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## ABSTRACT

Based on a review of 30 years of academic research on infant and toddler development, this report describes patterns of child development from birth to 3 years of age and examines the implications for Scottish out-of-home care. Developmental patterns are described for the following age groups: birth to 3 months, 3 to 12 months, 1 to 2 years, and 2 to 3 years. For each age group, requirements for out-of-home care are delineated, focusing on the consistency and quality of relationships, provisions for mixed-age and same-age play opportunities, and the importance of meeting needs for progression in relationships and activities. Contributions of out-of-home care when children have special needs are considered. Research findings on the effects of quality child care for infants and toddlers are summarized, noting that in a multicultural society, child care can play a central role in cultural transmission and social inclusion. Research-based characteristics and training desirable for caregivers of infants and toddlers are also delineated. The report concludes with a list of nine suggested sources for further reading. (KB)



# Insight 6

## Meeting the Needs of Children from Birth to Three: Research Evidence and Implications for Out-of-Home Provision

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# Meeting the Needs of Children from Birth to Three: Research Evidence and Implications for Out-of-Home Provision

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## Introduction

In 2001 the Scottish Executive Education Department (SEED) commissioned Professor Colwyn Trevarthen and a team of colleagues to review the research evidence on the development of children from birth to three years old, and to consider the implications of that evidence for the provision of care outwith the home. Incorporating the findings of 30 years of intensive academic research on the development of communication and thinking in infants and toddlers, the review provided an overview of the ways in which adults can contribute to children's development from the earliest stages, the kinds of adult attention and care that are beneficial and the characteristics of out-of-home provision that meets young children's changing needs. This Insight report offers an overview of the conclusions reached in the review, paying particular attention to the implications of the evidence for practitioners and policy makers.

We begin by considering what this evidence tells us about the developmental patterns of particular age groups and the kind of provision that will support well-being, companionship, shared understanding, and a sense of belonging, and facilitate development. This is followed by a more detailed look at practice that will support the development of children with specific needs. The features that, according to the literature, are necessary or desirable in general for out-of-home care for children from birth to 3 years old are considered next and the report concludes with a summary of the implications for practitioner training.

## What Do Children Need to Support Development? What Are the Characteristic Patterns of Development from Birth to Three Years Old?

### Children in their first year

Evidence collected by professionals and researchers has highlighted that infants *under three months* require constant human attention that is sensitive to their changing needs for holding, calm, comfort and feeding. They need bodily support and prefer to be held by another human body. Despite an initial preference for mother, they quickly learn to recognise their father or another regular caregiver. They are sensitive to and engage with the rhythms and expressions of human movement and to care which is responsive to their needs.

When they are *under three months* the development of infants is supported by provision where:

- adults can regulate the intensity of emotion experienced by the infant (calming or stimulating) by affectionately holding, touching and talking to them;

Companionship is an important quality in relationships with infants and young children. Can this be achieved when a number of different adults are involved with very young children?

How can practitioners identify a child's preferences and be sensitive to any shift in these over time?

In all-day provision how can the consistency and quality of relationships be achieved throughout the day?

- carers facilitate an active, purposive state of mind with the baby by mirroring their emotions and sharing attention to objects and people;
- each infant is cared for by one adult who becomes attuned to that child;
- consistent care is offered in a quiet, secure environment with opportunities for rest, immediate responses to distress or expressions of need and a familiar playful and companionable intimacy.

Between *three and twelve months* infants get increasing pleasure from moving expressively, from vocal play and song. Through interactive play these infants and their carers form relationships that are mutually attuned to rhythms and expressions of voice, face, touch and body movement. They enjoy showing others what they can do, smiling, frowning and enjoying and benefiting from praise and admiration. However, they rely on adults for the rituals of play and to 'scaffold' play with objects. Infants differ in their preference for particular types of activities. Some babies exhibit a preference for exploring the world around them and studying objects while others prefer sociable sharing of feelings and experiences.

Environments that support the development of infants between *three months and twelve months* are characterised by:

- adults who are attuned to the rhythms and expressions of the infant they care for and who enjoy developing this relationship through interactive play;
- carers who understand how to foster a child's interest in objects, their surroundings and social engagement with other people and who can recognise or respond to a child's preference for one or other of these different forms of learning;
- an emphasis on expressive play with caregivers (not largely reliant on toys or other material resources) in order to foster the child's disposition to learn in company;
- an understanding of the infant's developing self-esteem and pride in accomplishment, sharing unconditionally in the child's pleasure and pride and growing social confidence and relationships.

