

**Service Trends and Practitioner Competencies in Early Childhood Intervention: A  
review of the Literature**

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## Background

The purpose of this paper is to survey the literature on current and emerging best practice in the provision of Early Childhood Intervention Services (ECIS). The first part of the paper provides a review of themes, priorities, and approaches used within current and emerging ECIS practice. The second part presents a number of leading models of the competencies required of practitioners in this field, and summarises the overarching skill sets reflected across these models. Of note, the paper is not intended to be an authoritative review of the complete set of literature on current best practice in ECIS. Rather, it provides a summary of major trends and practices to support effective sector-wide workforce planning, including targeted staff recruitment and the development of clear learning pathways for practitioners. For the purpose of this paper the term 'practitioner' refers to any professional or para-professional working in ECIS. This includes, but is not restricted to, Occupational Therapists, Physiotherapists, Speech Pathologists, Psychologists, Social Workers, Early Educators, Family Service Coordinators and Family Key Workers.

A number of search strategies were utilised for the literature review. These included an examination of:

1. existing literature surveys (e.g., Scope, 2004; Moore, 2008a),
2. a representative sample of research papers as identified through literature databases (e.g., psychINFO) and,
3. published and web-based resources from leading organisations, both nationally and internationally (e.g., CanChild, The Centre for Community Child Health), engaging in research in the field.

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## Trends in Early Childhood Intervention Services

The first part of the paper provides a review of themes, priorities, and approaches used within current and emerging ECIS practice. While there is a plethora of research covering ECIS practice, the discussion in this section is restricted to three overlapping areas (a) how ECIS practitioners work with children and families, (b) the evidence for different intervention approaches and, (c) the structure and function of service delivery systems. Although not always grouped in the same manner, these areas are consistently identified in existing literature reviews (e.g., Scope, 2004; Moore, 2008a) as being amongst the key trends in future ECI services. Additionally, each of these areas is critical to the question of practitioner competencies in ECI, which is the subject of the second part of this paper.

### Working with children and families

A key theme in working with families that emerges from the literature is the move towards family-centred services, while a closely interrelated theme is the increased emphasis on the importance of relationships between the family and the practitioner (Scope, 2004). For many years, early childhood researchers have spoken of the importance of *family centred practice* in achieving meaningful outcomes for children and their families. Yet despite the prominence of this concept, there appears to be no single, accepted definition. Furthermore, a range of terms such as family centred service, family-focussed and family-based practice are used to describe similar concepts, and at times, are used interchangeably.

On review of the literature, it would appear that Law et al. (2003; cited in Scope, 2004) provides one of the most comprehensive definitions:

“Family centred service is made up of a set of values, attitudes, and approaches to services for children with special needs and their families. Family-centred service recognizes that each family is unique: that the family is the constant in the child’s life; and that they are the experts on the child’s abilities and needs. The family works with service providers to make informed decisions about the services and supports the child and family receive. In family-centred service, the strengths and needs of all family members are considered.” (p.6)

Although other models and descriptions of family centred practice place varying emphasis on the elements referred to by Law and colleagues, there is general consensus that recognising the strengths and capabilities of families is an essential element (Scope, 2004). Families are viewed as having the knowledge and resources they need from within themselves, their family, their personal networks and communities to enable them to achieve their goals (Scope, 2004).

Along these lines, Dunst and Trivette (1996) propose a continuum of service models ranging from professionally-centred through to family-centred. They propose that quality ECI services need to be positioned at the family-centred end of the spectrum, the key features of which include:

- Families are viewed as fully capable of making informed choices and acting on their choices,
- Professionals view themselves as agents of families who strengthen existing skills and promote the acquisition of new skills, and,
- Interventions emphasise capacity-building, resources and support.

To work in this way, practitioners must explore the needs and desires of all family members without leading or influencing them. However, this should not be taken to imply that family centred practice is merely 'giving the family what they want'. Rather, a more accurate picture of the relationship between families and professionals is outlined by the US Council for Exceptional Children (2000; cited in Scope, 2004). As part of their developed set of *Recommended Family-Based Practices*, they emphasise that family members and professionals share responsibility and work collaboratively to:

- Jointly develop appropriate family-identified outcomes,
- Share information routinely and collaboratively to achieve family-identified outcomes, and
- Ensure parents are provided with full and appropriate information to enable them to make informed choices and decisions.

To achieve this type of partnership it is essential that the relationship between families and practitioners is open, honest and respectful. The importance of this relationship in achieving the desired outcomes for children and families cannot be underestimated. As described by Barnes (2003; cited in Moore, 2008a):

"if a reasonably satisfying therapeutic relationship cannot be established between intervenor and client, then the duration or intensity of an intervention program may be of little consequence. The same applies if the intervention model fails to match the parent's needs; if the parent is not involved in the decision-making or disagrees with any prescribed program goal/outcomes" (p.12).

This would indicate that practitioners need to put as much energy into developing and maintaining positive relationships with all family members as they put into planning for their 'therapeutic' involvement with a child and family. That is, *how* something is done is as important as *what* is done.

## Intervention Approaches

Similar to most human services sectors, there has been an increasing emphasis on the use of evidence-based interventions and approaches as opposed to traditional methods of service delivery (Moore, 2008a). With a limited evidence base for many interventions, the early childhood sector relies heavily on 'practice-based evidence.' Buysse and Wesley (2006; cited in DEECD, 2008b) describe it in this way:

“evidence-based practice is a decision-making process that integrates the best available research evidence with family and professional wisdom and values. It is not solely reliant upon research evidence, but is a balance of scientific proof, professional and family experience, and core values and beliefs.” (p.29)

It is now understood that children with developmental delays and disabilities do not necessarily follow the typical developmental sequence, nor is direct intervention with a child seen to be the best way to achieve the desired outcomes (Moore, 2008a). These realisations have a significant impact on the perceived role of the ECI practitioner.

When thinking more broadly, the literature highlights a number of key themes relating to intervention approaches. These include:

- The impact of family, environmental and community factors on child development, and how this influences choice of intervention approaches,
- Use of functional assessment, goal-setting and outcome measurement tools to guide intervention,
- The growing evidence base for the use of supported inclusion in mainstream settings as a key method of intervention, and,
- The use of community capacity building approaches as a form of intervention.

Each of these themes is discussed in succession.

### *The impact of family, environmental and community factors*

Moore (2008a) describes childhood development as being highly dependent on the unique features of the child, their family and surrounding communities. Moore goes on to suggest that child development is “the result of a dynamic reciprocal action between the child’s biological and intrapersonal characteristics on the one hand, and family and community factors on the other” (p.2).

This concept is consistent with the International Classification of Health and Functioning (ICF; World Health Organization, 2009), which views disability as a combination of the physical factors (ie. physical functioning, activity limitations) and more broad contextual factors (ie., daily participation, community and personal factors). Through its structure, the ICF emphasises the impact of environmental and community factors on the person's perceived and/or experienced level of disability.

