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Principles and practices in early intervention:
A literature review for the Ministry of Education

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1.0 Executive Summary

In New Zealand, the Ministry of Education, Special Education (GSE) is responsible at national, regional and district level for strengthening the Ministry of Education's overall special education direction and for providing special education services to children and young people with educational, social, behavioural, and communication needs.

Under the Special Education 2000 policy, early intervention services are provided to approximately four percent of young children (aged from birth up to school age) in homes and early childhood education settings. The Ministry of Education, Special Education defines special education needs in early childhood as:

> "those that cannot be met within a regular early childhood setting, home or family, without extra support. The need may be a physical disability, a sensory impairment, a learning or communication delay, a social, emotional or behavioural difficulty, or a combination of these" (Ministry of Education, 2007).

The purpose of this literature review is to identify and review research and studies that illustrate effective and/or evidence-based principles of early intervention practice which can be linked to improved child outcomes for children from birth to six years of age, who have special education needs. The resulting resource will be used to inform decision-making in regard to the future direction of early intervention services in New Zealand.

The bulk of the literature identified for this review focuses on the values of a family-centred approach, and this appears to have been accepted internationally as a key principle in the delivery of early intervention services. However, over the last 5 – 7 years, there has also been discussion of other principles and practices in early intervention that will result in the best outcomes for children.

This review attempts to bring together the key findings and points from the literature. As the focus is on recent literature, the aim is not to encompass all the available evidence on a particular aspect of early intervention provision, but rather to provide an update on some issues and introduce other recent ideas in early intervention. The review highlights a number of recent research projects both from New Zealand and other countries. It is not intended that including these projects in the review be considered evidence of their efficacy unless that evidence is explicitly stated, but rather they provide examples of current research and issues that are being addressed.

The focus of the review is on the child as a learner and for this reason, the review aims to identify generic, effective early intervention practices that are applicable across special education needs.

Early intervention

The term early intervention can broadly cover the provision of services to infants, toddlers and young children who are considered vulnerable for reasons of disability, the risk of disability, social

disadvantage, child abuse, and other factors (for example, in programmes such as Sure Start, Early Head Start and Family Start). However, it can also be used to describe those services provided solely to those with special education needs or disabilities, such as those provided by the Ministry of Education in New Zealand. The United States, the United Kingdom, Australia, and New Zealand have seen the development of approaches along both tracks.

Establishing a comprehensive model of early intervention that integrates health, social service and education interventions is complex and challenging. However, jurisdictions, such as the United Kingdom, are moving to develop greater synergies between special education and broader early intervention approaches.

Increasingly, in the U.S., Australia, England, Europe, and New Zealand, jurisdictions have moved towards a more inclusive approach to early intervention for children with special education needs, that acknowledges the importance of children with disabilities being included in mainstream early childhood and community settings. However, while teachers accept the principle of inclusion, they also recognise challenges in its implementation, including their lack of knowledge about children with disabilities and the need for training, skills and resources to help them to provide an appropriate programme.

Benefits of early intervention

There is a general acceptance in the literature that quality early childhood intervention services for children with disabilities can have beneficial effects on the functioning of children as well as on the adaptation of their families. Researchers are now emphasising the need for research that determines what *types* of intervention are most effective for children with different types of disability, for children of different ages, and for children from different family backgrounds. Efforts are also necessary to ensure that early intervention is equally accessible and effective for families from diverse cultures.

It has been suggested that the development of recommended practices in the U.S. signals the start of a more intellectually rigorous approach to early childhood intervention practices, while also incorporating practice-based evidence.

Family-centred approaches to early intervention

While the benefits of family-centred practices for child outcomes have not been empirically validated, there is evidence that family-centred practices can contribute to positive parent and family outcomes. Increasingly, early intervention has, in principle, accepted a need to base services on those needs and priorities identified by parents and to engage parents as partners in decisions about priorities and intervention strategies.

However, while the notion of family-centred services is widely accepted, it is not clear whether they are always implemented. Studies suggest a considerable gap between recommended family-centred practice and actual practice, with many services continuing to be child-oriented and professionally driven.

While a family-centred approach was broadly accepted as a fundamental principle of early intervention service in the literature reviewed, there was also a recognition of the need for further research; for example to develop measures and strategies to assess family-centred practice, and clarification and development of measures of expected outcomes.

Best practice principles for family-centred practice were identified in the development of recommended practices by the U.S. Council for Exceptional Children:

υ   Families and professionals share responsibility and work collaboratively.

υ   Practices strengthen family functioning.

υ   Practices are individualised and flexible.

υ   Practices are strengths- and assets-based.

A strengths perspective is one of the key components of family-centred practice. One of the principles of the DEC recommended family-based practices is that families and early intervention professionals share responsibility and work collaboratively. The involvement of parents in early intervention can be at a variety of levels to accommodate the different needs and circumstances of families. Parents and other family members can be an important resource for early intervention professionals. This can be through the role they play with their own child or in a more formal role; for example, as advisors for early intervention professionals, or as support coordinators for other families.

Māori perspectives

As with many other indigenous and ethnic groups around the world, Māori children with special education needs are over-represented in special education. Yet, there is a relatively small amount of research and literature addressing the specific needs of young Māori children who have special education needs.

The Treaty of Waitangi should be considered in the development and implementation of all national special education policy. Another guiding principle is whanaungatanga, recognising the kinship ties that bind whānau, hapū and iwi together in reciprocal relationships. Further research and investigation would be needed to determine how a whanaungatanga approach relates to the family-centred practices discussed in this review.

Consultation with kōhanga reo has shown that Māori may have a broad concept of special needs including components such as physical, sensory and communication needs, but also others, such as needs associated with giftedness and with socio-economic circumstances and geographic location.

Common components of culturally appropriate and effective programmes and services in New Zealand are identified as incorporation of cultural content, the inclusion of parents, whānau, the

Māori community, Māori organisations and Māori workers, along with the need for ready accessibility to services.

Challenges when providing services for Māori children with special education needs are identified as: insufficient funding to provide the required workforce and resources; a lack of culturally appropriate resources and people with the cultural and professional expertise; a lack of culturally appropriate, relevant training; and Pākehā-centric attitudes towards special needs provision.

Identification and point of access

Early intervention is based on the assumption that the earlier services and supports are provided, the better. Intervention is likely to be more effective if it begins early in the life of a child or soon after the onset of the factors that place their development at risk. Also, very early support may increase the chance that a family at risk is able to engage or re-engage with mainstream services, such as education and health.

This means that children with special education needs must be identified in a timely way. However, this may not occur, particularly if a child doesn't have contact with anyone with a sound knowledge of development, when a child has only a marginal delay in development, or if parents are encouraged to "wait and see" before seeking further advice. Early identification may also be delayed through fragmented and confusing system entry procedures.

Early childhood education professionals, along with others (such as GPs and Plunket nurses), need skills and appropriate guidelines and tools to recognise potential issues. They also require a sound grasp of typical development in the first five or six years of life, information on the earliest presenting signs of various disabilities, and skills in talking with and listening to families.

While families tend to state a preference for a single point of access, it is likely that a more realistic approach is an integrated and coordinated system that takes advantage of a wide range of resources and supports from a diverse range of providers. Additionally, until services meet the needs of culturally diverse families, they may remain hesitant about referring their children to any outside agency.

Teamwork and collaboration

Early intervention has moved from a traditionally multidisciplinary approach towards interdisciplinary and transdisciplinary practice.

An interdisciplinary model is one where members of a team employ their own perspectives, assessing and working with children separately, but then discussing their finding and reaching decisions collaboratively. A transdisciplinary model requires early intervention professionals involved in a team to provide integrated interventions. One person, in collaboration with team members, accepts the primary responsibility for implementing a child's individualised plan. An "exchange of competencies" between team members is usually achieved through role release.

Advantages of a transdisciplinary model include the fact that it is less of an intrusion into family systems, and encourages increased communication among team members and consistency in the implementation of the intervention plan.

In many cases, early intervention professionals will also collaborate closely with early childhood education staff to deliver an intervention. However, early intervention professionals must be aware of the possibility of excluding early childhood teachers by adopting the role of the "expert" in their interactions with both children and teachers. Effective collaboration requires the establishment of positive relationships among early intervention professionals, early childhood education teachers, and parents (or other caregivers).

Key principles of the DEC recommended practices for interdisciplinary models are that:

υ   teams, including family members, make decisions and work together

υ   professionals cross disciplinary boundaries

υ   intervention is focused on function, not services.

Factors impacting on the delivery of integrated services

Providing integrated services adds complexity and may necessitate training, system change, and incorporating the views and input of families.

Early intervention professionals working in early childhood education settings may face difficulties if there is no overall (e.g. national) framework for how services in early education and intervention should be provided. There appears to be a move towards the development of core curricula, where professionals/services share a common core of knowledge, skills and values.

Families frequently identify service coordination as a major concern. A key worker can act as a single point of contact for a family, helping the family to coordinate their care across systems. However, the effectiveness of this approach is not well documented, with available evidence mainly in the form of satisfaction surveys and focus groups.

Early Support, England

Early Support is for families who have a baby or young child with additional support needs because of a disability or emerging special education need. Programme goals include better joint assessment and planning processes for individual children and their families, better information for families, and the use of key worker services to improve the continuity and co-ordination of support available to families.

An independent evaluation concluded that, overall, Early Support is a very successful programme. In particular the evaluation found that Early Support benefits families, either through information materials only or through information accompanied by a key worker service. The evaluation also found a significant demonstrable improvement in co-ordination of support for families, multi-agency

planning/working together, and smoother processes of identification, referral and initial assessment.

Intervention approaches

An important challenge ahead for the early intervention field is to understand the relative effects of different approaches for children with different developmental needs.

There is debate in the literature about the role of parent education and training in early intervention. On the one hand, parents appear to want parent education, and studies show a relationship between mother-child interactions and early intervention effectiveness. On the other, there is concern about the potential of parent education to alter the nature of the home, changing it from a natural environment to an unnatural one, and disrupting family relationships. One meta-analysis found that children receiving direct educational experiences showed larger and more enduring benefits than those in programmes relying on intermediary routes, such as parent training.

Another mediating view is that parent education can be seen as a particular kind of parenting support – one of a number required by parents - and that professionals' interactions with families should emphasise support as well as education, when this is identified as a priority for parents.

Social skills in children with special education needs

While inclusion aims to maximise the participation of children and families in typical home and community activities, children with special education needs have a relatively higher risk for peer rejection than typically developing children.

A synthesis of research concludes that social skills programmes can be effectively integrated into class and home routines with positive benefits for children with disabilities. It identified that interventions that included modelling, play-related activities, rehearsal/practice, and/or prompting were associated with positive social outcomes for children with disabilities.

Child-initiated and adult-initiated activities

An emphasis on child-initiated activities versus adult-initiated activities appears to result in increased child engagement. However, the types of activities engaged in are likely to differ, depending on whether they are adult-initiated or child-initiated, suggesting a balance may be needed between the two. A child's interests can be the basis for modifying activities in order to increase child involvement in the activity or production of adult-desired behaviour.

The fact that some children show greater benefit from participation in early interventions than others appears to be related to aspects of the individual child's initial risk condition. This may mean different individuals may need different programmes to achieve similar outcomes.

An increased focus on natural environments

A natural learning approach is one where early intervention professionals aim to identify and use the natural learning opportunities that occur in a child's everyday routines.

There is continued debate on how to interpret "natural environments" and how to implement the practice. One challenge to the concept that natural environments can only be inclusive environments suggests that policy should not come before the needs of individual children and families, and that other non-inclusive options may need to be considered.

However, the concept of natural environments can refer to *how* as well as *where* services are delivered. The philosophy of natural environments not only identifies where the child spends their time but also addresses developmental concerns by embedding interventions into the everyday experiences that occur within that setting.

Learning in natural environments promotes "generalizability", or the ability to respond appropriately in unrehearsed conditions, whereas interventions that are built on non-functional skills may not facilitate the transfer of learning from one environment to another. Identifying learning opportunities in the home also supports a family's ability to implement an intervention plan.

Family life, community life and early childhood programmes can provide multiple opportunities (either pre-planned or through serendipity) for learning experiences. Early intervention professionals can assist parents and families to identify activities that already provide learning opportunities for their children.

Assessment principles and planning

The use of individualised planning in the assessment process is a key component of inclusive practice in early intervention in the jurisdictions discussed in this review, and in many European jurisdictions.

Among DEC recommended practices in assessment are the following:

υ   Professionals and families collaborate in planning and implementing assessment.

υ   Assessment is individualised and appropriate for the child and family.

υ   Assessment provides useful information for intervention.

υ   Professionals share information in respectful and useful ways.

Other key principles identified in the literature include the need for multiple measures and multiple sources when assessing young children, developmental appropriateness, and viewing the child from a framework of competency embedded within a cultural context.

International approaches to assessment that direct teaching to targeted developmental objectives may not be wholly appropriate in a New Zealand context, where the socio-cultural foundations of *Te Whāriki* focus on an holistic integration of a child's strengths and abilities.

New Zealand research on using a learning stories approach to assessment identifies that this can empower parents and early childhood educators to participate more fully in the process, particularly as they are already familiar with this approach to assessment, and the language used is more inclusive, reducing the "expert" model.

The learning stories approach may also contribute to the enhancement and strengthening of team relationships, through an increased knowledge of the perspectives of other team members, a shared language and a climate of support amongst team members.

Transitions

Children can experience horizontal transitions (moving between professionals and services) as well as vertical transitions (moving between service types, e.g. early childhood education and school) as they grow and develop. These transitions can be frequent and particularly stressful times for young children with disabilities and their families.

Families appear to find it particularly challenging to move from a family-centred model to a child- and school-focused model.

Research suggests that parents who are knowledgeable about the transition process are likely to experience less stress than families who are not informed.

The literature emphasises a view of transition as an evolving process that requires commitment from both the school and those in the early childhood education and early intervention services. Key factors in the transition process appear to be planning and preparation for children, families and professionals, effective communication and collaborative partnerships, and procedural supports (such as key workers). In addition, the literature suggests that transition services should not stop once a child is in a new setting.

Information, resources and supports for families

Having a child with special needs can have positive impacts on families but can also pose challenges. Persistent stress can compromise positive coping and the enjoyment of daily life, impact on marital and family relationships and, in some cases, have adverse effects on child outcomes

An emphasis on family-centred service delivery may require from policymakers and professionals an understanding of the personal stressors with which families contend, such as information and resource needs, interpersonal and family distress, and threats to confident parenting.

The literature suggests that helping families to access information is a key part of a family-centred approach to early intervention, particularly on issues such as child health and development, specific disabilities, learning and development, and possible future needs. The role professionals play may differ depending on the family involved.

Parent support groups, national organisations and advocacy groups can also offer emotional and informational support to families.

Social support

There is evidence that the extent to which family members have adequate formal and informal support systems is associated with successful adaptation to having a child with a disability, and that the relational climate of the family is a predictor of children's developmental trajectories.

Formal services such as early intervention programmes are likely to have relatively less impact on family functioning than extended family and friends. Early intervention professionals can help families to identify and build informal support networks or create conditions that are conducive to the development of networks. However, social support that is imposed can have significantly negative effects on parents, especially on those whose need for support is low.

Family information gathering (also known as family assessment)

A family-centred approach to early intervention suggests a need to gather information about the family in order to develop collaborative and supportive relationships. Formal survey tools will probably not provide enough information for professionals (or be widely accepted) and professionals will need to rely on further conversations with families to determine their information needs. Family preferences should dictate the strategies used. More formal measures should only be used if the family sees the information gathered as an effective part of the process, such as setting family goals or making referrals.

Working with families

The provision of social support as part of family-centred service provision presupposes that early intervention personnel are comfortable working with families. However, many will have been trained to work with children, rather than with families. Professionals should be prepared to interact meaningfully with fathers, grandparents, siblings, extended family members, and whānau, as well as with families who self-define their supporting social system.

Parent-to-parent support can be provided informally by providing parents with opportunities to meet other parents or through more formally organised programmes. Formal parent-to-parent support can increase parents' acceptance of their situation and their sense of being able to cope.

Using technology to deliver information, resources and social supports to families

Health-related and child development information has increasingly become available online. Professionals can use the Internet to support and guide parents in their information-seeking and also by developing their own Internet resources for parents to use.

While it can be challenging for parents to assess the reliability of individual sources, they appear to be responsible searchers. Professionals also need to be able to support families in evaluating information.

Cultural competence and culturally-appropriate practice

Western models of development heavily influence early intervention service delivery, with the potential for bias in identification, service delivery and assessment systems.

In 2002, the DEC position statement on responsiveness to family cultures, values and languages stated that, "for optimal development and learning of all children, individuals who work with children must respect, value, and support the cultures, values, and languages of each home and promote the active participation of all families" (Horn, Ostrosky & Jones, 2004, p. 1).

Factors that impact on family participation in early intervention may include: language issues; acculturation levels; attitudes towards disability; religious beliefs and family traditions; a lack of language-appropriate information materials; a shortage of trained bilingual and bicultural personnel; and a lack of culturally responsive service models that systematically address relevant cultural orientations and behaviours that affect service use.

Service delivery to culturally and linguistically diverse families

The DEC recommended practices note the importance of understanding intragroup as well as intergroup difference. Factors that can impact differently on different members of a cultural group include gender, occupation, discrimination, socio-economic status, and age.

Barriers to culturally appropriate practice which have been identified include a lack of time, obtaining culture-specific information and resources, a lack of training, and a lack of materials.

Outcomes for children and families

In early intervention, much of the literature on outcomes has focused on the individual outcomes for children assessed against individualised plans, although there has been ongoing debate about what outcomes should be sought for children at this level.

There has also been work undertaken to identify the outcomes that the system should aim to achieve for children with special education needs. In New Zealand, *Better outcomes for children* is an internal plan for the New Zealand Ministry of Education. The plan describes important

outcomes for children, ways to collect better information on these outcomes within the Ministry, and key actions to strengthen service provision in order to improve outcomes. The focus of the plan is on three outcomes for children that contribute to achievement - presence, participation and learning.

In the U.S., states have to report to the Office of Special Education Programs on three outcomes for children. The outcomes address three areas of child functioning considered necessary for each child to be an active and successful participant at home, in the community, and in other places like a child care programme or preschool. States must report the percentage of infants and toddlers with IFSPs or preschool children with IEPs who demonstrate improved positive social-emotional skills (including social relationships), acquisition and use of knowledge and skills (including early language/communication and early literacy[1]), and use of appropriate behaviour to meet needs

States are required to measure and report on the progress children make between the time they enter a programme and the time they exit in each of the outcome areas.

Increasingly, attention has been drawn to the outcomes of early intervention for the families of children with special education needs. In the U.S., an evidence-based process with stakeholder input resulted in the identification of five family outcomes:

υ   Families understand their child's strengths, abilities and special needs.

υ   Families know their rights and advocate effectively for their children.

υ   Families help their child develop and learn.

υ   Families have support systems

υ   Families access desired services, programmes and activities in their community.

Discussion

It is clear from the literature reviewed here, that not only have early intervention practice and principles evolved over the period covered by this review, but that they continue to evolve.

The last few years have seen the cementing of family-centred approaches as a key principle of early intervention, with the literature identifying a growing acceptance that early intervention needs to reflect the ecological context in which the family operates. This has meant an increasing focus on family-centred models, including research on how they are perceived by parents and professionals, how to achieve family-professional partnerships, and the gaps that exist between principles and practice.

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[1] Early literacy applies to preschool services only.

The literature suggests that helping families to access information is a key part of a family-centred approach to early intervention, particularly on issues such as child health and development, specific disabilities, learning and development, and possible future needs.

There is also evidence that the extent to which family members have adequate formal and informal support systems is associated with successful adaptation to having a child with a disability, and that the relational climate of the family is a predictor of children's developmental trajectories. Early intervention professionals can help families to identify and build informal support networks or create conditions that are conducive to the development of networks.

The idea that children should, where appropriate, receive early intervention services in natural environments is another key principle well accepted in the early intervention literature (although there is continued debate on how to interpret "natural environments"). The philosophy of natural environments not only identifies where the child spends their time but also addresses developmental concerns by embedding interventions into the everyday experiences that occur within that setting. Learning in natural environments promotes "generalizability", or the ability to respond appropriately in unrehearsed conditions, whereas interventions that are built on non-functional skills may not facilitate the transfer of learning from one environment to another.

While the principles of family-centred practices, inclusion and natural environments can provide an overall framework for early intervention, this does not answer the question posed in this review about what and how children should learn or what are the characteristics of effective early intervention services. It is these issues that are the subject of continued, and often passionate, debate and, in fact, research suggests that different individuals may need different programmes to achieve similar outcomes. An important challenge ahead for the early intervention field is to understand the relative effects of different approaches for children with different developmental needs.

New Zealand research is particularly valuable as it can consider the relevance of best practice identified by other jurisdictions; for example, research on social skills training for education support workers is an important first step in developing interventions for a New Zealand context.

What also becomes apparent from the literature is that, while there have been significant advances in developing recommended practices for early intervention, there is a very clear gap between many recommended practices and what actually happens in the field. Also, in many cases, because of the newness of some of the concepts, best practices are only just emerging rather than being established. For example, the provision of social support as part of family-centred service provision presupposes that early intervention personnel are comfortable working with families, whereas many will have been trained specifically to work with children. Therefore, despite the existence of models, principles and recommended practices, it seems likely that one of early intervention's greatest challenges will be to integrate these concepts into the everyday work of all early intervention professionals.

During the writing of this review it became clear that the literature is dominated by material from the United States. Even material that is written from an Australian, English or New Zealand perspective refers extensively to work published by U.S. researchers. The amount of funding and support that is available for research in the U.S., means that it is likely to continue to be a key

source of ideas, recommended practices and evaluation. However, perspectives from specific countries are critical. For example, the review shows an increasing move towards authentic assessment practice in the U.S. but, as one New Zealand researcher has pointed out, these are not necessarily authentic once transferred to New Zealand's early childhood education and early intervention settings.

There are also many aspects of early intervention practice which are unique to New Zealand and require research. For example, how early intervention services can be appropriately provided to Māori and Pasifika children with special education needs and their families and whānau. Once again, international literature is of great interest but is no substitute for Māori and Pasifika perspectives. Common components of culturally appropriate and effective programmes and services in New Zealand have been identified as incorporation of cultural content, the inclusion of parents, whānau, the Māori community, Māori organisations and Māori workers, along with the need for ready accessibility to services. Another issue is how early intervention practice in New Zealand sits alongside early childhood education generally. For example, many of the principles of *Te Whāriki* are being incorporated into assessment practice in New Zealand, and it is a document with wide-ranging support in the sector.

As this literature review shows, the resources that families with young children with special education needs require are likely to extend beyond the services provided by the special education system in New Zealand. Other countries as well as New Zealand have early intervention systems sitting alongside more wide-ranging attempts to support families with young children, and there may be lessons to learn from programmes, such as Head Start (U.S.), Sure Start (England) and Family Start in New Zealand. There may also be synergies to develop to ensure children with special education needs and their families receive integrated and seamless services. However, this should not be at the cost of diluting the support available to those families with children with special education needs.

In conclusion, it appears that the identification of key principles and recommended practices is an important step forward for the early intervention field. In addition, there is an active research agenda considering not only how to implement those practices, but also how to identify more explicitly what works for individual children.

2.0 Introduction

"Ensuring the availability of well-coordinated, highly effective early intervention programs in every community, each representing contemporary principles and practices, is held to be a reasonable goal by policy makers, parents, and professionals" (Guralnick, 2005a, p. 4).

In New Zealand, the Ministry of Education, Special Education (GSE) is responsible at national, regional and district level for strengthening the Ministry of Education's overall special education direction and for providing special education services to children and young people with educational, social, behavioural, and communication needs.

In 2004, as part of a consultation process, 5,000 New Zealand parents, educators, students, and others interested in special education, were asked about their aspirations for children and young people with special education needs. In the resulting national report (Ministry of Education, 2005), respondents acknowledged that some areas of early intervention programmes were working successfully, but they also called for more investment in this area and identified early intervention as being one of the priorities for change. In response to the feedback, improving early intervention has been included as one of the aims of the Ministry's five year internal action plan, *Better outcomes for children: An action plan for GSE 2006-2011* (Ministry of Education, 2006). Improving services to Māori and Pasifika children were also identified as priorities for change in the national report and included in *Better outcomes for children.*

Under the Special Education 2000 policy, early intervention services are provided to approximately four percent of young children (aged from birth up to school age) in homes and in early childhood education settings. The Ministry of Education, Special Education defines special education needs in early childhood as:

"those that cannot be met within a regular early childhood setting, home or family, without extra support. The need may be a physical disability, a sensory impairment, a learning or communication delay, a social, emotional or behavioural difficulty, or a combination of these" (Ministry of Education, 2007).

Early intervention services for young children with the highest special education needs are delivered by the Ministry of Education, Special Education (GSE), and by other specialist service providers contracted by the Ministry while services for children with moderate needs are provided by GSE. Early intervention teams may comprise early intervention teachers, psychologists, advisors on deaf children, speech-language therapists, kaitakawaenga (Māori liaison advisors), education support workers and others. Resource Teachers: Vision (not employed directly by the Ministry of Education) also provide services as required for infants and young children.

Early intervention teams often deliver services in conjunction with the Ministry of Health's district health board child development teams. Child development teams provide paediatricians, neurodevelopmental therapists, occupational therapists, physiotherapists, speech-language

therapists, social workers, and other professionals who work closely with their special education colleagues.

Early intervention services include an assessment of a child's skills and education needs, and individualised planning (that may outline relevant teaching practices, any specialised equipment required, short-term and long-term social and learning goals, timeframes, and at-home follow-up activities). General information and support may be provided to families, educators and other professionals as well as expertise and knowledge-sharing, such as designing ways to improve socialisation, learning, communication and behaviour management. Specialist services, such as speech-language therapy and specialist teaching may be provided and education support workers, who support specialists and early childhood educators, may work directly with children.

The Ministry has acknowledged that there is a wealth of literature on early intervention practice published in New Zealand and overseas. The purpose of this literature review is to identify and review research and studies in this area that illustrate effective and/or evidence-based principles of early intervention practice which can be linked to improved child outcomes for children from birth to six years of age, who have special education needs. The resulting resource will be used by the Early Intervention Review and Development of Services team to inform their decision-making in regard to the future direction of early intervention services in New Zealand.

The bulk of the literature identified for this review focuses on the values of a family-centred approach, and this appears to have been accepted internationally as a key principle in the delivery of early intervention services. However, over the last 5 – 7 years, there has also been discussion of other principles and practices in early intervention that will result in the best outcomes for children.

For example, a significant development in the U.S. has been the development of the DEC recommended practices for early intervention and early childhood special education. The practices are based on a systematic and thorough synthesis of the literature and are then integrated with the practices identified as critical by stakeholder groups. The practices are validated in the field and once this has happened, the emphasis is on translating the results of that work into accessible practice information for those in the field. These recommended practices, along with their guiding principles, are highlighted throughout this review, with more detailed information on the development process in Section 5.2.

In short, this review attempts to bring together the key findings and points from the literature. As the focus is on recent literature, the aim is not to encompass all the available evidence on a particular aspect of early intervention provision, but rather to provide an update on some issues and introduce other recent ideas in early intervention. The review highlights a number of recent research projects both from New Zealand and other countries. It is not intended that including these projects in the review be considered evidence of their efficacy unless that evidence is explicitly stated, but rather they provide examples of current research and issues that are being addressed.

3.0 Methodology

3.1 Scope of the review

The Ministry of Education, Special Education has requested that this literature review address two key questions:

ʊ Confirm the characteristics of effective early intervention services and the rationale for the characteristics selected.

ʊ Update the evidence-base on early intervention practices that lead to improved outcomes for children, with a focus on any underlying principles of practice.

In order to successfully address the questions above, this review has the following objectives:

ʊ To identify and source high quality literature, research and studies on early intervention services that provide evidence of effective and/or evidence based practice, and can be linked to improved child educational and social outcomes. Specifically, the literature search will focus on identifying:

  ʊ systematic reviews and meta-analyses

  ʊ articles in peer-reviewed journals

  ʊ evidence for effective early intervention services for children and families who identify as Māori and for those who identify as Pasifika and other significant groups within New Zealand.

ʊ To critically examine the collected research to:

  ʊ determine/confirm the characteristics that define effective early intervention services, including justification for those characteristics selected

  ʊ identify and report on early intervention practices that are proven to be effective, and that lead to improved outcomes for children, with a focus on any underlying principles of practice.

The focus of the review is on the child as a learner and for this reason, the review aims to identify generic, effective early intervention practices that are applicable across special education needs.

Not in scope for this review were the following:

ʊ General parenting and parent education programmes (without a special education focus).

υ   Young children at risk because of factors such as economic disadvantage or having English as a second language (unless they also have a special education need recognised within the New Zealand context).

υ   Training of early intervention professionals and staff.

In addition, this review does not attempt to provide an overview of the New Zealand early intervention system. For further reading on this topic:

υ   visit the Ministry of Education website http://www.minedu.govt.nz

υ   read Ministry of Education (2005); Cullen and Carroll-Lind (2005).

3.2   Search strategy

The literature and bibliographic search process for this review took the following approach:

1.   A thorough critical web search for published material was undertaken, using search engines such as Google Scholar. This helped to identify key authors and search terms for the more formal search strategies described below.

2.   A search of the catalogue of the Ministry of Education library was conducted to identify relevant material using combinations of the following search terms: early intervention; criteria*; service provision*; severe*; high need*; moderate need*; family centred services; family involvement; parent participation; whanau; Pacific*; Māori*; transdisciplin*/trans-disciplin*; multidisciplin*/multi-disciplin*; interdisciplin*/inter-disciplin*; team*; teacher*; aide*; support worker*; paraprofessional*; individual*; programme*; curriculum; plan*; evaluation*; outcome*.

3.   Searches of PsychInfo, ERIC, Education Research Complete, British Education Index, Informit Family Database, Te Puna and Index New Zealand were conducted using combinations of the following search terms: early childhood; preschool; young children; *early intervention; *special education; severe need; high need; moderate need; family centered early intervention; family centered early childhood intervention; family programs; family involvement; family centered; educational financial assistance; resource allocation; funding; needs assessment

4.   The websites of relevant New Zealand and international research organisations and professional associations were searched for research/studies/conference proceedings. These organisations included:

    a.   Children's Issues Centre
        http://www.otago.ac.nz/CIC

    b.   Institute for Early Childhood Studies
        http://www.vuw.ac.nz/education

c.   New Zealand Council for Educational Research (NZCER)
    http://www.nzcer.org.nz/

d.   Te Kōhanga Reo National Trust
    http://www.kohanga.ac.nz/

e.   Pacific Islands Early Childhood Council of Aotearoa (PIECCA)
    http://www.piecca.org.nz

f.   Autism New Zealand
    http://www.autismnz.org.nz

g.   Early Intervention Association of New Zealand
    http://www.earlyinterventionassociation.org.nz

h.   Early Childhood Intervention Australia (ECIA)
    http://www.ecia.org.au

i.   Institute of Education (IES) – National Center for Special Education Research (USA)
    http://ies.ed.gov/ncser

j.   Eurlyaid - European Association of Early Intervention (EAEI)
    http://www.eurlyaid.net

k.   European Agency for Development in Special Needs Education
    http://www.european-agency.org

l.   International Society on Early Intervention (ISEI)
    http://depts.washington.edu/isei/

m.   World Bank: Children and Early Intervention
    http://www.worldbank.org/

n.   TeacherNet
    http://www.teachernet.gov.uk

o.   TTRB Special Education Needs
    http://sen.ttrb.ac.uk

p.   CanChild: Centre for Childhood Disability Research
    http://www.canchild.ca/

q.   The Early Childhood Outcomes Center
    http://www.fpg.unc.edu/~eco/index.cfm

r.   Research and Training Center on Early Childhood Development
    http://www.researchtopractice.info/index.php

s. Division of International Special Education and Services (DISES) - Council for
    Exceptional Children
    http://www.ideapractices.org/intl/

t. Orelena Hawks Puckett Institute
    http://www.puckett.org

u. OECD Website on Early Childhood Education and Care
    http://www.oecd.org

5. Although database searching covered a wide range of journal sources, a search was
    undertaken of the indexes of the following journals that had a focus both on early childhood
    and special education:

    a. Topics in Early Childhood Special Education (searched all online issues 2002 – 2006)

    b. Infants & Young Children (searched all online issues 2002 – 2007)

    c. Journal of Early Intervention (searched all online issues 1999 – 2006).

6. Items found in the initial search were checked for additional references.

7. To aid the identification of any unpublished or pre-publication research not already identified
    from the formal search process, we contacted a number of New Zealand subject-matter
    experts. This process involved identifying and emailing experts with a request for information
    on any research that they may have done themselves, or new research they may be aware of.
    The compilation of the list of experts was guided by advice from the Ministry of Education, and
    included researchers identified through the search process.

In order to gain a detailed understanding of the scope of the review, the author worked with
members of the Early Intervention Review and Development of Services team during the early
stages of the review preparation to classify the literature received up to that point into subject
domains. This helped to clarify the requirements for the review, including the identification of key
themes, and ensure that the information collected was relevant to the New Zealand context. It also
identified gaps in the literature that could be focused on during subsequent searching.

Approximately 375 items were retrieved for this review. Of these, just over 200 were considered,
on further examination, to fall within the scope of the review or to contain enough relevant
information to be useful. These were mainly made up (but not exclusively) of journal articles from
peer-reviewed journals, book chapters, books, and research reports. While the methodological
rigour of the items was not considered as a criterion for inclusion or exclusion, it was considered
during the writing of the review, with details of methodology given in the text or in footnotes where
appropriate.

3.3 Peer review

The first draft of this literature review was considered and commented on by the Early Intervention Review and Development of Services team. In addition, an external peer reviewer (contracted by the Ministry of Education) provided a critique of the draft. Many of the suggested changes from the Early Intervention Review and Development of Services team and the external peer review have been incorporated into this final version.

3.4 Terminology

In general, (unless otherwise noted) the term early intervention is used throughout this review to describe special education services for young children up to school age.

The term disability is used widely in the literature. For this reason, it is also used in this report to represent a broad range of special education needs.

4.0 Early intervention

"Failing to start interventions as early as possible is seen as missing an important opportunity for learning and favourably influencing early brain development" (Spiker, Hebbeler & Mallik, 2005, p. 310).