*SUMMARY: Out of home provision for infants under one year old requires:*

- consistent caregiving by one adult or a very small number of adults able to form a warm relationship with the child and to respond sensitively to the infant's changing needs and preferences and developing pride in achievement;
- minimising staff turnover and changes of carers;
- a focus on responding to infants as individuals with their own needs;
- communication about the changing ways and temperaments of babies with parents who know their own child, the carer and routines of the care environment well.

### **Children in their second year**

Between approximately *9 months and two years* old infants develop a shared understanding and memory that allows a growing capacity for symbolic coding of ideas and classification into categories. Along with a growing vocabulary they build a repertoire of gestures, behaviours and imitations. Schemas or habitual ways of acting and understanding also develop. During their second year infants can display great

pleasure when showing and talking about their discoveries and they enjoy imitating their peers. They are very sensitive to social manners and customs, making them more aware of differences among the members of social groups they experience. Research has also shown that at around 18-20 months children develop a new awareness of the meanings of others and can react emotionally to this, for example becoming fearful if misunderstood or confused by conflicting meanings in what people say or do. Similarly they can be disturbed by differences between the emotional relationships they experience at home and in out-of-home provision.

During this year children become more able to play imaginatively with company of different ages and can benefit from play with older children as well as peers. They need physical activity and freedom to explore what their bodies can do but can also enjoy pretend play in groups. Before they can use words infants communicate interest and pleasure in what they are doing non-verbally and use imitation to negotiate interests and form relationships (although individual children differ in sociability and willingness to lead or follow). They will respond to talk and action that aims to foster their natural sociability and concern for others.

<p>What kind of organisation is needed to provide for both mixed-age and same-age opportunities for play?</p>
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During their second year infants need caring environments that offer:

- opportunities to extend knowledge and understanding through intimate, consistent and confident relationships;
- structured adult-child conversations in the context of games that develop categorising and symbolic coding;
- talk between adults and children that considers the past, present and future and extends and shares imagination;
- an environment rich in things to explore, opportunities for physical movement, dance, song, rhyme, story telling and creative activities;
- a sensitive and flexible balance between encouraging children to express their thoughts and feelings and to reflect on discovery and what they know;
- encouragement to toddlers in pretend play in groups;
- care by adults who know the narrative style of the children they care for and the level of communication and language used by each child;
- sensitivity to differences in children's social and cultural backgrounds while encouraging regard for the culture and norms of the playroom;
- staff who are prepared to take a receptive and imitative part in children's projects;
- caregivers ready to respond positively to differences in children's temperaments and preferences;
- staff who attend to the development of pro-social behaviour as well as children's emotional well-being and learning.

*SUMMARY: Out of home provision for infants in their second year requires:*

- a consistent relationship with a care giver who knows the child's stage of cognitive, linguistic, social and emotional development well;

- adults who are ready and available to interact with children in talk, imitative behaviour, discovery and pretend play;
- a social environment rich in opportunities to develop language, symbolic coding and classifying, movement and engagement with music, rhyme and creativity;
- sensitivity to the social and cultural background of the child and opportunities for parents and caregivers to share their understanding of the child in their context.

### Children in their third year

Research has highlighted the impressive advances in social competence, co-operation, communication and language, as well as thinking and memory, that children make during this period. Between 24 and 36 months they become able to use drawings and story telling to express or represent their own inventions, discoveries and beliefs. They are naturally inventive, have wide-ranging interests and have an obvious pride in achievement that fuels their feelings of self-worth. However, they are beginning to appreciate more structured adult guidance and can follow adult leadership eagerly in creative games, can attend to stories and are beginning to acquire the literacy skills of their family and community. They can engage in discussions that are designed to foster moral development and thinking about their own thinking.

The development of infants in their *third year* is supported by:

- practitioners who are skilful at sharing and enriching children's narratives and creative representations, accepting the child's imaginative stories and products and acknowledging their pride in achievement;
- adults who offer leadership in creative games and encourage participation in expressive movement;
- story telling and an introduction to the culture of literacy and the tools and technology used to communicate;
- opportunities to make things, represent ideas in different media, play and discover alone or in groups;
- engagement in learning relationships and projects over extended periods of time without major interruption or disruption to either the relationships, routine or environment;
- practitioners who can identify what each child is ready to achieve or learn next with the help of an adult or older child (in their 'zone of proximal development') and support these new discoveries and attainments;
- talking and sharing that fosters moral development and thinking about thinking and feeling;
- adults who are sensitive to temperamental differences and to changes in a child's characteristic behaviour that suggest that s/he is experiencing difficulty and who are willing to work with other professionals when children need special attention;
- encouraging children to play imaginatively together but offering adult structure or guidance when it will be appreciated;
- practitioners who are sensitive to the way that each child feels about himself or herself, their sense of well-being, self-worth and their pride in achievement.