The growing acknowledgment of complexity in the factors affecting child development would suggest that there are no 'usual' or 'standard' procedures for ECI practitioners in their work with children and their families. Instead, practitioners must constantly reflect on their practice in every situation to ensure it is meeting the unique needs of the situation. In a project on competencies for ECI practitioners, ECIA (2007) supported this notion, identifying that skilled practitioners think in terms of 'options' rather than 'procedures', and are constantly seeking alternatives and innovative options for the family to explore.

Whilst Shonkoff (2003) agrees that community factors impact on a child's development, he feels that the most significant influence on a child's development is the health and well-being of the parents. This would suggest that effective support for a child's development may have little to do with direct intervention with the child, and more about supporting the healthy functioning of the family.

In order for practitioners to support the functioning of children and families, it is essential that they take into account the social, emotional, economic and cultural needs of each family, and tailor any interactions and interventions accordingly. A service or combination of services and supports that are effective in achieving the desired outcome in one family may be of little usefulness for another family. Careful consideration of a family's urgent needs and priorities must be taken into account. Barnes (2003; cited in Moore, 2008a) states:

"If the parent is so overwhelmed by urgent and basic needs such as housing or food that this crisis prevents any focus/engagement with the content of the intervention then their capacity for engagement will be limited, even if they are assisted by strategies such as transport" (p.12).

#### *Use of functional assessment, goal-setting and outcome measurement tools*

Authors recognise that the use of norm-referenced developmental assessments for children may not provide a clear picture of a child's abilities (Moore, 2008a). There has been a shift towards the use of functional or 'authentic' assessment approaches in natural learning environments. Authentic assessment aims to take into account the contextual factors influencing a child's performance, and can be described as the "systematic recording of developmental observations over time about the naturally occurring behaviours of young children in daily routines by familiar and knowledgeable people in the child's life." (Bagnato & Yeh Ho, 2006; cited Bagnato, 2009) Information gathered in this type of assessment provides meaningful information that an ECI practitioner can then use to support the setting of goals.

Given the intricacy of the relationship between a child's development and family and community factors, there has been increased attention to the use of more sensitive and meaningful goal-setting tools and outcome measures. Traditional tools such as gross and fine motor or language developmental assessments are not always suitable in terms of covering the breadth of issues facing families. A range of other goal-setting and outcome tools that allow for more complex and functional goals are increasingly being used. One such tool is the Goal Attainment Scale (GAS; King et al., 1999), which allows practitioners to set functional goals that take the environmental context into account. Although this tool has been in existence for some time, it is not as widely used in ECIS programs as its' potential would suggest. For older children, tools such as the Canadian Occupational Performance Measure (COPM; Law, et al., 2005) can allow for exploration of functional tasks and participation factors, and can be used for re-assessment of performance over time. Tools such as the GAS and the COPM allow for collaborative goal setting across a range of life domains, in a way that ensures goals are meaningful and valid to families.

#### *Supported inclusion in mainstream settings*

There is a long and well-established trend in the Early Childhood sector towards the inclusion of children with additional needs into mainstream services. Noah's Ark (2006; cited in DEECD, 2008b) propose a definition of inclusion:

"Inclusion is the active participation of children with and without additional needs in the same early childhood programs and community settings. Inclusion is not just children with exceptional needs *attending* mainstream programs, but involves such children being meaningfully engaged in and participating in program activities" (p.24).

Following the move towards inclusive environments there has been significant growth in the provision of specialist services and interventions in typical childhood and community settings. This is commonly referred to as the use of *natural learning environments*, and there is a growing base of evidence to support this approach as a way of optimising the teaching and practice of daily functional skills for children (Moore, 2008a). Hanft and Pilkington, (2000; cited in DEECD, 2008b) state that:

"No infant or toddler needs physical, occupational, or speech therapy twice per week in order to grow and develop. What young children need is exposure to communication, mobility, play, gradual independence in activities of daily living, and nurturing interaction with family members, everyday, in their usual places and situations. Therapists, using their therapeutic expertise as the means to this end, can help young children and family members achieve their desired outcomes" (p.39).

In an attempt to ensure early childhood settings are able to successfully include and support children with additional needs, the sector has seen the introduction of the concept of 'universal design' (Moore, 2008a). The Council for Exceptional Children (1999; cited in DEECD, 2008b) outlines what this involves:

"In terms of learning, universal design means the design of instructional materials and activities that makes the learning goals achievable by individuals with wide differences in their abilities to see, hear, speak, move, read, write, understand English, attend, organize, engage, and remember" (p.19).

Through embracing this concept, all early childhood programs, both mainstream and specialist, can provide adequately for children of all abilities.

The move towards the use of inclusive natural learning environments supports a move to services being offered at home, in child-care and kindergarten settings, and other settings such as local pools, libraries and playgrounds. Practitioners find themselves supporting child-care and kindergarten teachers as a core part of their work. As children get older, practitioners also frequently support community organisations such as sporting groups, recreational groups (e.g., Scouts) and other community centres (e.g., pools) to provide adequate resources and supports to ensure children with additional needs are able to participate.

#### *Community capacity building approaches*

When utilising natural learning environments in their work with children, ECI practitioners are frequently presented with opportunities to build the capacity of individuals and organisations in the community. Sometimes these opportunities to build capacity relate directly to the provision of services for a child. e.g., showing a kindergarten assistant how to communicate with a child who uses alternative communication. Sometimes the opportunity is not related to a specific child at all, but instead relates to the ability of the person or organisation to include and support any child with an additional need. e.g., presenting to child-care centre staff on the benefits of inclusion for children and the community.

A question is raised; should community capacity building be viewed as a core role of the ECI practitioners' work? The Outcome Statements for Early Childhood Intervention Services (ECIA, 2005) state the following desired outcomes for communities:

- Communities will have a range of service options and facilities to respond to emerging needs of families in supportive ways,
- Communities will know how to, and be able to respond to the needs of all individuals and families,
- Communities will value all members, and,
- Communities will be inclusive, providing for diversity, access and quality services for all families.

In view of these desired outcomes, it would appear that the ECI practitioner has a key role in influencing and educating communities to be more inclusive of children with additional needs. As stated in this document, “Outcomes can go beyond transition and inclusion for families, to the broader promotion of positive community attitudes” (ECIA, 2005, p.9).

### **Structure and function of Service Delivery Systems**

In any sector service systems must be responsive to change, modifying their structure and function to ensure they remain relevant and efficient. Many authors (DEECD, 2008b; Moore, 2008a) comment on the need for restructure or realignment of ECIS systems. Some broad themes in the literature relating to this area include:

- Integration of specialist services within a platform of universal child and family support services,
- Changing emphasis from service outputs to service outcomes,
- Exploration of transdisciplinary and key worker service models, and,
- Move from direct service provision to consultative services.

A discussion of each of these follows.

