National Best Practice Framework for Early Childhood Intervention

How often, how much and for how long

An evidence brief

Introduction

This evidence brief is part of the Decision-Making Guide (the Guide) from the National Best Practice Framework for Early Childhood Intervention (the Framework). The brief provides evidence to inform decisions about a particular set of questions addressed in the Guide – those concerning the frequency, intensity and duration of the service to be provided.

The Framework was developed as part of the Review of Best Practice in Early Childhood Intervention (ECI) project commissioned by the Department of Social Services. The Framework aims to support universal, equitable and high-quality ECI based on best practice for children (0-9 years) with developmental concerns, delay or disability.

As stated in the Framework, the overall aim of ECI services is

> To promote the capabilities of parents, carers, service providers and communities to be able to provide children with developmental concerns, delay or disability with the experiences and opportunities that best build their capacity, agency and meaningful participation in home, community, early childhood education and care (ECEC) and school settings.

A major issue facing ECI practitioners and parents is determining what level of service is needed to achieve this aim. This question is particularly important in Australia at this time given that the National Disability Insurance Scheme (NDIS) has led to enormous growth in the frequency, intensity and duration of some ECI services. Much of this increase in interventions is being delivered in clinical settings, leading to a reduction in the time that children with developmental concerns, delay or disability have to simply be children, to have time for play and relaxation, and for families to be families, experiencing quality time together.

As noted by the NDIS Review:

> Through the 10 years of the NDIS, families have shown a strong preference for maximising the number of therapy hours their child receives.… It is completely understandable that families are currently making this choice. If some therapy for their child is beneficial it can be rational to believe that more therapy is better, particularly if the expertise of medical professions has been constantly and consistently reinforced. ...

> This creates a vicious cycle where therapy delivered in clinical settings is valued highly and the work being done at home by the family to support the child is undervalued. It also means that families are not being supported to work therapeutic activities into their daily routines and creating opportunities for children to develop and practice their skills in the environments in which they will use them. The clinical approach can also inadvertently undermine the family's perception of themselves as experts in their own life and the life of their child and in control of outcomes NDIS Supporting Analysis (pp 417-418).

As part of the Framework, a Decision-Making Guide (the Guide) has been developed to help parents and practitioners make decisions about this question.

This briefing paper provides background guidance for the Guide regarding decisions about three key questions:

- *how often* should the service be provided
- *how much* service is needed, and
- *for how long* the service should be provided

The paper begins with a review of evidence regarding these questions and then discusses the other factors besides evidence that need to be considered when making decisions. Next, the paper reviews suggested decision-making questions, before concluding with a recommended list of key questions that can guide practitioners and parents in making decisions about these key issues.

The following definitions are used in this paper:

- **Frequency** is *how often* ECI occurs with the child and family (1).
- **Intensity** is the *amount* of ECI (e.g., different service types, and length of visits) provided within a time frame (2).
- **Duration** of services is *how long* ECI will be provided over time to the child and family to meet the identified goals/outcomes (1).

These are sometimes collectively referred to as ‘dosage’.

Evidence review

There is limited current literature on frequency, duration and intensity of services or support for children with developmental concerns, delay or disability. Most studies come from the USA and focus on services that are designed to support the development of infants and toddlers (birth to 3 years of age) and work to enhance the family’s capacity to meet their child’s changing needs.

The available research shows mixed results. Aaron et al., (3) examined whether the level of parent participation and the level of team support at the initial planning meeting were determinants of the recommended minutes per month of service. The researchers found no significant relationship between parent participation, team

support, and service intensity. Interestingly, the researchers did find that while parents collaborated in developing outcomes, few parents were involved in the decision about intensity of services at their initial planning meeting (3). MacManus and colleagues (4) reported on a study of children who were younger than 35 months with a developmental disability or delay and found that greater ECI service intensity was associated with better functional gains. A more recent study found that children receiving more intensive ECI services had caregivers who expressed greater desire for their child's participation in home-based activities to change. Further to this, children receiving more intensive ECI services were less involved in home-based activities (5).

An early review of the literature concluded that there was little evidence at that time that more intensive programs lead to better outcomes for children with disability (2). A recent systematic review of dosage in early intervention with 0–3-year-olds found that frequency was most reported, whereas duration, intensity and service models were reported inconsistently (6). The researchers concluded that inconsistencies in the way results were reported made it hard to draw any firm conclusions regarding effective dosage levels.