Over the last decade, there has been an increasing awareness of the importance of a child's early years on their later development and learning. For example, researchers have found that during the early years, brain cells form most of the connections that will be maintained throughout a child's lifetime. Behavioural and social sciences have also provided insights into the conditions that influence child development (Sandall, Hemmeter, Smith & McLean, 2005; Spiker, Hebbeler & Mallik, 2005). Research has also shown that the experiences of young children in early childhood education services impacts on their later performance in school and in the community (Sandall, Hemmeter, Smith & McLean, 2005; Wylie & Hodgen, 2007).

The term "early intervention" is used in a number of fields, such as mental health and addressing alcohol and drug issues. When referring to infants, toddlers and young children it can also be defined in a number of ways. It can more broadly cover the provision of services to infants, toddlers and young children who are considered vulnerable for reasons of disability, the risk of disability, poverty, child abuse, and other factors. However, it can also be used to describe those services provided specifically to those with special education needs or disabilities, such as those identified by the Ministry of Education in New Zealand:

υ   A physical impairment.

υ   An intellectual impairment.

υ   Hearing or vision difficulties (a sensory impairment).

υ   Struggle with learning, communicating, or getting along with others.

υ   Emotional or behavioural difficulty.

Writing from a New Zealand perspective, Liberty (2000) describes early intervention as a "… philosophy of providing specialised services to children with special needs during their developmental years, with the aims of ameliorating the effects of biological and other factors that can affect developmental outcomes" (p. 31).

4.1 International approaches to early intervention

A significant amount of the literature for this review comes from the U.S., England and Australia. To assist the reader in understanding the context for that material, a brief overview of the early intervention systems of those countries is given below.

United States

In the United States, a whole-system approach to early intervention for children with disabilities is firmly grounded in legislation, particularly the Education of the Handicapped Act Amendments of 1986, now the Individuals with Disabilities Education Act (IDEA). This legislation has created two components of an early intervention system - one focusing on infants and toddlers (birth to three years of age; IDEA Part C) and one addressing the needs of preschool children (three to five year olds; IDEA Part B, section 619). The key elements are:

υ   for children from birth to three years, the purpose of legislation is "… to develop and implement a statewide, comprehensive, coordinated, multidisciplinary, interagency system that provides early intervention services for infants and toddlers with disabilities and their families" (*cited in* Guralnick, 2005a, p. 4)

υ   for three to five year old children, early intervention services end and the child receives early childhood special education. Guralnick (2005a) notes that while there are differences in the legislation for under threes and three to five year olds, and he gives the example of less family involvement in programmes for three to five years olds, they share basic elements. However, he goes on to say that despite expectations for a convergence in structural components, practices, guidelines and possibly philosophical perspectives, "… analyses have revealed surprisingly large variations across states for many components of statewide early intervention systems" (p. 5).

The home is the most commonly reported setting in the U.S. for early intervention services for infants and toddlers with disabilities or at risk conditions. Infants, toddlers and young children (aged three to five years) in early childhood education programmes are increasingly participating in a range of inclusive early childhood settings, rather than in specialised programmes for children with special education needs (Buysse & Wesley, 2005).

In addition to provision for children with disabilities, the Early Head Start programme (sometimes referred to as an early intervention programme) was designed to provide comprehensive family supports, such as education, job training, housing, and food, along with a child care component, for infants, toddlers and pregnant women who meet income eligibility requirements (Zhang, Fowler & Bennett, 2004). Early Head Start and Head Start programmes reserve at least ten percent of their enrolment opportunities for children with developmental delays and their families, who are also serviced by early intervention (IDEA Part C) programmes. These families do not need to meet the family income eligibility criterion of Head Start (i.e. living in poverty at the time of enrolment) (Ramey & Ramey, 1998).

England

The special education needs of children in England are normally met in mainstream (regular) early education settings or schools, sometimes with the help of outside specialists[2]. In 2005, Carpenter reported that the U.K. is moving from being a country with no national policy or infrastructure for early intervention to one with "… a raft of policy and service initiatives" (p. 177).

All publicly funded pre-schools and nurseries in England must take into account the *Special Educational Needs Code of Practice*. This gives practical guidance on how to identify and assess children with special education needs. A child with special education needs may receive help from the "Early Years Action" programme. If a child does not make enough progress in Early Years Action, they may receive extra help from, for example, a specialist teacher or a speech therapist (Early Years Action Plus). Specialists advise on the Individual Education Plan (IEP) and sometimes they teach or help a child directly. A local authority may also decide to make a statutory assessment that brings in a number of specialists to decide what extra help a child needs.

The legal rules about assessments apply only to children of two and over. If a child is under two and a parent or professionals working with the child write formally to ask for a statutory assessment, the education department of a local authority will consider the request. Once an assessment has been completed, the local authority decides whether to issue a statement of special education needs. A statement for a child under two describes a child's needs, the views of parents and professionals, an account of the help that will be provided, and information about how this help will be monitored and reviewed[3].

Together From the Start – Practical guidance for professionals working with disabled children (birth to third birthday) and their families, is guidance issued jointly by the Department for Education and Skills and the Department of Health. It is concerned with the delivery of services to disabled children from birth to their third birthday and their families, and establishes a set of national principles for promoting family-centred working by health, education and social services, in support of families with young disabled children. Central themes within the guidance are an initial assessment of need, co-ordination of multi-agency support for families, better information and access for families, improved professional knowledge and skills, service review and development, and partnership across agencies and geographical boundaries. Early identification and early intervention are key themes in a number of Government initiatives including the two programmes described below, Early Support and Sure Start.

Early Support

Early Support is a programme which aims to improve the delivery of services to disabled children under three and their families. It promotes service development in partnership with education, health and social services, voluntary organisations and service users themselves. The Early Support Programme is the central government mechanism for achieving better co-ordinated, family-focused services for young disabled children and their families across England.

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[2] From the TeacherNet website: http://www.teachernet.gov.uk/docbank/index.cfm?id=3755

[3] From the directgov website: http://www.direct.gov.uk

The programme is funded by the Department for Education and Skills and has been developed in conjunction with the Department of Health and the voluntary sector. While the programme has been developed for children under the age of three, the Department for Education and Skills has indicated that the principles underlying Early Support are applicable to all children under five.

See Section 9.5 for further information on, and an evaluation of, Early Support.

Sure Start[4]

Sure Start is a government programme which aims to achieve better outcomes for children, parents and communities, in areas of risk, by increasing the availability of childcare for all children, improving health and emotional development for young children, and supporting parents as parents and in their aspirations towards employment. This includes parents receiving information, support and guidance to help them make the most of their young child's developmental, learning and social potential. This may include support for children with special education needs (Mortimer, 2001). The programme aims to create "… multi-agency, universal support systems for families with young children in disadvantaged communities" (Carpenter, 2005, p. 179).

Among the aims of Sure Start is to assist in the development of early childhood services in disadvantaged communities, provide family support and child and family health services, and the early identification of children with special needs and disabilities. All Sure Start programmes offer Portage[5] home teaching programmes for young children with special education needs or disabilities.

In a discussion of new initiatives, such as Early Support and Sure Start, Carpenter and Egerton (2005) look forward, saying that "… for many families to date, appropriate early childhood intervention services have been something of a postcode lottery. It is hoped that the new frameworks and national imperative will bring about greater demographic equality" (p. 32).

Australia

Kemp and Hayes (2005) note that Australia has no federal laws that mandate early intervention services or how they are delivered. However, Commonwealth and state disability discrimination legislation supports the right of people with disabilities to access services and facilities to which they are entitled. Early intervention is the responsibility of individual states and territories and most funding is delivered by their departments of education, health and/or community services. There is also federal funding available to support non-governmental programmes.

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[4] Carpenter & Egerton (2005) describe the U.S. Head Start programme as the inspiration for the development of Sure Start.

[5] Portage is a system of home-teaching that recognises the primary role of the parent or carer in the early childhood education of young children with special education needs. Parents are considered partners in designing the education programme, teaching their young child and reviewing their progress. Home visitors call regularly to assess where a child has reached in each area of development, to negotiate what to teach next, and to model that for the family (Mortimer, 2001).

Australian approaches to early intervention have been strongly influenced by U.S. research, policy and practice (Kemp & Hayes, 2005). Kemp and Hayes report that a range of services is provided in different states and territories, for children up to the compulsory school age of six years. These include home- and centre-based services (or a combination of those), itinerant support programmes within early childhood education services, parent support programmes, clinical and home-based therapy programmes, and special playgroups.

The following information[6] describes the delivery of early intervention services in Queensland, which are targeted at young children with disabilities in the areas of physical impairment, intellectual impairment, hearing impairment, vision impairment, Autism Spectrum Disorder, speech-language impairment and/or multiple impairments. Early childhood intervention programmes and services consist of two phases:

υ   During the first phase, (from birth to approximately three years), the programme consists of home-based and/or centre-based playgroups. Home-based intervention is provided by the parents within the family context and supported by members from a transdisciplinary team that may consist of teachers, occupational therapists, physiotherapists, speech-language pathologists, nurses, guidance officers, and/or other specialist personnel.

υ   The second phase for children from approximately three years to five years of age is provided by an early childhood intervention programme. In these programmes, teachers and other specialist staff with experience and/or qualifications in early childhood intervention facilitate children's learning through small group and individualised interactions. The learning experiences provided to individual children and groups are planned and delivered in collaboration with parent/s and other professionals supporting the child's development.

4.1.2   A broader approach to early intervention provision

While the focus of this review is children with special education needs, it is important to acknowledge that, in line with the differing approaches to early intervention described in Section 4.0, the United States, the United Kingdom, Australia, and New Zealand have seen the development of approaches along two different tracks. On the one hand there are broader interventions that recognise that a large number of children and families face deprivation and disadvantage for a wide range of reasons such as social disadvantage, poverty, being "at risk", or having special education needs (programmes such as Sure Start, Early Head Start and Family Start). In contrast, there are interventions focused *solely* on children with learning or other disabilities, such as those provided by the Ministry of Education, Special Education in New Zealand.

While both types of intervention focus on the role of the parent, the second type of intervention often involves parents or other caregivers taking an educational role within a structured teaching or therapy programme (Carpenter & Russell, 2005).

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[6] From the website of the Department of Education, Training and the Arts, http://education.qld.gov.au

The overlap in provision between the two approaches is acknowledged in the literature:

"… We must see ourselves as part of the reformation of early childhood and family services that is underway. We will do the children and families we serve no favours by continuing to think of early childhood intervention services as a separate stream of specialist programs that should be maintained as a discrete system. No individual service or set of services is able to meet all the needs of families we work with, and early childhood intervention needs to be part of a wider integrated system of child and family services" (Moore, 2004a, p. 18).

Kemp and Hayes (2005) suggest, however, that a focus on a broader range of vulnerable young children, may result in a "failure to discriminate between the comprehensive and/or more intensive programs needed for children with established disabilities, particularly those with higher support needs, and services for children whose development needs to be monitored because of biological and/or environmental risk" (p. 407).

While Carpenter and Russell (2005) predict a "greater synergy" in the future between these two approaches, establishing a comprehensive model of early intervention that integrates health, social service and education interventions is complex and challenging.

4.2 A framework for early intervention

In the book, *From neurons to neighborhoods: The science of early childhood development* (National Research Council & Institute of Medicine, 2000), the authors note that "… successful interventions are guided by a theoretical model that specifies the relation between their stated goals and the strategies employed to achieve them" (p. 340). They go on to describe some of these models, including some that directly address the needs of children with special education needs. The models discussed include:

υ   the ecological model articulated by Bronfenbrenner, linking the family environment to human development.

υ   the social support model for families of children with disabilities popularised by Dunst (see Section 13.2).

υ   the developmental framework for early intervention for both biologically and environmentally vulnerable children presented by Guralnick. The framework has a strong developmental and family-centred approach, with children's developmental outcomes viewed as a product of their experiences in the family (shaped by family characteristics and potential stressors on the family). Guralnick attempts to model a comprehensive, integrated early intervention system that includes screening and referral, intake, assessment, monitoring, intervention, transition planning, and programme evaluation (Guralnick, 2001). Moore (2005b) describes this model as "… perhaps the most fully articulated overall model of this kind in the early intervention field" (p. 27).

Guralnick identifies four stressors in the model - parents' need for information about their children's health and development; the interpersonal and family stress that can result from

having a child with a disability; additional resource needs resulting from having a child with a disability; and threats to the parents confidence in their ability to meet their child's needs.

The National Research Council and Institute of Medicine (2000) go on to say that the substance of the different models they describe converges to a remarkable degree and applies equally well across the diverse mixture of policies and programmes that characterise early childhood intervention in the United States today.

4.3 Principles of early intervention

"When it comes to including children with special education needs, attitudes are every bit as important as actions" (Hanson-White, 2000, p. 5).

Increasingly, in the U.S., Australia, England, Europe, and New Zealand, jurisdictions have moved towards a more inclusive approach to early intervention that acknowledges the importance of children with disabilities being included along with children without disabilities in mainstream early childhood and community settings (European Agency for Development in Special Needs Education, 2005; Guralnick, 2005b; Moore, 2005c).

In the U.S. this principle is legislated for. However, Guralnick, (2005b) notes that while inclusion is an increasingly accepted principle in the U.S., it is one that has been difficult to implement effectively. Odom (2000), in an overview of the inclusion literature, notes that while teachers generally have positive attitudes towards inclusion, they also have concerns about issues, such as their lack of knowledge about children with disabilities. He goes on to say that parents are also generally favourable towards inclusion, identifying benefits such as increased acceptance and the availability of good developmental models. However, they also express concern about issues such as obtaining specialist services, large class sizes and staff preparation.

In an Australian survey of 77 directors of childcare centres and 77 childcare staff (Mohay & Reid, 2006), training and experience were both found to be weakly associated with more positive attitudes to disability, and both influenced the likelihood of children with disabilities being enrolled in childcare programmes. The authors suggest that increased training and experience appear to go hand-in-hand and have the effect of raising the confidence of early childhood education services about their ability to provide a suitable programme for children with disabilities.

Mohay and Reid (2006) report that while the childcare professionals they surveyed supported inclusive practice in Queensland early childhood education services (particularly if children had only mild/moderate disabilities), they expressed a lack of confidence about having the skills and resources to provide an appropriate programme. The authors also point to a "dearth of relevant Australian research to guide planning and decision-making regarding the provision of appropriate child care for children with disabilities".

They conclude that while "childcare centres are legally required to accept children with a disability into their programs … without adequate numbers of experienced and well-trained staff, and appropriate resources, equipment and support, they may not be able to provide programs which are beneficial to the child".

In New Zealand, *Te Whāriki*, the curriculum document for early childhood education, is designed to be inclusive and appropriate for all children. It is also mandatory for teachers to incorporate inclusive practices into their early childhood education centres and programmes. The four principles of *Te Whāriki* apply to children with special education needs as they do to all children - Empowerment, Holistic Development, Family and Community, and Relationships (MacArthur, Purdue & Ballard, 2003).

Cullen (2002a) draws upon interview and survey data from research to monitor the implementation of the Special Education 2000 policy to show that, while early intervention professionals were positive about an inclusive policy and the provision of services, they also acknowledged a range of barriers to optimal services. These barriers included the time required for coordination, insufficient time for borderline cases, too much paperwork, difficulty in finding aides in rural areas, and insufficient staff with Māori language.

From a New Zealand perspective, MacArthur, Purdue and Ballard (2003) suggest that teachers' perceptions of disability and difference can challenge the concept of inclusion by perpetuating negative messages about disability and the place of disabled children in early childhood education. The authors suggest that "… it may be unreasonable to expect that a curriculum statement alone can offer a potent counter-discourse [to such messages]. Teachers may need repeated opportunities to critique exclusionary discourses and practices, and to explore those that promote inclusion" (p. 138).

Inclusion is one of a set of early intervention principles that are identified by Guralnick (2005a) as embedded in U.S. legislation or well accepted in the early intervention field:

υ   A developmental framework informs all components of the early intervention system and centres on families.

υ   Integration and coordination at all levels is apparent. This includes interdisciplinary assessments, and developing and implementing comprehensive intervention plans.

υ   The inclusion and participation of children and families in typical community programmes and activities are maximised.

υ   Early detection and identification procedures are in place.

υ   Surveillance and monitoring are an integral part of the system.

υ   All parts of the system are individualised.

υ   A strong evaluation and feedback process is evident.

υ   It is recognised that true partnerships with families cannot occur without sensitivity to cultural difference and an understanding of their developmental implications.

υ   There is a belief that recommendations to families and practices must be evidence-based.

υ   A systems perspective is maintained, recognising interrelationships among all components.

In a 2006 paper (2006a), Guralnick goes on to suggest that these principles have also achieved international consensus and that "… based on these principles, specific agenda items with corresponding implementation strategies can be established that are consistent with local conditions" (p. 13). He goes on to specify that these strategies should reflect not only the diversity of children and their families in individual countries, but also issues such as culture, politics, resources, and commitment by government agencies.

The following sections of the review examine many of these elements in more detail, discussing the evidence-base where available and pointing to current debates and highlighting current research. However, this is prefaced by a discussion of evaluation issues in early intervention and the development of recommended practices in the U.S.

4.4 Benefits of early intervention

"A … problem that affects much of the early intervention efficacy literature has been the continued focus on global questions about whether programs 'work', despite long-standing pleas for a more focused research strategy that investigates 'where', 'how', and 'for whom' specific interventions are differentially effective, based on specific child, family, community, and program characteristics" (Meisels & Shonkoff, 2000, p. 19).

In 2002, Wolery and Bailey, in testimony to The President's Commission on Excellence in Special Education, stated that the importance of the early years in child development and family life is now well accepted, as is the need for services and supports to be available. They went on to say that "as a result, the field has turned its attention away from whether to provide services to how to provide services that produce the outcomes desired for early childhood programs" (p. 90). In particular, Wolery and Bailey call for research that determines what *types* of intervention are most effective for children with different types of disability, for children of different ages, and for children from different family backgrounds. This may include questions about the importance of intensity or amount of treatment and questions about the quality of treatment, as well as attempts to identify the factors that influence intervention efficacy.

In a summary of the research available on the efficacy of early intervention, Moore (2005b) notes the following:

"Overall, the evidence indicates that well-designed, high-quality early childhood intervention services can have both short-term and long-term beneficial effects on the functioning of children as well as on the adaptation of their families. These effects are more marked in the case of children from disadvantaged backgrounds, but children with developmental disabilities and delays have also been shown to benefit" (p. 18).

Ramey and Ramey (1998), in another review and analysis of literature on early intervention's effect on children's cognitive development take a relatively broad view of early intervention[7]. They include studies of children from economically impoverished families, children with biological risk factors, children with combined psychosocial and biological risks, and children with developmental disabilities diagnosed in infancy. For this reason, their findings should be interpreted with some caution for the purposes of this review. Their findings include the following:

υ   Generally, interventions that begin earlier and last longer afford greater benefits to participants.

υ   More intensive programmes (including variables such as number of home visits per week, number of hours per day, days per week and weeks per year) produce larger positive effects than less intensive interventions.

υ   Children receiving direct educational experiences show larger and more enduring benefits than those in programmes that rely on intermediary routes, such as parent training (see section 10.1 for more discussion relevant to this finding).

υ   Interventions that provide more comprehensive services and use multiple routes to enhance children's development generally have larger effects than more narrowly focused interventions. These services may include ongoing health and social services, transportation, practical assistance with meeting urgent family needs, and individual neuro-developmental therapies where necessary, as well as a strong educational programme for children (see Section 13.2 for further discussion of this point).

υ   Some children show greater benefit from participation in early interventions than others do. The authors suggest that, as far as is possible to assess from the available research, these differences appear to be related to aspects of the individual child's initial risk condition. They go on to say that this may mean different individuals may need different programmes to achieve similar outcomes. For example, the authors discuss one study from 1993 (Cole, Dale, Mills & Jenkins *cited in* Ramey & Ramey, 1998) that looked at early intervention for children with disabilities. It found that, "contrary to conventional wisdom" relatively higher performing students gained more from a direct instruction approach, while lower performing students showed greater benefits from a mediated learning approach (see Section 10.3 for further discussion of this point).

While Ramey and Ramey (1998) conclude that early intervention can improve the course of early human development during its application, they also say that this answer "… begs for systematic, theoretically explicit comparisons of various intervention approaches" (p. 118). Moore (2005b) concurs, saying that research needs to concentrate on *what* makes early intervention services effective.

The following study considers whether participation in early childhood education may serve as an effective intervention for young children with special education needs.

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[7] They primarily consider studies with random assignment to groups.

The Early Years Transition and Special Educational Needs (EYTSEN) Project, England

A major research project commissioned by the Department for Education and Skills (DfES) suggests that participation in quality early childhood education services, by itself, may be an effective intervention for the reduction of special education needs, especially for the most disadvantaged and vulnerable groups of young children (Sammons, et al., 2003).

The Early Years Transition and Special Educational Needs (EYTSEN) study investigated aspects of special education needs in young children between the ages of three and six years (from preschool to the end of Year 1 in primary school) and builds on data collected as part of a larger, longitudinal study of pre-school provision (EPPE)[8].

The study found that children are more likely to move out of cognitive "at risk" status if they attend higher quality settings. A third of the sample showed low cognitive attainment at entry to pre-school and were classified as being "at risk" of special education need in relation to national norms for General Cognitive Ability (GCA). By entry to primary school this figure had dropped to a fifth of the sample. The authors suggest that this shows that pre-school has a positive impact on young children's cognitive development (in both language and non-verbal skills). This positive impact on cognitive attainment remains evident at the end of Year 1 in both better reading and mathematical skills.

Conversely, "home" children are significantly more likely to be identified as "at risk" when they start primary school than children who attended pre-school centres. Even when account is taken of the higher levels of disadvantage amongst the "home" group, the EYTSEN study indicates they are more likely to be "at risk" when they enter primary school. Therefore, the authors conclude, children who do not attend pre-school or who have had little or only poor quality pre-school experience remain more vulnerable to special education needs.

4.4.2 Parental perceptions of the benefits of early intervention

As early intervention services increasingly attempt to tailor themselves to the needs of individual families (see Section 6.0), Kontos and Diamond (2002) suggest that it is appropriate that parent perceptions of the quality and benefits of services should be considered in any evaluation, although the authors note that parent ratings alone are not sufficient measures of programme quality.

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[8] EPPE: The Effective Provision of Pre-School Education Project is a major longitudinal study (1997-2003) in England of a national sample of young children's progress and development through pre-school and into primary school until the end of Key Stage 1. For this study, using the EPPE sample, information for over 2,800 children attending 141 pre-school centres selected from five regions across England was analysed.

In a U.S. survey of 2,586 parents[9] (Bailey, Hebbeler, Spiker, Scarborough, Mallik & Nelson, 2005), whose infants and toddlers had received early intervention services, under IDEA Part C, most (82 percent) felt better off as a result of early intervention. Parents felt competent in their parenting role and in their ability to work with professionals and advocate for services. However, they were less positive about their perceived ability to deal with their child's behaviour problems or to gain access to community resources. The authors also found that parents of minority children, children with health problems and children who were living with a single adult had lower scores on measures of family outcomes (see Section 15.0 for discussion of family outcomes).

The authors conclude that, while early intervention (for children from birth to three years) can provide important supports, more concerted efforts were necessary to, among other things, "ensure that early intervention is equally accessible and effective for families from diverse cultures" (p. 1351). They also suggest a need for increased integration of paediatric health care with early intervention, particularly for children with special health needs in addition to a disability.

A smaller scale study by Iversen, Poulin Shimmel, Ciacera and Prabhakar (2003) of 11 providers and 18 parents also found high parental satisfaction with the early intervention programmes (87 percent) received. However, areas that parents were less satisfied with included developing strategies and setting goals and, as with the larger study, strategies to discipline and set limits, and accessing available community resources.

In research on New Zealand's Special Education 2000 policy, undertaken by Massey University (Bourke, et al., 2002), 67 percent of parents in their parent interview study believed that early intervention had influenced their child's educational progress positively.

> "They described their child's improvement in specific skill areas such as: comprehension; clearer speech; initiating conversation; learning colours; how to count; increased confidence and social skills; appropriate, positive behaviour; physical development and mobility. Improved hearing (as would be expected) was attributed to children receiving grommets or hearing aids. Feeding was also mentioned by parents of younger children as an area that had improved following intervention. Others mentioned how the use of visual cards had aided their child's communication" (pp. 259 – 260).

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[9] The National Early Intervention Longitudinal Study (NEILS) was designed to describe participants in IDEA Part C early intervention programmes, the outcomes experienced, and the characteristics of children, families and services that relate to the outcomes attained. For this part of the research, a nationally representative sample of 2,586 parents in 20 states completed a 40 minute telephone interview on or near their child's third birthday.

Key points from Section 4.0

A framework for early intervention

The term early intervention can broadly cover the provision of services to infants, toddlers and young children who are considered vulnerable for reasons of disability, the risk of disability, social disadvantage, child abuse, and other factors (for example, in programmes such as Sure Start, Early Head Start and Family Start). However, it can also be used to describe those services provided solely to those with special education needs or disabilities, such as those provided by the Ministry of Education in New Zealand. The United States, the United Kingdom, Australia, and New Zealand have seen the development of approaches along both tracks.

Establishing a comprehensive model of early intervention that integrates health, social service and education interventions is complex and challenging. However, jurisdictions, such as the United Kingdom, are moving to develop greater synergies between special education and broader early intervention approaches.

Increasingly, in the U.S., Australia, England, Europe, and New Zealand, jurisdictions have moved towards a more inclusive approach to early intervention for children with special education needs, that acknowledges the importance of children with disabilities being included in mainstream early childhood and community settings. However, while teachers accept the principle of inclusion, they also recognise challenges in its implementation, including their lack of knowledge about children with disabilities and the need for training, skills and resources to help them to provide an appropriate programme.

Benefits of early intervention

There is a general acceptance in the literature that quality early childhood intervention services for children with disabilities can have beneficial effects on the functioning of children as well as on the adaptation of their families. Researchers are now emphasising the need for research that determines what *types* of intervention are most effective for children with different types of disability, for children of different ages, and for children from different family backgrounds. Efforts are also necessary to ensure that early intervention is equally accessible and effective for families from diverse cultures.

5.0 Early intervention evaluation

"Should science guide practice in special education? Most individuals would say 'Yes". However, the 'devil is in the details'" (Odom, Brantlinger, Gersten, Horner, Thompson & Harris, 2005, p. 137).

A number of authors address the issue of the different methodologies employed in special education research (Dunst, Trivette & Cutspec, 2002a, 2002b; Moore, 2005b; Odom, et al., 2005; Shonkoff, 2002).

Research in special education can be complex, with a number of issues posing challenges for researchers. Randomised controlled trials[10] are often referred to as the "gold standard". However, Odom, et al. (2005) refer to the "devilish details" that challenge the use of this methodology for investigating effective practice in special education. One example is the variability of participants, especially the wide range of disabilities and conditions they may have, and the range of severity. Another challenge is the difficulty in measuring the impacts of early intervention when traditional parameters that are relatively easy to measure, such as IQ or mental age, are now seen as relatively unimportant. More recent concepts such as mastery motivation and social competence are considerably more difficult to assess (Odom, et al., 2005; Shonkoff, 2002).

This variability can make research designs based on establishing equivalent groups (even when randomised) difficult, particularly where research is focused on groups with disabilities that have a low prevalence (Liberty, 2000). In addition, some methodologies that require randomisation may not be feasible, where services are freely available to all or where there are ethical issues about withholding services; for example, having a non-treatment group who do not receive an individualised plan (Liberty, 2000; Moore, 2005b; Odom, et al., 2005).

Another challenge can be how to measure multiple impacts in children and families, how to assess the effectiveness of the various components of early intervention, or indeed how to incorporate wider factors in the child and family's environment. Issues of biculturalism and culture will also affect research design as they do service delivery (Liberty, 2000).

Moore (2005b) cautions that while there is a tendency to think that only interventions subjected to large scale randomised control trials should be used, there are "… many forms of intervention that have yet to be tested in this way and therefore have not yet been shown to be ineffective" (p. 19). It is also acknowledged in the literature that different methodologies are important for addressing different questions and that other research methodologies may be a better fit for some research contexts and participant characteristics (Dunst, Trivette & Cutspec, 2002a; Moore, 2005b; Odom, et al., 2005). Odom and Strain (2002) consider that single-subject[11] experimental designs, for

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[10] Randomised controlled trials are studies that randomly assign individuals to an intervention group or to a control group, in order to measure the effects of the intervention.

[11] In single-subject research designs, the sample size is one individual or a number of individuals considered as one group. These designs usually study the behavioural change the individual exhibits as a result of

example, have made a substantial contribution to the evidence-base underlying early intervention practice and yet they have often been omitted in syntheses of the scientific literature.

5.1 Implementing evidence-based practices

While many efforts to produce evidence-based practices focus on the evidence that a practice is effective, Dunst, Trivette and Cutspec (2002a) have taken a more functional operational definition. They define evidence-based practices as:

> "Practices that are informed by research, in which the characteristics and consequences of environmental variables are empirically established and the relationship directly informs what a practitioner can do to produce a desired outcome" (p. 2).

This definition incorporates the need for the relationship between characteristics and consequences to directly inform *how* a practitioner puts evidence-based practices into effect.

Odom, et al. (2005) go further and suggest that an important step in the research process is to determine the factors that lead to the actual adoption of effective practices in typical settings under naturally existing conditions. This may mean that research is needed into the organisational factors that may "… facilitate or impede adoption of innovation in local contexts" (p. 146).

Moore (2005b) describes a more dynamic process, where "practice-based evidence focuses on the outcomes desired by clients, gets regular feedback from clients as to whether these are being achieved, and adjusts the method being used to achieve the outcomes that the client wants" (p. 20). He goes on to say that there is a place for evidence-based and practice-based evidence in early intervention where effectiveness depends on *what* is provided as well as *how* it is provided.

The following eight-step model is described by Law (2000) as supporting the use of research information in practice:

1. Clearly identify the clinical problem.

2. Gather information from research studies about this problem.

3. Ensure that you have adequate knowledge to read and critically analyse the research studies.

4. Decide if a research article or review is relevant to the clinical problem.

5. Summarise the information so that it can be easily used in your practice.

6. Define the expected outcomes for the children and their families.

7. Provide education and training to implement the suggested change in practice.

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treatment. Each participant serves as her or his own control, being exposed to a non-treatment and a treatment phase, with performance measured during each phase.

8. Evaluate the practice change and modify (if necessary).

Moore (2005b) suggests that the work on recommended practices described below signals the start of a more intellectually rigorous approach to early childhood intervention practices as well as incorporating practice-based evidence.

5.2 DEC recommended practices in early intervention/early childhood special education

"A practice-centred research synthesis should inform a practitioner about what he or she can do differently the next time he or she interacts with a child (or parent, family, patient, etc.) to improve functioning or achieve a specific outcome " (Dunst, Trivette & Cutspec, 2002b, p. 1).

A key resource for the writing of this review has been the DEC recommended practices in early intervention/early childhood special education developed by the Division for Early Childhood (DEC) in the U.S.[12]. These recommended practices were the end result of a project that aimed to identify evidence- and values-based practices in the field. Practices were identified through an extensive review of findings from research literature. The synthesis of literature covered empirical research published in 48 peer-reviewed professional journals between 1990 and 1998.

Evidence was evaluated using criteria related specifically to the research design that had been employed. Articles were excluded if they did not contain a clear recommended practice, if the standards of scientific rigour were not met, or if they otherwise did not meet the criteria for inclusion.

The authors give the following percentages for the different types of research design found in the articles used:

υ   Group quantitative – 54 percent

υ   Single subject – 22 percent

υ   Descriptive – 15 percent

υ   Qualitative – 9 percent

υ   Mixed method – 1 percent.

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[12] The Division for Early Childhood (DEC) is one of seventeen divisions of the Council for Exceptional Children (CEC). The goal of the CEC is to improve educational outcomes for individuals with exceptionalities, students with disabilities, and/or the gifted.

For the development of the DEC recommended practices, researchers established procedures for describing and assessing studies using group, single-subject and qualitative research methodologies. For example, an important factor in determining the confidence teachers could have that the practices were effective, was the *number* of studies that supported a particular practice. One of the other factors considered in the evaluation of studies was whether researchers gave evidence for the generalisation and maintenance of the treatment effects.

In addition, focus groups were conducted with families of children with disabilities, service delivery personnel and programme administrators to identify practices that were derived from values and experiences. Once synthesised, this information was tested through a field validation study, where families, service delivery personnel, administrators, and higher education personnel provided feedback on whether these practices were indeed recommended practices, and if the practices were used.

Seven strands of recommended practices were identified. Five are "direct services strands" - assessment, child-focused, family-based, interdisciplinary, and technology. Two are "indirect support strands" - policies, procedures and system change, and personnel preparation. The recommended practices cover both the birth to three age group and from age three through to six. Because of the solid evidence base used in the development of these recommended practices, they are highlighted in relevant places throughout the review[13].

Key points from Section 5.0

A number of authors address the issue of the different methodologies employed in special education research. While randomised controlled trials are often referred to as the "gold standard", there are significant challenges to its use in early intervention. It is acknowledged in the literature that other research methodologies may be a better fit for some research contexts and participant characteristics.

An important step in the research process is to determine the factors that lead to the actual adoption of effective practices in typical settings under naturally existing conditions.

It has been suggested that the development of recommended practices in the U.S. signals the start of a more intellectually rigorous approach to early childhood intervention practices, while also incorporating practice-based evidence.

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[13] Personnel preparation is not discussed in this review in any depth as it was not part of the scope of this project. Technology is discussed where it refers to the use of technology to provide information and support but not where it refers to assistive technology, which was also not a focus of this review.

6.0 Family-centred approaches to early intervention

"Family-centered practice requires a strong belief in the importance of the family and a respect for the inherent strength and capabilities of family members. This also applies to identifying, using and building on strengths among family support networks and broader community resources" (Moore & Larkin, 2005, p. 5).

In recent years, early intervention has seen a move away from professionally-directed practice targeting individual children, where professionals control the process of diagnosis and treatment. Instead, the emphasis has increasingly been, at least in principle, on services that address the needs and priorities identified by parents and to engage parents as partners in decisions about priorities and intervention strategies (Carpenter & Russell, 2005; Moore, 2005c).

With the family usually being the constant in a child's life and spending the most time with a child, it is families (or other caregivers) who have the greatest influence on a child's developing competence (Bruder, 2000a). Ramey and Ramey (1998) go further, describing the practical limitations of delivering effective early intervention in the hours available (relative to a child's waking hours). "Indeed, that is one of the reasons why almost all early intervention programs … seek to engage families as active partners in their children's learning" (p. 112).

Family-centred principles have been applied across a range of different settings other than early intervention for children with special education needs. These settings can include child protection services, programmes for at-risk adults and their families, and hospital and health care settings (Moore & Larkin, 2005).

