee, S.Y., Shin, M. and Recchia, S.L. (2016) 'Primary Caregiving as a Framework for Preparing Early Childhood Preservice Students to Understand and Work with Infants', *Early education and development*, 27(3), pp. 336–351. Available at: <https://doi.org/10.1080/10409289.2015.1076675>.
- Lekhal, R. *et al.* (2024) 'Does thrive by three, a quality-building intervention in childcare centres, strengthen children’s language skills?', *European early childhood education research journal*, 32(3), pp. 448–463. Available at: <https://doi.org/10.1080/1350293X.2023.2260131>.
- Lim, C. (2019) 'Singaporean educarers’ reflections about their role and practices in the education and care of infants', *Journal of early childhood teacher education*, 40(2), pp. 74–95. Available at: <https://doi.org/10.1080/10901027.2018.1519518>.
- Lim, C. and Lim, S.M.-Y. (2013) 'Learning and language: educarer-child interactions in Singapore infant-care settings', *Early child development and care*, 183(10), pp. 1468–1485. Available at: <https://doi.org/10.1080/03004430.2013.788814>.
- Linberg, A. *et al.* (2019) 'Quality of toddler childcare. Can it be assessed with questionnaires?', *Early child development and care*, 189(8), pp. 1369–1383. Available at: <https://doi.org/10.1080/03004430.2017.1380636>.
- Loizou, E. and Demetriou, M. (2019) 'Infancy pedagogy and praxis', *European early childhood education research journal*, 27(4), pp. 436–453. Available at: <https://doi.org/10.1080/1350293X.2019.1634232>.
- Luo, L. *et al.* (2024) 'Variation in the Quality of Teacher-Child Interactions in Chinese Toddler Classrooms', *Early education and development*, 35(8), pp. 1847–1861. Available at: <https://doi.org/10.1080/10409289.2024.2350876>.

- Ma, X. *et al.* (2015) 'The role of system alignment in care and education of children from birth to grade 3', *Early child development and care*, 185(7), pp. 1067–1087. Available at: <https://doi.org/10.1080/03004430.2014.978310>.
- Macagno, A. and Molina, P. (2020) 'The construction of child-caregiver relationship in childcare centre: adaptation of Parent Attachment Diary for professional caregivers', *European early childhood education research journal*, 28(3), pp. 349–362. Available at: <https://doi.org/10.1080/1350293X.2020.1755491>.
- MacDonald, A. (2020) 'Mathematics education beliefs and practices of Under 3s educators in Australia', *European early childhood education research journal*, 28(5), pp. 758–769. Available at: <https://doi.org/10.1080/1350293X.2020.1817246>.
- MacDonald, A., Deehan, J. and Lee, P. (2023) 'Relations between early childhood educators' qualifications and experience and their beliefs about mathematics education for babies and toddlers', *The Australian journal of education*, 67(3), pp. 253–269. Available at: <https://doi.org/10.1177/00049441231193776>.
- Mangione, P.L., Kriener-Althen, K. and Marcella, J. (2016) 'Measuring the Multifaceted Nature of Infant and Toddler Care Quality', *Early education and development*, 27(2), pp. 149–169. Available at: <https://doi.org/10.1080/10409289.2016.1088314>.
- Manning, M. *et al.* (2019) 'Is Teacher Qualification Associated With the Quality of the Early Childhood Education and Care Environment? A Meta-Analytic Review', *Review of educational research*, 89(3), pp. 370–415. Available at: <https://doi.org/10.3102/0034654319837540>.
- Maras, E.Q., Lang, S.N. and Schoppe-Sullivan, S.J. (2018) 'An Observational Assessment of Parent-Teacher Cocaring Relationships in Infant-Toddler Classrooms', *European early childhood education research journal*, 26(2), pp. 212–228. Available at: <https://doi.org/10.1080/1350293X.2018.1442033>.
- Massing, C. (2018) 'African, Muslim Refugee Student Teachers' Perceptions of Care Practices in Infant and Toddler Field Placements', *International journal of early years education*, 26(2), pp. 186–200. Available at: <https://doi.org/10.1080/09669760.2018.1458603>.
- McDowall Clark, R. and Baylis, S. (2012) "'Wasted down there": policy and practice with the under-threes', *Early years (London, England)*, 32(2), pp. 229–242. Available at: <https://doi.org/10.1080/09575146.2011.652939>.
- McGuire, J. *et al.* (2021) 'Australian early childhood educators and infant feeding: a qualitative analysis using social cognitive theory', *Early child development and care*, 191(5), pp. 773–788. Available at: <https://doi.org/10.1080/03004430.2019.1647188>.