#### *Integration of services*

With ECI practitioners taking a more holistic view of the child and family unit, and with families presenting with more diverse issues, it becomes apparent that the provision of therapy-related services in isolation may be a simplistic and inadequate approach. An analysis of the literature undertaken by the Department of Education and Early Childhood Development (DEECD, 2008a) suggests that there is now general recognition both nationally and internationally that child and family support service systems need to be restructured to meet all needs of families.

Whilst there are numerous descriptions in the literature of what is meant by ‘integrated services’, the UK Government, through the *Every Child Matters* initiative (cited in DEECD, 2008a) provides the following description that appears both accurate and succinct:

“the key feature of an integrated service is that it acts as a service hub for the community by bringing together a range of services, usually under one roof, where practitioners work in a multi-agency way to deliver integrated support to children and families” (p.5).

The emphasis here is on the breadth of services. ECI services are not always able to provide for all the needs of families, as it is unrealistic to expect ECI practitioners to have the resources and knowledge required to meet needs such as housing, transport, finances, employment, mental health, marital problems and citizenship issues. (DEECD, 2008b) Improved service integration allows for rapid cross-referrals to ensure all needs are met. A range of other perceived benefits of service integration have been identified (DEECD, 2008a):

- greater convenience, with reduced travel time and number of appointments for families,
- reduced need for parents to 'tell their story' to multiple services,
- clearer identification of service gaps,
- tailoring of locally provided services to meet specific community needs, and,
- economic benefits relating to more efficient use of resources.

Despite a lack of research evidence for the benefits of integrated services, there appears to be an emerging consensus amongst government and peak bodies that this approach will produce a range of better outcomes for children, families and early childhood services (DEECD, 2008a). However, Moore (2007; cited in DEECD, 2008a) suggests a degree of caution in this regard, noting that the integration of services is an approach by which intended outcomes and aims are achieved, rather than an outcome in and of itself. He states:

“If we are trying to make positive changes in child and family functioning, then the integration of early childhood and family support services is a means to an end, not an end in itself – integration is a strategy to achieve improved outcomes for children and families” (p.9).

#### *Focus on service outcomes*

Where the provision of service (e.g., service output) was once seen to be a measure of performance in the ECI sector, funding bodies and ECIS agencies are now beginning to focus on the service *outcomes* for the child and family (Moore, 2008a). Whereas outputs are the services and activities agencies deliver, an outcome is a change resulting from agency outputs, measured in terms of quantity (e.g., number of families accessing respite services) as well as subjective and qualitative (e.g., increase in self-confidence, better ability to cope positively with stress) indicators of change.

The Outcome Statements for Early Childhood Intervention Services (ECIA, 2005) propose that:

“if families and service providers ‘start with the end in mind’ and are clear about what the desired outcomes are, it is more likely that those outcomes will be achieved. Families and service providers will be in a better position to choose the best strategies to meet those outcomes” (p.2).

The Outcomes Statement goes on to describe the intended outcomes of ECI services in the domains of functioning and participation for children, families and communities (see ECIA, 2005, for further information).

The challenge here is not only in terms of determining what service outcomes will create positive and meaningful change for children, families and communities, but also how this change can be measured. Whilst it is not in the brief of this literature review, it is worth noting that the use of measurement tools to assess the impact of ECI services is an area for further exploration and research.

#### *Transdisciplinary and key worker service models*

The terms inter-disciplinary and trans-disciplinary are increasingly being used to describe models of service in the ECI sector. Like many new or complex concepts there is not an accepted definition of these terms. Briggs (1997, cited in DEECD, 2008a) conceptualises the various professional discipline models in the following way:

- *Unidisciplinary teamwork* – one professional or one professional discipline attempts to serve all the needs of the family and child
- *Multidisciplinary teamwork* – several professionals or professional disciplines work in parallel to meet the needs of the child and family, with limited interaction and exchange of information and expertise
- *Interdisciplinary teamwork* – several professionals or professional disciplines coordinate their services to the child and family, but with limited crossing of disciplinary boundaries
- *Transdisciplinary teamwork* – several professionals or professional disciplines provide an integrated service to the child and family, with one professional acting as a conduit of services for the team

With respect to the transdisciplinary approach, Davies (2006) describes this in another way. He states, “transdisciplinary teams share roles, crossing disciplinary boundaries to maximise communication, interaction and cooperation among members. Team members make a commitment to teach, learn and work together across disciplinary boundaries to implement coordinated services” (p.3).

The key worker model has some similarities, with the key worker acting as the main point of contact for families. This person collaborates with professionals from their own and other services, and ensures that access to and delivery of services from the different agencies and professionals is coordinated (CanChild, 2005). The distinction between the key worker and transdisciplinary models appears to be that where there is minimal sharing of clinical skills and expertise in the key worker role, this is seen to be a fundamental element of the transdisciplinary role. McGonigel and colleagues explain this in the context of 'shared meaning':

"The major element that distinguishes the transdisciplinary model from all others is shared meaning. Team members who have shared meaning not only understand their own disciplines but understand and appreciate the terminology and basic principles of the other disciplines. They understand how the family and each discipline contributes to the child and family's development" (McGonigel et al., 1994; cited in Davies, 2006, p.3).

It would appear from the literature that a transdisciplinary team approach is widely accepted as the best practice approach in ECI services, as evidenced in the following statements:

"The transdisciplinary team model is widely recognised as best practice for early childhood services.....it is the model that best meets the needs of families who have children with complex needs and therefore have many disciplines involved as it provides an integrated and coordinated service for the family. (Davies, 2006. p.3)

"If the complex needs of families today are to be met, a coordinated and coherent approach is necessary. This approach requires new ways of working that are neither multidisciplinary nor interdisciplinary but are trans-disciplinary" (Carpenter, 2005, p.31; cited in Davies, 2006).

"Transdisciplinary teamwork is the preferred model in early childhood intervention services" (DEECD, 2008a, p.7)

Despite the apparent acceptance of transdisciplinary practice in the disability sector, it seems there is little research to evaluate the effectiveness of this approach in achieving positive outcomes for children and families. Without an evidence-base to support it, advocates for the use of this approach rely on qualitative descriptions of the benefits. Kilgo et al., (2003) offers the following:

"The transdisciplinary approach is recommended because it: 1) prevents the fragmentation of services along disciplinary lines, 2) avoids duplication of services, 3) views the whole child's development as integrated, and 4) emphasizes the importance of the family as equal, contributing members of the team."

There is some evidence to support the use of a key worker model, with studies showing that this approach promotes parental engagement and empowerment, and improved relationships between the family, services and professionals (CanChild, 2005). Some would suggest that this benefit could be extrapolated to the transdisciplinary service model, as it also promotes the development of a stronger relationship between the family and one ECI practitioner.