A number of authors (Bailey & Bruder, 2005; Bailey & Powell, 2005; Kelly, Booth-LaForce & Spieker, 2005) point to the development of the family-centred approach as coming from the research accumulated since the 1980s in such areas as ecological theory, family systems theory, attachment research, research on stress and coping, and empowerment theory. This research demonstrates that the extent of a family's well-being (including pychosocial and economic factors) has important consequences for a child's social-emotional and cognitive growth. These findings, coupled with an increasing recognition of the role of culture in children's lives and accounts of the experiences of families, have led researchers to conclude that early intervention must address family issues and concerns.

6.1 Definitions and principles of family-centred practice

"Family-centered services mean that families are not just consumers of services, but guide practices as well. Care providers are to be regarded as important decision makers in the early intervention process and function as equal team members" (Shelden & Rush, 2001, p. 5).

Rosenbaum et al. (1998 *cited in* Law, et al., 2003) describe family-centred service as "… a philosophy and method of service delivery for children and parents which emphasizes a partnership between parents and service providers, focuses on the family's role in decision-making about their child, and recognizes parents as the experts on their child's status and needs" (p. 357).

A range of organisations and authors have also outlined family-centred principles. While these have differed and focused on different aspects of family-centred work, they also share many similar features and Moore and Larkin (2005) note that there has been considerable further study and analysis, leading to an "… enriched understanding of the underlying principles and their application" (p. 10).

Among the key principles and characteristics of family-centred services are that they:

υ   include families in decision-making, planning, assessment, and service delivery at family, agency and system levels (Turnbull & Turnbull, 2001)

υ   develop services that meet the needs of the whole family and not just the child (Law, et al., 2003; Turnbull & Turnbull, 2001)

υ   are guided by families' priorities for goals and services (Turnbull & Turnbull, 2001)

υ   respect families' choices regarding the level of their participation and involvement (Law, et al., 2003; Turnbull & Turnbull, 2001).

υ   encourage the involvement of all family members (Law, et al., 2003).

Shelden and Rush (2001) stress that "… the goal of family-centered care is to enable the family to meet their own needs. Family-centered service provision is not about doing something for families that they can do for themselves or their children" (p. 5).

"The major emphasis becomes "fixing the multiple ecological environments, rather than 'fixing' the child, so that key people in the environments value the child with a disability and eagerly create accommodations and supports so that the child gets the implicit message from the earliest years that he or she belongs in an authentic inclusive community" (Turnbull, et al., 1999, p. 168).

Dunst (2002) describes both relational and participatory components to family-centred practices, saying that it is the combined use of both by professionals that distinguishes the family-centred approach from other approaches to working with families:

υ   A relational component includes practices that are typically associated with good clinical skills (such as empathy, listening skills, respect, and being non-judgemental) as well as professional beliefs about and attitudes towards families (especially those about parenting capabilities and competencies).

υ   A participatory component includes practices that are individualised, flexible and responsive to family concerns and priorities, and that provide families with opportunities to be actively involved in decisions, choices and actions, in collaboration with professionals.

Dunst, Boyd, Trivette and Hamby (2002c) describe a continuum of family-oriented models based on the extent to which they incorporate the relational and participatory components above, ranging from professionally-centred, through family-allied, family-focused to family-centred. The authors present evidence from two studies of families with young children to suggest that professionals in family-allied or family-focused services are friendly and welcoming, and are perceived positively on relational components. However, early childhood professionals in those services are considerably weaker when it comes to the participatory components of a family-centred approach, such as help-giving that emphasises building the capacity of families. The authors call for further research to relate programme approaches and helpgiving styles and practices to variations in family functioning and parenting behaviour and to inform both policy and practice on "the models of choice".

6.2   The effectiveness of family-centred approaches

"Research is steadily accumulating that how programs are delivered is as important as what is delivered" (Moore, 2005b, p. 36).

While family-centred practice is well established as an central tenet of early intervention practice for young children with special education needs, McBride noted, in 1999, that its benefits had yet to be empirically validated. However, McBride goes on to say that its potential benefits are compelling, such as developing the confidence, competence and ability of families to make decisions about their child and family over their lifetime.

In a study of the effects of family-centred early intervention on child and family outcomes, Mahoney and Bella (1998) found that levels of family-centred practices were not related to the outcomes for parents and children. Mahoney and Bella's research covered children and their families who were receiving early intervention in five states[14] (more than 40 percent received

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[14] The sample consisted of 47 families who attended one of 36 programmes. Home visits were conducted at the start and end of the one year trial to assess child development, mother-child interaction and maternal

primarily home-based care, 21 percent primarily centre-based services, and 38 percent a combination of both).

The authors analysed what family-centred services children and their families were receiving and to what extent mothers perceived that the services they did receive were compatible with their own perceptions of what they needed. The study also examined the extent to which changes in child development, parental stress, parent-child interactions, and family functioning were related to family-centred practices. They found that families who received fewer family-centred services did not experience less positive outcomes.

However, Mahoney and Bella recommend caution in the interpretation of their negative findings for several reasons, including the possibility that alternative outcome measures may be more sensitive or relevant to outcomes associated with family-centred services. They also suggest that service providers may not yet be carrying out family-centred practices effectively.

The authors emphasise their belief that the family-centred agenda is based on "fundamentally sound theories and evidence". McBride (1999), in a discussion of family-centred practices, states that such studies highlight the need for further research, including "further clarity and definition of family-centered practices, development of measures and strategies to assess family-centered practice, and clarification and development of measures of expected outcomes" (p. 67).

In addition, Dunst, Brookfield and Epstein (1998, *cited in* Moore & Larkin, 2005) caution against expecting family-centred practice to be a major determinant of programme outcomes, saying that:

> "… family-centered practices are but one early intervention program characteristic that would be expected to influence child, parent, and family functioning, and one ecological variable that would be expected to be related to human behaviour and development. Other early intervention variables that have been suggested or found to be related to different outcomes include length of program involvement, service delivery location, frequency of child and parent contact, and type and amount of services provided to a child and his/her family" (p.5).

In a more recent review, Moore and Larkin (2005) highlight a number of studies that do link positive parent and family outcomes with family-centred practice. For example, in a Canadian study, King, King, Rosenbaum & Goffin (1999) examined the strength of the relationship between parents' perceptions of family-centred, professionally-provided caregiving and the family's emotional well-being (feelings of stress and well-being). The participants were 164 parents (103 mothers and 61 fathers) of 109 children with disabilities who were on the caseloads of six publicly funded rehabilitation centres. While the study found that the most important predictor of parental well-being was child behaviour problems, more family-centred caregiving was also a significant predictor[15] of parents' well-being. The other key finding was that socio-ecological factors were also

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stress and family functioning. Six months after the first home visit, mothers completed a questionnaire on what intervention services they were receiving and what services they would like to receive.

[15] The authors note that data were collected using a cross-sectional study design. The limitations of this preclude the identification of causal relationships. For that reason, the authors use the term "predictor" to indicate the direction of the pathways examined.

a significant predictor of well-being, that is "… parents who are more satisfied with the social support they receive, and whose families are doing well, feel less stressed or depressed" (p. 51).

6.3 DEC recommended family-based practices

"Parents should be given information in a way that supports their ability to parent their child and facilitate learning without threatening self-confidence and cultural, religious, or familiar traditions. Family diversity and the reciprocal nature of the relationship between family members and early interventionists should be the driving force within a family-centered approach" (Bruder, 2000a, p. 109).

Synthesising the existing research led the U.S. Council for Exceptional Children to produce a list of best practice principles of family-centred practice. The following are the guiding principles (Sandall, Hemmeter, Smith & McLean, 2005):

υ   Families and professionals share responsibility and work collaboratively.

υ   Practices strengthen family functioning.

υ   Practices are individualised and flexible.

υ   Practices are strengths- and assets-based.

6.4 The implementation of family-centred practice

Early intervention literature is consistently based on family-centred ideas, with most early intervention providers, in the U.S., describing their philosophies in family-centred terms. This has a clear legislative mandate for children aged from birth to three years (Bailey & Powell, 2005; Hanson, Randall & Colston, 1999). The differences in service delivery systems between infants and toddlers and preschool children aged from three up, make it easier to implement family friendly programmes for the younger age group, particularly because of the likelihood of reasonably frequent face-to-face contact with family members. Services to preschoolers are more often provided in centre-based programmes (Kaczmarek, Goldstein, Florey, Carter & Cannon, 2004).

 "… The professionals in first-class early intervention/IFSP [IDEA Part C] programs typically have received more training in family-centered service delivery, are more able to work with the family, and are indeed acculturated to doing just that … By contrast, the professionals in early childhood special education … often lack the training, the skills, and the professional acculturation to work with families as effectively or willingly as early intervention specialists" (Turnbull & Turnbull, 2001, p. 28).

In the United Kingdom, *Together From The Start* guidance issued jointly by the Department for Education and Skills and the Department of Health on programmes for children from birth to three years, has a strong family focus. It states that the needs of most children will be met within a family setting, and that this should be reflected in an "… integrated response to child and family need, which is sensitive to differing family cultures and religions. Early intervention should include support for the child, support for the parents and support for the parent-child relationship" (p. 9).

In New Zealand, *Te Whāriki*, the New Zealand early childhood curriculum, emphasises families and relationships, belonging and contribution, and Cullen (2002b) suggests that this provides a good fit with early intervention's ecological approach that embraces working collaboratively with parents and families.

6.4.1 Family perceptions of what makes an early intervention service family-centred

Law, et al. (2003) undertook a study to examine the factors that are key to determining parent perceptions of the family-centredness of care and parent satisfaction with service. The authors cite previous research when they suggest that it is the *process* and *structure* of services that appear to influence a family's perceptions of family-centred services:

υ   The *process* of service delivery incorporates the way in which services are delivered. This may include factors such as inter-personal relationships, providing respectful care and service continuity.

υ   The *structure* of service delivery includes aspects such as physical comfort, waiting lists and ease of access to services.

In a cross-sectional survey, Law, et al. (2003) involved parents of children with disabilities, service providers, and directors or managers of children's rehabilitative services in Ontario[16]. The authors found that "… parent satisfaction with services is strongly influenced by the perception that services are more family centred, with this perception of family-centredness being more positive when there are fewer places where services were received and fewer health and development problems for their child" (p. 364). The family-centred culture of a centre or organisation strongly influenced the satisfaction with that service. In addition, those organisations that provided training in family-centred services to staff (and had a more family-centred culture overall) were perceived more favourably by parents.

The study found that parents' beliefs about family-centred services influence their perceptions that they are receiving family-centred services. For this reason the authors recommend that it is useful for organisations to provide information to families about family-centred services, what it means, and what they should expect.

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[16] Four hundred and ninety-four parent questionnaires, 324 service provider questionnaires and 15 organisation questionnaires were returned and analysed.

The authors go on to say that children with more health and development problems tend to receive services from more sources, often at different locations. When children received services from more sources, parents perceived services as less family centred.

6.4.2 The gap between evidence and practice

"The inability of our field to enforce rigorous evidence-based standards of practice within a value-driven model of family-centered early intervention has caused frustration, anguish, and confusion among parents and professionals alike" (Bruder, 2000a, p. 108).

Family-centred approaches to early intervention often stress the importance of providing services to families that will empower adults in their roles as parents and caregivers (Kelly, Booth-LaForce & Spieker, 2005). However, while the notion of family-centred services is widely accepted, it is not clear whether they are always implemented (Carpenter, 2000).

"Professionals in education, health, human services, and other fields typically claim that 'we've worked with families for 25 years, and we've always been family-centred'. Both research and experience tell us that this claim, for the most part, is not borne out by the ways in which families are treated and the ways in which families are involved in helping relationships with professionals" (Dunst, 2002, p. 145).

McBride (1999) summarises a number of studies that have looked at the extent to which family-centred practices are actually implemented in early intervention services. She concludes that, across a variety of research strategies (qualitative interviews, surveys, observation, document analysis), with data from the perspectives of both families and professionals, and large and small samples, all the studies suggest a considerable gap between recommended family-centred practice and actual practice. "The findings generally suggest that overall, services continue to be child-oriented and professionally driven" (p. 66).

Hanson, Randall and Colston (1999) suggest that implementing family-centred philosophies in the everyday practice of early intervention presents professionals with challenges, particularly the need to treat parents as primary decision-makers, and can be more difficult if parental decisions and opinions differ from those of the professionals.

Bruder (2000a) cites studies that have suggested that IFSPs (Individualised Family Service Plans used in IDEA part C programmes) still focus on child outcomes to the exclusion of family-mediated outcomes and support strategies. She also identifies, from the literature, particular areas of concern that impact on the application of family-centred practice, with the attitudes of those in early intervention being of primary importance. This may include early intervention personnel continuing to view themselves as the "expert" and the family as the "client". She continues that attitudes are not just relevant to individuals but permeate agencies, organisations, and communities. "If one part of a system does not demonstrate family-centered attitudes, it is hard for the others in a system to override the damage this causes" (p. 110).

A qualitative study (Murray & Mandell, 2006) investigated the use of family-centred practices of early childhood, special education graduates (between one and three years after graduating) whose course work was embedded with family-centred pedagogy. The authors studied three cohorts, interviewing[17] 19 graduates employed in 19 different programmes located in six U.S. states. All the graduates were committed to family-centred philosophies and described their own family-centred practices. The graduates identified two types of barriers that interfered with their ability to use family-centred practices to the extent they wished:

υ   Limited understanding of and support from peers and administrators for using these practices.

υ   Lack of established policies and procedures specific to delivering services based on these practices.

Rather than attempting system-wide reform within their work environments, the graduates appeared to use strategies such as topic avoidance or minimisation of their family-centred practices to avoid confrontations with colleagues, although many continued to incorporate family-centred practice into their own work practices where they could. They reported that policies were defined to comply with legislative mandates where they existed, complying with the letter of the law rather than the intent.

In a study of Finnish child neurological teams[18] Kovanen (2001) found an "incongruence" between the family-centred philosophy of the teams around child assessment and their actual practice, which was more psychologically oriented. For example, information about a child gathered from parents or early childhood education staff was generally considered to be subjective, while the professionals' own observations were commonly considered to be objective.

Moore (2005b) concludes that when looking at the effectiveness of early interventions, attention needs to be paid to programme features such as the nature of the relationship between professionals and parents, the degree of control parents have over the form of the service they receive, the extent to which parents are actively and meaningfully engaged in programme activities, and the ease with which they can incorporate strategies into daily family routines.

6.5   Parent involvement in early intervention

"Parents should be given every opportunity to participate as active partners in planning services for their child and for themselves, requiring professionals to engage in practices that recognize, value, and support this type of relationship" *(Bailey, 2001, p. 1).*

One of the principles of the DEC recommended family-based practices (Trivette & Dunst, 2005) is that families and early intervention professionals share responsibility and work collaboratively.

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[17] In one – two hour semi-structured interviews.

[18] 32 specialist staff completed a semi-structured questionnaire and a further nine staff were interviewed by phone.

These particular recommended practices refer to parent involvement with their child in early intervention programmes. However, parent involvement can be more formal through participation in policy-making or by using their expertise to inform early intervention professionals.

> "Underlying almost all discussions about the role of early intervention vis-à-vis families is the fundamental concept that families should be considered as competent and key participants in the decision-making process about goals and services" (Bailey & Powell, 2005, p. 156).

In the New Zealand context, The Ministry of Education GSE (Group Special Education) Māori strategy (2002) describes the Treaty of Waitangi as its frame of reference. The Treaty principles of Partnership/Kawanatanga and Participation/Oritetanga are of particular relevance to the issue of parent involvement in early intervention. For example, Partnership/Kawanatanga refers to the need to work together with whānau, hapū, iwi, and other Māori communities, with Māori sharing in decision-making at all levels.

6.5.1   Engaging parents

"Families have been expected to assimilate to the cultural imperatives of the early interventionist by adopting their mode of communication with children and adapting to the recommended therapeutic style of play and interaction" (Vacca & Feinberg, 2000, p. 41).

Ideally, the involvement of parents in early intervention can be at a variety of levels to accommodate the different needs and circumstances of families (Gallagher, Rhodes & Darling, 2004). Vacca and Feinberg (2000) offer guidelines for initial and ongoing engagement with families that mean common understandings are reached early in the intervention process rather than later, and genuine family input into the early intervention process is facilitated:

υ **Establish the foundation for family-centred services and create rules for clinician/parent communication.** For example, ask how the parents want to have ideas and information relayed to them, e.g. through modelling or reading information, ask whether other significant people should be involved in meetings, and ask the parents to say if they feel activities are not appropriate for their routines.

υ **Invite the family to be a genuine co-participant in creating meaningful outcomes for themselves and their child.** One example given by the authors is a question that early intervention professionals can ask to assist in defining concrete measurable outcomes - "If we all work together for three months, and at the end of that period of time you tell us that the program has been successful, what will your child and family be doing differently than they are doing right now?" (p. 45).

υ **Ask families to relate their experiences with other programmes that have offered services to family members.** For example, find out what they liked or disliked about other services. The authors note that it is important to explore these experiences with families and address any concerns.

υ **Consider using a transdisciplinary model of intervention rather than a model that features multiple service providers in a multidisciplinary paradigm (see Section 9.1 for more information on a transdisciplinary approach).** A transdisciplinary model minimises the number of people with whom a family must interact and avoids giving a family too many activities to incorporate into their everyday routines.

Videotaping as an approach to involving parents in assessment

Hundt (2002) suggests the use of videotaping as one approach to involve parents in the monitoring of objectives included in individualised education plans (IEPs). Her study involved the videotaping of eight young children (aged 3, 4 and 5 years of age), in three classrooms, with IEPs in place. At the beginning of the project, parents reported a variety of methods of communicating between home and school. These included IEP meetings and parent/teacher conferences (five parents), home-school notebooks (six parents), phone calls to the teacher (two parents), home visiting and talking with the teacher at pick-up times (two parents). No children had been videotaped as part of an assessment process.

For the purposes of the study, communication, social-emotional growth and self-help skills were the primary objectives that would be tracked. Videotaping was undertaken at least once or twice a month for each classroom, during regular classroom activities and both in individual and small group sessions. Other means of assessment continued to be carried out. The videos aimed to show children's growth and development in regular activities. The information was then validated by parent feedback, and information on whether the skills were being generalised into the home environment. When the videotapes were sent to the parents, they received a form for their input that included two to four objectives taken from their child's IEP.

Positive outcomes from the videotaping study included the following:

υ   The children's teachers reported that parents had a better understanding of what they were discussing at parent teacher meetings.

υ   Parents were able to respond specifically to the objectives listed in their child's IEP.

υ   Parents who were unable to come to the school were able to see their children participating in a wide range of activities.

υ   The videos increased parents' awareness of the types of activities being undertaken and encouraged them to use some of the activities at home.

υ   Teachers reported that parents could not wait to see the next month's video and parents shared the videos with other family members.

υ   All parents reported at the end of the study period that the videotaping related to the objectives identified at the start of the project and reported feeling that they had more input into their child's programme.

On an individual level, reactions included a significant increase in communication with one family who had not maintained a notebook or attended scheduled meetings, and a non-English speaking family who did not get to school frequently had siblings coming into the school excited to see their sister on television.

The author acknowledges some challenges, including the time it took to tape and edit videos. However, the author concludes that the study demonstrated increased parent involvement, included the promotion of multiple means of collecting assessment information (including observations by parents), and assessment that is ongoing, purposeful and meaningful for children and their families.

6.5.2   Parents as advisors

Turnbull, Blue-Banning, Turbiville and Park (1999) note that a strengths perspective is one of the key components of family-centred practice. This leads them to emphasise the expertise of parents and other family members, and the "vital resources" they can provide to early intervention professionals. A number of articles discuss how parents can act as advisors for early intervention professionals or physicians working with children with special education needs and as support coordinators for families (Gallagher, Rhodes & Darling, 2004; Hanson, Randall & Colston, 1999; Kaczmarek, Goldstein, Florey, Carter & Cannon, 2004). Two such programmes are described below.

Parent led services, New Zealand

Smith, McCollum and Turner (2004) describe a New Zealand project initiated by the Tai Tokerau district management team of the Ministry of Education, Special Education. The aim of the project was to involve parents more effectively in the development of services. Two parent advisors[19] were employed to provide advice and guidance to the management team, staff and parents on special education issues. They were also asked to work on two specific projects:

υ   Developing a transition to school framework. A parent advisor worked alongside a special education advisor to get the views of parents, teachers and special education professionals about the elements of successful transition. A literature review was also undertaken. This information led to the development of a transition framework that was trialled with four children and their families. A key feature of the new framework was that it extended the transition process from a six month to a year long process. Exemplars of effective practice were also produced and a range of resources collated to support effective practice.

υ   Evaluating and re-defining a playgroup set up by professionals. This playgroup was established as a way to introduce families and their children with special education needs to the early childhood education system. However, only low numbers were attending and it did not appear to be meeting parents' needs. A parent advisor visited other service providers in

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[19] As this was a newly developed role, two advisors were employed to enable them to provide support to each other.

New Zealand and looked at different delivery models. She held a parent meeting to share these findings and to determine what parents wanted from the playgroup and from special education in general. As a result, a different playgroup structure was developed which took account of parent views. Changes included having a range of professionals and therapists available for parents to consult with, setting individual goals for each child and inviting guest speakers to provide information on a range of topics. A steering group was also developed with a mixture of parent and professional representation.

The authors conclude that this sharing of power between parents and special education professionals has built greater trust. "Parents and families now feel a sense of ownership of some key areas of service delivery and feel that they have the ability to make suggestions and have these listened to and valued" (p. 3). They also believe there have been improvements for the children and their families, with children settling better in early childhood settings and making better transitions. In addition, parent advisors have often worked with families to support them through complex decision-making processes.

The Family-Centred Preschool Model

Kaczmarek, et al. (2004) note that as most preschoolers aged three and older receiving early intervention services are in centre-based programmes, it is more challenging for early intervention personnel delivering to these children to implement family-centred services. This might include the ongoing identification of family resources, priorities and concerns, teaching advocacy skills, instructional methods, and effective parenting strategies.

Kaczmarek, et al. developed a family-centred preschool model in which parent-to-parent support augments the family support provided by early childhood education teachers. Parents of children with disabilities take on roles as family consultants. In this U.S. model, they are paraprofessional members of the early intervention staff and assigned to specific classrooms, where they liaise closely with classroom staff and represent the parents both within and outside the agency.

The family consultant offers support on both an individual and group basis, through telephone contact and face-to-face meetings. The family decides whether or not and to what extent they wish to use the services of the family consultant. The family consultant is able to help families negotiate through the special education system of services and resources (both state and community provided) and is, as a parent of a child with special education needs, also able to offer emotional support or link parents in the programme together.

The model was implemented for five years within a large urban school district (as a federally-funded model demonstration project). There were both exclusively special education classrooms and inclusive classrooms. The percentage of children with disabilities in an inclusive classroom varied from 15 percent to 25 percent. For some sites an early childhood educator and special educator shared responsibility for educational programming, for some an itinerant special educator provided consultation to classroom staff and some direct services to children. An occupational therapy assistant or classroom assistant was also available in each class.

Training for family coordinators involved 18 hours of intensive training across three consecutive days, shadowing a veteran family coordinator for a minimum of one week, and being closely supervised and mentored by the project coordinator.

On average during the first four project years, families had 7.4 contacts with a family coordinator per year, ranging from a minimum of one contact to a maximum of 23[20]. Family members were interviewed[21] to assess the effectiveness of the model. There were three key areas in which families identified benefits of participation:

υ   Information (89 percent of respondents). Families identified specific types of information that they felt were helpful – on specific disabilities, resources, school options, family rights, transition to kindergarten, and potty training.

υ   Support (68 percent).

υ   Contributions to improved parenting (64 percent).

All parents indicated that the project had had a positive effect on their children (89 percent indicated that the benefit was indirect, e.g. through the support they received they were better able to provide or advocate for their child).

Staff members were interviewed by phone over the course of the project (38 early intervention teachers, 16 related service providers, 8 paraprofessionals, and 6 early childhood teachers). Staff identified similar benefits from the project to those identified by parents:

υ   Provided emotional support to parents (78 percent).

υ   Provided information and useful printed materials to families (71 percent).

υ   Assisted families with the special education process (70 percent).

υ   Identified resources for families (44 percent).

Many staff members also indicated that implementation of the model had helped them to become more family-centred, provided them with useful information, and enhanced team development and parent-teacher communications. Other staff members did not see the project as changing the way they undertook their professional practice.

The researchers identified one potential limitation of the research as being the 40 percent response rate. For this reason they could not say whether the findings were relevant to all participants in the project or just those who agreed to be interviewed. However, they note that,

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[20] Not all families chose to participate or, if they did sign up for the project, to use the services of the family coordinator. This project interpreted a family-centred approach to mean that families were capable of identifying their own needs and would request support if they needed it. There were periodic opportunities for families to be advised of family support services.

[21] Forty percent of participating families were interviewed through phone or face-to-face contact.

because of the corroboration between staff member and parent responses, they can be certain that at least some of the families involved in the project found the services to be beneficial. The authors also suggest further research would help to identify, more objectively, whether the programme became more family-centred.

Key points from Section 6.0

While the benefits of family-centred practices for child outcomes have not been empirically validated, there is evidence that family-centred practices can contribute to positive parent and family outcomes. Increasingly, early intervention has, in principle, accepted a need to base services on those needs and priorities identified by parents and to engage parents as partners in decisions about priorities and intervention strategies.

However, while the notion of family-centred services is widely accepted, it is not clear whether they are always implemented. Studies suggest a considerable gap between recommended family-centred practice and actual practice, with many services continuing to be child-oriented and professionally driven.

While a family-centred approach was broadly accepted as a fundamental principle of early intervention service in the literature reviewed, there was also a recognition of the need for further research; for example, to develop measures and strategies to assess family-centred practice, and to achieve clarification and the development of measures of expected outcomes.

Best practice principles for family-centred practice were identified in the development of recommended practices by the U.S. Council for Exceptional Children:

υ   Families and professionals share responsibility and work collaboratively.

υ   Practices strengthen family functioning.

υ   Practices are individualised and flexible.

υ   Practices are strengths and assets-based.

A strengths perspective is one of the key components of family-centred practice. One of the principles of the DEC recommended family-based practices is that families and early intervention professionals share responsibility and work collaboratively. The involvement of parents in early intervention can be at a variety of levels to accommodate the different needs and circumstances of families. Parents and other family members can be an important resource for early intervention professionals. This can be through the role they play with their own child or in a more formal role; for example, as advisors for early intervention professionals, or as support coordinators for other families.

7.0 Māori perspectives

As with many other indigenous and ethnic groups around the world, Māori children with special education needs are over-represented in special education (Bevan-Brown & Bevan-Brown, 2001). Yet, there is a relatively small amount of research and literature addressing the specific needs of young Māori children who have special education needs.

Research by Wilkie (1999) on Special Education 2000 policy[22] targeted key national organisations and their staff with involvement in the issue of children with special needs. She identified a "definite Māori perspective about the education of children with special education needs" (p. ix). She describes participants in her research as being very clear that the Treaty of Waitangi should be considered in the development and implementation of all national special education policy. In particular, tino rangatiratanga was seen as a priority, encompassing Māori control over decisions and funding.

7.1 The role of whānau in special education services for Māori

One of the guiding principles in the Ministry of Education GSE (Group Special Education) Māori strategy (2002) is whanaungatanga, the "kinship ties that bind whānau, hapū and iwi together in reciprocal relationships". In Māori human development theory, Royal Tangaere (2001) notes, it is the whānau, hapū and iwi who are responsible for the child's learning, and therefore the learning and development of the whānau is key to the learning and development of the child - "whānau development is child development".

However, no literature was identified for this review that directly related a whanaungatanga approach to the family-centred practices discussed in this review. In fact, Liberty (2000) cautions that "… the concepts of disability, developmental outcome, developmental delay, and intervention (to name only a few) are drawn from a Western-European knowledge base … A Māori approach to early intervention may rest not only on a completely different knowledge base, but also is likely to involve a completely different approach to that described in this paper as a family-focused approach" (Liberty, 2000, p. 40). The research by Wilkie (1999), described above, identified the need for a wider understanding by policy makers and service providers of the traditional concept of whānau. She goes on to say that a perceived difference between the culture of the home and the culture of a school or provider was a significant challenge for many participants in her research.

While not specific to early intervention service, a discussion by Ritchie and Rau (2006) on whakawhanaungatanga, building relationships with the whānau of children in early childhood settings, and strengthening the bicultural commitment of early childhood education services provides interesting insights for early intervention practice. In the article, Ritchie and Rau describe

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[22] Wilkie notes that this was only a preliminary investigation and, for this reason, should not be seen to be a definitive statement on behalf of Māori or represent the views of all Māori.

how developing more democratic and culturally inclusive practices, "… requires teachers to shift from their traditional role of 'expert' and become collaborators alongside children … Collaboration with whānau/parents extends throughout the entire early childhood programme, and includes a willingness to incorporate different world views into everyday knowledge and practice" (p. 4). Of particular interest are some of the aspects of practice that they identify for strengthening the delivery of bicultural programmes. They include parents feeling welcome to participate, being part of a caring collective with common aspirations and values, a willingness to identify and support the needs of all members of that collective, and shared responsibility.

7.2 Cultural considerations

Bevan Brown (1999) notes that, from an early childhood educator's perspective, *Te Whāriki*, the early childhood education curriculum provides a framework for early childhood educators to consider the cultural needs of young children with special education needs. Indeed, she reports on a survey showing that the majority of the educators (87 percent) in the sample said that it was important to take the child's cultural background into account. However, the same report identifies that two-thirds of parents of Māori children surveyed did not feel that their child's "Māoriness" had been taken into account in their child's programme. Cullen and Carroll-Lind (2005) discuss the implication of this finding that inclusive philosophies about cultural sensitivity are not always being translated into practice.

In her 1999 research, Bevan-Brown suggests that the principles of effective intervention are the same for Māori and Tauiwi[23] children. However, she concludes that it is the inclusion of Māori components of best practice that distinguish special education services for Māori children from those provided for Tauiwi children. She surveyed Māori parents and consulted with a number of kōhanga reo and identified 16 Māori-specific components of best practice:

υ   Personnel requirements - a knowledge of Māori culture; cross-cultural competence; established Māori community networks; an understanding of the negative effects of colonisation; a commitment to Treaty of Waitangi obligations; knowledge of te reo (or partnered with someone who does have that knowledge); and a knowledge of total immersion and bilingual education.

υ   Service requirements - be whānau-based; include Māori workers; be based on and incorporate Māori values; utilise culturally appropriate and relevant assessment measures; include resources developed by Māori for Māori; be based on a Māori concept of special needs; use culturally appropriate teaching strategies; include Māori content and practices; and be supportive and valuing of Māori people and culture.

As Bevan-Brown (2003) notes, culture can determine the way we think, feel and behave and can also determine what we see as special needs, our attitudes about these needs, and the way we manage them. Through consultation with kōhanga reo whānau, Bevan-Brown (1999) describes the

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[23] A broad term encompassing, in this research, Pākehā and other ethnic non-Māori groups.

Māori concept of special needs as "broad, inclusive and influenced by the whare tapa wha[24] concept of well-being for Māori" (p. 64). In a special needs context, this may include components such as physical and sensory needs and communication needs, but can also take a broader approach, incorporating components, such as needs associated with giftedness, and needs associated with socio-economic circumstances and geographic location. Bevan-Brown reports that among the needs identified were cultural needs, which were seen to stem from three principal causes - Māori as a colonised minority group in a Pākehā-centric environment, cultural traits and practices (such as an unwillingness to "speak up") that can disadvantage Māori, and reo (language) related problems.

Bevan-Brown (2005) also describes a six year study that considered how Māori learners with special needs could have their needs met in a culturally appropriate and effective way. Part of this study was a survey of 78 people from 56 special education, Māori, and support and disability organisations, and 25 indepth follow-up interviews. Bevan-Brown's analysis identified common components of effective programmes and services:

υ Incorporation of cultural content, including Māori knowledge, skills, experiences, processes, language, tikanga, values, and beliefs.

υ The inclusion of parents and whānau, the Māori community, Māori organisations and Māori workers. For example, whānaungatanga was widely accepted and practised by many providers. "Parents and whānau, especially kaumātua, were consulted and involved in service provision including the development, adaptation and implementation of programmes, in identifying needs and in advertising services" (p. 6).

υ Ready accessibility. A wide range of strategies was used to ensure child and parental involvement was not undermined by issues such as inaccessible venues, unreasonable costs, lack of knowledge, or inconvenient timing.

However, Bevan-Brown also identified a number of challenges in providing for Māori children with special education needs:

υ Insufficient funding to provide the workforce and resources essential for adequate services and programmes.

υ Lack of culturally appropriate resources and people with the cultural and professional expertise needed to work with Māori children and youth with special needs.

υ Lack of culturally appropriate, relevant training for staff in both mainstream and Māori services.

υ Pākehā-centric attitudes towards special needs provision. The development of culturally appropriate services was not recognised as a priority in some organisations.

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[24] A Māori model of health, described by Mason Durie (1994), where the four components of health - te taha tinana (physical), te taha wairua (spiritual), te taha hinengaro (mental and emotional) and te taha whānau (social – family and community, represent four walls of a house. If one of these walls fails, the house will fall.

υ High stress levels of Māori staff working in the special needs area. Reasons for this included the role of Māori staff, in addition to their own caseloads, in providing training, guidance and "Māori expertise" to Pākehā colleagues. There was also a tension between Māori and Pākehā "ways of working". In particular, there was not enough time for Māori workers to take a whānau-focused approach.

Bevan-Brown (1999; 2004) makes the point that parents of young Māori children vary greatly in the extent of cultural input they would like in their child's early intervention programme. She goes on to say that "… compulsory procedures must be established for identifying the specific cultural requirements of Maori children with special needs. Parents must be consulted in this regard. It should not be left to [special education] personnel to guess at the level of cultural input required in special needs programmes" (1999, p. 67).

7.3 Service delivery in kōhanga reo[25]

Kōhanga reo is a total immersion whānau-based Māori early childhood programme for young children from birth to six years of age. However, special education services for kōhanga from external agencies are mostly provided in English. In interviews with 16 people from seven kōhanga reo from the East Coast and Opotiki regions (Bourke, et al., 1999) for research into Special Education 2000 policy, three kōhanga reported concern or dissatisfaction with speech-language therapy being in English, with one kaiako[26] reporting that she declined speech-language services for this reason, and instead approached staff at another kōhanga for advice in dealing with the child's language problem. Indeed, another point was made that bi-lingual therapists would be in a better position to converse with parents and grandparents.