- McMullen, M. B. (2018). The Many Benefits of Continuity of Care for Infants, Toddlers, Families, and Caregiving Staff. *YC Young Children*, 73(3), 38–39.
- McMullen, M.B. and Apple, P. (2012) ‘Babies (and Their Families) on Board! Directors Juggle the Key Elements of Infant/Toddler Care and Education’, *YC young children*, 67(4), pp. 42–48.
- Ministry of Education, Te Tāhuhu o te Mātauranga (2017) *Te Whāriki. He whāriki mātauranga mō ngā mokopuna o Aotearoa. Early childhood curriculum*. Ministry of Education, Te Tāhuhu o te Mātauranga, New Zealand.
- Mortensen, J.A. and Barnett, M.A. (2015) ‘Teacher-Child Interactions in Infant/Toddler Child Care and Socioemotional Development’, *Early education and development*, 26(2), pp. 209–229. Available at: <https://doi.org/10.1080/10409289.2015.985878>.
- NAEYC (n.d.) <https://www.naeyc.org/> [website], accessed 4 November 2024.
- Nakamichi, K. *et al.* (2022) ‘The relationship between child-centered teaching attitudes in childcare centers and the socio-emotional development of Japanese toddlers’, *Early childhood research quarterly*, 59, pp. 162–171. Available at: <https://doi.org/10.1016/j.ecresq.2021.11.014>.
- Nguyen, T. *et al.* (2023) ‘Supporting Responsive Caregiving for the Youngest Children: Psychometric Evidence of the Quality of Care for Infants and Toddlers (QCIT) Observational Measure’, *Early education and development*, 34(7), pp. 1682–1703. Available at: <https://doi.org/10.1080/10409289.2022.2144685>.
- Nirmala, K. (2015) ‘Childcare staff and parents’ beliefs about quality care for infants/toddlers in centre-based programs in Singapore’, *Australasian journal of early childhood*, 40(3), pp. 105–113. Available at: <https://doi.org/10.1177/183693911504000314>.
- Norris, D.J. (2010) ‘Raising the Educational Requirements for Teachers in Infant Toddler Classrooms: Implications for Institutions of Higher Education’, *Journal of early childhood teacher education*, 31(2), pp. 146–158. Available at: <https://doi.org/10.1080/10901021003781221>.
- Norris, D.J. (2017) ‘Comparing Language and Literacy Environments in Two Types of Infant–Toddler Child Care Centers’, *Early childhood education journal*, 45(1), pp. 95–101. Available at: <https://doi.org/10.1007/s10643-014-0679-9>.
- Norris, D.J., Horm, D. and McMullen, M.B. (2015) ‘Teacher Interactions With Infants and Toddlers’, *YC young children*, 70(5), pp. 84–91.
- Ofsted. (2023) *Best start in life part 1: Setting the scene*. <https://dera.ioe.ac.uk/id/eprint/39556/1/Best%20start%20in%20life%20part%201%20setting%20the%20scene%20-%20GOV.UK.pdf>

Parlakian, R. (2022) 'The More We Get Together', *YC young children*, 77(4), pp. 90–93.

Parlakian, R. (2023) 'Bringing Observation and Documentation to Life in Infant and Toddler Settings', *YC young children*, 78(1), pp. 89–93.

Pauker, S. *et al.* (2018) 'Caregiver cognitive sensitivity: Measure development and validation in Early Childhood Education and Care (ECEC) settings', *Early childhood research quarterly*, 45, pp. 45–57. Available at: <https://doi.org/10.1016/j.ecresq.2018.05.001>.

Penman, F.R. and Redder, B. (2023) 'Strengthening infant and toddler pedagogy through an online specialised postgraduate qualification: building on initial teacher education and teaching experience', *Early years (London, England)*, 43(3), pp. 484–498. Available at: <https://doi.org/10.1080/09575146.2023.2230379>.