### *Consultative service delivery*

Although it may seem that a move towards consultative rather than direct service approaches is likely to be financially driven, the provision of this type of service is aligned with many of the concepts discussed thus far. Consultative approaches can be viewed as being family centred, with practitioners taking a role in sharing knowledge and skills with parents and others rather than fulfilling a more traditional professional 'hands on' role. Moore (2008a) recognises that "the trend toward more inclusive, coordinated, comprehensive, family-centred services within community settings has required a reconceptualisation of the early interventionist from direct service provider to indirect service provider, with a flexibility to assume multiple roles" (p.4).

### ***Summary of Trends in ECIS***

The literature presents a picture of constantly evolving philosophies and practices in the ECIS sector. Approaches such as those described through family centred, strengths based and inclusive practices are now widely accepted, although implemented to varying degrees across ECI services. There appears to be some adoption of concepts such as universal design in mainstream childhood settings and the use of key worker and transdisciplinary models, however this is inconsistent across the literature reviewed. Finally, the role of ECI practitioners in building the capacity of communities to be inclusive of people of all abilities is not yet clear. There appears to be significant potential in this concept, and is thus an area that warrants further exploration.

## ***Practitioner Competencies in ECIS***

The previous section summarised key themes, priorities, and approaches used within current and emerging ECIS practice. With this as a backdrop, the second part of this paper provides a review of existing models of core professional or practitioner competencies in ECIS. The purpose of this section is to draw out the commonalities between current competency models and present a view of the overarching skillsets essential for working in ECIS. Furthermore, through a comparison of these skillsets with the emerging trends in ECIS, it is possible to identify any areas that require strengthening in the current understanding of core practitioner competencies.

Many authors have invested effort into exploring the core competencies required by ECI practitioners (CCCH, 2003; Dunst & Trivette, 1996; Stayton & Bruder, 1999). These competency models present information in a variety of ways. Some authors (CCCH, 2003; Greco, Sloper, Webb & Beecham, 2007) group competencies into areas of knowledge, skills, values, behaviours or attitudes, while others (Dunst & Trivette, 1996) provide groupings of technical or generic competencies. Some authors concentrate only on the competencies required in a specific area, such as the work completed by Stayton & Bruder (1999) on cultural competencies.

The following section presents a number of leading models of competencies for ECI practitioners. After this an analysis of the information will be offered, comparing and contrasting different models and also identifying any gaps that exist.

### **Core Competency Models**

The Centre for Community Child Health (2003) in the *Final Report on Research to Inform the Development of a Capacity Building Program* identified nine knowledge and seven skills areas essential for all ECI practitioners.

The *nine knowledge areas* proposed are as follows:

- Understanding the core principles of child development and the key developmental tasks faced by young children and their implications for practice,
- Understanding the cumulative effects of multiple risk and protective factors and the developmental implications of the balance between them,
- Understanding what conditions and experiences are known to have adverse effects on prenatal and early child development,

- Understanding what conditions and experiences are known to have positive effects on prenatal and early child development,
- Understanding the factors that support or undermine the capacity of families to rear young children adequately,
- Understanding the features of the family's immediate environment that are important for family functioning and young children's development and well-being,
- Understanding what features and qualities of communities help or hinder families in their capacity to raise young children adequately,
- Recognising the core needs that all children and families have in common, and how to provide inclusive child and family services,
- Understanding the particular backgrounds, experiences and needs of children and families in exceptional circumstances or with additional needs.

In addition to the above knowledge areas, it is proposed that the core curriculum for those working with young children and families include the following *seven skill areas*:

- Understanding the features of effective evidence-based service delivery and being able to deliver such services,
- Recognising the importance of coordinated service delivery to families and possessing the skills of interdisciplinary teamwork and interagency collaboration,
- Possessing the skills to work effectively with infants and toddlers, and to help them master the key developmental tasks they face,
- Knowing how to identify emerging child needs early, and how to address them,
- Knowing how to manage children's health needs, eating behaviours, and exercise needs appropriately,
- Knowing how to provide environments and relationships that are safe for young children,
- Possessing the skills to work effectively with parents and families.

Klein & Campbell (1990; cited in CCCH, 2003) identified a set of similar knowledge and skills for ECI practitioners. They suggest that early intervention workers should have knowledge of:

- development of typical infants and young children,
- development of atypical infants and young children including those with sensory, motor, cognitive and socio-emotional disabilities,
- function and structure of families, family dynamics, and the role of families in promoting development,
- roles and responsibilities of early intervention personnel, including team and interagency collaboration, service coordination and advocacy.

They also suggest that early intervention workers should have the skills to:

- assess infant, child, and family needs,
- demonstrate use of effective intervention strategies, and apply current thinking in early intervention and preschool programs,
- create developmentally appropriate learning environments, using strategies to adapt environments, activities, and materials to the needs of atypical children,
- collaborate with parents and professionals in the design and delivery of services,
- perform service co-ordination (case management) responsibilities jointly with families.

Hornby (1994; cited in CCCH, 2003) similarly describes a range of essential areas of knowledge and skills, but additionally describes a number of attitudes required for practitioners to work effectively with families:

**Knowledge:** Professionals need to be knowledgeable about:

- The process which parents typically experience in coming to terms with their child's disability,
- The dynamics of families of children with disabilities and of the various factors both inside and outside families which influence their functioning,
- The likely effects of the disability on various members of the family, including siblings and grandparents,
- The various sources of additional finance (including government benefits) which are available to parents,

- The range of services which are available to parents and the agencies which provide them (including parent support groups),
- The different reactions to disability typical of different ethnic and cultural groups.

**Skills:** The key skills required by professionals to work effectively with parents include:

- Basic listening and counselling skills,
- Assertion skills for communicating effectively with parents and for collaborating with colleagues,
- Group leadership skills (for running parent groups),
- Skills for empowering and enabling parents,
- Skills for mentoring less experienced colleagues.

**Attitudes:** The attitudes which professionals require to work effectively with parents include:

- Genuineness in their relationships with parents,
- Respect for parents and for their views and values,
- Empathy with parents,
- Hopeful but realistic views about the likely progress of the children they work with.

In a report from interviews with parents of children with disabilities, Greco et al., (2007) identified a set of *characteristics of a good key worker*. While these characteristics are grouped under similar headings to previously mentioned models, there are some differences in the description and interpretations of the competencies from a parents' perspective.

### **Knowledge**

- Knowledgeable, informed and knows where to find the information necessary about local services,
- Knows what it is like to have a child with a disability.

### **Skills**

- Organised,
- Able to chair a meeting and speak on parents' behalf at meetings,
- Able to liaise between different services, agencies,
- Able to communicate information at different levels to families and to professionals,
- Is good with the disabled child .

### **Professional characteristics**

- Includes the whole family,
- Available at the other end of a phone,
- Treats all that is said as confidential,
- Is respected by other professionals,
- Contacts the family regularly,
- Is persistent,
- Treats the family like experts on their child.

### **Personal characteristics**

- Friendly, approachable,
- Compassionate, caring, enthusiastic,
- Has tact, diplomacy,
- Listens and is not judgemental,
- Is respectful of the family.