The huge development and progress of the first three years needs to be met by changing learning opportunities and types of interaction. How can practitioners provide for progression in relationships and activities?

Supporting young children's schema development can be an important way of planning for their needs. How can practitioners develop the observational skills required to respond to young children's interests, concerns and ways of seeing the world?

*SUMMARY: Out of home provision for infants in their third year requires:*

- opportunities to express and represent discoveries and learning in different media;
- imaginative and inventive play and discovery in groups, alone and with interested adults;
- adults who are aware of each child's stage of development in language, social competence, cognition and moral reasoning and who are able to share and lead the infant's discoveries and their participation in the world of older children and adults;
- attention to each child's sense of well-being, self-worth and pride in achievement.

## **What Can Out-of-Home Provision Contribute to the Care and Development of Children with Particular Needs?**

The evidence suggests that time in out-of-home provision might be beneficial for children with behavioural difficulties, where there is a stressful relationship between parents and toddlers or when parents perceive their child to be difficult. Support and advice for parents and sensitive care for children (developing communication and language, social relations, peer play and moral development) will be necessary to meet these needs.

Practitioners have an important role to play in identifying and working to overcome the difficulties that some children between 2 and 3 years old have with communication and language, although they may seek additional specific training to supplement their practitioner expertise. Similarly, staff in out-of-home provision have a role to play in alerting parents and other professionals to indicators of other special needs or syndromes such as deafness, autism or Attention Deficit Hyperactivity Disorder (ADHD). In the case of deaf or blind infants development depends on the intimacy of communication with parents and caregivers. Attachment may be unaffected if adult care is warm and sensitive. The way in which caregiver and infant communicate can foster the social responsiveness of autistic children and improvements in communication can result in changes across a range of behaviours and learning for toddlers diagnosed with ADHD. For premature infants early intensive intervention can promote cognitive development, helping to overcome any impairments in motor co-ordination, attention and learning. Children with Down's syndrome require interventions tailored to their particular skills and needs, especially their slow processing of visual information and slow language development. Carers should adopt a pace of interaction that matches the child's pace and can make skilful use of play to enhance the infant's responsiveness.

What support do practitioners need to work effectively with the families of vulnerable children?

When a mother is depressed, her communication style and negative affective tone have an immediate impact on an infant's emotional engagement and have consequences for subsequent development. Toddlers also withdraw from a depressed adult and this may weaken their relationship with the adult and their collaboration in play and learning. Infants and toddlers do vary in their resilience to a caregiver's depressed state but all are sensitive and the company of a sad or inattentive adult denies children the responsive partner that they need for satisfying interactions and learning. Time spent in out-of-home provision offers children whose mothers are depressed the opportunity to engage with adults who can tune into their communicative overtures and respond in a way that stimulates learning. But centres that offer out-of-home provision also have a role to play for depressed parents, supporting their recovery, modelling attuned relationships with infants and finding

ways to promote enjoyable companionship for parent and child. Practitioners should be aware that, like a depressed mother, a depressed member of staff might find it difficult or impossible to interact in a responsive manner with the children in her care.

How can the well-being and self-esteem of all staff be sustained so that they are at their most resourceful with children under 3 years old?

Children who have been abused may need specialist help to build confidence in relationships and in ways of communicating feelings and interests. Adapting to peer groups or a group care situation is difficult for maltreated children whose interpersonal skills are poor. The evidence attests to the importance of secure attachment relationships for behaviour patterns later in childhood and beyond, placing a responsibility on the childcare centre to ensure that provision is offered in a way that promotes secure and affectionate relationships between children and their caregivers. Good quality out-of-home provision is of course only part of a child's experience and the influence of a child's home environment on their development makes it important that childcare provision can be integrated with other social support services.

How can out-of-home care foster resilience?

*SUMMARY: For children with particular needs out-of-home provision can:*

- offer sensitive care to the child and support and advice to parents who have a difficult relationship with their child, whose child has behaviour difficulties or when a child's behaviour indicates difficulties at home;
- identify difficulties and support the development of children with autism and ADHD;
- offer a warm and sensitive communicative relationship to deaf and blind children;
- tailor interventions to meet the needs of premature infants and children with Down's syndrome;
- provide attuned, stimulating interactions with a consistent adult for children whose mothers are depressed and offer support to their mothers;
- give children with challenging family environments the experience of a secure relationship with a caregiver and draw on other social support services for their families.