Pepper-pot Baby Unit, Nursery and Pre-school (2023, August 15) *What is the purpose of infant /toddler care and education: Nurturing early development*. Pepper Pot Nursery. <https://www.pepperpot-nursery.co.uk/what-is-the-purpose-of-infant-toddler-care-and-education-nurturing-early-development/> Accessed 20 July 2024

Perlman, M. *et al.* (2017) 'Instrument Development and Validation of the Infant and Toddler Assessment for Quality Improvement', *Early education and development*, 28(1), pp. 115–133. Available at: <https://doi.org/10.1080/10409289.2016.1186468>.

Pessanha, M. *et al.* (2017) 'Stability and change in teacher-infant interaction quality over time', *Early childhood research quarterly*, 40, pp. 87–97. Available at: <https://doi.org/10.1016/j.ecresq.2016.10.003>.

Pinto, A.I. *et al.* (2019) 'Quality of infant child care and early infant development in Portuguese childcare centers', *Early childhood research quarterly*, 48, pp. 246–255. Available at: <https://doi.org/10.1016/j.ecresq.2019.04.003>.

Recchia, S.L. and Shin, M. (2010) "'Baby teachers": how pre-service early childhood students transform their conceptions of teaching and learning through an infant practicum', *Early years (London, England)*, 30(2), pp. 135–145. Available at: <https://doi.org/10.1080/09575141003648357>.

Recchia, S.L. and Shin, M. (2012) 'In and out of synch: infant childcare teachers' adaptations to infants' developmental changes', *Early child development and care*, 182(12), pp. 1545–1562. Available at: <https://doi.org/10.1080/03004430.2011.630075>.

Recchia, S.L., Lee, S.Y. and Shin, M. (2015) 'Preparing Early Childhood Professionals for Relationship-Based Work With Infants', *Journal of early childhood teacher education*, 36(2), pp. 100–123. Available at: <https://doi.org/10.1080/10901027.2015.1030523>.

Recchia, S.L., Shin, M. and Snaider, C. (2018) 'Where Is the Love? Developing Loving Relationships as an Essential Component of Professional Infant Care', *International journal of early years education*, 26(2), pp. 142–158. Available at: <https://doi.org/10.1080/09669760.2018.1461614>.

Redman, T., Harrison, L.J. and Djonov, E. (2022) 'Education versus care for infants and toddlers: the Australian early childhood challenge', *Early Child Development and Care : ECDC*, 192(13), pp. 2118–2127. Available at: <https://doi.org/10.1080/03004430.2021.1990904>.

Reijman, S. *et al.* (2024) 'A randomized trial of the Caregiver Interaction Profile (CIP) training with childcare providers: the Copenhagen Daycare Project study protocol', *BMC Psychology*, 12(1), pp. 127–127. Available at: <https://doi.org/10.1186/s40359-024-01568-1>.

Rentzou, K. (2010) 'Using the ACEI Global Guidelines Assessment to Evaluate the Quality of Early Child Care in Greek Settings', *Early childhood education journal*, 38(1), pp. 75–80. Available at: <https://doi.org/10.1007/s10643-010-0382-4>.

Rentzou, K. (2017) 'Using rating scales to evaluate quality early childhood education and care: reliability issues', *European early childhood education research journal*, 25(5), pp. 667–681. Available at: <https://doi.org/10.1080/1350293X.2017.1356599>.

Reyhing, Y. and Perren, S. (2023) 'The Situation Matters! The Effects of Educator Self-Efficacy on Interaction Quality in Child Care', *Journal of research in childhood education*, 37(4), pp. 582–597. Available at: <https://doi.org/10.1080/02568543.2022.2161678>.

Rockel, J. (2014) 'Critical professional issues in labour force development for teachers with children up to two years of age: a New Zealand perspective', *Early child development and care*, 184(2), pp. 161–176. Available at: <https://doi.org/10.1080/03004430.2013.773993>.

Rouse, L., Morrissey, A.-M. and Rahimi, M. (2012) 'Problematic placement: pathways pre-service teachers' perspectives on their infant/toddler placement', *Early years (London, England)*, 32(1), pp. 87–98. Available at: <https://doi.org/10.1080/09575146.2011.610299>.

Ruokonen, I., Tervaniemi, M. and Reunamo, J. (2021) 'The significance of music in early childhood education and care of toddlers in Finland: an extensive observational study', *Music education research*, 23(5), pp. 634–646. Available at: <https://doi.org/10.1080/14613808.2021.1965564>.

Ruprecht, K., Elicker, J. and Choi, J.Y. (2016) 'Continuity of Care, Caregiver-Child Interactions, and Toddler Social Competence and Problem Behaviors', *Early education and development*, 27(2), pp. 221–239. Available at: <https://doi.org/10.1080/10409289.2016.1102034>.