The parent perspective is also provided through the St Lukes Innovative Care poster titled '*What makes a Good Worker*' (Innovative Resources). This poster describes the characteristics of a 'good worker' in human services under seven headings. A brief summary follows.

#### ***Good workers:***

- **Listen:** workers genuinely listen and try to understand. They remember things and help you to clarify how you are feeling.
- **Don't jump to conclusions:** workers assume parents are doing the best they can, and do not make generalisations or judgements. They are aware of everything else that is happening in the family.
- **Explain things:** workers don't walk in and take over, they explain everything in a way that is easy to understand. Workers tell you what they can and can't do.
- **Don't plan things for you:** workers help you identify your goals and make your own plans; they don't tell you what to do. They help you see what needs to be done and what the different options are.

- **Come to help:** workers let you try things for yourself, but help if want them to or if you make mistakes.
- **Follow-up:** workers are reliable and keep appointments. They follow-up even when they're not involved anymore.
- **Are professional:** workers share their experiences, but don't let their personal problems interfere. They remain professional but human.

Dunst & Trivette (1996) are well-known for their work in this area, taking the view that competencies can be presented as a combination of three elements of effective help-giving rather than as a set of knowledge and skills:

**Technical knowledge and skills.** This refers to the help-giver's specialist knowledge and skills. High quality technical knowledge and skills result in the implementation of appropriate educational, therapeutic and medical interventions.

Help which is technically of a high quality but which does not incorporate the other two elements can have positive outcomes in one area (e.g., in the child's health) but negative outcomes in others (e.g., parental resentment and disempowerment as a result of the manner in which the services are delivered).

**Help-giver behaviours and attributions.** Help-giver behaviours which positively influence psychological well-being include good listening, empathy and warmth. Help-giver attributions that have positive outcomes include beliefs in the person or family's competences and capabilities. Positive help-giver behaviours and attributions result in (a) greater parental satisfaction with and acceptance of helping, and (b) greater psychological and emotional well-being.

Help-giving behaviours and attributions are a necessary but not sufficient condition for strengthening family competencies and developing new capabilities. To achieve that, the third element of effective help-giving is necessary.

**Participatory involvement.** This entails the recipients of help being offered information about intervention options, sharing decision making, and being directly involved in acting on decisions. Effective participatory involvement results in (a) parents feeling more in control, and (b) strengthening of parental competencies.

All three elements need to be present for help-giving to be truly effective. According to Dunst and Trivette, the helpgiving and participatory involvement elements cannot be faked. They state, "Research indicates that help receivers are especially able to "see through" helpgivers who act as if they care but don't, and helpgivers that give the impression that help receivers have meaningful choices and decisions when they do not" (Dunst and Trivette, 1996, p. 337).

Closely linked with this idea of effective help-giving, Davis, Day and Bidmead (2002; cited in Moore, 2005b) propose a number of values or qualities that are essential for effective work with families.

**Respect:** withholds judgement, values the diversity of people and families.

**Genuineness:** people who are genuine are not acting a part or pretending to have feelings they do not.

**Humility:** the helper does not have an inflated sense of his/her own importance in relation to parents.

**Empathy:** attempts of helper to understand the world from the viewpoint of the parents.

**Personal Integrity:** capacity of the helper to be strong enough to support those who are vulnerable, to tolerate the anxieties of the helping situation and to take a reasonably independent viewpoint.

**Quiet enthusiasm:** taking pride and enjoying all attempts to do it well for benefit of parents.

A literature review completed by Scope (2004) considered the following to be essential skills for working with a family centred approach:

- Service providers need well-developed listening and communication skills,
- Service providers need skills to establish and maintain good collaborative relationships with families,
- Service providers need skills in helping parents determine their priorities and clarify their goals,
- Service providers need skills in recognising, acknowledging and helping families build upon their strengths and competencies,
- Service providers need skills in identifying and mobilising social support networks and community resources, and,
- Service providers need skills in establishing and maintaining good collaborative relationships with other mainstream and specialist child and family services.

A novel approach is taken by Munro (2002; cited in CCCH, 2003), who describes five areas of practitioner competencies:

**Formal knowledge.** This is the kind of knowledge provided by training courses, and covers practical knowledge of the laws, regulations, policies and procedures, as well as theoretical knowledge of child development, family functioning, and methods of intervention.

**Practice wisdom.** This involves the personal theories (folk or 'lay' psychology) that everyone develops to make sense of their own and others' behaviour, as well as social norms that govern people's behaviour.

**Emotional wisdom.** This is the emotional impact that work has on oneself and others.

**Values.** All aspects of work take place in an ethical framework.

**Reasoning skills.** This is the ability to reflect critically upon one's practice and to reason from experience and knowledge.

With a long-standing focus on practitioner competencies in ECIS, a number of governments and teaching institutions have established a training curriculum for early childhood practitioners. The *Common Core of Skills and Knowledge for the Children's Workforce* developed in the UK by the Department for Education and Skills (DEC, 2005) identifies six areas of competency for all early childhood workers:

- Effective communication
- Child and young person development
- Safeguarding and promoting the welfare of the child
- Supporting transitions
- Multi-agency working
- Sharing information

Further detail of the skills and knowledge required under each of these domains is provided in Department for Education and Skills (2005) or at

<http://www.everychildmatters.gov.uk/files/37183E5C09CCE460A81C781CC70863F0.pdf>

*EBIFF European Passport on Professional Education in Early Intervention* (2006; [www.ebiff.org](http://www.ebiff.org))

In Europe, a common framework for the professional training of early intervention workers has been developed and is known as the *European Passport on Professional Education in Early Intervention* (EBIFF, 2006) The curriculum is based on three key learning outcomes; knowledge, skills and wider personal competencies. These learning outcomes have been clustered into seven key areas; within each area basic and complementary knowledge and skills identified.

**Recognition / Detection:** A holistic view of child development & various disabilities is taken, with a knowledge and understanding of the impact of the environment. Competent use generic and specific assessment tools.

**Joining The Family:** Listening, understanding the challenges for families, communicating and partnering effectively with families.

**Teamwork:** Working effectively within a transdisciplinary team. Understanding & valuing service ethics, quality and research.

**Individual Intervention Methods:** Planning for individuals, implementing evidence based interventions that are aligned with ECI philosophies. Documenting progress and outcomes.

**Functional Competence:** Understanding functions and roles within the team and with different client target groups. Also knowledge of institutional & legal frameworks.

**Personal Competencies:** Reflecting on ones' own professional activities, and emotional reactions to situations, considering their impact on interactions and outcomes.

**Practice:** Practice/Internship is regarded as basic part of the curriculum and forms the last key area.

In addition to the literature covering the broad range of ECIS practitioner competencies, some authors have tended to focus on specific areas of competence. Stayton & Bruder (1999) have investigated the area of cultural-related competencies and have identified the following essential knowledge areas:

- knowledge of own cultural background,
- knowledge of specific cultures,
- knowledge and skill in verbal and nonverbal communication styles used in different cultural contexts,
- knowledge of how one's cultural beliefs and values impact on interactions with children and families, and,
- knowledge of the impact of policies and practices on children and families from cultural and ethnic minorities.