How can provision for children under 3 years old promote the development of care in the family and community?

## **What Does the Research Evidence Tell Us about the Characteristics of Good Quality Out-of-Home Provision for Children Aged 0-3 Years Old?**

The review has highlighted that there are no universal principles about childcare that apply in all circumstances. However, cross-cultural research indicates the benefits of thoughtful and affectionate responses to young children's innate enthusiasm for companionship in learning and their pride in sharing accomplishments. Indeed, failure to meet a child's need to form companionable and responsive relationships with carers can have a negative impact on development, with sometimes lasting effects on their well-being and motivation to learn. Infants need consistent and affectionate company and good quality care depends, therefore, on stable and intimate relationships with carers who know each child well. A strong, mutually supportive relationship between the family and care setting is another important characteristic of beneficial out-of-home provision. Furthermore, in a multi-cultural society childcare can have a central role in cultural transmission and social inclusion, a position that requires careful and respectful communication between parents and caregivers.

How can parents and out-of-home carers create mutual trusting relationships in the interests of young children?

Provision that focuses on the processes of learning, discovery and creativity (all supported by warm relationships with carers) and that avoids being prescriptive or based on generalised rules about instruction or outcomes is most likely to have positive results.

A subject or knowledge-based curriculum does not meet the needs of children less than three years of age. They learn through their relationships with adults and peers, opportunities to develop their communicative and expressive skills and making discoveries through independent actions and play with others.

The quality of out-of-home care can have measurable effects on pre-school children's attention, affection, communication, language, co-operation, timidity and aggression with adults and with peers. Evidence about the impact on children's social, emotional and cognitive development of care out of the home or in the home is ambiguous but good quality settings do appear to be an effective resource for children from difficult or at-risk backgrounds. High quality childcare for children under three years old is expensive (with higher capital and staff costs) but the evidence suggests that it can be 'cost effective' if it results in more positive experiences and outcomes for vulnerable children.

Practitioners are a key component in high quality out-of-home provision. Their personal characteristics and self-confidence, ability to establish and sustain affectionate and sensitive relationships with the children in their care and mutually supportive relationships with the families of those children are influential features of the child's experience.

### **What Does Research Evidence Tell Us about the Characteristics and Training Desirable for Practitioners Who Care for Children Less Than Three Years Old?**

Practitioners are the most important resource in out-of-home provision for children less than 3 years old. Practitioners should:

- be able to 'tune-in' to each infant or toddler as they share and learn, matching the child's communication pattern and interests and meeting the infant's crucial need for companionship;
- develop an understanding of the effects of their communications (including disciplinary interventions) on the children and build a repertoire of communication styles that adapts to the context, child and task;
- understand the ways in which the experience of day care interacts with a child's temperament and motivation, cultural differences (including those related to age and gender differences) and family characteristics;
- have opportunities to reflect (with others) on their practice, articulate the implicit theories that guide their practice, consider ways of implementing in their context generalised prescriptions for practice, learn about evidence-based understandings of children's learning and development and be aware of their own values, beliefs and their construction of the child and childhood;
- be offered initial and in-service training and coaching that stresses the kind of social, responsive, creative learning and discovery that infants are capable of with the support of attuned adults and, later, the company of peers;
- understand how to guide opportunities for play with other children and how and when children of the same or different ages can learn and play together;
- find ways of sharing their knowledge of the child in their care with his or her parents and of learning about the parents' perspective on the child at home;

Curriculum suggests a course of study and is an inappropriate word to use in relation to very young children. How can we best describe interactions that support learning in infants?

What help is available to practitioners as they seek to meet the wide range of needs amongst children, including those with special needs?

What is the relationship between training of staff and quality of provision?

- be aware of differences in culture and values between children's families and their caregivers and settings and of different expectations about relationships that may pose initial difficulties;
- know how to protect the parental relationship with the child and the child's relationship with other family members;
- be able to recognise and respond to signs of family stress or difficulties in coping with an infant that are influencing the child's well-being;
- recognise that not all adult-child pairings 'work' and be willing to make changes for the benefit of individual children.

### Further Reading

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Zero to Three Forum [www.zerotothree.org](http://www.zerotothree.org)

For further information about the research please contact John Galilee of SEED Research, Economics and Corporate Strategy Unit (email [John.Galilee@scotland.gsi.gov.uk](mailto:John.Galilee@scotland.gsi.gov.uk)).

The full report, the *Review of Childcare and the Development of Children aged 0-3: Research Evidence and Implications for Out-of-Home Provision*, is available on the RECS web site: [www.scotland.gov.uk/insight/](http://www.scotland.gov.uk/insight/)

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