

Centre for Community Child Health



# Towards a model of evidence-informed decision making and service delivery

Working paper #5



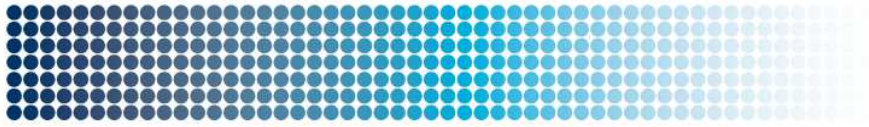
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Tim Moore (2014). **Relationships between evidence-based practices, evidence-based processes, and beliefs and values: An Australian perspective.** Paper presented at Early Childhood Intervention Australia (Victorian Chapter) Seminar with Dr. Carl Dunst and Guests, Melbourne, 28th March.

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## Abstract

A major thrust of policy and practice within human services in recent years has been the implementation of evidence-based practices. However, despite the wide-spread use of such evidence-based programs and strategies, we are not always getting the kind of results we would expect when we try to apply these strategies in real world settings. In response to this situation, we have seen the emergence of the implementation science movement, with its emphasis on 'implementation fidelity'. The assumption behind the implementation agenda is that, to get better results, we need to be much more thorough about ensuring that practitioners are able to deliver evidence-based programs faithfully and consistently.

But what is evidence-based practice? It is usually interpreted as involving the use of interventions that have been proven to be efficacious according to the most rigorous standards of evidence. However, there is now a consensus that evidence-based practice is broader than this, and involves the integration of three elements: best research evidence, clinical expertise and patient values. The evidence regarding each of these elements and the relationship between them is reviewed. In this light of this analysis, the overall multidimensional process and its elements are defined and re-labelled as follows:

Evidence-informed practice refers to the multidimensional service delivery model that integrates evidence from the three sources:

- Evidence-based programs are interventions that have been experimentally evaluated and deemed efficacious in meeting specified goals
- Evidence-based processes are the skills, techniques, and strategies used by practitioners when interacting with program participants
- Client and professional values are the values and beliefs that parents and professionals bring to service relationship

Evidence-informed decision-making is the process whereby the three sources of evidence are blended when making decisions about the goals and strategies to be used in practice.

In keeping with this broader understanding of evidence-based practice, this paper proposes that there are three types of implementation fidelity to be considered: program fidelity, process fidelity and values fidelity. Program fidelity is concerned with what is delivered, and with ensuring the faithful delivery of proven programs and strategies according to their original design. Process fidelity is concerned with how services are delivered, and ensuring that services are delivered in ways that are known to be effective in engaging parents and changing client behaviours. And values fidelity is concerned with ensuring that the focus of service and method of service delivery are consistent with client values. For interventions to be fully effective, all three forms of fidelity need to be observed. Furthermore, each of these forms of fidelity can and should be measured constantly to ensure that help provided is delivered in the most effective way.

Five implications of this framework for practice are explored. First, we need to align program content and methodology with client values, addressing what the client sees as most important for them. Second, we need to be attuned and responsive to the views and circumstances of the parents, and engage them as partners. Third, we need to use a purposeful process of joint decision-making in identifying goals to work on and strategies to use. Fourth, we need to be able to offer parents the choice of a range of evidence-based strategies and program modules to address the goals that have been agreed. Fifth, we need to monitor all three types of fidelity on

an ongoing basis and make immediate corrections when it is apparent that they are not being met.

A nine-step evidence-based decision-making framework that addresses these needs is outlined. This is based on building and maintaining a strong partnership relationship with parents, aligning program content and methodology with client values, and offering parents the choice of a range of evidence-based strategies and program modules to address the goals that have been agreed. This service framework is generic, in that it can be used by an individual practitioner or team working with a client or family, an agency working with groups of parents or families, a network of services working with a community, or even a government department working with service networks. Whatever the context, the use of the use of this framework should maximise parents' 'take-up' of the service.

## Introduction

In making decisions about policy and funding, governments seek answers to two questions: What forms of intervention reliably produce positive outcomes, and can these interventions be rolled out in real world settings with the same positive outcomes? <sup>1</sup>

The first of these questions - what forms of intervention reliably produce positive outcomes? – is a question of efficacy. According to Marley (2000), 'Efficacy is the extent to which a (treatment) has the ability to bring about its intended effect under ideal conditions such as a randomised clinical trial.' As this definition suggests, answering this question involves identifying particular interventions, programs or forms of treatment that have been shown to be efficacious. This is the focus of the evidence-based practice paradigm that has come to dominate policy thinking in recent years (Cutspec, 2004; Hammersley, 2013; Satterfield et al., 2009; Thomas et al., 2010; Wampold & Bhati, 2004). The acceptance of this paradigm has led to the proliferation of collaborative efforts (such as the Cochrane and Campbell collaborations) and websites (such as the What Works Clearinghouse in the US and the What Works Network in the UK) devoted to documenting the most efficacious interventions.

However, despite all these efforts, we are not always getting the kind of results we would expect when we try to apply these strategies in real world settings; there has not been a significant improvement in health and wellbeing outcomes (Schorr & Farrow, 2011). One response to this situation is to focus on whether the interventions are being implemented as intended by the program designers. In the light of evidence that practitioners do not always deliver interventions in ways that are faithful to the original protocols (Damschroder et al., 2009; Durlak & DuPre, 2008), an 'implementation science' movement has emerged (Eccles & Mittman, 2006; Fixsen et al., 2005, 2009). The assumption behind the implementation science agenda is that, to get better results, we need to be much more thorough about ensuring that practitioners deliver evidence-based programs faithfully and consistently – with what is known as program or implementation fidelity (Carroll et al., 2007; Durlak & DuPre, 2008).