The literature also depicts other essential knowledge and skills such as how to work effectively with interpreters (CCCH, 2003) and knowledge of the different reactions to disability typical of different ethnic and cultural groups (Hornby, 1994; cited in CCCH, 2003)

Some of the models described thus far mention communication, counselling or 'people' skills as core competencies. These terms are commonly used in the literature, however rarely are they adequately defined. The Centre for Community Child Health (2003) provide a good working definition of these terms, proposing that the key communication and counselling skills required for effective work with families of young children are:

- *Skills to start people talking* – sensitivity to people's behaviour and mood, use of 'door openers' to get conversations going,
- *Skills to keep people talking* - non-verbal attending, use of minimal encouragers, reflective listening, maintaining an available attitude,
- *Skills to understand what people are saying and feeling* – observation, questioning and clarifying, repeating and rephrasing, paraphrasing and summarising, reflecting feelings.
- *Skills to help people move forward* – questioning, summarising, assertiveness, and challenging, clarifying goals, action planning.

In the work on 'excellent' ECI practitioners completed by ECIA in 2007, a number of skills considered to be above and beyond basic competency were identified. These include:

- Matching, leading, pacing and cross-pacing verbal and non-verbal behaviour,
- Observing, hearing and feeling small changes in another person's state without attributing meaning to it,
- Positively reframing another person's reported experiences,
- Making positive attributions aligned with how another person likes to see themselves, and,
- Using indirect language patterns such as embedded questions, suggestions and statements.

Further information can be found at:

[http://www.eciavic.org.au/professionals/PromotingExcellence\\_ECI/PromotingExcellence\\_ECI\\_Summary.pdf](http://www.eciavic.org.au/professionals/PromotingExcellence_ECI/PromotingExcellence_ECI_Summary.pdf)

## Analysis & Summary of Professional Competencies

From the literature, it is apparent that core competencies can be viewed and structured in many ways. Although a number of models exist, there is significant overlap in the key concepts covered in each. After consideration of the presented models, it would appear that practitioner competencies can be grouped into three areas: (1) values, (2) core knowledge and skills, and (3) discipline specific knowledge and skills. For clarity, the term 'core' is used to denote what is expected of *all* ECI practitioners, whereas 'discipline-specific' indicates that these knowledge and skills are relevant to a particular professional discipline (ie. speech pathologist).

It is also important to define the terms of values, knowledge and skills:

**Values:** Values are defined as our fundamental beliefs or our standards. They reflect what is important to us and include deeply held beliefs about what is good, right, and appropriate. Values are deep-seated and are stable over time.

**Knowledge:** Knowledge is described in terms of cognitive competence; to know about and to know how to do something (EBIFF, 2006)

**Skills:** Skills are described in terms of functional competence; they are the things people should be able to actively do and complete (EBIFF, 2006)

### Values

Authors place great emphasis on the importance of values, considering them to be a crucial element of practitioner competency (Moore, 2005a). Of the literature reviewed, a number of preferred values could be identified:

- genuineness in relationships with children and their families (Hornby, 1994; Davis et al., 2002; Dunst & Trivette, 1996),
- respect for parents beliefs and values (Hornby, 1994; Greco et al., 2007; Dunst & Trivette, 1996; Davis et al., 2002; DEC, 2005),
- respect for the rights of all children, including those with a disability, to actively participate in all aspects of life (Moore, 2008b)
- empathy with parents (Hornby, 1994; Greco et al., 2007; Dunst & Trivette, 1996; Davis et.al, 2002; DEC, 2005),
- considers the family as experts on their child (Greco et al., 2007),

- 'hopeful realism' – hopeful but realistic views about the likely progress of the child (Hornby, 1994; Davis et al., 2002),
- personal integrity & professionalism: practitioners share their experiences, but do not let their emotions and opinions interfere. They do not have an inflated sense of their importance in the family's life (Innovative Resources; Davis et al., 2002; EBIFF, 2006).

McWilliam (1993; cited in Moore, 2005a) brings attention to the importance of understanding one's own values:

“The field of early intervention is only beginning to acknowledge and understand how interventionists' personal beliefs about services and their own values about children's and families' needs may prevent them from understanding what families want, and, thus, may reduce the effectiveness of services” (p.8).

McCullum and Catlett (1997; cited in Moore, 2005a) suggest that attempts at influencing and shaping a practitioners' values and attitudes is the hardest area of change and requires significant investment on behalf of the mentor and mentee, as well as a commitment to change.

### **Core Knowledge & Skills**

The core knowledge and skills expected of ECI practitioners is covered comprehensively in the literature. From the competency models reviewed in this paper, several common areas of knowledge and skills required for working effectively with children and their families emerge. These areas can be grouped under six headings, although it is important to add that these headings should be thought of as closely interrelated domains, rather than 'stand alone', independent constructs:

1. Childhood development
2. Family centred practice
3. Communication skills
4. Service planning & delivery
5. Structure and function of service systems
6. Capacity Building

### *Childhood development*

ECI practitioners should have a comprehensive understanding of:

- typical childhood development in the pre-natal and post natal periods (Moore, 2008a; Klein & Campbell, 1990; DEC, 2005),
- common atypical developmental patterns of young children with sensory, motor, cognitive and socio-emotional disabilities (Klein & Campbell, 1990),
- the features and qualities of families, communities and environments that have a positive or negative influence on child development and family functioning (Moore, 2008a; Klein & Campbell, 1990; Hornby, 1994).

### *Family Centred Practice*

In working with families, practitioners should demonstrate the following knowledge and skills:

- able to collaborate effectively with parents to ensure assessments, goal-setting and service implementation plans are family directed and led (Klein & Campbell, 1990; Innovative Resources; Dunst & Trivette, 1996),
- facilitates individuals and families to identify their strengths and resources (Dunst & Trivette, 1996),
- identifies and mobilises social support networks and community resources (Scope, 2004),
- understands the possible practical and social-emotional impacts on the parents, siblings and grandparents of a child with a developmental disability, and to take this into account in service planning (Greco et al., 2007; Hornby, 1994),
- has knowledge of what is considered to be a core need for *all* families, and what are the unique needs of *specific* families (Moore, 2008a),
- understands the impact of a family's cultural background, including;
  - knowledge of the specific culture and preferred communication styles (Stayton & Bruder, 1999),
  - the impact of cultural beliefs and values on interactions between children, families and practitioners (Stayton & Bruder, 1999; Hornby, 1994), and,
  - knowledge of local policies and practices that may impact on families (Stayton & Bruder, 1999).