Other suggestions from this research included the need for more oral and written information describing available services, with face-to-face contact being valued. Within kōhanga reo, kaiako raised the following as factors that need to be considered in catering for young Māori children with special needs (the number beside each point is the number of participants who mentioned each issue):

υ Māori and Pākehā professionals competent in te reo Māori, tikanga and the kaupapa of kōhanga reo (9).

υ Amount of whānau support and involvement (4).

υ Amount of te reo Māori spoken in the home (3).

υ Socio-economic and employment circumstances (2).

υ Whānau understanding of special needs (1).

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[25] See Section 8.1 for discussion of kōhanga reo and identification of special education needs.
[26] Teacher.

υ   Holistic nature of teaching, including taha wairua[27] and protection of mana[28] (3).

υ   Expertise of kaiako (2).

υ   Child's expertise in te reo Māori (2).

υ   Special needs resources in te reo (1).

The authors suggest research should focus on identifying what is culturally appropriate practice in kōhanga settings.

Key points from Section 7.0

As with many other indigenous and ethnic groups around the world, Māori children with special education needs are over-represented in special education. Yet, there is a relatively small amount of research and literature addressing the specific needs of young Māori children who have special education needs.

The Treaty of Waitangi should be considered in the development and implementation of all national special education policy.

Another guiding principle is whanaungatanga, recognising the kinship ties that bind whānau, hapū and iwi together in reciprocal relationships. Further research and investigation would be needed to determine how a whanaungatanga approach relates to the family-centred practices discussed in this review.

Consultation with kōhanga reo has shown that Māori may have a broad concept of special needs including components such as physical and sensory needs and communication needs, but also others, such as needs associated with giftedness and with socio-economic circumstances and geographic location.

Common components of culturally appropriate and effective programmes and services in New Zealand are identified as incorporation of cultural content, the inclusion of parents, whānau, the Māori community, Māori organisations and Māori workers, along with the need for ready accessibility to services.

Challenges when providing services for Māori children with special education needs are identified as insufficient funding to provide the required workforce and resources, a lack of culturally appropriate resources and people with the cultural and professional expertise, a lack of culturally appropriate, relevant training, and Pākehā-centric attitudes towards special needs provision..

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[27] The spiritual realm.
[28] Authority; influence.

8.0 Identification and point of access

"Parents [in the U.S.] have described access to services as a mysterious undertaking and as both labor and time intensive" (Harbin, 2005, p. 101).

8.1 Identification

As Wolery and Bailey (2002) point out, early intervention is based on the assumption that the earlier services and supports are provided the better. However, this means that children with special education needs must be identified in a timely way.

Johnston and Dixon (2005), in an Australian publication, describe identification as "… the first step in moving to a point where a child's disability and/or developmental delay can be addressed and the needs of the family met" (p. 4). They go on to stress that it does not mean diagnosis or assessment of the level of delay. Rather, identification involves recognition that a problem may exist, leading to a referral (if the parent agrees) to specialised services for further investigation.

Identification does not always occur as early as is desirable, particularly if a child doesn't have contact with anyone with a sound knowledge of development, if a child has only a marginal delay in development, or if parents are encouraged to "wait and see" before seeking further advice (Johnston & Dixon, 2005). In the U.S., Wolery and Bailey (2002) have estimated that approximately 15 percent of the children who are later eligible for school-aged special education services receive IDEA Part C services for infants and toddlers from birth to three years, while about 44 percent receive preschool services.

 "Despite the practical need articulated by numerous families and the legal requirement [in the U.S.] for coordinated access and referrals across agencies and programs, most programs continue to have autonomous points of access … Further complicating the situation is the lack of sufficient organizational linkages between many programs that results in a lack of referrals of children and their families to all relevant agencies and programs" (Harbin, 2005, p. 101).

The literature identifies a number of drivers that appear to have increased the focus on developing effective systems of early intervention and identification for children with special education needs aged from birth to three.

υ   Intervention is more effective if it begins early in the life of a child or soon after the onset of the factors that place their development at risk (Gilliam, Meisels & Mayes, 2005). Carpenter and Egerton (2005) also suggest that by providing very early support, there is an increased chance of a family at risk being able to engage or re-engage with mainstream services, such as education and health.

υ   An increasing number of premature babies are surviving at an ever earlier stage, leading to an increase in the numbers of children with complex needs who survive the neonatal period, and

infancy (University of Manchester in association with the University of Central Lancashire, 2003).

υ   There have been improvements in detecting disabilities and illnesses at a significantly earlier stage than had previously been possible, e.g. newborn hearing screening. To identify early, such as in the case of deafness, can help reduce developmental delays and prevent or attenuate the adverse developmental effects of biological and environmental risk factors (Gilliam, Meisels & Mayes, 2005; University of Manchester in association with the University of Central Lancashire, 2003; Wolery & Bailey, 2002).

υ   In a New Zealand review of research on the development and treatment of severe behaviour difficulties in children and adolescents, Church (2003) suggests that well designed home and school interventions, that reach a child before the age of seven, "… may succeed in returning the antisocial child to a normal developmental trajectory in 70 to 80 per cent of cases" (p. 93).

However, Harbin (2005) identifies "… interrelated and serious system access issues" in the U.S. related to autonomous provision of public awareness, child find[29] and system points of access. In particular, she points to a lack of early identification because of fragmented and confusing system entry procedures, a lack of easy access because families do not know where to go or whom to contact and, finally, less than full access to services for some children and families when trying to access a number of services within a fragmented system. For example, children and/or families may receive services from one agency but not be linked to other services and resources in a timely way, or to all available services and resources.

It is early childhood education professionals, along with others, such as GPs and plunket nurses who are often in a position to recognise when a problem may exist. Johnston and Dixon (2005) suggest that professionals need the skills to recognise potential issues and for this role they require a sound grasp of typical development in the first five or six years of life and skills in talking with and listening to families.

Wolery and Bailey (2002) go further and suggest questions that they believe need to be answered if early intervention practices are to improve. These include:

υ   why some children are identified earlier than others, particularly where this is affected by issues such as unresponsive health care professionals, lack of diagnostic expertise, and a lack of appropriate clinical guidelines and screening measures

υ   the relative efficacy of various multidisciplinary, community-based models for early identification, particularly how to enhance the ability of those in the system to respond more rapidly to parental concerns

υ   what are the earliest presenting signs of selected categories of disability?

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[29] Agencies in the U.S. can have a child find role, identifying children with disabilities who may require early intervention services.

υ   what tools could improve the accuracy and efficiency of screening? They go on to say that new tools, that are more precise than those currently available, need to be developed and validated.

In a 1999 report on research into early intervention services delivered through Specialist Education Services (SES)[30], Cullen and Bevan-Brown (1999) report that SES respondents expressed concern at a lack of referrals from kōhanga reo. The authors identify a need for increased recruitment, training and employment of Māori staff by SES and other special education providers.

In interviews with 16 people from seven kōhanga reo from the East Coast and Opotiki regions, Bourke, et al. (1999) identified a feeling among participants that Māori children were missing out on special education assistance. The authors conclude the discussion by identifying three challenges:

υ   The need to overcome a limited understanding of special education provision amongst kōhanga staff and whānau. A face to face approach was the preferred method for most participants.

υ   A lack of special education training.

υ   The provision of culturally appropriate services to kōhanga reo, as special education professionals with expertise in te reo and tikanga were "few and far between".

Meade, Puhipuhi and Foster-Cohen (2003) note that Pasifika user percentages in New Zealand are not representative of the wider population. Specifically, they say that 409 Pasifika children received early intervention services in the year 1 July 2001 to 30 June 2002 (3.6 percent of the total number of children receiving early intervention services), a marked under-representation as 17 percent is the age-related population for Pasifika children[31].

A New Zealand research project examined the role of agencies in Pacific licensed and chartered early childhood centres, including Specialist Education Services (SES) in Auckland (Mara, 1998, *cited in* Coxon, 2002). SES staff in Central Auckland, West Auckland and Manukau City expressed concern at the low number of referrals, although some referrals did come through kindergarten and playcentres. SES were addressing this, to some extent, by employing more qualified Pasifika staff on their early intervention teams. They also saw a need for a Pacific Islands Advisory Committee to assist it in its work with families.

A review of the literature from New Zealand and overseas on special education needs and cross-cultural beliefs and values was undertaken by Fa'amausili-Banse in 1999 (*cited in* Coxon, 2002). She also considered a reported lack of referrals to SES from Pacific Islands early childhood centres. She draws parallels with international studies in her conclusion that the "framing" of disability comes from a mono-cultural paradigm and until this is addressed Pasifika parents may

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[30] Specialist Education Services (SES) was dis-established in 2002 and its functions integrated with the Ministry of Education. This resulted in the formation of Group Special Education (GSE) at the Ministry.
[31] No comparable data was identified in the literature on the numbers of Māori children receiving early intervention services relative to the age-related population for Māori children.

remain hesitant about referring their children to any outside agency. Fa'amausili-Banse also interviewed Pasifika training providers and raises some questions about both the preparation of teachers for special needs assessment and referral, and the ability of providers to effectively communicate their services to parents and Pasifika communities.

8.2 Point of access

Once a potential problem has been identified, access to early intervention systems can be another barrier for those seeking information and services. Harbin (2005) reports on interviews with a diverse range of families, over 15 years, in which one of the most frequently suggested solutions was a single point or place to gain access to services provided by all agencies in the community. This supports a finding from the evaluation of the Early Support programme in England, where parents identified clear benefits to co-location of services, whereas professionals did not identify co-location as a significant driver for improved inter-agency working (see Section 9.5.1).

The U.S. has a number of agencies who can provide services to young children with special needs. These agencies are likely to have staff with expertise in particular areas, such as education, health and child welfare. Harbin (2005) points to a lack of organisational linkages between many programmes that results in a lack of referrals of children and their families to all relevant programmes and agencies. This lack of coordination can mean many children are not identified as early as is possible. Also, children and families may not be linked to the full range of services to meet their individual needs.

Harbin describes a Delphi[32] study with seven groups of diverse early intervention stakeholders to identify desired system-level outcomes for a point of access system. Those identified included:

υ   early identification

υ   easy access – provide information and supports so that parents and professionals can easily gain access to the system

υ   timely entry – conduct point of access activities within a short timeframe to ensure quick access to resources, therefore reducing parental frustration and increasing the likelihood of child progress

υ   full access – link children and their families to the full array of resources for which they are eligible and that will meet their needs

υ   knowledgeable consumers – increase families knowledge about how to navigate the service system and gain access to available services, resources and opportunities

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[32] Delphi is a method for structuring a group communication process, so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem. It uses the iterative, independent questioning of a panel of experts until consensus is achieved. Panelists are individually questioned in rounds. After the initial round, the panelists are given lists of anonymous answers from other panelists that they can use to refine their own views.

υ   consumer (family) satisfaction – increase families' satisfaction and reduce frustration.

Harbin goes on to make the distinction between a single portal of entry and an integrated and coordinated portal of entry. In an exemplary point of access system, she suggests, all agencies, programmes, private providers, and community members "… are seen as providing multiple paths to a coordinated POA [point of access]. She continues "… these changes require a paradigm shift away from a bureaucratic and de-personalized approach … to an empowering and empathetic 'welcoming' of children and families in a caring manner in more natural contexts" (p. 126). Such a shift would also mean a move away from an agency operating individually with just its narrow range of resources, to one that takes advantage of a wide range of resources and supports from a diverse range of providers.

In an overview of what may be needed to create such a system, Harbin (2005) describes four key tasks:

υ   Creating public awareness – through a strong active public awareness campaign, with strategies such as one telephone number for families with any type of question or concern, and brochures that advertise access to a broad range of community resources (rather than just those of one agency).

υ   Developing trusting relationships – Harbin emphasises the need for this as soon as contact is made by families, with agencies needing to look at the way they collect information to ensure it has a relationship-based rather than bureaucratic focus.

υ   Gathering essential information – for example, Harbin emphasises that rather than immediately asking for the referral agency and/or the family to complete forms, the staff at the point of access can ask questions and complete the relevant paperwork. Harbin also says the agency should have a "conversation" with the family to consider the child's functioning, family concerns and successes, assisted by the use of information gathering tools (see Section 13.3 for further discussion of this point).

υ   Dividing children into broad groups – children and families referred to a single point of access will need to follow different service paths. This may be an early intervention programme for children with special education needs, a broader programme for children at risk of adverse outcomes, or families may have a temporary one-off need for information; for example, how to handle temper tantrums. Using the information gathered in the previous step, staff can identify which programmes the child and family are eligible for.

In New Zealand, the Auckland City District of the Ministry of Education, Special Education (Ministry of Education, 2006c) explains that they responded to concerns expressed during consultations in 2004 by consulting with Māori families and other stakeholders on the services provided to Māori children with special needs. As a result they realigned their Māori focus team (Te Roopu Ratonga Māori) to provide a district-wide service for Māori families. The first contact with a Māori family will be by a kaitakawaenga (Māori liaison advisor) who will discuss the services provided. Wherever possible a Māori family requiring a kaupapa service will be allocated a Māori practitioner.

Key points from Section 8.0

Early intervention is based on the assumption that the earlier services and supports are provided the better. Intervention is likely to be more effective if it begins early in the life of a child or soon after the onset of the factors that place their development at risk. Also, very early support may increase the chance that a family at risk is able to engage or re-engage with mainstream services, such as education and health.

This means that children with special education needs must be identified in a timely way. However, this may not occur, particularly if a child doesn't have contact with anyone with a sound knowledge of development, if a child has only a marginal delay in development, or if parents are encouraged to "wait and see" before seeking further advice. Early identification may also be delayed through fragmented and confusing system entry procedures.

Early childhood education professionals, along with others (such as GPs and Plunket nurses), need skills and appropriate guidelines and tools to recognise potential issues. They also require a sound grasp of typical development in the first five or six years of life, information on the earliest presenting signs of various disabilities, and skills in talking with and listening to families.

While families tend to state a preference for a single point of access, it is likely that a more realistic approach is an integrated and coordinated system that takes advantage of a wide range of resources and supports from a diverse range of providers. Additionally, until services meet the needs of culturally diverse families, those families may remain hesitant about referring their children to any outside agency.

9.0 Teamwork and collaboration

"When children with disabilities are included in preschool programs, teamwork becomes a necessity. No matter what type of individualized-service model a program uses, early childhood special education teachers, early childhood education teachers, related service professionals, administrators, and families must work together to meet the needs of individual children" (Lieber, Wolery, Horn, Tschantz, Beckman & Hanson, 2002, p. 82).

A range of people and agencies can be involved in the provision of services to young children with special needs and their families. They may have expertise in a number of areas, including medical, therapeutic, educational/developmental, and social services. Not only may they represent different professional disciplines but they may also have different philosophical models for service delivery (Woolraich, Gurwitch, Bruder & Knight, 2005).

Early intervention professionals need to work closely with families and early childhood educators but also with other professionals involved in early intervention delivery, who may come from multiple disciplines. Much of the literature reviewed here discusses the potential for a team approach for all aspects of service delivery, including assessment. The types of teams that are typically discussed are either multidisciplinary, interdisciplinary, or transdisciplinary. Trumbull (2003) and McWilliam (2005b) describe these as being on a continuum, moving from less to more interaction between team members.

Early intervention has moved from a traditionally multidisciplinary approach where professionals from various disciplines work independently of each other, towards an emphasis on coordination of specialist effort (Moore, 2005c). Harbin and Salisbury (2005) suggest that interdependent relationships among structure, services, supports, and outcomes are consistent with ecological theories of development, such as the one proposed by Bronfenbrenner. He suggested that a child's development is influenced by the systems of services that support them as well as by their family, neighbourhood and community.

In addition, the literature reviewed here focuses on the early interventionist as advisor, coach and a provider of information for families and early childhood education staff and other care and intervention providers (Shelden & Rush, 2001).

9.1 Interdisciplinary and transdisciplinary service delivery

"Traditional medical models or school-based model practices, in which different team members perform largely independently, are antithetical to Recommended Practices in EI/ECSE" (McWilliam, 2005b, p. 129).

An interdisciplinary model is one where members of a team employ their own perspectives, assessing and working with children separately, but then discussing their finding and reaching decisions collaboratively. "The interdisciplinary team is characterized by formal channels of communication that encourage team members to share information and to discuss individual results" (Trumbull, 2003).

> "On first visiting Faye, her mother gave me a plastic counter and explained how I should use it. There were eight professionals trying to offer support. There were mixed and contradictory messages. There was little time in the week for her mother to enjoy Faye and none to shop, wash or do the housework. If she felt I had something positive to offer she would give me a counter to push through the letterbox on my next visit. Those professionals who did not receive another counter were not allowed back in the house. Faye's Mum made all of us think about working together and what it really means to provide joined-up services" (Department for Education and Skills, 2003, p. 21).

A transdisciplinary model requires the early intervention professionals involved in a team to collaborate and provide *integrated* interventions in children's natural environments (McWilliam, 2005b). One person, in collaboration with the other team members, accepts the primary responsibility for implementing a child's individualised plan (Hanson & Bruder, 2001; Shelden & Rush, 2001). "The primary purpose of the approach is to pool and integrate the expertise of team members so that more efficient and comprehensive assessment and intervention services may be provided" (Hanson & Bruder, 2001, p. 53). Team members make decisions on evaluation, assessment, programme planning and implementation together, with the family being an integral part of that team (Trumbull, 2003).

Transdisciplinary service delivery in early intervention evolved primarily for home-based programmes as a way to reduce the number of professionals providing services in an individual child's home. However, it has also been extended to classroom-based services (Kaczmarek, Pennington & Goldstein, 2000). Central to the transdisciplinary approach is the "exchange of competencies" between team members usually achieved through role release. Professionals educate one another in the skills and practices of their disciplines so that one professional can actually carry out all interventions with the child. This has the advantage of enhancing the skill base of the team in addition to providing more holistic service delivery. However, this does not take away from the necessity for individual team members to have their own expertise in a particular discipline that they bring to the team (Carpenter & Egerton, 2005; McWilliam, 2005b).

> "Professionals from different disciplines teach, learn, and work together to accomplish a common set of intervention goals for a child and his or her family. The role differentiation between disciplines is defined by the needs of the situation, as opposed to discipline-specific characteristics, training, or abilities" (Hanson & Bruder, 2001, p. 53).

Shelden and Rush (2001) identify advantages of a transdisciplinary model as being less of an intrusion into the family system, increased communication among team members, and consistency in the implementation of the intervention plan. Carpenter and Egerton (2005) state that, particularly in home-based services, a transdisciplinary approach can "… result in an approach which is more 'in tune' with the family life pattern; more naturalistic and responsive to the child's context" (p. 31). However, challenges for those implementing transdisciplinary approaches may include the greater

degree of collaboration required, particularly the time commitment required, and the reimbursement models that are in place to service more traditional service delivery types that may not accommodate more collaborative or team time (Hanson & Bruder, 2001).

9.2 DEC recommended practices: Interdisciplinary models

The DEC recommended practices for interdisciplinary models address both home-based and centre-based practices. Rapport, McWilliam and Smith (2004) note that the broader term of interdisciplinary was used for the recommended practices because transdisciplinary approaches, while supported by many leaders in early intervention, are viewed with caution by some practitioners in specialised disciplines.

McWilliam (2005b) and Rapport, et al. (2004) note that the empirical literature base used for development of these recommended practices was smaller than for other strands of recommended practices, with just 30 articles supporting the 19 recommended practices[33].

υ **Teams, including family members, make decisions and work together**

All team members participate in the IFSP/IEP process.

Team members make time for and use collaborative skills when consulting and communicating with other team members, including families, regular teachers and caregivers.

Team members support paraprofessionals so they are treated respectfully and their skills are used most effectively.

υ **Professionals cross disciplinary boundaries**

Team members engage in role release (i.e. help others learn each other's skills) and role acceptance (i.e. are prepared to learn others' skills).

Team members use a transdisciplinary model to plan and deliver interventions.

υ **Intervention is focused on function, not services**

Team members focus on the individual child's functioning (e.g. engagement, independence, social relationships) in the contexts in which he or she lives, not the service.

Team members change models of service delivery (e.g. location) as needed, continuously monitoring what the child can do, what the child is doing, and what the family needs, to decide how to serve them.

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[33] These are just a selection of the strategies provided. For the full text of the Recommended practices: Interdisciplinary models, see Sandall, Hemmeter, Smith & McLean, 2005, pp. 132 - 138.

Team members decide on each intervention variable – how to intervene, who should intervene, when the intervention should occur, and where the intervention should occur – based on (a) relevance to the priority (i.e. the functioning the family desires), (b) environmental resources and constraints, and (c) the likelihood that it will help.

Team members use the most normalised and least intrusive intervention strategies available that result in desired function.

Regular caregivers and regular routines provide the most appropriate opportunities for children's learning and receiving of most other interventions.

9.3 Collaboration between early intervention professionals and early childhood education teachers

"Collaborative consultation supports interventionists' use of an interdisciplinary perspective to develop congruent programs and delegate appropriate activities to other team members" (Shelden & Rush, 2001, p. 4).

Interdisciplinary and transdisciplinary approaches require those involved with a child to design and deliver effective interventions. In many cases, early intervention professionals will collaborate closely with early childhood education staff to deliver an intervention to an individual child. Effective collaboration requires the establishment of positive relationships between early intervention professionals, early childhood education teachers and the parents (or other caregivers).

MacArthur, Dight and Purdue (2000) note that itinerant early intervention professionals can exclude early childhood teachers and staff by adopting the role of the "expert" in their interactions with both children and teachers. In some cases, this may result in the teacher removing themselves from contact with the child. Shelden and Rush (2001) point to a number of studies that have found that, while early interventionists generally believe in the need for collaboration and believe that they engage in collaborative consultation, in many cases they are providing direct therapy or giving advice in a directive manner.

Developing collaborative relationships in practice

"Services provided in the context of the natural environment emphasize a consultative role with parents to explore and enhance learning opportunities throughout a child's and family's daily life" (Childress, 2004, p. 164).

In New Zealand, a collaborative and coordination principle underpins the Service Pathway: Poutama (Ministry of Education, 2006b). The service pathway describes the steps or stages of specialist service provision. These are access, engagement, assessment and analysis, programme planning, implementation, review, closure, and follow-up and reflection. Progress

through the Service Pathway is not necessarily a linear, sequential, or cumulative process. A child or young person, and their family and whānau, may be involved at different times and in different ways with specialist teams.

In a U.S. article, Buysse and Wesley (2004) propose a framework for the consultation process in early childhood education and home settings, based on key elements shared by models outside of the early intervention field. The framework presupposes a shared responsibility between early intervention personnel and family member or early childhood educator. The following are the eight stages of the consultation process that are proposed by Buysse and Wesley:

1. Gaining entry – describe role of consultant and services qualified to offer, establish purpose for consultation, assess consultee's willingness and commitment to participate.

2. Forming relationship with consultee – build open and trusting relationship, establish parameters of consultation, discuss consultation roles and goals.

3. Gathering information – identify factors relevant to a specific goal or goals.

4. Setting the goal(s) – consultant and consultee agree on concrete goal(s) for change.

5. Selecting a strategy – consultant and consultee agree on a plan to address the goal(s).

6. Implementing the consultation plan – consultee implements the plan; if assistance is needed, consultant assumes supportive roles.

7. Evaluating the plan – assess the match between desired and actual outcomes identified in the plan.

8. Holding a summary conference – consultant transfers roles and responsibilities to consultee.

The authors suggest that further research is required to evaluate the effectiveness of their eight-stage process and its impact on children, families and early intervention programmes, and to reach consensus on what constitutes effective practice.

However, Guralnick (2005a) notes that interdisciplinary teams often lack the degree of coordination and integration necessary for full utilisation of this approach. From a pilot study to help teams use a problem-solving approach to improve collaboration (Lieber, et al., 2002), the authors provide a number of recommendations for teachers made by the staff members and families they worked with for developing collaborative relationships. These include:

υ   having a positive attitude toward change - the teams that were successful in working together were the ones who were open to try something new

υ   teachers taking the initiative to make the change happen

υ   being flexible as change and compromise will be necessary

υ	developing communications strategies.

Positive outcomes from the study by Lieber, et al. included joint participation in programme development, a shared philosophy and positive relationships among professionals.

Coaching as an approach to collaboration

"Coaching is increasingly recognized as a strategy that can help early childhood professionals expand their traditional direct service role in order to realize the potential of enhancing children's functioning in everyday environments" (Rush, Shelden & Hanft, 2003, p. 36).

Early intervention personnel may coach family members, early childhood educators and childcare providers, friends, and other early intervention staff (Rush, Shelden & Hanft, 2003). The authors suggest that coaching blends both hands-on and hands-off approaches, with direct therapy used for "two critical purposes" - assessment and modelling. The role of the early interventionist as coach is to act as a joint problem-solver, encourager, and as a resource for new ideas and information. Other team members can, as needed, provide support to the coach and, as the authors point out, the coach themselves may need coaching from colleagues to learn needed skills to work with a particular family.

The authors discuss the role of coaching in general education settings and in special education and suggest that its use over the last 20 years with education personnel has led to an emphasis on three key characteristics for coaching - non-judgemental interaction, observation paired with reflective feedback and the acquisition of new knowledge and skills for the adult learner directed towards improving a child's performance.

The authors describe coaching as a "… mutual conversation between two individuals who each have information to share and skills to gain from interacting with each other" (p. 38). The coach has specialised knowledge and skills to share; for example, on child growth and development and intervention strategies. The learner has intimate knowledge of a child's abilities, challenges and typical performance and behaviour in a given situation as well as their daily routines, family culture and relevant goals for the child and family.

Key goals for a coaching session are to support learners in making positive changes in their interactions with young children and to ensure that child and family outcomes are achieved. Who will assume the coaching role depends on who has the relevant expertise to help the learner reach particular goals.

Rush, Shelden and Hanft (2003) identify five phases of the coaching process:

υ	Initiation – where the coach identifies an opportunity for coaching and invites the learner into a coaching relationship, or the learner recognises a need and seeks the experience of the coach. The learner and coach jointly develop a plan with the outcomes expected from the coaching and clarify the ground rules.

υ Observation or action – different observations may be used depending on the situation; for example, the coach may observe the learner demonstrate an existing challenge or practise a new skill or the learner may observe the coach model a new technique or strategy. The action stage happens outside the coaching conversation; for example, the learner practising a new skill or thinking about how to handle a future event.

υ Reflection – the learner analyses his or her practices and behaviour. Through questioning and reflective listening, the coach supports the learner to discover existing strategies and potential solutions to address the identified issues. The coach then offers feedback on this reflection and may share information and resources, through demonstration and joint problem-solving. The partners to a single coaching conversation may move through observation and reflection a number of times.

υ Evaluation – while evaluation may not follow every coaching conversation, the coach should self-evaluate each time, to assess whether the process should continue, be adapted or the intended outcomes have been achieved.

υ Continuation or resolution – the continuation phase summarises the results of the coaching session and develops a plan for what needs to occur before and after the next coaching conversation. Resolution occurs when the coach and learner mutually agree that the coaching goals have been met.

The ideal result of a coaching conversation is that the learner has developed confidence and the ability to implement strategies to increase the child's learning opportunities and participation in daily life; the learner knows when the strategies are successful and is able to generalise solutions to new circumstances.

9.4 Factors impacting on the delivery of integrated services

"My son doesn't receive a coordinated package of therapies. Many 'experts' see him and deal with their part of him and send him back to me for re-assembly" [parent comment during consultation] (Ford, 2005, p. 72).

Providing integrated services adds complexity. In a synthesis of literature and research, Park and Turnbull (2003) identify factors that can hinder or facilitate service integration and collaborative relationships among adult stakeholders in early intervention. These include both interpersonal and structural factors. Examples from their findings are given below:

υ **Interpersonal factors that can impede successful service integration -** lack of professional knowledge about the benefits that other agencies may provide, lack of trust with personnel from other disciplines, resistance to change, lack of professional preparation for new roles and role shift.

υ **Interpersonal factors that can facilitate successful service integration -** respect for cultural differences, non-judgemental support for family decisions, interpersonal courtesies (such as keeping appointments), communication skills, sharing information and keeping other partners informed.

υ **Structural factors that can impede successful service integration -** discrete funding streams, not enough time for communication, staff turnover, difficulties in scheduling and getting everyone together, imprecise definitions of responsibilities, lack of ground rules for collaboration, confidentiality policies, unclear goals.

υ **Structural factors that can facilitate successful service integration -** flexible management, joint problem solving, programme practices and policies that reflect and support family-centredness, provision of professional development opportunities, systematic communicating, development of common goals, effective conflict resolution.

Recommendations from the literature to improve the delivery of integrated services include:

υ adequate training of all professionals, including education on interpersonal factors and structural knowledge

υ system change, including co-location of services, administrative approval and support for flexible scheduling for collaborative activities

υ enhancing family centredness, including through respecting cultural and socio-economic differences, seeking family input at every level of service delivery, and having families evaluate the effectiveness of service integration.

The following two sections describe two approaches that have the potential to improve the delivery of integrated services.

9.4.1 Developing a core set of skills and knowledge

Early intervention professionals working in early childhood education settings may face difficulties if there is no overall (e.g. national) framework for how indirect services in early education and intervention should be provided (Buysse & Wesley, 2005; Harbin & Salisbury, 2005). Other barriers to effective practice may include an absence of clearly defined professional roles and competencies (Buysse & Wesley, 2005).

Moore (2005a) reports on the key findings of a national survey that considered the knowledge-base and training needs of those working with young children and their families. "The survey showed that no single profession had all the knowledge, skill and values needed to work effectively with young children and their families, although all professions had some of them" (p. 1). The survey also revealed that most ongoing training was occurring in "professional 'silos'", with little multidisciplinary or cross-sectoral training. However, Moore (2005a) suggests that "one of the conditions that needs to be met for services to be better integrated is that the

professionals/services involved should share a common core of knowledge, skills and values" (p. 3).

While professionals working with children will have both general and particular discipline-specific knowledge and skills, Moore (2005a) describes a core interdisciplinary curriculum of knowledge, skills and values that those working with young children and their families need. This could include training that develops a knowledge of early childhood development and the factors that hinder or help healthy child development and family functioning, skills in developing partnerships with parents, skills in delivering family-centred services, and skills in interdisciplinary teamwork.

In a review of the literature on preservice training and professional development for professionals working with young children and their families, Moore (2005a) also identifies a range of training needs that are common to all professionals working with young children and their families, including communication and counselling skills, family-centred practice, cross-cultural competence, interdisciplinary teamwork, inter-agency collaboration, inclusive practices, and the use of natural environments.

While not specific to young children up to school age, an interesting application of Moore's idea of a core curriculum is the non-statutory guidance produced by the Department for Education and Skills (HM Government, 2005), *Common core of skills and knowledge for the children's workforce*. This document sets out required knowledge and skills to practise at a basic level in six areas of expertise - effective communication and engagement, child and young person development, safeguarding and promoting the welfare of the child, supporting transitions, multi-agency working, and sharing information.

9.4.2 Key worker

"The simplicity of the idea of key working stands in stark contrast to the complexity of implementation" (Drennan, Wagner & Rosenbaum, 2005).

Guralnick (2005a) notes that families frequently identify service coordination as a major concern. Dunst and Bruder give the following definition of service coordination (from a U.S. perspective):

"A process of (a) assisting parents of children who receive early intervention gain access to services, supports, and resources identified in a child and family's individualized family service plan, and (b) coordinating the provision of those services, supports, and resources. Service coordination is an ongoing process that continually seeks appropriate services, supports, and resources that are necessary to benefit each child's changing situation" (p. 365).

The European Agency for Development in Special Needs Education (2005) describes the nomination of a key person/worker acting as a "case-holder" as a key element in the team building process and Carpenter and Russell (2005) note that different models of key working are being developed within the Early Support project in England.

According to Carpenter (2000) a lack of professional understanding of the experiences and needs of families has led many parent support organisations (in the U.K.) to evolve more family friendly

service delivery systems. Further, he suggests that the "key worker" role is seen as pivotal in these organisations in offering direct, meaningful support to families and offering one point of access for the many services that may be available.

In *Together from the start*, the Department for Education and Skills (England) says that the effective use of keyworking is a key issue for improving standards. They define a keyworker as "… both a source of support for the families of disabled children and a link by which other services are accessed and used effectively. They have responsibility for working together with the family and with professionals from their own and other services and for ensuring delivery of the plan for the child and family. Workers performing this role may come from a number of different agencies, depending on the particular needs of the child" (p. 22).

Drennan, Wagner and Rosenbaum (2005), in a Canadian report, describe the key worker as a person who acts as a single point of contact for a family, helping the family to coordinate their care across systems, such as education, social services, financial resources, recreation, and transportation. "The main concept of the key worker's role is to empower parents by providing them with support, resources and information tailored to meet their individual needs". They describe a variety of ways this may be accomplished, including:

υ   helping parents understand the system(s) and, if required, helping them navigate the system(s)

υ   being present at various meetings/appointments if requested by parents

υ   assisting with the interpretation of assessment results, or outcomes of meetings

υ   supporting the family's skills, and providing parents with additional skills or tools to facilitate empowerment.

Drennan, Wagner and Rosenbaum (2005) note that the effectiveness of this approach is not well documented, with available evidence mainly in the form of satisfaction surveys and focus groups. However, benefits of the approach they identify from the literature include increased parental engagement and empowerment, increased navigability of the system for families and professionals, better and quicker access to benefits and services, improved relationships between families, services and professionals, and improved family relationships, health and morale.

Dunst and Bruder (2002) identify similar positive benefits of integrated and coordinated service delivery from their review of the literature. Specifically, they identify the better flow of resources, supports and benefits. They note that improved well-being and quality of life are "more often than not" positive benefits from service coordination.

Among recommendations made by Drennan, Wagner and Rosenbaum (2005) are the need for the key worker to be a formalised programme recognised by professionals and practitioners across all agencies, that it should be family-centred, and that it should take a flexible, individualised approach.

Team Around the Child

"TAC is a powerful antidote to the fragmentation of service delivery that is, sadly, the experience of many families" (Limbrick, 2005, p. 81).

Limbrick (2005) describes the use of the Team Around the Child (TAC) approach in many parts of the U.K. TAC is a way of coordinating early interventions for young children with multiple and complex needs, who need long-term, practical intervention on a regular basis from a number of professionals. A pivotal part of TAC is the role of team leader – effectively operating as a key worker or lead professional.

The Team Around the Child is defined as "… an individualised and evolving team of the few practitioners who see the child and family on a regular basis to provide practical support in education, therapy and treatment" (p. 82). Parents are expected to have a full place on the team. The intention is that this will be a cohesive and continuing team that can arrive at a collective view of the strengths and needs of the family and provide a collective response.