Scopelliti, M. and Musatti, T. (2013) 'Parents' View of Child Care Quality: Values, Evaluations, and Satisfaction', *Journal of child and family studies*, 22(8), pp. 1025–1038. Available at: <https://doi.org/10.1007/s10826-012-9664-3>.

Seland, M., Beate Hansen Sandseter, E. and Bratterud, Å. (2015) 'One- to three-year-old children's experience of subjective wellbeing in day care', *Contemporary issues in early childhood*, 16(1), pp. 70–83. Available at: <https://doi.org/10.1177/1463949114567272>.

Shin, M. (2015) 'Enacting caring pedagogy in the infant classroom', *Early child development and care*, 185(3), pp. 496–508. Available at: <https://doi.org/10.1080/03004430.2014.940929>.

Shin, M. and Partyka, T. (2017) 'Empowering infants through responsive and intentional play activities', *International journal of early years education*, 25(2), pp. 127–142. Available at: <https://doi.org/10.1080/09669760.2017.1291331>.

Simons, C. *et al.* (2022) 'Infant-toddler teachers' early adversity, current wellbeing, and engaged support of early learning', *Early childhood research quarterly*, 61, pp. 158–169. Available at: <https://doi.org/10.1016/j.ecresq.2022.07.001>.

Siu, T.S.C., Cooper, M. and McMullen, M.B. (2023) 'Country-specific narratives of the professional preparation of infant-toddler teachers in Hong Kong China, Aotearoa New Zealand and the USA', *Early years (London, England)*, 43(3), pp. 469–483. Available at: <https://doi.org/10.1080/09575146.2023.2232948>.

Slot, P.L. *et al.* (2015) 'Associations between structural quality aspects and process quality in Dutch early childhood education and care settings', *Early childhood research quarterly*, 33, pp. 64–76. Available at: <https://doi.org/10.1016/j.ecresq.2015.06.001>.

Slot, P.L. *et al.* (2023) 'Individual toddlers' interactions with teachers, peers, and the classroom environment in Danish and Dutch childcare: First validation of the inCLASS Toddler', *Learning and individual differences*, 107, pp. 102347-. Available at: <https://doi.org/10.1016/j.lindif.2023.102347>.

Sokolovic, N. *et al.* (2022) 'Assessing Quality Quickly: Validation of the Responsive Interactions for Learning - Educator (RIFL-Ed.) Measure', *Early education and development*, 33(6), pp. 1061–1076. Available at: <https://doi.org/10.1080/10409289.2021.1922851>.

Sumsion, J., Harrison, L.J. and Bradley, B. (2018) 'Building a knowledge base about the impact of early learning frameworks for infants and toddlers', *Early child development and care*, 188(6), pp. 651–664. Available at: <https://doi.org/10.1080/03004430.2016.1226294>.

Tadeu, B. and Lopes, A. (2023) 'Parental decision-making for a baby room in daycare centres: conceptions, motivations and influential factors', *International journal of early years education*, 31(4), pp. 1003–1017. Available at: <https://doi.org/10.1080/09669760.2022.2037074>.

Tebet, G.G. de C. *et al.* (2020) 'Babies' transition between family and early childhood education and care: a mosaic of discourses about quality of services', *Early years (London, England)*, 40(4–5), pp. 429–448. Available at: <https://doi.org/10.1080/09575146.2020.1825341>.

Tervahartiala, K. *et al.* (2024) 'Childcare context and socio-emotional development in toddlers - a quantitative report from the FinnBrain Birth Cohort Study, Finland', *European early childhood education research journal*, 32(1), pp. 71–85. Available at: <https://doi.org/10.1080/1350293X.2023.2234110>.

The Florida State University (n.d.) Centre for Prevention & Early Intervention Policy. *What is quality care for infants & toddlers?* <https://cpeip.fsu.edu/quality/quality5.cfm>

Torr, J. (2019) 'Infants' Experiences of Shared Reading with Their Educators in Early Childhood Education and Care Centres: An Observational Study', *Early childhood education journal*, 47(5), pp. 519–529. Available at: <https://doi.org/10.1007/s10643-019-00948-2>.