### *Communication skills*

The literature refers to a range of skills such as counselling and communication skills, or skills to 'work effectively' with parents and families (Moore, 2008a; Hornby, 1994; EBIFF, 2006; DEC, 2005). One may summarise that these include:

- skills to start conversations and keep them going (CCCH, 2003),
- skills to understand what people are saying and feeling (CCCH, 2003; EBIFF, 2006; Innovative Resources; Dunst & Trivette, 1996; Hornby, 1994; DEC, 2005),
- skills to help people move forward (CCCH, 2003), and,
- skills for empowering and enabling parents (Hornby, 1994).

The importance of these communication or 'helping' skills is highlighted by Moore (2005b), who encourages practitioners to "think of their relationship with the family as part of the intervention, and their helping skills as therapeutic tools" (p.8).

### *Service planning & delivery*

Practitioners should have the knowledge and skills to:

- effectively assess a child's abilities using authentic assessment approaches, appropriate generic assessment tools and/or assessment tools specific to their professional field (EBIFF, 2006; Neisworth and Bagnato, 2004),
- identify the developmental needs of the child, consider this in light of the family's chosen goals, and develop an appropriate intervention plan in collaboration with other involved practitioners (Moore, 2008a; Klein & Campbell, 1990; EBIFF, 2006),
- know how to interact with and motivate children in an age appropriate manner, in a way that supports the development of their ability to think and learn (DEC, 2005; Greco et al, 2007),
- consider the evidence-base for a particular therapeutic approach and plan for the effective implementation of evidence-based services (Moore, 2008a; Klein & Campbell, 1990),
- design inclusive activities and play environments to support the active participation of all children, including those with developmental disabilities (Neisworth and Bagnato, 2004; Moore, 2008a),
- identify key transition points in a child's life, understand the possible impact of this on their development, and determine what interventions might provide the most effective support (DEC, 2005),

- work effectively and collaboratively within an interdisciplinary team and with external agencies (Moore, 2008a; Klein & Campbell, 1990; Greco et al., 2007; EBIFF, 2006; DEC, 2005),
- communicate at different levels to families, professionals and others in the community to share information that is relevant and meaningful (DEC, 2005; Greco et al., 2007; Innovative Resources),
- work effectively with an interpreter (CCCH, 2003), and,
- reflect on their practices and learn in relation to professional activities, and interactions and communications with families (Munro, 2002; EBIFF, 2006).

### *Structure and function of service systems*

A number of more practical competencies relating to the structure and function of service systems were identified in the literature. These include:

- knowledge of the roles and responsibilities of all ECI practitioners and how they function within the team (Klein & Campbell, 1990; EBIFF, 2006; DEC, 2005),
- knowledge of sources of additional financial, educational and emotional support available to families (Hornby, 1994; Greco et al., 2007; DEC, 2005).

### *Capacity building*

Although many authors comment on the need for ECI practitioners to be skilled in building the capacity of parents in supporting children with disabilities (Klein & Campbell, 1990; Hornby, 1994; Dunst & Trivette, 1996), few comment on the importance or relevance of the skills required to build the capacity of communities. As identified earlier in this paper, an important outcome measure of the effectiveness of ECI services is the impact on the ability of communities to provide for children and families with a diverse range of needs (ECIA, 2005). The importance of this is supported by Cuskelly and Hayes (2004; cited in DEECD, 2008b) who argue that children with a disability can only become fully participating members of their communities when society develops measures to reduce the handicapping effects of impairment and disabilities.

It cannot be assumed that ECI practitioners who are skilled in building the capacity of children and families are also skilled in building the capacity of individuals and organisations in the community. There is some recognition of this amongst training institutions. The Middle Tennessee State University ([www.mtsu.edu](http://www.mtsu.edu)) offers a course in *family-centered community building* (FCCB). This course recognises the complex interaction between families and communities, and introduces a framework to help build stronger, more cohesive and family-centered communities.

The concept of 'universally designed' early childhood settings covered earlier in this paper presents another opportunity for ECI practitioners to become actively engaged in capacity building roles. In doing this, practitioners are required to develop a set of knowledge and skills to support this capacity building approach.

### **Discipline specific Knowledge & Skills**

Although not the brief of this literature review, it is important to acknowledge the importance of discipline specific knowledge and skills in the field of early childhood intervention. As raised by Moore (2008a):

“It is not sufficient for ECI workers to be able to engage parents successfully and to be able to work in family-centred and culturally-sensitive ways if they do not also have the technical skills to be able to guide parents in promoting their children’s development and functioning in everyday environments” (p.13).

Many of the discipline specific competencies are simply an extension of those competencies considered to be core for all practitioners. For example, all ECI practitioners are expected to have an understanding of inclusive practices, and promote the use of this approach in their daily work. In order to do this, a Speech Pathologist may draw on different knowledge and experiences than that of an Early Educator, and will use different strategies when planning interventions. Similarly, a Physiotherapist is likely to approach the functional assessment of a child in a very different way to a Speech Pathologist. Practitioners of both disciplines would be expected to have a basic awareness of all areas of the child’s development, however each practitioner will have their own set of knowledge and skills that supports their expertise in a specific area.

In thinking about discipline-specific skills, the topic of transdisciplinary practice is raised. In the first section of this paper a trend in ECI services towards transdisciplinary practices was identified, with a definition provided by Davies (2006): “transdisciplinary teams share roles, crossing disciplinary boundaries to maximise communication, interaction and cooperation among members.” (p.3) The key point here is the crossing of boundaries between practitioners. This indicates that practitioners understand and appreciate the terminology and basic principles of the other disciplines, (McGonigel et al., 1994; cited in Davies, 2006) and can partially take on the role of another practitioner when the team agree that this is appropriate. While the core skills of collaboration, teamwork and partnership would support a practitioner in their attempts to use this approach, one would suggest there may be additional skills required to work effectively in a transdisciplinary way. Furthermore, the literature reviewed does not comment on the level of experience required (ie. novice, competent or expert) by a practitioner in their own discipline area before engaging in a transdisciplinary service model.

## Summary

The analysis of the literature shows that ECI practitioners share a significant common base of knowledge and skill. This supports the commonly-held view that there is a need for the development of a core curriculum. Of significance is the acknowledgement of the importance of starting with the correct values. It is noted that values and attitudes are the hardest things to change; one can be taught facts (ie. knowledge) and how to do things (ie. skills), but it is much harder to teach people how to feel, act and interact in their daily work. This has implications for recruitment, suggesting perhaps that when interviewing potential employees greater attention should be paid to their values and attitudes than the particular knowledge, skills and experiences they bring to the role.

The identified trend towards transdisciplinary practices raises questions both about the validity of this approach and the knowledge and skills required to work in this way. It appears that the evidence to support transdisciplinary models of service is scarce, although the literature frequently promotes this as a best-practice approach. Further research into the benefits and challenges of a transdisciplinary service model from the perspective of parents and practitioners is required. Furthermore, it will be important to explore the impact of this model on practitioners, who may not feel comfortable working outside their boundaries or practice, or who feel threatened by their loss of identity. Finally, should there be an increase in uptake of this model of service delivery, further exploration of the specific knowledge and skills required to work as a transdisciplinary practitioner is required. This will include further discussion regarding the minimum level of experience required (ie., novice, competent or expert) a practitioner before engaging in a transdisciplinary service model.