Limbrick (2005) describes three levels that a key worker can operate at depending on the complexity of the needs of the child and family:

1. At the lowest level of complexity, the key worker can be a "named person" who helps the family to get information and services, ensures local networks function effectively and is available when needed to address new situations.

2. When there are separate elements of intervention, the key worker can coordinate to keep everything organised, preventing duplication, making sure appointment venues are accessible by the family and ensuring that support is delivered in a way that protects family life and the well-being of the child.

3. For children and families with the most complex needs (either because of the child's condition or the family's needs), the key worker facilitates the team of key practitioners in their efforts to collaborate with each other.

At a local level, Limbrick (2005) reports that one development centre has asked parents how the TAC approach has helped their families. "The main response was that, by having TAC, there was more focused and effective communication between families and professionals". Parents found that things happened more quickly and appropriately and that, by actively allowing extended family members to attend review meetings, TAC broadened parents' support networks.

9.5 Early Support, England[34]

"The provision of integrated services through partnerships among families, professionals, and agencies is crucial in achieving the best outcome – the development of the child and the enhancement of the whole family's quality of life – through early intervention" (Park & Turnbull, 2003, p. 48).

The Early Support programme represents the translation into practice of Department for Education and Skills and Department of Health joint policy guidance on disabled children from birth to three years, their families and associated multi-professional services. Four key barriers were identified to satisfying and successful service provision from the perspective of parents. These were a lack of sensitivity at time of diagnosis, inconsistent patterns of service provision, a lack of co-ordination between multiple service providers, and exclusion from mainstream and community services and facilities.

Early Support is for families who have a baby or young child with additional support needs because of a disability or an emerging special education need. It is particularly relevant where families are in contact with a number of different agencies, because the programme facilitates better co-ordination of support. For this reason, Early Support impacts on the work of front-line professionals working for health, education, social services, and voluntary organisations across universal and specialist services.

A one year pilot of Early Support progressed to a further three years of implementation representing a central government investment of around £13million. Each local authority delivering Early Support has developed a multi-agency consortium (called a Pathfinder) and is working to an agreed development plan[35].

Ford (2005) describes the role of Early Support as raising expectations about the way that agencies and services work, encouraging change, and providing tools to support multi-agency service development at local level. Early Support has also fed into many Government policy documents. Early Support promotes:

υ   better joint assessment and planning processes for individual children and their families

υ   better co-ordination of service provision to families where many different agencies are involved

υ   better information for families

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[34] Unless noted otherwise, information for this section came from the University of Manchester in association with the University of Central Lancashire (2003), or the Early Support website: http://www.earlysupport.org.uk

[35] The Early Support programme is aimed at all disabled children from birth to three years. However, some Pathfinders are disability-specific; some focus on a given geographical area; some target according to particular socio-economic features of families/communities; and some have chosen to focus specifically on minority ethnic children and families.

υ the introduction and development of lead professional or key worker services to improve the continuity and co-ordination of support available to families

υ better exchange of information about children and families between agencies and at points of transition

υ joint review of multi-agency service provision and joint planning for service improvement at strategic level

υ the development of family-held, standard material to monitor children's development that can be shared across agencies.

The programme has developed tools for professionals to try to coordinate their services more effectively and to work in partnership with families. These include an audit tool for service providers to measure the quality of the service they are providing and plan for improvement, and professional guidance to assist service providers in developing their services, including examples of good practice (Ford, 2005).

Parents also report that the key worker is an important facilitator of the relationship between professionals and families (Ford, 2005). Carpenter and Egerton (2005) describe the "excellent" information resources, the Family Pack[36], and the family-owned Family Service Plan (incorporating the use of a key worker) as the greatest strengths of the Early Support programme.

"The information resources, written by parents and the respective national disability organisations, are high-quality, and tackle some of the more sensitive areas of 'Rare syndromes' and 'When your child does not have a diagnosis'" (p. 26).

In conclusion, Ford (2005) emphasises that the Early Support information materials "are not the intervention". Instead he notes they are merely tools for agencies and authorities so that they can realise the aims of government policies such as *Together from the Start.*

9.5.1 Evaluation of Early Support

An independent evaluation by the University of Manchester in association with the University of Central Lancashire (2003)[37] was designed to evaluate the impact, effectiveness and outcomes of the Early Support programme from the perspectives of both families and service providers. The evaluation concluded that, overall, Early Support is a very successful programme. In particular it identified:

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[36] A means of informing parents about services, helps families to know what to expect by way of good service provision and what to ask for. Gives templates for family service plans and a log of professional contacts.
[37] Involved five interdependent studies using both quantitative and qualitative approaches. Some covered all Pathfinder sites; others involved ten chosen sites. The studies included a baseline study to establish the taxonomy of phase three sites and provide the sampling framework, an impact on services study with data taken at two points of Early Support implementation, a cost effectiveness study, a families study (involving 30 parents/carers), and a child outcomes study (using secondary data derived from the other studies).

υ **Family/parent recognition of quality**

The way in which Early Support benefits families varied considerably, with a third (1009 participants) benefiting from condition-specific information materials only without any other form of provision (condition-specific information materials were highly praised as was the background information file, which contained information on subjects such as benefit entitlements). For others, around half of the families benefited from a Family Pack accompanied by a key worker service (1589 participants).

The average number of families benefiting from Early Support increased as the degree of complexity of agency relationships increased.

Some unresolved issues that emerged in the evaluation included clarity over the eligibility criteria and how transparent decision-making processes over service provision were for families, e.g. who could have a key worker and why.

υ **Significant demonstrable improvement in co-ordination of support for families, multi-agency planning/working together, and smoother processes of identification, referral and initial assessment**

Recurring difficulties that emerged in the evaluation included access to information across agencies, incompatible computer systems and additional workloads as a result of Early Support involvement. The authors suggest issues such as incompatible computer systems pose a "significant threat" to the considerable benefits from multi-agency working.

υ **That the Early Support philosophy was a key driver for change**

The evaluation notes that, in some cases, this allowed Pathfinders to leave behind previous structures of ineffective joint working.

Other issues that emerged in the evaluation included the following:

υ Where a particular agency did not join the local Pathfinder collaboration, both parents and professionals identified serious impacts on the otherwise beneficial effects of a coordinated approach.

υ Voluntary sector involvement was patchy and largely under-developed. However, where there was significant involvement, key benefits included the flexibility in service provision where statutory agencies were more constrained.

υ Parents identified clear benefits to co-location of services, while professionals did not identify co-location as a significant driver for improved inter-agency working.

υ Parents whose Early Support experience included multi-agency assessment and key working identified some clear advantages, including a reduced burden, as they didn't have to coordinate services themselves; confidence from the routine and predictable ways in which they knew professionals planned together; greater accountability and increased opportunities

for them to become involved in decision-making about their child's future; and the availability of services for the whole family.

υ   Working with diversity was a key challenge for Pathfinders despite the fact that practice did improve significantly over the course of the evaluation. In addition, access to Early Support materials for non-English users remained a "crucial concern", with mediated access undermining key Early Support principles of parent empowerment and supported independence within the parent/professional processes.

Training was also identified as a key part of supporting a partnership approach to working with families and to multi-agency service development. Early Support training has been developed to support managers of Early Support programmes, practitioners and parents and carers.

Key points from Section 9.0

Early intervention has moved from a traditionally multidisciplinary approach towards interdisciplinary and transdisciplinary practice.

An interdisciplinary model is one where members of a team employ their own perspectives, assessing and working with children separately, but then discussing their finding and reaching decisions collaboratively. A transdisciplinary model requires early intervention professionals involved in a team to provide integrated interventions. One person, in collaboration with team members, accepts the primary responsibility for implementing a child's individualised plan. An "exchange of competencies" between team members is usually achieved through role release.

Advantages of a transdisciplinary model include the fact that it is less of an intrusion into family systems, and encourages increased communication among team members and consistency in the implementation of the intervention plan.

In many cases, early intervention professionals will also collaborate closely with early childhood education staff to deliver an intervention. However, early intervention professionals must be aware of the possibility of excluding early childhood teachers by adopting the role of the "expert" in their interactions with both children and teachers. Effective collaboration requires the establishment of positive relationships between early intervention professionals, early childhood education teachers and parents (or other caregivers).

Key principles of the DEC recommended practices for interdisciplinary models are that:

υ   teams, including family members, make decisions and work together

υ   professionals cross disciplinary boundaries

υ   intervention is focused on function, not services.

Factors impacting on the delivery of integrated services

Providing integrated services adds complexity and may necessitate training, system change, and incorporating the views and input of families.

Early intervention professionals working in early childhood education settings may face difficulties if there is no overall (e.g. national) framework for how services in early education and intervention should be provided. There appears to be a move towards the development of core curricula, where professionals/services share a common core of knowledge, skills and values.

Families frequently identify service coordination as a major concern. A key worker can act as a single point of contact for a family, helping the family to coordinate their care across systems. However, the effectiveness of this approach is not well documented, with available evidence mainly in the form of satisfaction surveys and focus groups.

Early Support, England

Early Support is for families who have a baby or young child with additional support needs because of a disability or emerging special education need. Programme goals include better joint assessment and planning processes for individual children and their families, better information for families, and the use of key worker services to improve the continuity and co-ordination of support available to families.

An independent evaluation concluded that, overall, Early Support is a very successful programme. In particular the evaluation found that Early Support benefits families, either through information materials only or through information accompanied by a key worker service. The evaluation also found a significant demonstrable improvement in co-ordination of support for families, multi-agency planning/working together, and smoother processes of identification, referral and initial assessment.

10.0 Intervention approaches

"The field has embraced an individualized and ecological approach, which often means that many models are blended together … However, relatively little is known about the relative efficacy of different models" (Wolery & Bailey, 2002, p. 91).

While a substantial amount of attention has been paid to principles of early intervention practice, such as family-centred approaches, and that families appear to prefer family-centred services to professionally-centred services, there are other programme characteristics that are likely to influence child/parent and family functioning (Statewide Specialist Service, Scope, 2005).

The following sections highlight the point made in Section 4.4 that, while early intervention can be considered to be effective for young children with special education needs, the challenge is to identify *what* makes early intervention effective, including a comparison of approaches. These approaches may include the social support model (discussed in Section 13.2), parent education and training and child-directed approaches, and may be delivered in a number of settings, including the home and early childhood education settings.

Hemmeter (2000) suggests that one of the most important challenges ahead for the early intervention field is to expand the research base on "effective instructional approaches". In particular, she notes that the field needs to understand the relative effects of different approaches for children with different developmental needs.

10.1 Parent education and training

"Parent education [is] a term that has provoked antipathy from some quarters and support from others. More important is the debate over whether professionals conceive of their jobs as 'educating' parents". Opponents object to the implication that parents are 'students' and that they need to be trained. Proponents support the notion that our obligation is to teach families what they want to know" (McWilliam & Scott 2001, p. 58)

Mahoney, et al. (1999) describe parent education as "… the process of providing parents and other primary caregivers with specific knowledge and childrearing skills with the goal of promoting the development and competence of their children … [and typically referring to] *systematic* activities implemented by professionals to assist parents in accomplishing specific goals or outcomes with their children" (p. 131). Mahoney, et al. also note that parent education differs from parent or social support because its primary purpose is instructing the parent, rather than offering support (although this may be offered, it is not the primary purpose).

One of the goals of IDEA Part C and one of the principles of a family-centred service is to involve parents in active partnerships with professionals. In the research literature, "parent education" and "parent training" are not often discussed, according to Mahoney, et al., and may be viewed as incompatible with a family-centred philosophy. This may be because it is seen as constraining

parents' role to teaching and perhaps as being inconsistent with diverse cultural approaches to parenting. The authors identify other criticisms from the literature, which include the burden that home programming places on parents, the implicit blaming of parents and role conflict for parents.

However, Mahoney, et al (1999) suggest that there have been "surprisingly few" empirical studies that have examined such claims. They go on to suggest that family support (or social support) activities appear to have replaced parent education, perhaps because it is assumed it will accomplish the same aim – enhancing children's development and well-being. The authors call for a renewed focus on parent education and offer two key reasons:

υ **Results of early intervention efficacy studies.** The authors cite a study by Mahoney, Boyce, Fewell, Spiker and Wheeden (1998) which re-examined developmental outcomes from four early intervention research studies (involving over 600 children). This study found that intervention effectiveness appeared to be related to changes in the mothers' style of relating to or caring for their children, rather than to the amount of support received or the amount or intensity of child-directed services that children received.

υ **What parents want from early intervention programmes.** The authors report on two previous surveys from 1990 and 1996 that looked at the types of early intervention services wanted by parents. They found that the mothers' highest preferences were for parent education activities (child information and family instruction activities).

A longitudinal study of 183 children with disabilities and their families (Hauser-Cram, et al., 2001) found that, although more attention has been paid in research to the importance of mother-child interaction in the infant-toddler period, interactions during the early preschool years were significant predictors of later developmental outcomes. The authors describe this as a dyadic relationship where, in addition to mothers' skills, children's contributions and their mothers' interpretations of these contributions are integral to the relationship. The authors call for more research on interventions that support positive interactions between a child with disabilities and a parent. They also note that interventions delivered in early childhood and other care settings may need to ensure they support the mother-child dyad, possibly by scheduling appointments at drop-off and pick-up times.

Mahoney, et al (1999) propose a number of assumptions that should drive a renewed focus on parent education, along with an acknowledgement of the need for an empirical base for parent-mediated[38] intervention:

υ Parent-mediated intervention is philosophically compatible with family-centred approaches.

υ Parent-mediated intervention is multi-faceted, with a continuum of approaches and content.

υ Parent involvement in parent education is a choice.

υ Parent instruction on how to implement interventions with their children requires specialist professional expertise.

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[38] Where parents are involved in the implementation of intervention strategies.

Mahoney, et al. (1999) call for research in a number of areas, including how parent education is best implemented, culturally appropriate strategies for parent education and effectiveness studies of both child and family outcomes.

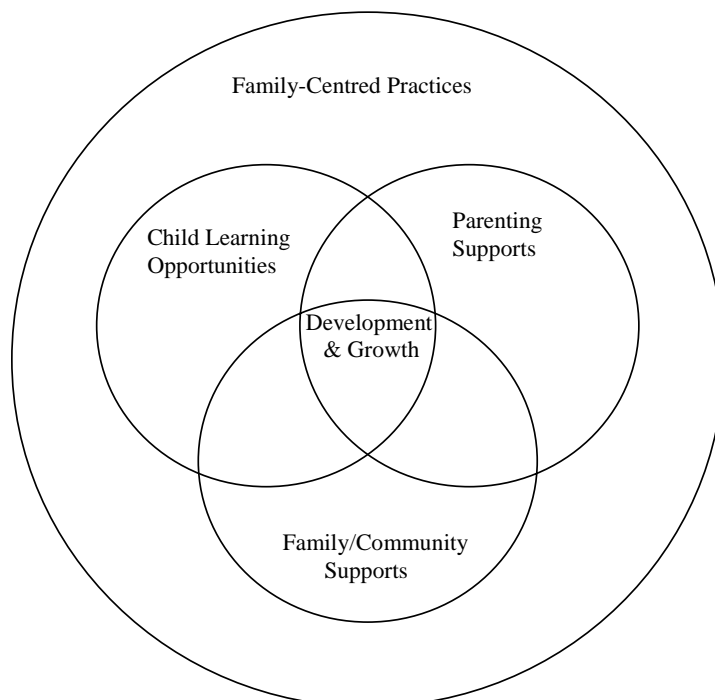## 10.1.1 Contrasting views on the role of parent education

Turnbull, Blue-Banning, Turbiville and Park (1999) respond to Mahoney, et al. (1999) by agreeing with the fundamental idea that parent education can be compatible with family-centred approaches. However, among their comments is that the process of parent education can alter the nature of the home, changing it from a natural environment to an unnatural one. They suggest it can also disrupt family relationships, where a child's need for unconditional love from his or her parents can be disrupted by the parent education process. A child may feel that to receive unconditional love they must be changed. The authors call for more research into the perspectives of young children, youth and adults with disabilities on how didactic relationships affect their lives. They also suggest that, in addition to research on parent education, research should be conducted on the efficacy of parents as *providers* of education to other parents and professionals.

Turnbull, et al. conclude that offering parent education to enhance child development and competence alone is too restrictive and does not recognise the potential for all key partners in the child's life to be both providers and recipients of education, resources and supports.

In a meta-analysis of research on early intervention's effect on children's cognitive development (see Section 4.4), Ramey and Ramey (1998) also challenge the value of parent training, particularly where it relies on infrequent home visits. Their meta-analysis found that children receiving direct educational experiences show larger and more enduring benefits than those in programmes that rely on intermediary routes, such as parent training. While they acknowledge that the recognition and celebration of parents and other family members as natural providers of young children's early learning experiences is profoundly important and should be encouraged, they go on to say that these findings warrant serious consideration and "…challenge the basis for the popularity of interventions that rely on infrequent home visits only – currently the most widely used form of early intervention in the United States" (p. 116). Ramey and Ramey recommend more studies that consider programme intensity alongside direct versus intermediary instruction.

Dunst (1999) disagrees emphatically with the claim of Mahoney, et al. that a social support approach to early intervention has resulted in a decline in the use of a parent education approach. Dunst states that parent education can be seen as a particular kind of parenting support – one of a number required by parents. He presents the figure below as a way of illustrating the "diverse but complementary perspectives of early intervention", showing how parenting education fits into early intervention.

Figure 1: Diagram adapted from Dunst (1999) showing the relationships among the four dimensions of early intervention practices.

Family-Centred Practices

Child Learning Opportunities

Parenting Supports

Development & Growth

Family/Community Supports

Odom and Wolery (2003) contribute to the debate by saying that while the benefits of parent education continue to be debated, a "consensus exists that professionals' interactions with families should emphasise support as well as education, when identified as a priority for parents" (p. 166).

10.2 Social skills in children with special education needs

"… There is a big difference between a child with special education needs being physically present at a centre, and his/her full inclusion" (Hanson-White, 2000, p. 7).

Guralnick (2005b) gives a broad outline of inclusion as representing all efforts to maximise participation of children and families in typical home and community activities. He notes that it is often thought of as more specifically encouraging interactions between children with and without disabilities. Certainly, as Odom and Wolery (2003) note, establishing positive peer relationships is a critical developmental task for all young children and this is built on "peer-related social competence" (p. 167). However, the development of social competence can be problematic for some children with disabilities. While some appear to be well-accepted by peers, generally children with disabilities have a relatively higher risk for peer rejection than typically developing children (Odom, 2000; Odom & Wolery, 2003).

Parents may also find it hard to arrange appropriate social experiences for their child because of their disability, and may need information on promoting their child's peer-related social competence (Guralnick, 2006b).

Despite identifying in the literature that children with disabilities perform as well in inclusive settings as in traditional special education settings, with some studies suggesting better performance in inclusive settings, Odom (2000) describes the following as the most replicated finding in the preschool inclusion literature - "children with disabilities engage in social interaction with peers less often than typically developing children in inclusive classrooms" (p. 21).

Chadwick and Kemp (2002) cite research that suggests that appropriate social and classroom survival skills may be more crucial than academic skills when it comes to maintaining a mainstream school classroom placement. In addition, Odom and Wolery (2003) state that evidence is mixed about the effectiveness of inclusive programmes where specific programming to promote social integration is not provided. However, Hemmeter (2000) suggests that it is "more global outcomes" such as social competence and the development of learning strategies that are often overlooked in early intervention practice.

Cullen (2002a) describes an assumption that, in a socio-cultural curriculum, such as *Te Whāriki*, interactions with peers mediate children's learning around shared interests. However, Cullen (drawing on interview and survey data from research to monitor the implementation of the Special Education 2000 policy) reports that parents "… are aware of the variable quality of their children's learning opportunities at [their] early childhood centre" (p. 138). While some children experienced positive peer interactions, some parents felt their children could be isolated or that it was centre staff, rather than other children, who facilitated peer interactions.

A number of characteristics are described by Odom, Zercher, Marquart, Li, Sandall and Wolfberg (2002b) that can alert teachers to children at risk of negative social outcomes. These are a lack of the communication, social and play skills necessary for being a "good player", aggressive or disruptive behaviour that alienates other children, and social isolation or withdrawal.

Vaughn, Kim, Morris Sloan, Hughes, Elbaum and Sridhar (2003) describe their synthesis of group design studies on social skills interventions for young children (aged three to five years) with any identified disability[39]. The authors identified that certain features were often employed in social intervention approaches - prompting of target behaviours, rehearsal of target behaviours, play-related activities, free play generalisation, reinforcement of appropriate behaviours, modelling of specific social skills, and imitation of appropriate behaviours.

In general, the authors found that interventions that included modelling, play-related activities, rehearsal/practice, and/or prompting, were associated with positive social outcomes for children with disabilities. In addition, the authors identify a range of interventions that incorporated these features that yielded improvements in social outcomes. These were:

υ   social skills programmes embedded into regular class programmes by teachers

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[39] This synthesis included research published between the years 1975 and 1999. Treatment/control and treatment/comparison studies and pre/post single-group and single-group with multiple treatment studies were included. Single-subject design studies were not included. Twenty-three studies met the criteria, with a combined total of 699 children with disabilities and 203 children without disabilities.

υ   interventions that included both instruction in social skills and behavioural contingencies for appropriate and inappropriate behaviours

υ   interventions that provided integrated/social interaction groups for children with and without disabilities

υ   interventions that trained parents or peers as models to promote appropriate social behaviours

υ   interventions that involved an intensive social skills programme.

The authors conclude that "it is a promising finding that social skills programs can be effectively integrated into class and home routines with positive benefits for children with disabilities" (p. 13).

Dunn (1998) also notes that the use of peer tutoring is favoured in the literature as a way of teaching social skills, with the potential for establishing generalisation of learning. However, she suggests this approach does not fit well with the holistic and active learning approach of *Te Whāriki* where "learning is achieved within a meaningful context by the child themselves" as opposed to prescribing that non-disabled children elicit social behaviours from disabled children.

Grubbs and Niemeyer (1999) concur that, while such approaches can be effective, they may not align with the interests of either the disabled and non-disabled children. They also cast doubt on the generalisability of peer tutoring.

Implementing different strategies to support children's interactions can involve different levels of time and teacher expertise. Odom, et al. (2002b) suggest teachers may begin by using less intensive approaches, such as naturalistic interventions embedded into regular activities, and move to more intensive approaches if the child does not become more engaged in successful social interactions. They also note that teaching approaches can work differently for different children.

"Above all, teachers should keep in mind that for any of these approaches to be successful, they have to be *fun* for the children with disabilities and their peers" (Odom, et al., 2002b, p.78).

The following case study demonstrates the potential for training education support workers to integrate a social skills focus into their work with children in early childhood education settings.

A social skills training programme for education support workers

"The direct teaching of behaviours in isolation runs the risk of losing sight of the rationale for teaching social skills: i.e. for the child with special needs to have friends" (Dunn, et al., 1998).

Dunn, et al. (1998) note that while placement with non-disabled children can promote social development, there is a need to look further at how peer interaction can be deliberately promoted. They critique developmental approaches to teaching social skills, suggesting that these adhere to

a deficit model, "where 'missing' skills are 'inserted'". In the research described by Cullen (2002a) above, some educators and parents noted that specialist objectives (which could be narrowly skills-based) could limit a child's participation in the wider interests-based programme of the early childhood centre as a whole.

Dunn, et al. (1998) consider that, in a New Zealand context, any programme for teaching social skills should exist within the *Te Whāriki* framework and involve education support workers who work directly with children with special needs in early childhood centres, supporting early childhood education teachers. They note from the research, and from their own experiences, that there is potential for parents, teachers and education support workers to over-protect a child with special education needs and/or to focus on the attainment of other skills, in the process possibly interrupting existing social interactions. MacArthur, Dight and Purdue (2000) acknowledge the work of education support workers (ESW), describing them as a "much valued form of support" in early childhood education services. However, they also suggest that the role of the ESW is not clearly understood, with some teachers assigning responsibility for a child with special education needs to an ESW, effectively isolating the child from their peers. Hanson-White (2000) concurs, saying that while a strong trusting relationship is necessary, it can also result in a reduction of social interactions for a child, rather than fostering them. Hanson-White gives a number of examples of this in practice, including a child shadowing an education support worker – following her around wherever she goes (or vice-versa).

Dunn, et al. (1998) outline what they wanted to achieve within a learning dispositions framework (see Section 11.4) - "what we want for the children we work with is for them to have the sort of friendship experiences that will dispose them to search out further friendship experiences, refining their skills because there is a purpose for doing this".

In devising a training course for education support workers, the authors used a learning stories approach (see Section 11.4). Their intention was for education support workers to understand the concept of friendship intention, contribute to the ecological/environmental assessment of a child's social interactions, and employ intervention strategies that help young children with disabilities have friendship experiences.

The authors report that, as a result of the training, the education support workers were able to move beyond a deficit model to being able to describe how the children they were working with were experiencing interactions with other children. They were then moving on to take responsibility for setting their own programmes.

10.3 Child-initiated and adult-initiated activities

There have been a number of studies that have considered the different impacts of child-initiated activities versus adult-initiated activities.

Odom, Brown, Schwartz, Zercher and Sandall (2002a) note that there is a great deal of value placed, in both early childhood education and early intervention, on children being allowed to choose the activities in which they participate. They ask the question - "Does it matter who initiates

the activity?" and go on to suggest that, in fact, adults may sometimes need to provide more support, by initiating activities, to assist children with disabilities to become engaged.

In their research, Odom, et al. tested that question by comparing engagement for children with and without disabilities when adults selected activities for them to engage in and when the children chose the activity. For both disabled and non-disabled children, when they chose the activity they were engaged about 70 percent of the time. When adults chose the activity, the children were engaged 45 – 49 percent of the time. The authors cite their earlier research that found the same relationship.

However, Odom, et al. also found that the types of activities engaged in differed between adult-initiated and child-initiated activities. For example, books, music, self-help and, to a small extent, pre-academic behaviours occurred more often in adult-initiated activities, while child-initiated activities involved more pretend play, manipulative and large motor behaviours. The authors suggest their findings support a recommendation that there should be a balance between child- and adult-directed activity.

Raab and Dunst (2006) describe two ways in which a child's interests can be used to influence child behaviour and development:

υ   Using a child's interests as the basis for participation in preferred activities.

υ   Using a child's interests as the basis for modifying activities in order to increase child involvement in the activity or production of adult-desired behaviour.

In a practice-based synthesis of research[40], Raab and Dunst (2006) examine the extent to which interest-based child learning was related to or influenced child behaviour and development. They conclude from the analysis that when child interests are used in the two ways described above, children are more likely to show less negative and more positive functioning. In addition, the study found that basing interventions on parent-identified child interests was associated with the largest child benefits. The authors note that this supports the need for adults to ascertain a child's motivation to participate in any activities they plan.

A study is described by Dale, Jenkins, Mills and Cole (2005) that looked at cognitive and academic outcome measures at ages 12 and 16 for children who had been randomly assigned to two programmes for developmentally delayed preschoolers. One programme, Direct Instruction, is based on analysis of academic skills, which is then used as the basis for designing teacher-direct, fast paced teaching programmes, with a focus on maximising academic learning time. The other, Mediated Learning, emphasises the development and generalisation of cognitive processes rather than specific academic content. The curriculum includes problem-solving activities with children

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[40] Involved analysis of 25 studies, which involved a total of 1,123 children, 52 percent of whom were with or at risk of disabilities or delays. The children's ages were, on average, between 25 and 50 months of age.

and teachers working together, opportunities for child selection of materials and activities and initiation of interactions[41].

As observed in testing at the end of the preschool period and at age 9, the authors found no overall main-effect differences on cognitive measures at ages 12 or 16 as a result of the different programme types. However, the authors did identify aptitude-by-treatment interactions, whereby initially lower functioning students benefited more from the Mediated Learning programme, while initially higher functioning students benefited more from the Direct Instruction programme. The authors caution that these results can be considered only as a preliminary exploration.

The results of the study by Dale, Jenkins, Mills and Cole (2005) appear to support the findings of the meta-analysis by Ramey and Ramey described in Section 4.4. Ramey and Ramey also found that the fact that some children show greater benefit from participation in early interventions than others appears to be related to aspects of the individual child's initial risk condition. They go on to say that this may mean different individuals may need different programmes to achieve similar outcomes.

10.4 Natural environments and learning opportunities

"The goal of early intervention should be to support children in being and doing – being with people who they want and need to be with and doing what they want and need to do" (Shelden & Rush, 2001, p. 2).

In the U.S., legislation states that early intervention for children aged from birth to three years should be provided in natural environments to the maximum extent appropriate to the needs of the child. Chai, Zhang and Bisberg (2006) point to the IDEA amendments of 1997 which define natural environments to "… include home and community settings in which children without disabilities participate as well as settings that are natural or normal for the child's age peers who have no disabilities" (p. 203).

Traditional clinical setting approaches were perceived to limit the opportunities for children to practise the skills they were being taught, and also raised some doubts about the extent to which children would be able to transfer skills to everyday settings. A natural learning approach is one where early intervention professionals aim to identify and use the natural learning opportunities that occur in a child's everyday routines (Moore, 2005c).

Shelden and Rush (2001) note that the increased focus on natural environments has been challenging for many early intervention professionals in the U.S., with strong opinions, both

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[41] Two hundred and five students participated in the intervention (preschool) phase of the research between the ages of three and seven. The majority exhibited a significant delay in more than one of the five developmental domains measured. The data reported by Dale, et al. (2005) is based on 180 (87.8 percent of the original sample) youths who completed assessment at age 12 and 166 (81 percent of the original sample) who completed assessment at age 16.

positive and negative, about delivering services to infants and toddlers in natural environments. However, Shelden and Rush go on to describe "ample current literature" to support the practice, and there is certainly a considerable body of literature looking at how to interpret "natural environments" and how to implement the practice (Bricker, 2001; Chai, Zhang & Bisberg, 2006; Childress, 2004).

10.4.1 The where and how of natural environments

"Natural environment as a concept is more than a place; it is the context in which early intervention services are provided and includes not only the where, but also the how of service provision" (Childress, 2004, p. 164).

Chai, Zhang and Bisberg (2006) describe the U.S. legislation as suggesting the use of inclusive settings, with the IFSP (Individualised Family Service Plan) being the tool that can be used to determine if alternative or non-inclusive placements are justified by the individual needs of a child.

In a summary of the literature on inclusion in early childhood education, Shelden and Rush (2001) identify three general points about service delivery in natural environments. They say that inclusive settings versus segregated settings result in:

ʋ   improved quality of care for all children

ʋ   increased numbers and a greater variety of learning opportunities

ʋ   a readily available continuum of typical peer models.

In a challenge to the concept that natural environments can only be inclusive environments, Bricker (2001) claims that while the term natural environments has become synonymous with inclusion, this interpretation is wrong. While generally advocating inclusion, she cautions that policy should not come before the needs of individual children and families, and that some other non-inclusive options may need to be considered. She suggests that the term natural environment should be separated from the concept of inclusion, "… one can have natural environments that do not necessarily include a child's chronologically aged peers" (p. 28). She proposes that the term "authentic" is more useful in that it underlies the fact that children should be engaged in activities that are real and meaningful, whatever setting they are in.

Tisot and Thurman (2002) develop Bricker's theme further by considering how her broader interpretation of natural environments would be translated into practice. They suggest that families should determine what constitutes a natural environment and the services that are responsive to their needs and priorities. In particular, they note that the likelihood of an intervention plan being effective is significantly lessened if the family is hesitant or even opposed to the setting. This is not just relevant to a debate about the benefits of inclusive versus segregated settings. Tisot and Thurman note that natural environments can refer to a wide range of settings, including settings in which the family has not yet participated. Whatever the setting, Johnston and Dixon (2005) stress that any intervention techniques utilised must be transferable across all the environments in which the child and family participate.

While there is much discussion in the literature about the *settings* in which intervention takes place, the concept of natural environments can also refer to *how* services are delivered (Bricker, 2001; Chai, Zhang & Bisberg, 2006; Childress, 2004).

Keilty (2001) describes the philosophy of natural environments as starting with identifying where the child spends their time and then addressing developmental concerns by embedding interventions into the everyday experiences that occur within that setting. The informal resources of the family are the first to be utilised, such as toys, household materials, with further resources sourced as necessary (Childress, 2004). In addition, Shelden and Rush (2001) describe naturalistic interventions as "… those strategies that identify and use opportunities for learning that occur throughout the child's natural activities, routines, and interactions; follow the child's lead; and use natural consequences" (p. 2). Odom (2000) describes "naturalistic instruction" as a generic term for strategies that embed learning opportunities in ongoing classroom activities, building on child interest and providing necessary supports for child success.

> "Successful and meaningful inclusion depends on the implementation of effective interventions in the context of ongoing classroom activities and routines to teach functional and developmentally appropriate skills to children with disabilities" (Hemmeter, 2000, pp. 58 – 59).

Shelden and Rush (2001) go into more detail about why natural environments work, based on literature they have reviewed. They note that it promotes "generalizability", or the ability to respond appropriately in unrehearsed conditions, whereas interventions that are built on non-functional skills may not facilitate the transfer of learning from one environment to another. They also describe a review of 56 studies (involving communication development) that found that naturalistic interventions generally resulted in improved skills for young children at early stages of communication development.

Childress (2004) describes the participation-based visit as a collaboration with the family and other care providers. "Overall, the main thread … is the critical belief that it is not what the interventionist does in the 1 hour per week home visit with the child that will have lifelong effects on development, it is what the parent learns during that session and uses throughout the rest of the week that truly facilitates learning" (Childress, 2004, p. 165). However, in a New Zealand study, Cullen and Bevan-Brown (1999) note the potential for parent and educator dissatisfaction if they do not have a clear understanding of their role in the intervention.

10.5 A framework for using everyday family and community learning activities to increase learning opportunities

"These environments include inherent distractions, such as ringing telephones, loud televisions, inquisitive siblings, barking dogs, and other opportunities for learning and generalization common to home and community settings. Providers are obligated to understand and plan for the need of children and care providers to learn strategies for functioning in environments where real life occurs" (Shelden & Rush, 2001, p. 6).

In an overview of inclusive practice, Odom (2000) suggests that inclusive practice does not stop at what happens in the classroom and proposes that a goal of inclusive practice should be to prepare children for participation in community life. He points to the work of Dunst and colleagues in identifying the many learning opportunities for disabled children outside of the classroom.