Traum, L.C. and Moran, M.J. (2016) 'Parents' and teachers' reflections on the process of daily transitions in an infant and toddler laboratory school', *Journal of early childhood teacher education*, 37(4), pp. 331–350. Available at: <https://doi.org/10.1080/10901027.2016.1241967>.

van Schaik, S.D.M., Leseman, P.P.M. and de Haan, M. (2018) 'Using a Group-Centered Approach to Observe Interactions in Early Childhood Education', *Child development*, 89(3), pp. 897–913. Available at: <https://doi.org/10.1111/cdev.12814>.

Vermeer, H.J. *et al.* (2010) 'Child care quality and children's cortisol in Basque Country and the Netherlands', *Journal of applied developmental psychology*, 31(4), pp. 339–347. Available at: <https://doi.org/10.1016/j.appdev.2010.05.001>.

Vermeer, H.J. *et al.* (2016) 'Quality of Child Care Using the Environment Rating Scales: A Meta-Analysis of International Studies', *International journal of early childhood*, 48(1), pp. 33–60. Available at: <https://doi.org/10.1007/s13158-015-0154-9>.

Viernickel, S. and Martin, M. (2023) 'Toddlers' social experiences and learning related behaviour in early childcare: a video-based observational study', *Early child development and care*, ahead-of-print(ahead-of-print), pp. 1–21. Available at: <https://doi.org/10.1080/03004430.2022.2099848>.



- White, E.J. and Redder, B. (2015) 'Proximity with under two-year-olds in early childhood education: a silent pedagogical encounter', *Early child development and care*, 185(11–12), pp. 1783–1800. Available at: <https://doi.org/10.1080/03004430.2015.1028386>.
- White, E.J. *et al.* (2016) 'First-year practicum experiences for preservice early childhood education teachers working with birth-to-3-year-olds: An Australasian experience', *Journal of early childhood teacher education*, 37(4), pp. 282–300. Available at: <https://doi.org/10.1080/10901027.2016.1245221>.
- White, E.J. *et al.* (2020) 'Expectations and emotions concerning infant transitions to ECEC: international dialogues with parents and teachers', *European early childhood education research journal*, 28(3), pp. 363–374. Available at: <https://doi.org/10.1080/1350293X.2020.1755495>.
- Williams, K.E. *et al.* (2023) 'Feasibility and initial psychometric properties of the observe, reflect, improve children's learning tool (ORICL) for early childhood services: A tool for building capacity in infant and toddler educators', *Australasian journal of early childhood* [Preprint]. Available at: <https://doi.org/10.1177/18369391231194374>.
- Workman, S. & Jessen-Howard., S. (2018) Understanding the true cost of child care for infants and toddlers. Center for American Progress. <https://www.americanprogress.org/wp-content/uploads/sites/2/2018/11/TrueCostITChildCare-report.pdf>
- Wysłowska, O. and Slot, P.L. (2020) 'Structural and Process Quality in Early Childhood Education and Care Provisions in Poland and the Netherlands: A Cross-National Study Using Cluster Analysis', *Early education and development*, 31(4), pp. 524–540. Available at: <https://doi.org/10.1080/10409289.2020.1734908>.
- Xie, W. *et al.* (2021) 'Need for and concerns about non-parental childcare programs for infants and toddlers in Hong Kong: Voices of parents', *Children and youth services review*, 131, pp. 106260-. Available at: <https://doi.org/10.1016/j.childyouth.2021.106260>.
- Zachrisson, H.D. *et al.* (2024) 'Universal Early Childhood Education and Care for Toddlers and Achievement Outcomes in Middle Childhood', *Journal of research on educational effectiveness*, 17(2), pp. 259–287. Available at: <https://doi.org/10.1080/19345747.2023.2187325>.
- Zero to Three. (2021, September 6) *Infants and toddlers child care fact sheet*. <https://www.zerotothree.org/resource/infant-toddler-child-care-fact-sheet/>  
Accessed 20/08/2024
- Zhang, M. *et al.* (2022) 'Socioeconomic status and caregiving sensitivity among Chinese childcare centre teachers: adaptive caregiving belief as a mediator and

childcare centre type as a moderator', *Early child development and care*, 192(16), pp. 2559–2572. Available at: <https://doi.org/10.1080/03004430.2022.2027398>.

Zhang, X. and Chan, W.L. (2019) 'Effectiveness of the SIME Program for Infants and Toddlers in Center-Based Settings', *Research on social work practice*, 29(6), pp. 644–662. Available at: <https://doi.org/10.1177/1049731518775218>.