Systematic reviews of the evidence regarding early intervention with children with autism come to a similar conclusion – the poor quality of available studies make it difficult to draw firm conclusions (7, 8). Regarding early intensive behavioural interventions, reviews suggest that there is little robust evidence that such interventions are more effective than other less intensive interventions (9-12) . Furthermore, most of the studies fail to monitor possible adverse effects on child or family of the interventions provided (10, 13), despite some evidence that early behavioural interventions may have adverse effects on some children (14). Few studies examined family or social environmental influences on intervention outcomes (10). One exception is a study that found no evidence that early behavioural interventions have a positive effect on family quality of life (15).

Systematic reviews of intensive interventions with young children with cerebral palsy are also hampered by limited evidence (16-18). The studies that have been conducted show inconsistent results and few have produced significant improvements in children's motor functioning. Overall, there is insufficient evidence to support high-intensity therapy for young children with cerebral palsy (17, 19).

On the other hand, providing too little intervention risks the child making no progress. The published international clinical practice guidelines for interventions to improve physical functioning in children and young people with cerebral palsy (20) note the importance of providing a sufficiently high 'dose' of practice for the child to develop functional skills. If the child does not have enough opportunities to practice the skills, they will not make progress in developing them. Some opportunities to practice skills may be provided by therapists working directly with the child, but many more are possible when embedded in everyday settings and routines.

As in the case for intensive interventions for children with autism, few studies of children with cerebral palsy have examined the possible negative effects of the interventions on the children or their families. Jackman and colleagues (20) note the danger of trying to achieve too many goals at once and overburdening the child and family. To avoid this problem, it is important to use a child- and family-led team-based approach to coordinate planning and ensure that the demands upon the child and family are reasonable.

A complicating factor is that, as Novak (21) observes, many parents seek sustained intense 'hands-on' therapy for their children based on a belief that 'more is better'. However, as the above reviews has shown, it is very difficult to draw firm conclusions from the literature about the optimal intensity of interventions with young children based on the evidence alone. When making decisions about frequency, intensity and duration of interventions, there are other factors that need to be considered. These are addressed next.

Other factors affecting decisions about frequency, intensity and duration

Evidence regarding effective interventions is only one of the considerations when making decisions about frequency, intensity and duration of support. As noted in the desktop review of best practice in ECI conducted as part of the Framework project (22), choosing strategies needs to be part of an *evidence-informed decision-making process* (23, 24) that also takes into account what outcomes families are seeking and what can realistically be implemented in the context of family circumstances.

Guidance regarding the additional factors that need to be considered can be found in some of the national and international guidelines for best practice.

- The recommendation in the National Guideline for Supporting the Learning, Participation, and Wellbeing of Autistic Children and Their Families in Australia states: "Supports may be delivered in a variety of amounts (e.g., hours) distributed over varying time periods (e.g., days, weeks, months). 'Intensity' refers to the amount delivered in a particular period of time (e.g., hours per week). The amount and duration of support (which determine the intensity) should be determined in partnership with the child and family, and based on a judgment of the most plausible, practicable, desirable, and defensible pathway to achieving their goal(s)" (p.95) (25).
- The international clinical practice guidelines for children and young people with cerebral palsy (20) recommend that interventions include client-chosen goals, activities that are enjoyable and motivating for the child, whole-task practice within real-life settings, support to empower families, and a team approach in setting goals and carrying out interventions. Age, ability, and child/family preferences should also be considered.

The Workgroup on Principles and Practices in Natural Environments (26) indicates that best practice involves “Collaboratively deciding and adjusting the frequency and intensity of services and supports that will best meet the needs of the child and family”.

The Division for Early Childhood (DEC) (27) recommends that “Practitioners implement *the frequency, intensity, and duration of instruction needed to address the child's phase and pace of learning or the level of support needed by the family to achieve the child's outcomes or goals”.*

In a similar vein, Keilty (28) discusses how often ECI visits should occur and concludes that the overarching answer to the *how often* question is *“often enough that the family feels supported in making decisions and using strategies to meet their outcomes*.”

Other recommendations from the literature suggest that the frequency, intensity and duration of services should be:

based on evidence-informed assessment practices that include family engagement in planning ECI (29)

flexible and tailored to each child and family's circumstances and utilising practitioners’ clinical reasoning (30)

accounting for the family’s time supporting their child between ECI visits to ensure ‘meaningful growth’ in the targeted child and family outcomes outlined in the child’s individual plan (31)

determined by the family’s level of support needs and the child’s developmental phase and pace of learning (27)

guided by the extent to which the child and family need to actively engage in ECI to show progress on each functional outcome (32)

avoid doing harm by placing undue stress upon the child and family, or by adversely affecting their quality of life (10, 13, 14)

The decision-making process should also be guided by the principles on which the Framework is based. This includes being *child-centred*. In determining goals on behalf of young children who are unable to articulate their own preferences, we need to be sure that the goals are truly in the child’s interest and not solely in the interests of parents, carers and families, or of service providers. We also need to be careful that the strategies chosen to meet these goals are not so intensive that they have adverse effects on child and family wellbeing.