Dunst, Bruder, Trivette and McLean (2001b) provide one model[42] for delivering natural environment practice at an individual level. With the assumption that the everyday lives of children provide a wide variety of learning experiences and opportunities, they focus on three important sources of learning opportunities, family life, community life and early childhood programmes. They give examples of some of the opportunities that may arise in these domains (either as pre-planned activities or through serendipity) and some of these examples are given below:

υ   Family context – a mix of people and places, with learning opportunities such as eating during meal times, splashing during bath times, listening to stories, and learning greetings skills at family gatherings.

υ   Community context – a mix of people and places, with learning opportunities such as greeting a friend met while on a walk, playing in a sandpit at a park and face painting at a festival.

υ   Early childhood context – the learning experiences provided in early childhood education and early intervention programmes.

The three contexts overlap as similar kinds of learning experiences occur in different contexts.

Dunst, Bruder, Trivette and McLean (2001b) conducted two surveys (with over 3,200 participants) in order to identify and characterise the sources of everyday activities in family and community contexts that provide young children with learning opportunities. As a result they identified that family and community life were sources of 22 kinds of natural learning environments. One example is entertainment activities where, in family settings, sources of learning opportunities may include dancing, singing and watching TV, while in community settings it may include children's theatre, storytellers and music activities.

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[42] A similar model, using "behaviour settings", is described in Tisot & Thurman (2002).

The authors suggest that developing a profile of the natural learning environments of an individual child and their family could be achieved by:

υ   asking a family to list the different activities that happen in each of the 22 identified categories for their family

υ   identifying those activities in which the child is typically a participant

υ   identifying activities that could provide the child with new learning opportunities.

Dunst, et al. go on to say that many families find this process helpful in identifying activities that already provide learning opportunities for their children and are often surprised at the richness of their lives. They present this as step one in a process. In step two, a family and early intervention practitioner work together to identify and select those natural learning environments that occur, or could occur often, in different settings and that provide, or could provide, lots of learning opportunities.

Step three is to identify the natural learning environments that are of most interest to the child. The authors discuss the characteristics of development-enhancing learning opportunities. They suggest that learning activities that are "development-instigating" are both interesting and engaging to a child, and strengthen and promote child competence and a sense of mastery (motivation). Identifying natural learning environments of most interest to a child can be done by asking a child's parent the following types of questions:

υ   What gets the child excited?

υ   What makes the child laugh and smile?

υ   What does the child work especially hard at doing?

υ   What does the child enjoy doing?

υ   What gets and keeps the child's attention?

Dunst, et al. note that, in some cases, experimenting is a good way to determine which natural learning environments are the best sources of learning opportunities.

Key points from Section 10.0

An important challenge ahead for the early intervention field is to understand the relative effects of different approaches for children with different developmental needs.

There is debate in the literature about the role of parent education and training in early intervention. On the one hand, parents appear to want parent education and studies show a relationship between mother-child interactions and early intervention effectiveness. On the other, there is concern about the potential of parent education to alter the nature of the home, changing it from a natural environment to an unnatural one, and disrupting family relationships. One meta-analysis found that children receiving direct educational experiences showed larger and more enduring benefits than those in programmes relying on intermediary routes, such as parent training.

Another mediating view is that parent education can be seen as a particular kind of parenting support – one of a number required by parents - and that professionals' interactions with families should emphasise support as well as education, when identified as a priority for parents.

Social skills in children with special education needs

While inclusion aims to maximise the participation of children and families in typical home and community activities, children with special education needs have a relatively higher risk for peer rejection than typically developing children.

A synthesis of research concludes that social skills programmes can be effectively integrated into class and home routines with positive benefits for children with disabilities. It identified that interventions that included modelling, play-related activities, rehearsal/practice, and/or prompting were associated with positive social outcomes for children with disabilities.

Child-initiated and adult-initiated activities

An emphasis on child-initiated activities versus adult-initiated activities appears to result in increased child engagement. However, the types of activities engaged in are likely to differ between adult-initiated and child-initiated activities, suggesting a balance may be needed between the two. A child's interests can be the basis for modifying activities in order to increase child involvement in the activity or the production of adult-desired behaviour.

The fact that some children show greater benefit from participation in early interventions than others appears to be related to aspects of the individual child's initial risk condition. This may mean that different individuals need different programmes to achieve similar outcomes.

An increased focus on natural environments

A natural learning approach is one where early intervention professionals aim to identify and use the natural learning opportunities that occur in a child's everyday routines.

There is continued debate on how to interpret "natural environments" and how to implement the practice. One challenge to the concept that natural environments can only be inclusive environments suggests that policy should not come before the needs of individual children and families, and that other non-inclusive options may need to be considered.

However, the concept of natural environments can refer to *how* as well as *where* services are delivered. The philosophy of natural environments not only identifies where the child spends their time but also addresses developmental concerns by embedding interventions into the everyday experiences that occur within that setting.

Learning in natural environments promotes "generalizability", or the ability to respond appropriately in unrehearsed conditions, whereas interventions that are built on non-functional skills may not facilitate the transfer of learning from one environment to another. Identifying learning opportunities in the home also supports a family's ability to implement an intervention plan.

Family life, community life and early childhood programmes can provide multiple opportunities (either pre-planned or through serendipity) for learning experiences. Early intervention professionals can assist parents and families to identify activities that already provide learning opportunities for their children.

11.0 Assessment principles and planning

"… Assessment methods have changed dramatically from highly specialized procedures administered in formalized environments in a constrained manner to approaches that make use of everyday experiences that more adequately enable children to show what they know, what they can do, and what they are experiencing" (Meisels & Atkins-Burnett, 2000, p. 242).

Assessment is a critical part of the early intervention process. It can determine whether or not children and their families receive early intervention and special education services, and is also central to programme planning, monitoring and evaluation (Neisworth & Bagnato, 2005). The use of individualised planning in the assessment process is a key component of inclusive practice in early intervention in the jurisdictions discussed in this review, and in many European jurisdictions.

In New Zealand, all young children with special education needs are expected to have an individualised education plan that contains meaningful learning outcomes and promotes achievement (Ministry of Education, 2006b). Individualised planning is seen as central to fostering the inclusion of children with special education needs and their families, and plans are developed together with families and other professionals (Ministry of Education, 2000).

In research on New Zealand's Special Education 2000 policy, undertaken by Massey University (Bourke, et al., 2002), 67 percent of parents in their parent interview study believed that early intervention had influenced their child's educational progress positively and IPs (individual plans) were one area that received positive feedback, being "… praised for identifying specific areas requiring support".

In the U.S., from birth to the age of 5, young children with disabilities may experience two different individualised planning processes. From birth till they reach three years of age, if they receive early intervention services, they and their family will have an individualised family service plan (IFSP). When they turn three, they then receive what is called early childhood special education and the child (but not the family) has an individualised education plan (IEP) developed[43] (Turnbull & Turnbull, 2001). The following section describes the individualised family service plan.

11.1 Individualised family service plans (IFSP)

In the U.S., an IFSP is required by law for children and their families from birth to age three if they are to receive early intervention services, although it may be used up until a child's sixth birthday if

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[43] Although the focus of the IEP is the child, Turnbull and Turnbull (2001) note that the family may receive some related services, such as counselling and training (to help parents understand their child's special need), and school social work and health services.

this is agreed to by the state, the family, and the local service provider. U.S. legislation requires that "… professionals look beyond the needs of the child, recognize the child's needs in light of the family context, and share decision-making power with family members" (McWilliam, Ferguson, Harbin, Porter, Munn & Vandiviere, 1998).

The IFSP is intended to guide the intervention strategies for infants, toddlers and young children with special needs, select the formal and informal services that will make a difference to them, and support their families in their parenting role (Rosenkoetter & Squires, 2004). The IFSP must include, among other things, statements of:

υ   the family's resources, priorities and concerns relating to enhancing the development of the child with a disability

υ   specific early intervention services necessary to meet the unique needs of the child and the family, including the frequency, intensity, and the method of delivery

υ   the natural environments in which services will be provided, including justification of the extent, if any, to which the services will not be provided in a natural environment

υ   the name of the service provider who will be responsible for implementing the plan and coordinating with other agencies and persons

υ   steps to support the child's transition to preschool or other appropriate services (Bruder, 2000b).

The IFSP differs from the IEP in several ways (Bruder, 2000b), including the fact that it revolves around the family, with outcomes targeted for the family, not just for the eligible child. It also incorporates the notion of natural environments, including home or community settings such as parks, child care and gym classes, creating opportunities for learning interventions in everyday routines and activities. The IFSP also incorporates activities undertaken with multiple agencies beyond the scope of IDEA Part C, in order to integrate all services into one plan.

The IFSP articulates a shared vision for the child and the step by step plan for achieving that plan. The key part of the IFSP is the outcome statements. However, Jung, Gomez and Baird (2004) see the IFSP as a process in which parents and professionals can partner together to select targeted outcomes that are meaningful to the family and to develop a framework to achieve outcomes. But, they say that the IFSP is not the place for "minuscule details of instructional design and intervention strategies" (p. 62) and suggest an implementation plan is needed for specific procedures for intervention. This could be implemented in the context of the families' daily experiences and include a long term goal, a short term objective, empirically based methods for achieving the short-term objective, and a data collection system.

When a child changes to an IEP, there is a shift in emphasis from the family to the child in the IEP. Recognising the benefit of a family-centred approach for young children and their families, U.S. legislation now provides that a child's individualised family service plan, modified as appropriate, can become the IEP until the child reaches six years of age, if the school and family agree (Turnbull & Turnbull, 2001).

11.2 Implementing the individual plan

"Ensuring effectiveness of programming for each individual child can be difficult, and many children will need individualized interventions to address their specific goals. It is essential that these interventions be planned and implemented well" (Luze & Peterson, 2004, p. 20).

The use of individualised planning is a core component of early intervention practice. Luze and Peterson (2004) address the issue of how intervention integrity can be assessed. They describe intervention integrity as "… the degree to which an intervention is implemented as originally designed" (p. 21). Maintaining intervention integrity is only one factor in achieving a successful outcome, but it can provide additional information that can help early intervention professionals determine when changes are needed. If a child is not progressing as planned, the implementation of the intervention can be examined to see if the original plan was followed. If not, the original intent can be implemented. If the child does then meet the goals established originally the intervention is assumed to have been effective. If not, the planning team may decide that a new intervention is required.

The authors suggest that another advantage of assessing intervention integrity can be that constant monitoring of implementation can encourage staff to implement the intervention often enough to have an impact on the child's skills or behaviours.

Luze and Peterson (2004) note that an important part of the intervention development process is determining a teacher's preferences, as an intervention is more likely to be implemented as designed if the teacher is comfortable with its use. This may include factors, such as the ease of implementation and the matching of the intervention to the classroom context.

The authors suggest the following as important steps in assessing intervention integrity:

υ   Creating a system to evaluate intervention integrity, such as making a list of components or steps, including contingency "if-then" rules. Each component should be described clearly so that even someone unfamiliar with the intervention could understand the technique.

υ   Evaluating implementation integrity requires the establishment of a criterion for the acceptable level of implementation. Methods could include calculating the percentage of steps completed correctly compared with the steps listed in the implementation plan. Or the team could nominate one or more steps that are vital to the implementation of an intervention and base the integrity of the intervention on the completion of those steps.

Jung, Gomez and Baird (2004) cite the DEC recommended practices as suggesting that, in both natural environments and in clinical settings, "…intervention targets should be focused on teaching skills that are necessary for children to function more completely and competently in their natural environments" (p. 62). Goals should also reflect the family's views of what the child needs to learn rather than a diagnostic classification. "Tying the identification of outcomes for a child to the demands, expectations, and requirements of the child's current environments must take place in order to support each family's ability to implement intervention plans" (p. 62).

Additionally, Flynn-Wilson and Wilson (2005) note that, in order to involve fathers more actively, it is important to consider carefully the types of activity chosen for intervention. They suggest that it is usually the routines and settings of mothers that are considered by early interventionists, possibly marginalising fathers' interests and priorities.

11.3 Principles and practices in assessment

Introducing the DEC recommended practices for assessment, Neisworth and Bagnato (2005) comment that changes to assessment practice have lagged behind other transformations in early intervention and early childhood special education. They suggest there have been few changes to the process, type and methods of assessment to reflect broader changes in such areas as inclusion, developmentally appropriate practice (used in early childhood education) and family-centred practice.

Neisworth and Bagnato (2005) suggest that an earlier definition of assessment that they proposed in 1991 is consistent with the information that emerged from the DEC recommended practices process:

> "Early childhood assessment is a flexible, collaborative decision-making process in which teams of parents and professionals repeatedly revise their judgements and reach consensus about the changing developmental, medical, and mental health service needs of young children and their families" (p. 46).

They also identified two key principles for assessment based on the input of parents and professionals:

υ   Parents as partners – families can contribute authentic and longitudinal information about their child and also about the family's circumstances and its potential impact on the child.

υ   Developmental appropriateness – the need for the styles, methods and content of assessment to be compatible with the behaviour and interests of young children, with a fundamental precept being that assessment must take place in the child's natural context.

In addition to any disability-specific and psychological testing that may occur, several articles reviewed here identify other areas of emphasis for assessment protocols that acknowledge families as a key player in the process:

υ   Building a trusting relationship with family members that focuses on the family context, background and priorities for the child – based on the assumption that parents know the most about areas such as motivation, interactive abilities, learning style, and tolerance for learning (Meisels & Atkins-Burnett, 2000; Miller & Hanft, 1998; Woolraich, Gurwitch, Bruder & Knight, 2005).

υ   Assessment of the areas of development that impinge on a child's learning – this includes cognition but also how the cognitive area (e.g. mastery motivation, coping, problem-solving, and social competence and engagement) is affected by a child's performance across all areas

of development. The authors suggest that the range of methods used to collect this information could include assessment tools, checklists and developmental scales (Woolraich, Gurwitch, Bruder & Knight, 2005).

ʋ   Assessment of the functional application of the child's skills – where the child's performance across developmental domains is observed in relation to his or her performance of the functions that are required for full participation in his or her family and community context. Woolraich, Gurwitch, Bruder and Knight (2005) suggest that observation is the method most often used to assess how a child uses their skills in natural, everyday settings (Meisels & Atkins-Burnett, 2000; Woolraich, Gurwitch, Bruder & Knight, 2005).

ʋ   Developing an integrated, accurate and comprehensive assessment report that is clearly written and understandable to the family. The report should describe developmental processes that were exemplified by the child's behaviour, with jargon-free and sensitive language used to facilitate communication with team and family members (Woolraich, Gurwitch, Bruder & Knight, 2005).

ʋ   Viewing the child from a framework of competency embedded within a cultural context (Meisels & Atkins-Burnett, 2000; Miller & Hanft, 1998, p. 53).

The potential for cultural bias exists with the use of assessment processes. An example given in the literature is Aboriginal and Torres Strait Islander families in Australia. Gilbert and Skattebol (2005) note that knowledge taken for granted in mainstream Australian culture cannot be assumed to hold for indigenous communities. For example, they suggest that while an indigenous child may not be familiar with the names of farm animals or colours, they may be able to name and classify complex family relationships. In New Zealand research with kōhanga reo (Bourke, et al., 1999), one concern expressed was that, as some letters of the alphabet and their associated sounds do not exist in te reo Māori, a child who cannot pronounce s, b or g, for example, may not be identified if they are in a Māori speaking environment.

As Meisels and Atkins-Burnett (2000) point out, recent years have seen increasing understanding of the *fusion* between intervention and assessment. They describe this fusion as resting on three fundamental assumptions. The first is that assessment is a dynamic process using information from multiple sources collected at numerous time points, and which reflects a wide range of child experiences and caregiver interpretations. The second is that formal assessment is only one step in acquiring information about the child and family. Intervention will result in ongoing refining of both the assessment and future intervention. Third, they suggest that assessment is of limited value in the absence of intervention, saying that "the meaning of assessment is closely tied to its … contributions to decision making about practice or intervention or its confirmation of a child's continuing progress" (p. 250).

Meisels and Atkins-Burnett describe this fusion as sharing many characteristics with authentic assessment, where assessment is embedded in the curriculum, rather than expecting children at a specific time to attempt specific types of performance for assessment purposes. Bagnato (2005) suggests that the everyday skills of children in daily routines can be lost in the "unnatural contrivances" of testing situations and tasks. He goes on to say that advancements in natural

observational assessment can provide a balance to conventional tests and testing, or, as he puts it, provide a balance between rigour and reality.

Bagnato (2005) points to three major features on which alternative assessment approaches are based:

υ Authenticity – natural expressions of the functional capabilities of individual children recorded in every day settings and routines, using the observations of knowledgeable parents, teachers and other caregivers.

υ Utility – the identification of individual child capabilities so as to plan and evaluate the effectiveness of individualised goals and strategies for instruction and therapy.

υ Universality – assessment must be applicable to all children, irrespective of functional limitations.

Current recommended practices in assessment call for the use of multiple measures and multiple sources when assessing young children (Neisworth & Bagnato, 2005). Losardo and Notari-Syverson (2001) suggest that naturalistic assessments provide multiple opportunities for a child to perform skills across domains of development and can be embedded within the context of child-initiated routines and planned activities. Assessment involves those people who have the greatest opportunities to interact with the children on a regular basis; that is, parents, caregivers and teachers.

Several routine-based assessment tools and guidelines are available to teams, including the Assessment, Evaluating and Programming Scales (AEPS). AEPS is a criterion-referenced tool that can be used by a range of people to assess and evaluate the skills and abilities of infants and young children who are at risk and who have disabilities. AEPS uses curricula objectives as the criteria for the identification of instructional targets and for the assessment of status and progress. AEPS allow professionals to gather assessment information across six curricula domains (fine motor, gross motor, adaptive, cognitive, social communication, and social) while children engage in everyday activities within natural environments. It aims to be comprehensive, with procedures to promote full collaboration between team members (including parents).

Bagnato (2005) points to the AEPS, developed by Bricker and colleagues, as "… the most technically-adequate authentic curriculum-based measure for use in early intervention based on user analysis surveys and independent field-validation studies" (p. 19).

The DEC recommended practices in assessment are built around five core statements[44]:

υ Professionals and families collaborate in planning and implementing assessment.

υ Assessment is individualised and appropriate for the child and family.

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[44] For the full text of the Recommended Practices in Assessment, see Sandall, Hemmeter, Smith & McLean, 2005, pp. 51 – 61.

υ   Assessment provides useful information for intervention.

υ   Professionals share information in respectful and useful ways.

υ   Professionals meet legal and procedural requirements and meet Recommended Practice guidelines.

11.4 Assessment in a New Zealand context

"Assessment occurs minute by minute as adults listen, watch, and interact with an individual child or with groups of children. These continuous observations provide the basis of information for more in-depth assessment and evaluation that is integral to making decisions on how best to meet children's needs.

In-depth assessment requires adults to observe changes in children's behaviour and learning and to link these to curriculum goals. Assessment contributes to evaluation, revision, and development of programmes" (Ministry of Education, 1996, p. 20).

Dunn (2000) points to differences in approaches to assessment in New Zealand early childhood education services. She suggests that while children with special education needs are enrolled in the same early childhood services as typically developing children, the assessment approaches used do not directly attempt to assess the learning dispositions of a child with special education needs, as they do with typically developing children.

Dunn (2004) suggests that this difference in pedagogical approach is a barrier to achieving successful inclusion in early childhood education in New Zealand. In particular, Dunn critiques the use of curriculum-based criterion-referenced assessment tools[45] commonly used by early intervention professionals in New Zealand. For example, she notes that the AEPS model (described in Section 11.3 above) is a popular measure in New Zealand. However, she questions the validity of its "test and teach" approach in the New Zealand context, highlighting the differences between the socio-cultural foundations of *Te Whāriki* and the behaviour analytic approach identified by the developers of AEPS. This approach, she describes as directing teaching to targeted developmental objectives (within the activities available in an early childhood education centre), rather than focusing on an holistic integration of a child's strengths and abilities.

Cullen (2002b) identifies the potential for some early childhood education teachers to feel uncertain about their role in the team approach to assessment and planning used by early intervention teams, with some teachers concerned that individual plans are dominated by specialist goals and terminology. "It is perhaps not surprising that busy teachers leave the implementation of the IP [individual plan] to the support worker" (p. 9).

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[45] Dunn (2004) describes these tools as measuring "… performance against a standardised criterion of a normal developmental patterns [sic] of skill acquisition. The skills identified in the assessment are then targeted for instruction … Progress in skill acquisition as a result of teaching is evaluated using the same measure" (pp. 120 – 121).

In a 2002 article, Dunn notes that while there is a place for specialised assessment, the role of the early childhood educator can be to see beyond the measurement of skills, to the child as a learner. Dunn (2000) and Cullen (2002b) suggest that a more effective approach to inclusion would be to use current approaches to assessment related to the early childhood curriculum. Dunn contends that this approach would also meet many of the aspects of assessment process valued by those in the early intervention field. This would include the following:

υ   Assessment data collected in natural contexts.

υ   Observers are people with whom the child is most familiar and therefore their behaviour is less likely to be distorted by the presence of a less familiar observer.

υ   Parents, caregivers or teachers usually collect the information, meaning they are closely involved with the assessment of what the behaviour says about what the child is learning.

υ   This type of assessment can identify a child's strengths as well as where the child is having difficulty.

Dunn notes that this approach identifies the learning dispositions and attitudes that the child is developing and that will inform and motivate his or her future learning. Cullen (2002b) also suggests that teachers who are already familiar with this approach to assessment would be in a strong position to contribute confidently to the development of individualised plans.

11.4.1 Assessment and early childhood education in New Zealand

In *Te Whāriki*, the New Zealand early childhood curriculum, learning outcomes for children include *dispositions to learn* or templates for learning that children build as they make sense of, and acquire knowledge about, the world around them. These templates then inform future learning (Dunn, 2000; 2004). *Te Whāriki* requires assessment to be based on the goals of each strand of the curriculum and that the principles of the curriculum are always applied.

Dunn (2000) describes the development of a dynamic assessment model by Margaret Carr called learning stories. Learning stories (narratives) show a child's progress over time using running records or observations. These stories are then analysed to show how they fit with learning dispositions that are linked to the five strands of *Te Whāriki*[46] (Carr, 1998). Dunn (2004) explains that learning stories are referred to as credit-based because they "… describe a successful learning moment for the child, on which teachers can reflect and build" (p. 123).

Te Whāriki states that families should be part of the assessment and evaluation of the curriculum as well as of children's learning and development. It acknowledges that parents and caregivers have a wealth of valuable information and understandings regarding their children (Ministry of

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[46] Well-being - Mana Atua; Belonging - Mana Whenua; Contribution - Mana Tangata; Communication - Mana Reo; Exploration - Mana Aotūroa.

Education, 1996). Dunn also points out that learning stories are developed by the people most closely associated with the child and although this may allow for some subjectivity, its validity can be challenged by other team members.

Dunn (2002) concludes by saying that "… the cost of not paying attention to learning dispositions is to limit a child's potential by teaching sets of skills without increasing positive learning experiences" (p. 81).

However, Dunn (2004) acknowledges some concerns from teachers, parents and early intervention professionals about the authenticity of narrative assessment, particularly with the notion of a credit-base or emphasis on successful interactions. She describes the work of Carr in outlining the authenticity of this assessment approach, including the comment that narrative assessment must be credit-based not simply because it reflects the child in a good light but because it reflects an important learning moment for the child. Indeed, Dunn goes on to say that learning stories allow children with special education needs to be portrayed along with their peers as "competent and confident" learners, and that this can contribute to inclusive practice "… as the teacher increasingly sees the learner, not the disability" (p. 126). Further, she notes that "positive learning stories are not felt to be a problem in assessing children who seem to be developing normally. Their learning moments are celebrated without caveats" (p. 126).

Dunn (2004) cautions that the emphasis on the strengths of the child in the learning stories approach, was seen to be replaced by a corrective developmental skill deficit-based model in most of the transcripts of ten individualised plan (IP) meetings studied by Dunn and Barry (2004, *cited by* Dunn, 2004). Dunn notes the importance of IP goals reflecting the child's interest-based goals.

Learning stories in practice

Lepper, Williamson and Cullen (2003) describe a study to examine the effectiveness of using learning stories within a team approach for children with complex additional needs. The study used two case studies in two different locations. Each case study involved a child, his or her family and early interventionists including early intervention teachers, education support workers, hospital-based therapists, speech-language therapists, and early childhood education staff. In addition to learning stories, this research calls on the communities of practice concept, which focuses on the shared language and understandings of people who work together.

Two key themes are identified by the authors as emerging from this research - empowerment and strengthening relationships. They describe one mother's reflection that she had felt disempowered by the professional language that had previously been used, noting with learning stories that everyone was on the same playing field. The mother also believed that the approach had empowered one teacher to feel more confident in her practices with the child and had clarified the role of all teachers. Both education support workers reported an increased feeling of empowerment though having their views and perspectives validated, and other early intervention staff also commented on the ability of the approach to reduce the "expert" model.

Early intervention staff also commented on the ability of the learning stories approach to enhance and strengthen team relationships, through an increased knowledge of the perspectives of other

team members. A shared assessment tool led to a shared language and a climate of support amongst the team, contributing to the development of a community of practice. Families felt they had an opportunity to share the things they valued about their child. The authors note that there is still the ability for individuals to meet the requirements of their individual roles, using learning stories to add to their own knowledge of the child's needs in everyday settings.

One constraint of this approach was also identified by participants – time, with both a mother and teacher commenting on the need to keep on track and not to do too many learning stories.

Key points from Section 11.0

The use of individualised planning in the assessment process is a key component of inclusive practice in early intervention in the jurisdictions discussed in this review, and in many European jurisdictions.

Among DEC recommended practices in assessment are the following:

υ   Professionals and families collaborate in planning and implementing assessment.

υ   Assessment is individualised and appropriate for the child and family.

υ   Assessment provides useful information for intervention.

υ   Professionals share information in respectful and useful ways.

Other key principles identified in the literature include the need for multiple measures and multiple sources when assessing young children, developmental appropriateness, and that assessment practices should view the child from a framework of competency embedded within a cultural context.

International approaches to assessment that direct teaching to targeted developmental objectives may not be wholly appropriate in a New Zealand context where the socio-cultural foundations of *Te Whāriki* focus on an holistic integration of a child's strengths and abilities.

New Zealand research on using a learning stories approach to assessment identifies that this approach can empower parents and early childhood educators to participate more fully in the assessment process. This is because they are already familiar with this approach to assessment, and the language used is more inclusive, reducing the "expert" model.

The learning stories approach may also contribute to the enhancement and strengthening of team relationships, through an increased knowledge of the perspectives of other team members, a shared language and a climate of support amongst team members.

12.0 Transitions

"Transition is not just an event or a product of a meeting. Transition is a process that begins long before the child shifts to a new set of services, and it continues after the child physically has moved to the new service(s) setting" (Hanson, 2005, p. 384).

A New South Wales inquiry into early intervention for children with learning disabilities (Legislative Council Standing Committee on Social Issues, 2003, p. 34) identifies two meanings for the term "transition to school":

υ   A formal programme to assist the process of school entry that may be offered over a period of several weeks in the term before school starts.

υ   Can more generally refer to a child's adaptation to the school environment from their previous experiences (and is therefore influenced by what happens both prior to and after starting school).

Hanson (2005) describes children experiencing horizontal transitions (moving between professionals and services) as well as vertical transitions (moving between service types, e.g. early childhood education and school as they grow and develop). Horizontal transition is addressed in Section 9.0, in the discussion of integration and coordination, but it is useful to refer to it here, as it highlights the number of different adaptations that children and their families may have to make. Hanson goes on to say that "these transitions can be frequent and can provoke intense feelings and adjustment demands" (p. 375).

12.1 The impact of transition on young children and their families

The transition from home or early childhood education services to school, or between early childhood education services, is a major change in the lives of all young children. It is likely to be a particularly stressful time for young children with disabilities and for their families (Chadwick & Kemp, 2002).

Transitions require adaptation and adjustment. Children and their families have to adapt to new places, new rules and meet new people. Parents may have to learn new skills in caring for their children in a therapeutic way, as well as grapple with new challenges presented by their child's condition (Hanson, 2005).

In describing the differences between early intervention and early childhood special education in the U.S., Turnbull and Turnbull (2001) note that moving from family-centred early interventions services to the more child-focused early childhood special education service can result in "… a form of education culture shock".

A U.S. study by Hanson, et al. (2000), looking at the transition from IDEA Part C infant/toddler programmes to preschool programmes, also identified challenges for families[47] in the shift from a family-centred model to a child- and school-focused model, with many families in the study expressing anxiety about the transition itself, but also about the shift in service agencies and their orientation. Those parents who received prior information and preparation perceived the experience to be a positive one.

In an evaluation of New Zealand's Special Education 2000 policy by Massey University, Bourke, et al. (2002) note that educators, parents and early intervention specialists had concerns about the effects of funding policy on transition to school. In particular, ORRS (Ongoing and Reviewable Resourcing Schemes) was perceived to be "negative and deficit-oriented" in contrast to the inclusive and ecologically based philosophies of early intervention. Parents voiced major concerns about transition, with 26 (64 percent) of parents having specific concerns about the provision of services for their child. Among the reasons for their concern were the following:

υ   Unsure of what support is available at local school.

υ   Lack of continuity from early childhood to school.

υ   Availability of teacher aide hours.

υ   Worry that their child may miss out on ORRS funding.

υ   A lack of resources and "man-power".

In an earlier study (Cullen & Bevan-Brown, 1999), the fact that services discontinued at the point of school entry, and that parents had to reapply, was described by the authors as a structural barrier to the continuity and maintenance of services.

Clearly, this is a time when parental anxieties can escalate. Indeed, writing in a New Zealand context, Ballard (1999) notes that while some early childhood education services and schools welcome and include children with disabilities, others do not, and children in these environments can experience rejection and exclusion. Hanson, et al. (2000) describe it as often an emotional time, complicated by the child's young age and disability, and suggest that the transition process has two components, an emotional one and a procedural or task component.

Families may choose to participate to varying degrees in the transition process. However, research does suggest that parents who are knowledgeable about the transition process are likely to experience less stress than families who are not, and informed parents are more likely to take an active role in decision-making (Haddon, 2004).

The government's ten-year strategic plan for early childhood education includes the goal of promoting collaborative relationships. Within that goal, one of the planned actions is to develop a smooth passage from home to early childhood education services and to school, for all Māori and Pasifika children, including those with special education needs (Ministry of Education, 2002).

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[47] A sample of 22 families was followed as they entered, participated in and exited the transition process.

However, little information on this topic was identified in the New Zealand literature and, in a synthesis of literature in the U.S., Bruns and Fowler, 2001) identified that there is a paucity of information related to transition practices for culturally and linguistically diverse groups.

12.2 Transition as a process

In a New Zealand article on transition from kindergarten to school for children with special needs, Wartmann (2002) describes four stages to a transition to school process:

1.   Initial discussions about school, making decisions and choosing a school and beginning transition meetings.

2.   Applying for resources and support for the child, introducing the primary school teacher and new professionals, beginning transition visits, and leaving the kindergarten.

3.   Beginning school and settling into new routines.

4.   Monitoring the placement.

Wartmann (2002), Haddon (2004), Hanson (2005), and Hanson, et al. (2000) emphasise a view of transition as an evolving process that requires commitment from both the school and from those in the early childhood education and early intervention services. Among their recommendations for optimising the likelihood of successful transition experiences are the following:

υ   **Successful transitions require planning and preparation for children, families and professionals.** In interviews with nine Christchurch families and their associated teachers and professionals, Wartmann (2004) identified that transitions went more smoothly when an initial meeting was held to plan the process. She also recommends follow-up meetings to ensure transition tasks have been undertaken, and the appointment of a coordinator to ensure completion of tasks. Hanson, et al. (2000) also found in a study of families going through a transition process that preparations need to start early.

υ   **Successful transitions are built on a foundation of effective communication and collaborative partnerships.** In the Christchurch study problems occurred when parents felt left out of the decision-making or "… when their judgement of what was best for their child was over-ridden by professionals and teachers" (Wartmann, 2004, p.32). In addition, the practice of inviting the school teacher into the kindergarten setting to meet the child in an educational setting was a strategy viewed favourably by both parents and teachers.

υ   **Procedural supports enhance successful transition.** In Wartmann's (2004) survey, she identifies support for the idea of a key worker to provide any assessments needed, monitor the child's progress, look at current systems within the school, and assist with any changes needed. She found that, while the importance of monitoring the transition was acknowledged by participants in her survey, there was some confusion over who had the responsibility for initiating the process. The study by Hanson, et al. (2000) also identified a role for a key person

or guide. In some cases, this was the sending teacher and for others it was another parent (sometimes from a parent support organisation).

υ   **Transition services should not stop once a child is in a new setting.** Haddon (2004) notes that children with special education needs may take longer than children without special education needs to adjust to a new setting.

In an Australian study, Chadwick and Kemp (2002) investigate the transition of 314 children with disabilities to mainstream kindergarten classes in state schools in New South Wales. Most parents and kindergarten teachers involved considered the transition to have been successful. The factors they identified as being positively related to teacher perceptions of successful integration were - the receiving school's attitude and school community acceptance of the child, the receiving teacher's perception of the adequacy of the support received, the preparation of the child, specifically classroom skills and self-help skills, preparation of parents of other children in the class, and the receiving teacher's perception of the value of liaising with parents.

Interestingly, the authors found no significant correlation between the teacher actually receiving support and perceived successful integration. However, a significant positive relationship was found where the receiving teacher considered the support they received to have been adequate. The authors conclude that "… it may not be the provision of support to teachers that is important but the quality and appropriateness of that support" (p. 61). They also recommend further research to consider the value of teaching school survival skills and self-help skills as part of a child's preparation for transition.

Referring to transitions from early childhood education services to kindergartens in New South Wales, Australia, the Legislative Council Standing Committee on Social Issues (2003) notes that better information flow between preschools and other prior-to-school services and schools is perceived as an extremely important aspect of successful transition. In particular, this can help to ensure that children's individual needs are known and understood. However, submissions to the Inquiry identified three major barriers to the effective transfer of information - teachers' attitudes (not valuing information from early childhood educators and parents), resourcing and privacy concerns. The Inquiry report recommended that guidelines should be developed addressing the sharing of information between schools and early childhood settings, including:

υ   guidelines to ensure that the collection, transfer or storage of information does not breach relevant privacy legislation

υ   strategies to encourage private childcare and pre-school providers to participate in information sharing

υ   ways to fund release time so that teachers are able to meet with early childhood teachers in prior to school settings.

The Inquiry concluded that extended transition programmes have their place in assisting particular groups of young children (such as those with special education needs), and their parents, to make the transition to school as smooth as possible. However, they caution that these will only reach some children and that a key focus should be on making sure other parts of the system facilitate

children's successful school entry. They include examples, such as smaller class sizes, well-trained teachers and better information flow between prior to school services and schools.