When comparing the identified practitioner competencies to those trends in ECIS described in the first section of this paper, one sees a possible gap in the recognition of the knowledge and skills required to effectively engage in capacity building work. This is an emerging area of work, and is one which has great potential in terms of influencing communities to embrace diversity, and to actively include and provide for people of all abilities. For a child with a developmental delay or disability, living in an inclusive community ultimately means that they become 'less disabled.' Whilst it is positive that the ECI sector has seen a move to measuring service outcomes rather than outputs, it will be important to ensure meaningful tools that consider a broad range of life dimensions are used so that the impact of capacity building approaches can be adequately measured. Further research in this area is required, and will hopefully provide the evidence needed to support increased funding to this area of work.

## Reference List

- Bagnato, S.J., and Pretti-Frontczak, K., (2009) Authentic Assessment in Practice. Workshop presentation, Early Childhood Intervention Australia, Victorian Chapter, Melbourne, Victoria.
- Briggs, M.H. (1997). Building Early Intervention Teams: Working Together for Children and Families. Gaithersburg, Maryland: Aspen Publishers
- CanChild (2005). The 'Key Worker' Model of Service Delivery Fact sheet. Retrieved March 23<sup>rd</sup>, 2009 from <http://www.canchild.ca/Default.aspx?tabid=130>
- Centre for Community Child Health (CCCH; 2003). Final Report on Research to Inform the Development of a Capacity Building Program. Canberra, ACT: Australian Council for Children and Parenting, Commonwealth Department of Family and Community Services.
- Davies, S., (2006) An innovative model to attract and retain allied health professionals in Rural areas Sue Davies, Manager of Kurrajong Early Intervention Service, The National SARRAH Conference 2006. Retrieved March 16<sup>th</sup>, 2009 from <http://www.ruralhealth.org.au/conferences/sarra2006/docs/program/davies.pdf>
- Department of Early Education and Childhood Development (DEECD; 2008a). Evaluation of Victorian Children's Centres: Literature Review. Retrieved March 23, 2009, from <http://www.eduweb.vic.gov.au/edulibrary/public/earlychildhood/integratedservice/childcentrereview.pdf>
- Department of Early Education and Childhood Development (DEECD; 2008b). Early Intervention Reform Project: Literature Review. Centre for Community Child Health
- Department for Education and Skills (DEC; 2005). Common Core of Skills and Knowledge for the Children's Workforce. London, UK: HM Government
- Dunst, C.J. and Trivette, C.M. (1996). Empowerment, effective helpgiving practices and family-centered care. *Pediatric Nursing*, 22 (4), 334-337, 343.
- Early Childhood Intervention Australia, Victorian Chapter (2005). Outcome Statements for Early Childhood Intervention Services. Retrieved March 22<sup>nd</sup>, 2009, from [http://www.eciavic.org.au/publications/ECIOutcomesPaper\\_Aug05.pdf](http://www.eciavic.org.au/publications/ECIOutcomesPaper_Aug05.pdf)
- Early Childhood Intervention Australia, Victorian Chapter (2007). Promoting Excellence in Early Childhood Intervention. Retrieved March 16<sup>th</sup>, 2009 from [http://www.eciavic.org.au/professionals/PromotingExcellence\\_ECI/PromotingExcellence\\_ECI\\_Summary.pdf](http://www.eciavic.org.au/professionals/PromotingExcellence_ECI/PromotingExcellence_ECI_Summary.pdf)
- EBIFF: European Passport on Professional Education in Early Intervention (2006). Curriculum for the Professional Training in Early Childhood Intervention, Retrieved March 23<sup>rd</sup>, 2009, from [http://www.eqm-pd.com/ebiff/download/EBIFF\\_Curriculum\\_08\\_06\\_engl.pdf](http://www.eqm-pd.com/ebiff/download/EBIFF_Curriculum_08_06_engl.pdf)

- Greco, V., Sloper, P., Webb, R. and Beecham, J. (2007). Key worker services for disabled children: the views of parents. *Children and Society*, 21 (3), 162-174.
- Innovative Resources. What Makes a Good Worker? Bendigo, Australia, St Luke's Innovative Resources, Kilgo, J.L., Aldridge, J., Denton, B., Vogtel, L., Vincent, J., Burke, C., and Unanue, R. (2003). Transdisciplinary Teaming: A Vital Component of Inclusive Services. Retrieved March 23, 2009, from <http://www.acei.org/inclusivefall03.htm>
- King, G.A., McDougall, J., Palisano, R.J., Gritzan, J. & Tucker, M.A. (1999). Goal Attainment Scaling: Its Use in Evaluating Pediatric Therapy Programs. *Physical and Occupational Therapy in Pediatrics*, 19, 31-52.
- Law, M., Baptiste, S., Carswell, S., McColl, A., Polatajko, H., & Pollock, N. (2005). *Canadian Occupational Performance Measure Manual* (4th ed.). Toronto: CAOT.
- Moore, T.G. (2005a). What do we need to know to work effectively with young children and families? Towards a core curriculum. 9<sup>th</sup> Australian Institute of Family Studies Conference, Centre for Child Community Health, Melbourne.
- Moore, T.G. (2005b) Working Effectively with Families: What skills and qualities do professionals need and how can they acquire them? Northern Metropolitan Region ECIS Network (July 2005) Centre for Community Child Health, Melbourne.
- Moore, T.G. (2008a). Early childhood intervention: Core knowledge and skills. *CCCH Working Paper 3 (November 2008)*. Parkville, Victoria: Centre for Community Child Health.
- Moore, T.G. (2008b). Beyond the evidence: Building universal early childhood services from the ground up. 8<sup>th</sup> National Conference, Centre for Child Community Health, Sydney.
- Neisworth, J.T. and Bagnato, S.J., (2004). The MisMeasure of Young Children: The Authentic Assessment Alternative. *Infants and Young Children*, Vol. 17 (3), p.198-212.
- Scope (2004). 'More than my Child'd disability.... A study of family-centered practices and family experiences of Scope early childhood intervention services and supports' Melbourne, Victoria.
- Shonkoff, J. (2003). From Neurons to Neighborhoods: Old and New Challenges for Developmental and Behavioral Pediatrics. *Journal of Developmental and Behavioural Paediatrics*, 24(1), pp 70-76.
- Stayton, V. and Bruder, M.B. (1999). Early intervention personnel preparation for the new millennium: Early childhood special education. *Infants and Young Children*, 16 (4), 284-295.
- World Health Organization (2009). *International Classification of Functioning, Disability and Health (ICF)*. Retrieved March 23, 2009, from <http://www.who.int/classifications/icf/en/>