As highlighted in the *National Framework for Assessing Children’s Functional Strengths and Support Needs* (33), it is essential to consider each of the domains of the International Classification of Functioning, Disability and Health (ICF) (34). The F-words translation of these domains (35) reminds families and practitioners of the

importance of considering all elements in planning and delivering services: fitness, functioning, friends, family, fun and future.

Above all, the process of making decisions about the frequency, intensity and duration of the support provided should be *outcomes-focused* – based on the child and family's goals and the outcomes they seek. The Guide ensures that key decisions about the form of intervention are based on child and family outcomes by making the choice of what outcomes to seek early in the sequence of steps. This means that, when the time comes to decide what form the intervention strategies will take, the goals and outcomes have already been determined and can be used to guide the decision-making process.

Decision-making questions about frequency, intensity and duration

Specific questions to help decision-making have been described by Keilty (28) and Kuhn and Marvin (31).

In deciding the 'just right' number of ECI visits, Keilty (28) suggest a number of questions for the parents/practitioner partnership to consider:

Is this a new strategy (and therefore will the family need more frequents support)?

Who will be using the strategy?

How complex is the strategy for the family (and therefore how much support do they need)?

How comfortable is the family with the strategies?

How quickly will the strategies change (and need to be reviewed and modified)?

Kuhn and Marvin (31) developed a decision-making framework with six questions and associated rationale for providing the right amount of support in ECI services. Their decision-making framework is based on the recommended practices in ECI, such as the Division for Early Childhood Recommended Practices (0- 3 years of age).

The decision-making questions in Kuhn and Marvin's framework are:

1. What specific outcomes are desired for this child and family?
2. What learning opportunities and strategies are needed to achieve the desired outcomes?
3. Who is able to provide the learning opportunities and support needed and/or strategies for the child's learning?

4. Who among the Individual Family Service Plan (IFSP) team of early intervention professionals is most appropriate to provide the needed support and guidance for the family?
5. What will the package of supports and services look like? How often can the family support the child's learning?
6. How will we monitor our intervention efforts? When will we review our efforts and evidence of the desired outcomes?

Recommended decision-making questions

Based on our analysis of the evidence and other considerations, the following approach is recommended:

Parents/carers, practitioners and others to collaboratively discuss:

1. What are the goals for the child and family?
2. What learning opportunities and/or practices are needed to achieve the child and family goals?
3. Who is able to provide the learning opportunities and/or the support to meet the child and family goals?
4. Who among the team of professionals around the child and family is most appropriate to provide the support that the child and family need?
5. Where will the learning opportunities and/or support occur?

Given the above:

6. How often (frequency), how much (intensity), and for how long (duration) is it proposed that ECI services be provided to support the child and family goals being achieved?

And then consider:

Is the frequency, intensity and duration in line with the Framework principles?

Will the frequency, intensity and duration increase the child's learning, development, participation and wellbeing in the immediate and longer term?

How will the frequency, intensity, and duration of the intervention support and enhance the child and family's quality of life in the immediate and longer term?

How – and how often – will the frequency, intensity and duration be measured, monitored and adjusted to meet individual child and family outcomes?

Have the parents/carers, practitioners and others involved considered the risks – to the child, parents, carers and/or family – of providing, or not providing, this level of frequency, intensity and duration of intervention?

Decisions about frequency, intensity and duration should be subject to ongoing review as the child and family needs evolve. There may be times when more

frequent support is needed, and other times when less support is needed as the child and family consolidate the gains they have made. Both too little and too much support are problematic. The key is to always keep the chosen outcomes in mind and provide the form and level of support that best helps the child and family achieve them.

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Essential Resources

You can find more information about the National Best Practice Framework for Early Childhood Intervention online.

Resources for practitioners including the

Looks like/doesn't look like guide for the principle

Outcome measures resources

Resources for families and others

- The podcast where families and professionals discuss practices related to this principle

Unpacking the Framework video/s for this principle

The Framework including

- Decision making guide
- The Framework

The development of the Framework

- Background papers
- Bibliography for the principles and practice guidance

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