Hanson (2005) notes that recommendations, such as those discussed in this section, are not new, with many having been discussed since the 1990s. What is often missing, she claims, is the commitment, from all participants in the process, to making these procedures work.

Transition to school: A New Zealand pilot project

Salter and Redman (2006) report on a pilot project undertaken in response to concerns about the transition to school of young children who had received early intervention services but not ORRS (Ongoing and Reviewable Resourcing Schemes) funding, yet had ongoing significant needs. The project, based in the Pakuranga office of the Ministry of Education, Special Education (GSE), and undertaken by the GSE Early Intervention and School Focus teams, aimed to facilitate a "seamless" transition into school for these children and to promote collaborative relationships.

The transition process included a transition meeting approximately ten weeks prior to school entry, including parents, Early Intervention (EI) and School Focus (SF) field workers and the school. A transition plan or IEP from the early childhood education service was developed and shared among all those involved. It included the frequency of visits between the EI and SF field workers and clarification of roles. Transition visits were started and a teacher aide was appointed by the school.

Once the child started school, informal monitoring was undertaken, as agreed in the transition plan, by either the EI or SF field worker. At the end of week two, there was an evaluation of progress between the parent, GSE staff and the school, and a formal review meeting was held at a later date (determined by the individual plan) to evaluate the transition process and to make further recommendations.

Feedback showed that the schools and families appreciated the transition planning process, with prior knowledge of the child being helpful for the school in setting up systems of support, placement and organising the teacher aide. The support from GSE staff was appreciated, including having the EI fieldworker involved for the length of time needed for successful transition.

> "Both schools and parents appreciated the ongoing support and discussion which resulted in constructive, practical strategies for the classroom; they felt encouraged and took children's learning and developmental needs on board" (p. 9).

Examples of successful transition are given in this article, including the following:

υ   For the child – academic learning was boosted, settling into routines and school systems happened quickly, the child's self-confidence increased and their anxiety was reduced, and the child's initial experience of school was a positive one.

υ   For the teacher – the process lessened teacher workload, responsibility was shared, teacher confidence improved, and teachers experienced less disruption in the classroom.

υ   For the school – a more positive attitude developed towards the child and increased awareness was shown by other staff.

Among changes identified for consideration in the future were requests by schools to see copies of reports from specialists, formal assessments and the ORRS application.

Key points from Section 12.0

Children can experience horizontal transitions (moving between professionals and services) as well as vertical transitions (moving between service types, e.g. early childhood education and school) as they grow and develop. These transitions can be frequent and particularly stressful times for young children with disabilities and for their families.

Families appear to find it particularly challenging to move from a family-centred model to a child- and school-focused model.

Research suggests that parents who are knowledgeable about the transition process are likely to experience less stress than families who are not informed.

The literature emphasises a view of transition as an evolving process that requires commitment from both the school and those in the early childhood education and early intervention services. Key factors in the transition process appear to be planning and preparation for children, families and professionals, effective communication, collaborative partnerships, and procedural supports (such as key workers). In addition, the literature suggests that transition services should not stop once a child is in a new setting.

13.0 Information, resources and supports for families

"Families challenged by various combinations of environmental and psychosocial stressors or risk factors often establish family patterns of interaction that are far from optimal with respect to their development-enhancing features" (Guralnick, 2006b, p. 45).

An emphasis on family-centred models of practice may require a significant change in the mindset of policy-makers and early intervention professionals with a new understanding required of the range of emotional, economic, marital, and related issues with which families contend (Vacca & Feinberg, 2000).

A family-centred approach recognises that not only do young children with special needs require early intervention services, but, as asserted by Bronfenbrenner, their families may also need both informal and formal resources and supports. This is to ensure they have "both knowledge and skills and time and energy to promote the development of their children" (Trivette & Dunst, 2005, p. 108).

In his developmental systems approach to early intervention, Guralnick (2006b) describes categories of potential stressors for families: information needs, resource needs generated by having a child at biological risk or with a disability, as well as interpersonal and family distress and threats to confident parenting.

13.1 Potential stressors for families

13.1.1 The information and resource needs of families

"The range of information needs turns out to be quite extraordinary, varying across developmental periods and children's particular risk or disability profiles" (Guralnick, 2006b, p. 52).

The families of children with special education needs have information needs focused on such issues as their child's health and development, particularly their specific disabilities, as well as on their possible needs in the future (Bailey & Powell, 2005; Guralnick, 2006b; McWilliam, 2005a). Parents also need information about effective programmes, possible treatments and interventions (Guralnick, 2006b). The individual needs of families will differ - some families will want information about their child's condition, while others may want to learn strategies for promoting their child's development and learning (Wolery & Bailey, 2002).

Both Bailey and Powell (2005) and McWilliam (2005a) argue that helping families to access information is a key part of a family-centred approach to early intervention. "Informational support

is the crux of early intervention and is what home-based therapy and special instruction should consist of" (McWilliam, 2005a, p. 217).

Hanson (2002) notes that English-speaking families who are better educated tend to have greater access to information and support. Bailey and Powell (2005) refer to the empowering nature of information, whereby "… being informed is an important part of having and exercising power" (p. 157). Professionals working in early intervention can play a key role in facilitating access to information for parents. However, the role they play may differ depending on the family involved. The way in which they handle information can also affect the outcome for the family and whether or not it is empowering for the family (Bailey & Powell, 2005).

Discussing the development of Early Support (England) information for families (see Section 9.5), Ford (2005) notes that families were being provided with information that, in the past, they may not have had access to. Initially they were concerned that professionals may try to gate-keep this information. Although this would have been done with good intentions, the effect would have been to remove decision-making and authority from parents. The material is designed for parents to access material at their own pace with, if necessary, the support of a key worker[48].

In recent consultation around the translation of the Early Support Family Pack into different languages, Ford (2005) notes that parents wanted the materials in English because their doctor and other professionals would probably be English. However, some parents did say they would appreciate help in accessing the pack. The author goes on to say that this may also apply to parents/carers with literacy difficulties.

In many jurisdictions, where access to services and resources is based on need rather than disability type, professionals tend to focus on the general principles of working with young children with special education needs. However, once a diagnosis is confirmed, parents (and professionals) will often want information on the specific needs unique to the disability itself (Bailey & Powell, 2005). They go on to say that professionals need to be able to support families in evaluating what information is legitimate and what is questionable. Parents may also seek out other families who have a child with a condition similar to the one their child has. Parent support groups can offer both emotional and informational support to families (see Section 13.5).

National organisations and advocacy groups can also be an important source of information and support for parents, and Bailey and Powell (2005) note that professionals need to be aware of the important roles that such groups can play in the lives of families.

Having a child with special education needs can place unexpected time and financial demands on families (Carpenter & Egerton, 2005; Guralnick, 2006b). Carpenter and Egerton (2005) note that factors such as homelessness, poor parenting, low income, substance misuse, and living in a disadvantaged neighbourhood can all add to the challenges of parenting and providing for a child's individual needs.

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[48] One person acting (on behalf of early intervention agencies) as a source of support for the families of disabled children and a link by which other services are accessed and used effectively (see Section 9.4.2 for more information on the key worker concept).

There is a demonstrated association between families who have a child with a disability and poverty (Carpenter & Egerton, 2005). Carpenter and Russell (2005) cite U.K. estimates that 55% of families with a child with disabilities live, or have lived in poverty and that the cost of raising a child with disabilities is three times that of raising a child without disabilities. Because of the large number of young children with special education needs living in low-income households, access to resources that can meet basic needs becomes particularly important, with the ability to make a critical difference to these families (Hebbeler, Spiker, Mallik, Scarborough & Simeonsson, 2003, *cited in* Spiker, Hebbeler & Mallik, 2005).

13.1.2 Interpersonal and family distress and threats to confident parenting

"Families are also at their most vulnerable and in need of most support when the child's developmental disabilities are first identified. Early childhood interventions can help them to adapt successfully to the challenge of meeting the needs of the child and of the family as a whole" (Moore, 2005b, p. 16).

Having a child with special needs can have both positive and negative impacts on families (Bailey & Bruder, 2005; Barnett, Clements, Kaplan-Estrin & Fialka, 2003). Bailey and Bruder (2005) cite research that identifies positive impacts, such as the new insights on what is important to a family, or helping to provide or redefine for a family their sense of purpose. It can also promote family cohesion as family members pursue a common cause, can reveal previously unrecognised strengths, and foster relationships with neighbours and community organisations or support groups.

However, a child with special needs can also pose challenges for families (Bailey & Bruder, 2005; Barnett, Clements, Kaplan-Estrin & Fialka, 2003):

"… the special needs of children with disabilities can tax parents' confidence and competence… Such factors as challenging behavior, difficult-to-read communicative attempts, impaired learning, motor deficits, special health care needs, or difficulties in eating or sleeping mean that parents often must alter the home environment and/or their parenting behaviors to accommodate their child's special needs" (Bailey & Bruder, 2005, p. 1 – 2).

A longitudinal study of 183 children with disabilities and their families[49] (Hauser-Cram, Warfield, Erickson, Shonkoff & Krauss, 2001), found that problematic child behaviour (even to a mild degree) can affect parent well-being (both mother and father) adversely, even if not atypical or related directly to the child's disability.

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[49] The Early Intervention Collaborative Study was a longitudinal investigation of the cognitive and adaptive behaviour development of children with developmental disabilities and the adaptation of their parents. One hundred and eighty three children with Downs Syndrome, motor impairment, and development delay, and their families were recruited at the time of their enrolment in an early intervention service. Data were collected at five time points between entry and the child's tenth birthday.

Orsmond (2005) cites research showing that parenting a young child with a disability can be stressful, that high levels of parental stress can contribute to poor mother-child interaction and consequently have adverse effects on child outcomes, and that parenting a child with a disability can affect attitudes and beliefs about one's own parenting. Kelly, Booth-LaForce and Spieker (2005) and Orsmond (2005) also describe research pointing to the importance of a family's emotional climate for child functioning. In a longitudinal study by Hauser-Cram, et al. described above, the authors confirm that "… the relational aspects of the family climate … are … important predictors of children's developmental trajectories" (p. 93).

A useful conceptual model that closely equates to this process is that of Bronfenbrenner, whose ecological approach linked family environment to human development. As young children's primary interactions are with their family, their development is greatly influenced by both their home environment and family situation (Beckman, 2002; Turnbull & Turnbull, 2001). Although all families can experience emotions, such as pessimism, anger, guilt, stress, and depression, their persistence and strength can compromise positive coping and the enjoyment of daily life, can impact on marital and family relationships and, in some cases, can reduce the ability to provide appropriate care, leading to possible negative outcomes for children (Bailey & Bruder, 2005; Barnett, Clements, Kaplan-Estrin & Fialka, 2003).

13.2 Social support

"The strength of people's personal support networks varies according how [sic] many people they have in their social network, what sort of tangible support they provide, and how often they see them" (Moore, 2004a, p. 8).

Social support refers to "… the information, advice, guidance, and material assistance provided by social network members including persons, groups, and institutions that come into contact with families. Social network members include informal sources, such as family members, friends, and neighbors, and formal sources of support, such as early childhood professionals and agencies" (Trivette & Dunst, 2005, p. 108).

As discussed in Section 13.1.2, the stressors associated with having a child with special needs can detract from parental well-being, the quality of family relationships and parenting skills. Researchers have increasingly looked at how social support can help to mitigate some of these stressors. In particular, they discuss the importance of the immediate community and wider social context for family functioning and of the importance of early intervention activities taking these influences into account (Bailey, et al., 2006; Moore, 2005c; Trivette & Dunst, 2005).

Moore (2005a) notes, in an Australian conference paper, that families have become increasingly diverse in their structures and cultural backgrounds. More families have multiple needs and parenting has become a more complex and stressful role for many parents. External factors that may impact on the social support available to families include the partial erosion of traditional family and neighbourhood support networks, as a result of economic, social and demographic changes (Moore, 2005a). In addition, while extended family, friends and other community contacts can be important sources of social support, Spiker, Hebbeler and Mallik (2005) point to a number

of studies showing that a barrier to families using existing social supports is the fact that these sources of support are often unsure about how they can help. Nevertheless, Moore (2004) cites research to suggest that people tend to turn to family and friends, then to other acquaintances before approaching professionals.

Carpenter (2000) describes a study he undertook in 1996 that used semi-structured interviews with 20 families of children with severe disabilities (aged 5 – 16 years). In the study he identified the following non-blood relatives as providing support to these families - neighbours, friends, work colleagues, church members, teachers and assistants, link families, and volunteers from charitable agencies. The main types of support offered were - baby-sitting and child-minding, transport, respite care, social activities, meals out for the child and/or the family, practical help in the home (e.g. housework and maintenance), and empathetic listening. "All families in the study reported that without the help of their 'self-defined family', their patterns of living would have been severely disrupted and that their capacity to function effectively would have been damaged" (p. 138).

Both Spiker, Hebbeler and Mallik (2005) and Bailey, et al (2006b) cite strong evidence from research that the extent to which family members have adequate formal and informal support systems is associated with successful adaptation to having a child with a disability. Trivette and Dunst (2005) cite research evidence indicating that "… social support has positive effects on parental well-being, that a parental sense of well-being is directly related to responsiveness styles of interaction, and that both parental responsiveness and facilitation styles of interaction are related to child development" (p. 109).

In the longitudinal study described by Hauser-Cram, et al. (2001), support helpfulness was the "… only parent asset variable that predicted change in maternal parent-related stress. Mothers with low levels of support helpfulness experienced a significant increase in stress; mothers reporting high levels of support experienced lower and stable levels of stress over time" (p. 90).

Trivette and Dunst (2005) present a model of the direct and indirect influences of social support and intra-family factors on parent and family well-being, parenting styles and child behaviour and development.

Figure 2: Adapted from Trivette and Dunst's (2005) model of the direct and indirect influences of social support and intrafamily factors on parents and family well-being, parenting styles, and child behaviour and development
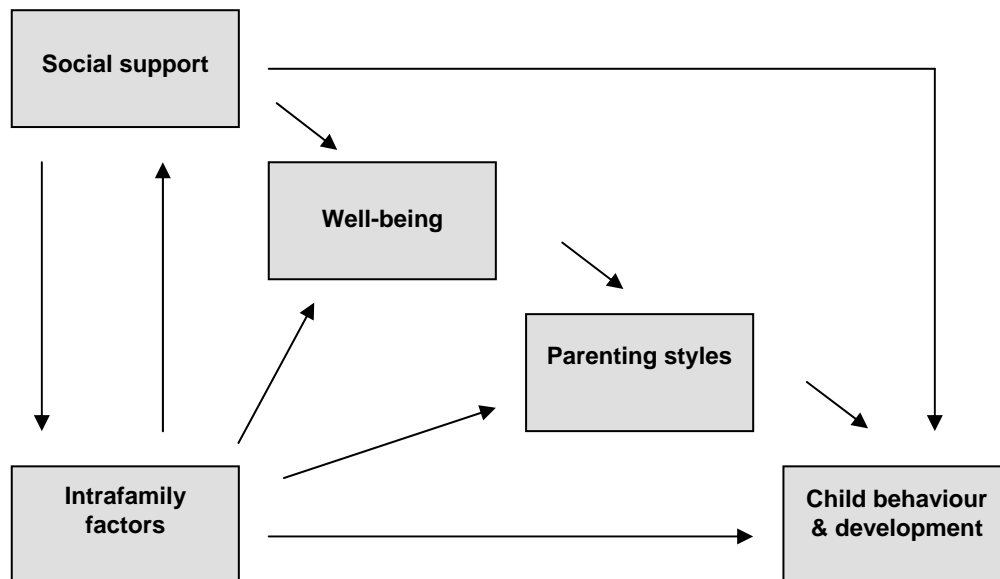
Referring to Bronfenbrenner's ecological model, Moore (2004) notes that while it incorporates a wide range of influences on the family, it also shows "ever-diminishing" sources of influence, the further these sources of support are from the family. For that reason, Moore suggests that formal services such as early intervention programmes have relatively less impact on family functioning than extended family and friends.

However, McWilliam and Scott (2001) state that early intervention professionals can help families to identify and build informal support networks. For example, they can help families identify sources of strength in their personal networks or, if those personal networks are weak, to identify other available resources. They note that, for some parents, family support groups can be a useful source of emotional support. However, they cite research to show that those families who are involved in helping and reciprocal relationships outside a family support programme are less likely to attend group meetings or view parent groups as beneficial.

Moore (2004) emphasises that personal networks cannot be arranged or determined by professionals. But rather, they can create conditions that are conducive to the development of networks; for example, providing opportunities for parents of young children to meet other parents of young children and providing places where that can happen.

While Moore (2005b) agrees that there is "… strong evidence that the nature and extent of families' personal social networks are linked with a wide range of outcomes for parents and children" (p. 35), he also identifies a lack of good studies that attempt to assess families' social networks or to actually help families to build stronger personal networks.

13.3 Family information gathering (also known as family assessment)

"If service providers expect to be trusted with a family's perceptions of strengths and needs around such issues as mental health, coping styles, family emotional environment, and amount and quality of social support, a true understanding will take place over the course of many interactions. Family assessment and its resulting goals is an ongoing process that requires time and sensitivity" (Kelly, Booth-LaForce & Spieker, 2005, p. 248).

A family-centred approach to early intervention presupposes a need to gather information about the family of a child with special education needs in order to develop collaborative and supportive relationships, to identify existing sources of social support that can be called on during service provision, and to establish a family's needs in respect to their child. Among other things, cultural factors may impact on the goals families have for their children and families as a whole and influence their views and beliefs about parenting, child rearing and early intervention services (Banks, Milagros Santos & Roof, 2003). Orsmond (2005) lists the areas most commonly cited in the literature as being assessed - parenting stress, parental depression, marital stress, social isolation, and family cohesion.

Banks, Milagros Santos and Roof (2003) suggest that initially an informal interview or family conversation is necessary to build a comfortable relationship between the family and early intervention provider, with open-ended questions modified as needed, based on the flow of the conversation. Real exchanges of information may only be possible once a more comfortable relationship is established. In order to build this relationship, Kelly, Booth-LaForce and Spieker (2005) describe the basic elements in creating an emotional connection with families:

"… recognizing and respecting the uniqueness of each family, responding sensitively to parents as they share information, empathizing with parents about feelings and stories that are shared, and repairing the interactions when the relationship is moving in the wrong direction" (p. 248).

Bailey and Powell (2005) review a number of studies (undertaken between 1992 and 2002) that have used the Family Needs Survey. Developed in 1988, the intent was to create a functional tool that would make it easier for professionals to learn about the information and service needs of families, and to allow families to identify their needs themselves. The survey was divided into the following areas of need:

υ   Information needs.

υ   Family and social support needs.

υ   Financial needs.

υ   Explaining to others.

υ   Childcare.

υ   Professional support.

υ   Community services.

Parents are asked if they would like to discuss specific topics within these sections with a staff member, with the option to say no, not sure or yes. There is also room for them to add additional topics that they would like to discuss.

The studies included a wide range of countries, ethnicities and age groups. In all of the eleven studies reviewed by Bailey and Powell, the need for information was rated "substantially higher" than any of the other domains. Interestingly, the authors were unable to identify any variable (including ethnicity, maternal age, child's age or gender, severity of delay, or family economic resources) that was a reliable predictor of expressed needs. The authors suggest that this "… reinforces the importance of individualized assessment of needs for information and other sources of support and suggests that designing a 'packaged program' with a specific set of services will not meet the needs of all families" (p. 169).

Bailey and Powell (2005) point out that a survey such as theirs reinforces the importance of information to families and the need to individualise the response by professionals. However, it will probably not be able to provide enough information for professionals who will need to rely on further conversations with parents to determine the actual information needs of families and how best to meet them.

Banks, Milagros Santos and Roof (2003) express a need for caution with the use of more formal family assessment measures. For example, they note that some families may view formal observation tools as an invasion of privacy, or that families may feel that specific aspects of their competence are being evaluated, using criteria with which they do not necessarily agree. In addition, the authors note ethical concerns about the use of such tools by inexperienced early intervention providers who may not consider the family and cultural context. With surveys, such as the one described above by Bailey and Powell, the authors suggest that a number of issues need to be considered before using the tool. These include the literacy level of the tool and potential for bias (they describe one tool that had been criticised for favouring families with higher socio-economic status). They also stress that some families would prefer informal conversations. They suggest that surveys such as this could be used as a guide for informal conversations. However, conversely, they also note that some families might prefer the efficiency of filling out survey forms. They go on to say that family preferences should dictate the strategies used.

Orsmond (2005) focuses in more depth on the assessment of interpersonal and family distress and threats to confident parenting. She points out that formal or standardised assessment is rarely used, because of the partnership model emphasised in early intervention and the fact that early intervention professionals are trained in child development rather than in family issues. However, while there is debate about the necessity for family assessment, she expresses the view that it can be done in a sensitive and respectful manner, with much to gain from developing a common set of procedures.

Orsmond synthesises research on conducting family assessments and concludes that a two-tiered approach is generally appropriate. This would begin with open-ended questions to elicit areas of

concern for further assessment and be followed by more formal assessment in areas of need that would enable the early intervention team to develop family goals or to make appropriate referrals. The author goes on to discuss various potential screening questions and standardised measures. However, she cautions that more formal measures should not be undertaken unless the information is to be used in a way that the family sees as useful, such as setting family goals or making referrals.

13.4 Working with families

"Encouraging families to recognize and use the resources they already have enables families to feel competent and self-sufficient, both important characteristics of emotional well-being" (McWilliam & Scott, 2001, p. 60).

Guralnick (2006b) suggests that "results from numerous studies, many very well-controlled from a scientific perspective, suggest that when resource supports, social supports, and information and services are provided in the context of organized early intervention programs that are responsive to the stressors [outlined in sections 13.1.1 to 13.1.2], both short- and long-term benefits with respect to children's social and intellectual competence can be achieved" (p. 55). However, he emphasises that any services and supports provided must be responsive to assessments of the stressors of individual families and be implemented in a way that strengthens the family.

McWilliam and Scott (2001) identify three types of support that can be provided by the early intervention professional and that can boost a family's competence and confidence:

ʋ Emotional support, such as being positive and responsive, being oriented to the family and being competent with children and communities.

ʋ Informational support, such as providing information about the child's diagnosis, information about services and ideas on what to do with the child.

ʋ Material support, such as helping with access to benefits and community resources, and adapting or developing materials for daily routines.

The provision of social support as part of family-centred service provision presupposes that early intervention personnel are comfortable working with families. However, many will have been trained specifically to work with children, rather than with families. In a cross-sectional study to assess providers' (11 interviewed) and parents' (18 interviewed) perceptions of family-centred early intervention services, providers and parents reported high levels of satisfaction with early intervention service delivery. However, providers also reported that they felt more comfortable working with children than with families because of a perceived lack of formal training (Iversen, Poulin Shimmel, Ciacera & Prabhakar, 2003).

The traditional view of the family is no longer necessarily a reality for an increasing number of families. For many, the notion of "family" may be self-defined, with family-type support coming from extended family, friends, neighbours, and others in the community (Carpenter, 1998). Overall, Carpenter (1998) notes that the literature on "significant others" in the lives of children with

disabilities is sparse. He points to the concept of whānau for Māori as incorporating a range of significant people who take a genuine and shared interest in each other's lives and who will advocate for each other. He asks the question - "are professionals prepared to interact meaningfully with families who self-define their supporting social system?" (p. 181).

In a study of provision for Māori learners with special education needs, Bevan-Brown (2005) points to the example of a single parent with no whānau support available. Instead, friends and flatmates took on the role of whānau, taking collective responsibility by undertaking training and getting involved in the programme to support the child.

For some cultural groups, professionals, in order to involve families meaningfully, may need to obtain the consent of extended family members who are close to the family, for early intervention services (Coll & Magnuson, 2000; Zhang & Bennett, 2003). Royal Tangaere (2001) provides a Māori perspective, "the Māori child belongs to the whānau, the hapū and the iwi. My child is your child – a collective responsibility" (p. 19).

Trivette and Dunst (2005) and McWilliam and Scott (2001) emphasise that how support and resources are provided is important. In particular, they note that family-centred helpgiving should strengthen the competency of families and their ability to support the development of their children, rather than increase their sense of dependency on professionals. In addition, Hauser-Cram, et al. (2001) refer to research showing that while support in general can be positive, social support that is imposed (such as through mandatory assignment to a support group) can have significantly negative effects on parents, especially on those whose need for support is low.

Carpenter and Russell (2005) stress the need for services to be flexible. For example, they say that it would be inappropriate for one parent to be consistently unsupported at meetings where the professional's preferred time for meetings means that a partner or other family member is not able to attend. This is an issue that may particularly affect fathers.

The father-child relationship is significant in a child's development. While many fathers are generally less involved in caregiving interactions than mothers, Osofsky and Thompson (2000) cite several studies that show that fathers are more likely to be involved in play interactions with their infants. These interactions; for example, physical play and movement games, have been linked to higher levels of infant arousal. Fathers have also been found to promote assertiveness in their children.

> "Fathers are a critical member of the family system who influence their children and their families in unique ways … Service providers are challenged to learn more about fathers, their perspectives of their children, their roles within the family, and the nature of their relationships within the family" (Flynn-Wilson & Wilson, 2004, p. 39).

A number of authors (Carpenter, 2000; Hauser-Cram, et al., 2001; McWilliam, 2005a; Osofsky & Thompson, 2005) comment on the need for early intervention services to involve fathers. Carpenter (2000) suggests that they may need increased access to information, opportunities to network with other fathers and "… to have their need for information and emotional support within the family addressed" (p. 137). He continues that this may necessitate greater training and awareness amongst early intervention professionals. McWilliam (2005a) describes a British survey

of 189 fathers of children with developmental disabilities that found that the fathers' top priorities were informational support (particularly information about their child) and material support (particularly available resources). Flynn-Wilson and Wilson (2005) report several authors as finding that fathers express more concern than mothers about future issues, such as the child's ability to be self-supporting and the cost of providing for the child, while mothers may be more concerned by issues such as their child's friendships with other children. Flynn-Wilson and Wilson (2004) stress that the issues identified by both parents should drive service delivery.

Hauser-Cram, et al. (2001) call for more attention to be paid to the reasons fathers become involved in early intervention or why they fail to engage, and what benefits they perceive they may gain from involvement. In their longitudinal study, they found that key aspects of paternal well-being were the nature of the relationship between the child's mother and the child as well as the father's own problem-focused coping skills. This is supported by Flynn-Wilson and Wilson (2004), who suggest that research shows that while women tend to want to talk about issues, men often move directly to solving problems. So, for example, a father's response to having a child with a disability may be to move immediately into establishing an action plan for the child. Flynn-Wilson and Wilson go on to say that service providers must seek input and ongoing involvement from fathers, whose style of interacting with their child also has the potential to influence their child's development. They caution that "when fathers are not expected to play a primary role, a self-fulfilling prophesy may occur" (p. 42), and "as a service provider, you might unintentionally send the message that the father's participation is nice, but services can be provided effectively without him" (p. 43).

Grandparents can be an important source of support and advice for families. However, Carpenter (1998) cites studies that show a range of reactions from grandparents to the news that a grandchild has a disability. Some reports suggest that grandparents may have difficulty adapting to the situation, with the potential for a breakdown in the relationship between parents and grandparents. However, other reports show grandparents can offer both practical and emotional support.

Siblings may also be affected by having a child with a disability in the family. Beckman (2002) describes research showing both positive (increased maturity, independence and tolerance of difference in others) and negative (a sense of loneliness and isolation and feelings of resentment, jealousy and embarrassment) effects. In addition, Carpenter and Russell (2005) cite research showing that siblings seldom had full information on their brother or sister's disability.

13.5 Parent-to-parent support

"The necessity of interacting with medical, educational, and therapeutic systems of care and advocating for appropriate services pushes parents to gain new knowledge and skills as care coordinators and agents of change and support for their children" (Bailey & Bruder, 2005, p. 2).

Parent-to-parent support can be provided informally by providing parents with opportunities to meet other parents or through more formally organised programmes.

In the U.S., the Parent-to-Parent programme matches veteran parents with newly-referred parents, with the veteran parents providing emotional and informational support. Santelli, Turnbull, Marquis and Lerner (2000) describe the evolution of parent-to-parent programmes from the first programme established by a mother of a child with Downs Syndrome to a U.S. wide model that has also spread to Canada, Australia, England, Denmark, and New Zealand.

In a national U.S. survey of local parent-to-parent programmes, the Beach Center on Families and Disability (Santelli, et al., 2000) found that less than half the programmes had a paid coordinator, and all the veteran parents who are matched with referred parents were unpaid. Of the referred parents, 85 percent have a child with special needs who is under 12 years. The vast majority of the programmes were cross-disability. The authors note that, as a result of the IDEA Part C legislation, more families are being connected with parent-to-parent programmes at the time of the birth of their child.

Santelli, et al. (2000) also report on a three year national study that found that parent-to-parent support increases parents' acceptance of their situation and their sense of being able to cope, and helps parents to make progress on the need they present when they first contact a parent-to-parent programme. They also note that the data showed a direct correlation between the number of contacts a parent has with their support parent and how satisfied those referred parents are with the support they receive.

13.6 Using technology to deliver information, resources and social supports to families

"How [families] access information and the kinds of information available have ramifications for all service providers and are likely to change how services are delivered as well as parent-professional relationships" (Skinner & Schaffer, 2006, p. 23).

The development of new technologies has had important implications for the delivery of information to parents and families. However, technology is not the outcome, rather it is a tool that can help in the achievement of desired outcomes (Stremel, 2005).

Parents with children with special education needs are likely to have a wide range of information needs. In particular, at the time of diagnosis, they may need to deal with a range of complex and unfamiliar medical and educational terminology.

Professionals have traditionally provided information support for the families of children with special education needs. However, with the emergence of Internet-based technologies, health-related and child development information has increasingly become available online. This can include information on service and treatment options and access to information on rare and new conditions. The Internet can also be a tool to access emotional support, such as parent-to-parent support, through online discussion forums (Skinner & Schaffer, 2006; Zaidman-Zait & Jamieson, 2007). Zaidman-Zait and Jamieson (2007) identify groups of parents for whom online discussion groups might be of particular benefit. These include parents in rural areas, parents of children with

low-incidence conditions, and those parents whose children's special education needs make it difficult to visit professionals and libraries.

Skinner and Schaffer (2006) undertook a study of how parents from different ethnic and cultural backgrounds with a child, or at risk for having a child, with a genetic disorder sought out, understood, and used information to interpret genetic disorders and to make decisions about reproduction, health and services. They found 83 of the 100 families in the study had used the Internet for some purpose related to their child's condition. While families (of any ethnicity) with lower income and lower education levels were less likely to use the Internet, the authors note that "voracious users existed even among these families" (p. 19).

Most families in the study used the Internet once they had received a confirmed diagnosis, to enhance their understanding of the condition concerned and, in some cases, to use the information to advocate for alternative treatments. Several mothers used the Internet pre-diagnosis to identify their child's condition or to identify medical professionals who could make a diagnosis. Parents reported that they had become increasingly knowledgeable through this process, with positive outcomes such as better relationships with specialists.

Interviews with the parents and whānau of 19 Māori children[50] with autism spectrum disorders (ASD) (Bevan-Brown, 2004) also identified positive benefits from using the Internet to locate information (11 out of 17 parents specifically mentioned using the Internet in this way). These benefits included finding information on drugs and treatments and networking with other parents of children with ASD. However, parents also noted that the information available could be overwhelming and confusing at times.

Professionals can use the Internet to support and guide parents in their information-seeking and also by developing their own Internet resources for parents to use. One approach may be to ask parents to bring their findings with them to appointments, to reduce parental concern that professionals regard their searches as a challenge to their professional authority. This also gives professionals an opportunity to fill in any missing information and correct any inaccurate or incorrect information. Professionals can also direct parents to reputable and helpful sites.

However, while there are obvious benefits to parents of using the Internet as a source of information and support, there are also some risks and drawbacks. These include the varying quality, reliability and currency of the available information:

υ   In the study by Skinner and Schaffer (2006), even those who felt they benefited from their Internet research talked about the anxiety caused by contradictory advice or a failure to find answers. Stress was felt if websites painted a dire portrait of a child's future and some parents also felt as though they had to keep looking to find the information that would help their child.

υ   The diversity in types of organisations that may provide special education and medical information can promote a wide range of views, but can also make it challenging for parents to assess the reliability of individual sources. Zaidman-Zait and Jamieson (2007) cite research

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[50] Aged two to 19 years.

that evaluated websites on medical conditions and found a low percentage of concurrence with information from "reliable" sources of information, such as current research or guidelines from recognised medical organisations. Zaidman-Zait and Jamieson (2007) go on to say that there has been little research on parents' interaction with the information they find on the Internet in terms of its quality. However, the two studies they cite both show parents were likely to assess the reliability of the sites they visited and were, in the words of Zaidman-Zait and Jamieson, "quite responsible searchers".

υ There is a risk in online forums of misunderstandings, because there are not the verbal and physical cues that can occur in direct conversation. There is also the potential for misinformation due to uninformed participants (Zaidman-Zait & Jamieson, 2007).

υ Information coverage on the Internet may not be a good match for the information needs of parents (Zaidman-Zait & Jamieson, 2007).

υ Factors, such as low literacy levels, may impact on users' abilities to navigate and interpret information online (Zaidman-Zait & Jamieson, 2007).

Zaidman-Zait and Jamieson (2007) note that the Internet "… represents a challenge to formerly hierarchical models of information giving, in which professionals had control over the content and flow of information" (p. 19). They go on to say that the Internet provides a means to equalise the balance of knowledge-based power and that professionals can use the potential of the Internet and its advantages in collaborative work with parents, while being aware of its limitations.

The following are some of the DEC recommended practices in technology applications that are relevant to the provision of information to parents and families.

υ **Families and professionals use technology to access information and support**

Service programmes and professionals provide families with choices and opportunities to use technology applications to access information and network with other families for support/advocacy.

Professionals and families use technology applications (e.g. teleconferencing and distance learning) to increase their knowledge base and skills.

Service programmes and family organisations use information technology as a source of resources for families.

Professionals have competencies to access technology for obtaining current research, reviewing effective practices and networking with peers.

υ **Training and technical support programmes are available to support technology applications**

State agencies, service programmes and personnel training programmes infuse technology at the preservice and inservice levels, to increase competencies of service providers, families, and administrators in assistive, instructional and informational technologies.

Key points from Section 13.0

Having a child with special needs can have positive impacts on families but also pose challenges. Persistent stress can compromise positive coping and the enjoyment of daily life, can impact on marital and family relationships and, in some cases, have adverse effects on child outcomes

An emphasis on family-centred service delivery may require from policymakers and professionals an understanding of the personal stressors with which families contend, such as information and resource needs, interpersonal and family distress, and threats to confident parenting.

The literature suggests that helping families to access information is a key part of a family-centred approach to early intervention, particularly on issues such as child health and development, specific disabilities, learning and development, and possible future needs. The role professionals play may differ depending on the family involved.

Parent support groups, national organisations and advocacy groups can also offer emotional and informational support to families.

Social support

There is evidence that the extent to which family members have adequate formal and informal support systems is associated with successful adaptation to having a child with a disability, and that the relational climate of the family is a predictor of children's developmental trajectories.

Formal services, such as early intervention programmes, are likely to have relatively less impact on family functioning than extended family and friends. Early intervention professionals can help families to identify and build informal support networks or create conditions that are conducive to the development of networks. However, social support that is imposed can have significantly negative effects on parents, especially on those whose need for support is low.

Family information gathering (also known as family assessment)

A family-centred approach to early intervention suggests a need to gather information about the family in order to develop collaborative and supportive relationships. Formal survey tools will probably not provide enough information for professionals (or be widely accepted) and professionals will need to rely on further conversations with families to determine their information needs. Family preferences should dictate the strategies used. More formal measures should only be used if the family sees the information gathered as an effective part of the process, such as setting family goals or making referrals.

Working with families

The provision of social support as part of family-centred service provision presupposes that early intervention personnel are comfortable working with families. However, many will have been trained to work with children, rather than with families. Professionals should be prepared to interact meaningfully with fathers, grandparents, siblings, extended family members, and whānau, as well as with families who self-define their supporting social system.

Parent-to-parent support can be provided informally by providing parents with opportunities to meet other parents or through more formally organised programmes. Formal parent-to-parent support can increase parents' acceptance of their situation and their sense of being able to cope.

Using technology to deliver information, resources and social supports to families

Health-related and child development information has increasingly become available online. Professionals can use the Internet to support and guide parents in their information-seeking and also by developing their own Internet resources for parents to use.

While it can be challenging for parents to assess the reliability of individual sources, they appear to be responsible searchers. Professionals also need to be able to support families in evaluating information.

14.0 Cultural competence and culturally-appropriate practice

"EI providers who recognize that their competence in understanding cultures and languages that are different from their own will always be somewhat limited, are likely to become lifelong learners. Having a predisposition to learn from their repeated interactions with families and community members about beliefs and values regarding disability, early intervention and participation in other social service systems will increase the EI provider's capacity to respond to individual family and child needs in a respectful, meaningful, and empowering way" (Banks, Milagros Santos & Roof, 2003, pp. 13 – 14).

One definition of cultural competence is the ability "… to respond optimally to all children and families [in ways that acknowledge]… both the richness and the limitations of the sociocultural contexts in which children and families, as well as practitioners… may be operating" (Barrera & Kramer, 1997 *cited in* Barrera & Corso, 2002, p. 105).

In 2002, the DEC position statement on responsiveness to family cultures, values and languages stated that "for optimal development and learning of all children, individuals who work with children must respect, value, and support the cultures, values, and languages of each home and promote the active participation of all families" (Horn, Ostrosky & Jones, 2004, p. 1).

The family is the primary vehicle for the transmission of cultural beliefs from one generation to the next. Coll and Magnuson (2000) describe aspects of cultural schema that are particularly important to a child's developmental outcome as including child-rearing beliefs and practices, definition and role of family members and meaning of both parental and children's behaviour.

Early intervention professionals are increasingly likely to work with a diverse range of families, many of whose attitudes, beliefs, values, languages, and customs will be different from their own. These differences may extend to beliefs or values about child rearing (including feeding, sleeping, toileting, and play), early intervention and communication (Garcia, 2001).

 As with other aspects of early intervention practice, the majority of literature on culturally-appropriate approaches is from the U.S., and it demonstrates an increased awareness of the importance of cultural diversity and its implications for early childhood education and early intervention practice. However, Odom (2000) also describes the research in this area as "surprisingly sparse".

14.1 Barriers to the use of early intervention services by culturally and linguistically diverse families

"Factors affecting the family's level of participation are complex and intertwined and vary with each situation (e.g. view of disability, knowledge about disability, accessibility of services). Thus it is important for professionals to individualize and provide services depending on each family's education, acculturation[51], socio-economic status, geographical location, beliefs about special education, and view about the child's disability and the intactness of the family support systems" (Zhang & Bennett, 2003, p. 53).

Early intervention service delivery is heavily influenced by Western models of development (Garcia, 2001; Lee, et al., 2003; Zhang & Bennett, 2003). Zhang and Bennett note that in many cultures, for example, time efficiency may not be valued as much as personal interaction, and deadlines for completing IFSPs and IEPs may not seem as important as taking time to consult elders or community leaders.

Pavri (2001) points to research that has shown that "… developmental delays in children from culturally and linguistically diverse backgrounds often are not detected at an early age". Zhang and Bennett (2003) also note that early intervention services are under-used by culturally and linguistically diverse families. Pavri goes on to outline reasons for this which have been proposed in the research literature:

υ   Families from different cultural groups have different understandings of what a disability is, and therefore develop varying levels of tolerance for developmental delays. This then determines the extent to which they seek early intervention services.

υ   Parents from diverse cultural and linguistic backgrounds may be unaware of the availability of early intervention and preschool services in their area.

υ   Families with limited English proficiency face unique challenges, such as restricted access to materials produced by child find[52] agencies and a reduced ability to communicate with medical and educational personnel and early childhood education providers.

υ   Culturally determined differences in interpersonal communication styles may hinder effective communication between families and early intervention providers.

Zhang and Bennett (2003) identify specific factors in, and barriers to, family participation identified in a number of studies between 1987 and 1999. They include the following:

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[51] The extent to which an individual has maintained a culture of origin and the extent to which they have adapted to the new society's culture.

[52] Agencies in the U.S. whose role is to identify children with disabilities who may require early intervention services.

υ   **Families**

Limited English proficiency and differences in language and dialects.

Interpersonal communication style differences.

Acculturation level.

Attitudes towards disability.

Family knowledge and comfort with school infrastructure.

Work and time conflicts, transportation problems and childcare needs.

υ   **Professionals**

Professional knowledge and sensitivity to cultural diversity, religious beliefs and family traditions.

Professional attitudes that stereotype or blame parents and deny parental expertise and knowledge about the child.

Professionals withholding information and using jargon.

υ   **Programmes**

Lack of language-appropriate information materials.

Shortage of trained bilingual and bicultural personnel.

Lack of culturally responsive service models that systematically address relevant cultural orientations and behaviours that affect service use.

14.2 Service delivery to culturally and linguistically diverse families

"Many factors must be considered in making early intervention acceptable and useful to families of different cultures, but among the most important is understanding how families from diverse cultures perceive early intervention services and service providers" (Applequist & Bailey, 2000, p. 47).

Lee, Ostrosky, Bennett and Fowler (2003) identify two important reasons for preparing early intervention professionals to develop culturally appropriate practices - an increasing diversity in the U.S. population and the increasing emphasis on family-centred practices. In addition, in the U.S., there is a legal mandate for child find activities to target families from diverse backgrounds who

have traditionally been underserved. The law also requires that families receive culturally appropriate services within their local geographic area (Pavri, 2001).

Coll and Magnuson (2000) note that it is important to recognise differences within ethnic groups as it is to acknowledge the similarities. For example, families might differ in the extent to which they wish to maintain their traditional culture, and different members of a family may be at different levels of acculturation. The DEC recommended practices in early intervention / early childhood special education, note the importance, in delivering services to diverse groups, of understanding intragroup as well as intergroup difference (Lee, Ostrosky, Bennett & Fowler, 2003). Factors that can impact differently on different members of a cultural group include gender, occupation, discrimination, socio-economic status, and age (Garcia, 2001).

Cullen (2002a) notes that a key assumption of the socio-cultural curriculum approach to early childhood education in New Zealand (reflected in *Te Whāriki*) is that it will acknowledge and build on the social and cultural backgrounds of the children. However, Cullen reports that parental views, from a Māori sub-sample in research to monitor the implementation of the Special Education 2000 policy, provide challenges to this assumption, showing diverse interpretations of cultural expectations. Some parents believed their child's culture was being affirmed while others felt that not only was it not being acknowledged, but neither was its potential for assisting learning. Interestingly, not every parent believed that culture needed special consideration. The two parent comments given to demonstrate this belief both refer to the supportive nature of the help these parents were receiving from their early intervention service.

The ways in which a family responds to the fact that they have a child with a disability may also vary significantly within and between cultures. Rather than seeing the child as requiring intervention, some families may view the disability as a blessing or as an individual difference (Lee, et al., 2003; Zhang & Bennett, 2003).

Zhang and Bennett (2003) describe potential strategies for facilitating family participation in special education processes that were identified in a number of studies between 1987 and 1999. They include the following:

υ **Families**

Promote increased knowledge and understanding of school policy, practices and procedures among families.

υ **Professionals**

Involve other influential family members or qualified community members.

Develop increased knowledge and sensitivity about multiple dimensions of cultural diversity.

Conduct a home visit a few days prior to IEP meeting to discuss such issues as childcare, transportation and the importance of family involvement.

Understand culturally bound, nonverbal aspects of communication, such as body language and eye contact.

Reduce volume of written information.

Provide an overview of each phase of the IEP process and introduce family to other members of the IEP team.

Encourage parents to have a family member or family advocate accompany them.

Define goals that are consistent with the life experiences, religious beliefs and cultural values of the family. For example, Zhang and Bennett note that professionals may emphasise independence as an important goal, whereas some families may feel they are not being good parents if they do not take care of their child through activities, such as feeding and dressing.

Maintain ongoing communication regarding status of assessment and service delivery procedures.

υ **Programmes**

Provide transportation, advance notice of meetings and childcare.

Maintain the same interpreter throughout to avoid disruption of parent/interpreter relationship.

In a discussion of the use of interpreters, Madden (2005) writes that the effectiveness of the interpreter depends on their level of skill and experience. She cautions against the use of friends and family members as she suggests they may not have the skills, knowledge or objectivity to get the intended message across.

Banks, Milagros Santos and Roof (2003) note that "the value of service providers sharing the same ethnic or cultural background as the families they serve seems logical, and is often advocated". However, they cite studies with various ethnic groups that find no correlation between the service providers' cultural backgrounds and parental satisfaction. One example is a study by Applequist and Bailey (2000), which found that Navajo family caregivers (a sample of 52), with a young child with a disability, expressed a moderately high degree of general satisfaction overall with early intervention services. They found that the caregivers were equally satisfied with native and non-native providers and did not express a strong preference either way. The authors surmise that non-native providers in this study made an effort to work in a culturally appropriate way (see Section 7.0 for discussion about a Māori perspective on culturally appropriate practice).

Banks, Milagros Santos and Roof (2003) report on the work of Kochanek and Friedman, who (in 1988) suggested six questions to guide early intervention providers when working with families whose cultural and linguistic backgrounds are different from their own and/or from that of the mainstream culture. Banks, et al. suggest that acquiring this knowledge before engaging with the family on information gathering is the very least that an early intervention provider should do if interactions are to be respectful, positive and productive:

υ   Is it acceptable for outsiders to be involved in family business?

υ   What constitutes a concern legitimate enough for outsider involvement and what are the accompanying feelings for family members (e.g. embarrassment, anger or resentment)?

υ   Who is the "gatekeeper" in the family through whom all outsiders must go?

υ   What are the normative routes for help-seeking and social support within the culture?

υ   What is the meaning in the culture of having a child with a disability?

υ   Do families served have adequate facility with the English language to ensure reliable and valid results? Must assessment tools be translated (and normed) into other languages for optimum results?

Barrera and Corso (2002), however, suggest that, while such information is useful, it is not always sufficient, and may not match individual families' more dynamic experiences as members of a culture. Indeed, it may be overwhelming and unrealistic to expect providers to be familiar with the cultural parameters for all the families with whom they interact. They present the Skilled Dialogue approach and suggest it can augment and balance such knowledge-based approaches.

Cultural competency as skilled dialogue

Barrera and Corso (2002) describe the Skilled Dialogue approach as addressing the "true measure" of cultural competency – the crafting of respectful, reciprocal and responsive relationships. The approach is grounded in three beliefs:

υ   Diversity is a relational and context-embedded reality. Differences between people from different cultures lie not just in differences in behaviour, but also in the meaning or context associated with those behaviours, and consequently in the risk involved in attempting to change those behaviours. What may be inviolable for one person may be negotiable for another. Early intervention practitioners should understand both the "meaning" and the "risk" if they plan to encourage a behaviour change.

υ   Understanding the dynamics of culture is a prerequisite to appropriately addressing the challenges posed by cultural diversity.

υ   The key to cultural competence lies more in the ability to craft respectful, reciprocal and responsive interactions, both verbal and non-verbal across diverse cultural parameters, than in the breadth of our knowledge about other cultures.

The authors go on to say that the absence or presence of respect, reciprocity and responsiveness are key indicators to whether dialogue is "skilled" or "unskilled".

υ   Respect refers to an awareness and acknowledgement of boundaries between persons. These boundaries can take many forms, e.g. physical, emotional, cognitive, and spiritual.

- Reciprocity seeks to balance the power between persons in dialogue, acknowledging that the experience and perceptions of all participants in an interaction are of equal value.

- Responsiveness involves challenging our own assumptions or "… turning all our assumptions into lightly held hypotheses". Cultural diversity challenges early intervention professionals to recognise that a person is always more than, and possibly very different from, the idea that the professional may hold about who they are.

The three qualities described above are anchored in the Skilled Dialogue model by two component skills. Firstly, an "Anchored Understanding of Diversity" refers to a compassionate understanding of difference, anchored both experientially and cognitively. Secondly, the concept of 3rd Space focuses on creatively reframing contradictions into paradoxes. The authors describe it as both a skill and a mindset. As a mindset, they say that 3rd Space "… supports respectfully holding divergent and sometimes seemingly contradictory views in one's mind at the same time, without forcing a choice between them" (p. 109). 3rd Space leaves open the possibility of integrating diverse perspectives.

The authors suggest some strategies for anchored understanding and 3rd Space. For example, a responsive strategy for anchored understanding could be reflecting an understanding of others' perspectives. The authors give sample questions/statements, including, "Let me see if I understand what you mean; are you saying that …?".

Barrera and Corso conclude by saying that the Skilled Dialogue model has been well-received and appears to have potential for expanding practitioners' skill repertoire in relation to cultural diversity.

14.3 Gap between principles and practice

Lee, et al. (2003) acknowledge barriers to early intervention professionals implementing culturally-appropriate practice, particularly attitudinal barriers, although they note that there is limited empirical research in the area. Their study considered issues surrounding the implementation of culturally-appropriate practice. Surveys were completed by 123 early intervention professionals (including IDEA Part C and Early Head Start staff) who worked with children from birth to age three and their families. The survey showed that while professionals did perceive many culturally appropriate practices to be important, they were not always able to implement them in their professional practice. Barriers to implementation identified in this survey included a lack of time (the most common barrier) because obtaining culture-specific information is time consuming and often must be done during non-work hours, a lack of training, and a lack of materials (see Section 7.2 for similar findings regarding early intervention for young Māori children with special education needs).

The authors (Lee, et al., 2003) note these factors are inter-related and, among other things, note that if sufficient culturally-appropriate resources were made available to staff, a lack of time may not be such an issue. In addition, they suggest that if a consideration of culture were considered an integral part of early intervention practice, time might not so readily be identified as a barrier.

Lee, et al. note that more research is needed in the area of culturally appropriate practice, such as replication of their study to validate its findings and research from the perspectives of families.

A survey undertaken by Bevan-Brown (2005) that considered provision for Māori children with special education needs[53] identified five major barriers to provision that match quite closely the findings of Lee, et al. (see Section 7.1 for more information on this study). These were: insufficient funding (this may be analogous with the lack of time identified in the work of Lee, et al.); a lack of culturally appropriate resources; a shortage of culturally appropriate training; Pākehā-centric attitudes towards special needs provision; and the high stress levels of Māori staff working in the special needs area. The following quote from one worker in the Bevan-Brown study highlights a lack of culturally appropriate resources:

> "A lot of the resources that have been developed by Pākehā for Pākehā are not appropriate for Māori people. Do they have a choice if they want to be assessed in Māori? They don't and with the way children are coming through the system at the moment, bilingual and bicultural, these resources will be increasingly needed … even if it is not bilingual at least it should be Māori-appropriate" (p. 7).

Among the recommendations of Bevan-Brown is the need for a substantial funding increase to enable more staff to be employed, for appropriate research to be undertaken and to enable the development of "… Māori-relevant assessment measures, resources, programmes and services" (p. 9).

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[53] Not restricted to early childhood.

Key points from Section 14.0

Western models of development heavily influence early intervention service delivery, with the potential for bias in identification, service delivery and assessment systems.

In 2002, the DEC position statement on responsiveness to family cultures, values and languages stated that "for optimal development and learning of all children, individuals who work with children must respect, value, and support the cultures, values, and languages of each home and promote the active participation of all families" (Horn, Ostrosky & Jones, 2004, p. 1).

Factors that impact on family participation in early intervention may include language issues, acculturation levels, attitudes towards disability, religious beliefs and family traditions, a lack of language appropriate information materials, a shortage of trained bilingual and bicultural personnel, and a lack of culturally responsive service models that systematically address relevant cultural orientations and behaviours that affect service use.

Service delivery to culturally and linguistically diverse families

The DEC recommended practices in early intervention/early childhood special education note the importance of understanding intragroup as well as intergroup difference. Factors that can impact differently on different members of a cultural group include gender, occupation, discrimination, socio-economic status, and age.

Barriers to culturally appropriate practice by service providers which have been identified include a lack of time, obtaining culture-specific information and resources, a lack of training, and a lack of materials.

15.0 Outcomes for children and families

"Designing a comprehensive system of early intervention services and supports for infants, toddlers and preschoolers with established disabilities needs to begin with recognition of the intended goals of the system" (Spiker, Hebbeler & Mallik, 2005, p. 305).

Moore and Sargood (2005) describe an outcome statement as a clear statement of what services intend to achieve, listing expectations about what sort of benefits will be achieved, and written in a way that allows the effectiveness of a service to be measured. Where there is a range of providers, funding sources, and services, agreed outcomes can help to highlight their similarities (Early Childhood Intervention Australia, Victorian Chapter, 2006).

In early intervention, much of the literature on outcomes has focused on the individual outcomes for children assessed against individualised plans. There is debate about what outcomes should be sought for children at this level. Traditionally, these outcomes have been measured using tools such as developmental scales. More recently, attention has turned to functional rather than developmental goals, and measures of functional ability, with some suggesting a greater focus is needed on assessing the processes of social and emotional development. In addition, there have been calls for assessment and evaluation to be embedded within a child's natural environment[54] (Moore, 2004b).

There is little information on the setting of goals or gathering of data on outcomes for children at an intermediate level, such as across early intervention services. Evaluating outcomes for all children receiving early intervention services is complex, particularly because of the range of special education needs represented and the different services (such as in the case of the U.S.) that may be available to children of different ages (Wolery & Bailey, 2002).

In 1998, Ramey and Ramey, commenting from a U.S. perspective, noted that apart from individual-level assessment, "… no formal reporting of children's progress or systematic review of this early intervention system has occurred. Criteria for success remains elusive. At the level of the child and family, success is defined by the expectations that the family and the early intervention practitioners hold for the child" (p. 112). Increasingly, attention has turned to identifying the outcomes that the system should aim to achieve for children with special education needs (Moore, 2005c).

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[54] See Sections 11.0 and 10.4 for more discussion of these issues.

15.1 *Better outcomes for children*, New Zealand

In New Zealand, the Ministry of Education seeks to raise achievement and reduce disparity through the "vital 3" priorities:

υ   Effective teaching for all children.

υ   Engaged families and communities.

υ   Quality providers.

Better outcomes for children (Ministry of Education, 2006a) is an internal plan for the New Zealand Ministry of Education. It is focused on raising achievement and improving services for children (both in early childhood education and school) who are eligible for specialist services from the Ministry of Education, Special Education (GSE). The plan will guide the work of GSE staff over the next five years. It describes important outcomes for children, ways to collect better information on these outcomes within the Ministry and key actions to strengthen service provision in order to improve outcomes.

In addition to the 'vital 3' priorities, this plan focuses on three outcomes for children that contribute to achievement:

υ   Presence - in an education setting this means the child is attending an early childhood service or school, in a safe learning environment, and able to enrol in and access the same range of early childhood services or schools as other children living in the same location.

υ   Participation - in an education setting this means the child is positively engaged in interpersonal relationships, social activities, shared learning experiences, and is increasingly self-determining.

υ   Learning - the child is in an education setting and engaged in experiences that maximise learning. Learning experiences are planned and also build on spontaneous opportunities, involve effective assessment, implementation and review, implement the curriculum, are evidence-based, and take account of the child's perspective.

15.2 *Starting with the end in mind*, Victoria

The Victorian Chapter of Early Childhood Intervention Australia, recently released *Starting with the end in mind: Outcome statements for early childhood intervention services* (Moore & Sargood, 2005) (see Figure 3). The document was developed over 15 months of consultation and considers the domains of the child, the family and the community as well as functional development and participation. The outcome statements reinforce the need to see the development of the child with a disability and their family from multiple dimensions "… showing how services can respond to the specific needs of a child while supporting families to maintain social connectedness, and to participate, as they decide, in the community (Moore & Sargood, 2005).

Figure 3: Outcome statements for early childhood intervention services (Victorian Chapter of Early Childhood Intervention, Australia). Adapted from Moore and Sargood, 2005.

Outcomes for children	
Functioning	• Children will gain functional, developmental and coping skills that are appropriate to their ability and circumstances. • Children will show confidence and enjoyment in their everyday life.
Participating	• Children will participate meaningfully in home and local community activities to the extent of their ability. • Children will experience and enjoy family life and community activities that are preferred by the family.
Outcomes for families	
Functioning	• Families will be able to nurture and support their child according to their values and preferences. • Families will be able to identify and address the needs of their child(ren) and family. • Families will be able to advocate for themselves and their family, to the degree they choose.
Participating	• Families will participate in social and community activities to the degree they choose. • Families will feel supported by personal networks and local communities
Outcomes for communities	
Functioning	• 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.
Participating	• Communities will value all members. • Communities will be inclusive, providing for diversity, access and quality services for all families.

15.3 Developing family outcome measures

Increasingly, attention has been drawn internationally to the outcomes of early intervention for families as well as children. Indeed, Wolery and Bailey (2002) say that "… early intervention is inherently a child and family issue" (p. 95). While noting that a number of authors have addressed the issue of family outcomes, Wolery and Bailey suggested that few measures met the test of being non-intrusive, family-friendly, efficient, and technically adequate.

In a discussion of the rationale for developing a family outcomes framework, Bailey and Bruder (2005) describe a debate about whether there is a legislative imperative for attaining family outcomes. They note that one argument is that regulations should not be the only factor in determining whether family outcomes are desirable. Other issues that they raise include:

ʋ   How can a common set of outcomes be developed that apply to all families? For example, they suggest that for some families, no family outcomes may be important, whereas for others, family outcomes may be the most important part of the services provided.

ʋ   What are the best ways to document family changes over time? For example, family outcomes may not be developmental in nature, and few family measures have "extensive normative data or growth curves that could be used as a reference point for evaluating change". Also, how can measures be sensitive to the perceptual nature of many outcomes? "In fact, concepts of what a "normal" family is or what constitutes appropriate adaptation are likely to be challenged both within and across cultural and ethnic boundaries" (p. 5).

Bailey (2001) notes that there has been little discussion of what constitutes desirable family outcomes, but of the small number of studies that have suggested outcome frameworks, he identifies considerable overlap. The three most common domains of potential family outcomes of parent involvement and family support efforts are - family satisfaction with services, the family's knowledge of child development and their ability to provide a developmentally supportive environment and advocate for their child's needs, and the overall quality of the family's life and the changes that are needed in order to meet their child's needs.

15.4 Child and family outcome measures, U.S.[55]

In 2003, the Office of Special Education Programs (U.S. Department of Education) funded the Early Childhood Outcomes (ECO) Center to work with parents, service providers and other stakeholders to develop and aid in the implementation of child and family outcome measures for infants, toddlers and preschoolers with disabilities.

Between 2003 and 2005, ECO convened numerous stakeholder groups to consult on what the outcomes should be. ECO recommended a set of child and family outcomes to the Office of Special Education Programs (OSEP) in February 2005. The child outcomes actually adopted by OSEP are similar to those recommended by the stakeholders. The outcomes address three areas of child functioning considered necessary for each child to be an active and successful participant at home, in the community and in other places like a child care programme or preschool. States must report the percentage of infants and toddlers with IFSPs or preschool children with IEPs who demonstrate improved:

ʋ   positive social-emotional skills (including social relationships)

ʋ   acquisition and use of knowledge and skills (including early language/communication and early literacy[56])

ʋ   use of appropriate behaviour to meet needs

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[55] Unless noted otherwise information for this section has been sourced from the website of the Early Childhood Outcomes Center - http://www.fpg.unc.edu/~eco/index.cfm
[56] Early literacy applies to preschool services only.

States are required to measure and report on the progress children make between the time they enter a programme and the time they exit in each of the outcome areas.

A major focus of the ECO Center work has been family outcomes - defining what is meant by family outcomes, developing a rationale for assessing family outcomes, reviewing existing frameworks, and meeting with numerous stakeholders[57].

In a report for the Early Childhood Outcomes Center, Bailey and Bruder (2005) define "family outcome" as "a benefit experienced by families as a result of services received" (p. 2). They go on to specify that the receipt of services is not an outcome in itself; the outcome is the thing that happens because services or support were provided. The authors note (and this also became apparent in the preparation of this review), that parental or family satisfaction with services has been the dominant approach to evaluating the family effects of early intervention programmes. These studies have shown that parents consistently report very high levels of satisfaction with early intervention programmes.

The authors suggest that, while satisfaction is an important part of programme evaluation, it should not be considered an outcome of services as it does not indicate that any benefit has been received. They also note that a dearth of outcome assessment tools means that those tools that do exist, such as levels of family satisfaction, can sometimes determine which outcomes are assessed.

However, in trying to identify what family outcomes should be, Bailey and Bruder note that while several frameworks have been outlined and share some common features, no attempt has been made to reach consensus about a common core of family outcomes.

An evidence-based process, with stakeholder input, resulted in the identification of five family outcomes (Bailey, et al., 2006b):

υ   Families understand their child's strengths, abilities and special needs.

υ   Families know their rights and advocate effectively for their children.

υ   Families help their child develop and learn.

υ   Families have support systems.

υ   Families access desired services, programmes and activities in their community.

The ECO Center (2005) concludes, based on their consensus-based process, that all five outcomes apply to early intervention programmes for young children from birth to age three, while outcomes 1, 2 and possibly 3, apply to early childhood special education as it is currently being delivered.

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[57] From the website of the Early Childhood Outcomes Center: http://www.fpg.unc.edu/~eco/tools.cfm

"These outcomes provide a framework by which states and the federal government could document whether early intervention and preschool programs are providing demonstrable benefits for families, and provide the basis for developing measurement systems to determine the extent to which such benefits have been attained" (Bailey, et al., 2006b, p. 227).

The OSEP has not, to date, adopted these family outcomes for its formal reporting system, instead requiring states to report on a number of family satisfaction measures. However, they have encouraged the ECO Center to consider how to help states identify ways to measure all the recommended outcomes, not just those required by OSEP (Bailey, et al., 2006b).

Key points from Section 15.0

In early intervention, much of the literature on outcomes has focused on the individual outcomes for children assessed against individualised plans, although there has been ongoing debate about what outcomes should be sought for children at this level.

There has also been work undertaken to identify the outcomes that the system should aim to achieve for children with special education needs. In New Zealand, *Better outcomes for children* is an internal plan for the New Zealand Ministry of Education. The plan describes important outcomes for children, ways to collect better information on these outcomes within the Ministry, and key actions to strengthen service provision in order to improve outcomes. The focus of the plan is on three outcomes for children that contribute to achievement - presence, participation and learning.

In the U.S., states have to report to the Office of Special Education Programs on three outcomes for children. The outcomes address three areas of child functioning considered necessary for each child to be an active and successful participant at home, in the community and in other places like a child care programme or preschool. States must report the percentage of infants and toddlers with IFSPs or preschool children with IEPs who demonstrate improved positive social-emotional skills (including social relationships), acquisition and use of knowledge and skills (including early language/communication and early literacy[58]), and use of appropriate behaviour to meet needs.

States are required to measure and report on the progress children make between the time they enter a programme and the time they exit in each of the outcome areas.

Increasingly, attention has been drawn to the outcomes of early intervention for the families of children with special education needs. In the U.S., an evidence-based process, with stakeholder input resulted in the identification of five family outcomes:

υ   Families understand their child's strengths, abilities and special needs.

υ   Families know their rights and advocate effectively for their children.

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[58] Early literacy applies to preschool services only.

υ Families help their child develop and learn.

υ Families have support systems.

υ Families access desired services, programmes and activities in their community.

16.0 Discussion

"The field of early childhood special education is relatively new but has made significant progress in learning how to intervene early for the benefit of children and families" (Wolery & Bailey, 2002, p. 88).

The Ministry of Education, Special Education requested that this literature review address two key questions:

υ   Confirm the characteristics of effective early intervention services and the rationale for the characteristics selected.

υ   Update the evidence-base on early intervention practices that lead to improved outcomes for children, with a focus on any underlying principles of practice.

It is clear from the literature reviewed here, that not only have early intervention practice and principles evolved over the period covered by this review, but that they continue to evolve.

"The field of early childhood special education has certainly come a long way in a little bit of time. Terms such as inclusion, family-centered practices, IFSPs, developmentally appropriate practices … and natural environments that were rarely discussed 15 years ago are standard today" (Hemmeter, 2000, p. 60).

The last few years have seen the cementing of family-centred approaches as a key principle of early intervention, with the literature identifying a growing acceptance that early intervention needs to reflect the ecological context in which the family operates. This has meant an increasing focus on family-centred models, including research on how they are perceived by parents and professionals, how to achieve family-professional partnerships and the gaps that exist between principles and practice.

The work on recommended practices by the U.S. Council for Exceptional Children has led to the production of a list of best practice principles of family-centred practice:

υ   Families and professionals share responsibility and work collaboratively.

υ   Practices strengthen family functioning.

υ   Practices are individualised and flexible.

υ   Practices are strengths and assets-based.

Other key characteristics of family-centred services identified in the literature are that they:

υ   include families in decision-making, planning, assessment, and service delivery at family, agency and system levels

υ   are guided by families' priorities for goals and services

υ   respect families' choices regarding the level of their participation and involvement

υ   encourage the involvement of all family members.

The literature suggests that helping families to access information is a key part of a family-centred approach to early intervention, particularly on issues such as child health and development, specific disabilities, learning and development, and possible future needs.

There is also evidence that the extent to which family members have adequate formal and informal support systems is associated with successful adaptation to having a child with a disability, and that the relational climate of the family is a predictor of children's developmental trajectories. Early intervention professionals can help families to identify and build informal support networks or create conditions that are conducive to the development of networks.

The idea that children should, where appropriate, receive early intervention services in natural environments is another key principle well accepted in the early intervention literature (although there is continued debate on how to interpret "natural environments"). The philosophy of natural environments not only identifies where the child spends their time but also addresses developmental concerns by embedding interventions into the everyday experiences that occur within that setting. Learning in natural environments promotes "generalizability", or the ability to respond appropriately in unrehearsed conditions, whereas interventions that are built on non-functional skills may not facilitate the transfer of learning from one environment to another.

While the principles of family-centred practices, inclusion and natural environments can provide an overall framework for early intervention, this does not answer the question posed in this review about what and how children should learn or what are the characteristics of effective early intervention services. It is these issues that are the subject of continued, and often passionate, debate and, in fact, research suggests that different individuals may need different programmes to achieve similar outcomes. An important challenge ahead for the early intervention field is to understand the relative effects of different approaches for children with different developmental needs.

New Zealand research is particularly valuable as it can consider the relevance of best practice identified by other jurisdictions; for example, research on social skills training for education support workers is an important first step in developing interventions for a New Zealand context.

What also becomes apparent from the literature is that, while there have been significant advances in developing recommended practices for early intervention, there is a very clear gap between many recommended practices and what actually happens in the field. Also, in many cases, because of the newness of some of the concepts, best practices are only just emerging rather than being established. For example, the provision of social support as part of family-centred service provision presupposes that early intervention personnel are comfortable working with families, whereas many will have been trained specifically to work with children. Therefore, despite the existence of models, principles and recommended practices, it seems likely that one of

early intervention's greatest challenges will be to integrate these concepts into the everyday work of all early intervention professionals.

During the writing of this review it became clear that the literature is dominated by material from the United States. Even material that is written from an Australian, English or New Zealand perspective refers extensively to work published by U.S. researchers. The amount of funding and support that is available for research in the U.S., means that it is likely to continue to be a key source of ideas, recommended practices and evaluation. However, perspectives from specific countries are critical. For example, the review shows an increasing move towards authentic assessment practice in the U.S. but, as one New Zealand researcher has pointed out, these are not necessarily authentic once transferred to New Zealand's early childhood education and early intervention settings.

There are also many aspects of early intervention practice which are unique to New Zealand and require research. For example, how early intervention services can be appropriately provided to Māori and Pasifika children with special education needs and their families and whānau. Once again, international literature is of great interest but is no substitute for Māori and Pasifika perspectives. Common components of culturally appropriate and effective programmes and services in New Zealand have been identified as incorporation of cultural content, the inclusion of parents, whānau, the Māori community, Māori organisations and Māori workers, along with the need for ready accessibility to services. Another issue is how early intervention practice in New Zealand sits alongside early childhood education generally. For example, many of the principles of *Te Whāriki* are being incorporated into assessment practice in New Zealand, and it is a document with wide-ranging support in the sector.

As this literature review shows, the resources that families with young children with special education needs require are likely to extend beyond the services provided by the special education system in New Zealand. Other countries, as well as New Zealand, have early intervention systems sitting alongside more wide-ranging attempts to support families with young children, and there may be lessons to learn from programmes, such as Head Start (U.S.), Sure Start (England) and Family Start in New Zealand. There may also be synergies to develop to ensure that children with special education needs and their families receive integrated and seamless services. However, this should not be at the cost of diluting the support available to those families with children with special education needs.

In conclusion, it appears that the identification of key principles and recommended practices is an important step forward for the early intervention field. In addition, there is an active research agenda considering not only how to implement those practices, but how to identify more explicitly what works for individual children.

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