The second of the questions that governments want answered – can these interventions be rolled out in real world settings with the same positive outcomes? – is a question of effectiveness. According to Marley (2000), 'Effectiveness is the extent to which a (treatment) is effective if it works in real-life, non-ideal circumstances'. Answering this question involves identifying the conditions under which programs need to be delivered as well as the manner in which professionals engage with parents<sup>2</sup> in order to produce positive outcomes. It is concerned with the processes of effective service delivery rather than the programs or interventions themselves.

This suggests that it is not sufficient to focus on identifying efficacious programs and ensuring that they are delivered with program fidelity; we also need to consider their effectiveness in real world settings and ensure that effective processes of service delivery are used. Ultimately, we should be concerned with the extent of 'take-up' by those we seek to support – that is, the extent

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<sup>1</sup> Not addressed in this paper is a third question often asked by policy makers: *Are these interventions cost-effective and affordable?* This is a question of *efficiency*. According to Marley (2000), 'Efficiency is the extent to which a (treatment) is worth its cost to individuals or society'.

<sup>2</sup> The literature often refers to the people that professionals work with as *clients*. Throughout this paper they are referred to as *parents*, except when directly quoting from other authors who prefer the term *clients*.

to which parents are able to access and engage with the support provided, and the extent to which that leads to actual changes in their functioning (for example, in the nurturing and learning opportunities they provide their children). The most efficacious programs are of little use if they are not delivered in ways that make them both accessible and acceptable to parents, or if parents cannot implement them in their daily lives.

This position is reflected in the latest thinking about evidence-based practice, which goes beyond the previously relatively narrow focus on best research evidence. The field is beginning to understand evidence-based practice as multidimensional – the integration of three elements: best research evidence, clinical expertise and patient values. This paper proposes that, in keeping with this broader understanding of evidence-based practice, there are three types of implementation fidelity to be considered: program fidelity, process fidelity and values fidelity. It is proposed further that, for interventions to be fully effective, all three forms of fidelity need to be observed. Furthermore, each of these forms of fidelity can and should be measured constantly to ensure that support is implemented in the most effective way.

To make this argument, this paper will begin by reviewing definitions of evidence-based practice, before exploring the three elements that make up the broadened conceptualisation of evidence-based practice, and the evidence for each of them.

## Evidence-based practice

### Defining evidence-based practice

Evidence-based practice is usually understood as the use of programs and interventions that have been proven to be efficacious through a particular research methodology – randomised controlled trials with replications and longitudinal follow ups, and systematic reviews of such trials. It is argued that interventions that have not been subjected to these tests and shown to be efficacious should not be used. However, as the limitations of this form of evidence have become increasingly apparent (eg. Green & Latchford, 2012; Greenhalgh, 2012a; Greenhalgh & Russell, 2009; Greenhalgh et al., 2014; Hammersley, 2013; Pawson et al., 2011; Petr & Walter, 2005, 2009; Rogers & Vismara, 2008; Rosenbaum, 2010), it has become necessary to revisit definitions of evidence-based practice to reassess whether we have understood the concept correctly.

The idea of evidence-based practice was originally derived from medicine, where the notion of evidence-based medicine was being championed by David Sackett and colleagues among others (Sackett et al., 1996, 2000). In what Greenhalgh (2012a) claims is the most widely quoted sentence ever published in the British Medical Journal, Sackett and colleagues defined evidence-based medicine thus:

‘Evidence-based medicine is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. (Sackett et al., 1996)

This notion of ‘current best evidence’ is how evidence-based practice is often conceptualised in human services, although Sackett and colleagues note that, in practice, ‘evidence-based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research.’ In a later definition, they broaden their conceptualisation even further, adding a third component:



'Evidence-based medicine is the integration of best research evidence with clinical expertise and patient values' (Sackett et al., 2000)

Sackett and colleagues (2000) defined these three elements as follows:

By *best research evidence* we mean clinically relevant research, often from the basic sciences of medicine, but especially from patient-centred clinical research into the accuracy and precision of diagnostic tests (including the clinical examination), the power of prognostic markers, and the efficacy and safety of therapeutic, rehabilitative, and preventive regimens.

By *clinical expertise* we mean the ability to use clinical skills and past experience to rapidly identify each patient's unique health status and diagnosis, the individual risks and benefits of potential interventions, and their personal values and expectations.

By *patient values* we mean the unique preferences, concerns and expectations each patient brings to a clinical encounter and which must be integrated into clinical decisions if they are to serve the patient. When these three elements are integrated, clinicians and patients form a diagnostic and therapeutic alliance which optimises clinical outcomes and quality of life. (Sackett et al., 2000)

In a similar vein, Sweeney (Sweeney et al., 1998; Sweeney, 2006) argues that, in medicine, the value of knowledge (ie. what is true) should be assessed through a combination of *statistical significance* (derived from evidence-based practice), *clinical significance* (derived from practice-based evidence), and *personal significance* (the patient's understanding, beliefs and values).

When evidence-based medicine was adopted for use in human services and rebadged as *evidence-based practice* (Littell, 2010), the three key elements described by Sackett and colleagues were retained. For instance, the American Psychological Association (2006) defines evidence-based practice as 'the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences'. And in the early childhood intervention field, Buysse and Wesley (2006) define evidence-based practice as 'a decision-making process that integrates the best available research evidence with family and professional wisdom and values'. In other words, it involves a balance of scientific evidence, family and professional wisdom, and family and professional values.

In this last definition, evidence-based practice is specifically described as a decision-making process. Indeed, this was also how David Sackett and colleagues envisaged evidence-based medicine – as a process that a clinician went through in choosing how best to help individual parents (Littell, 2010; Sackett et al., 2000). In fact, in all of these definitions of evidence-based medicine and evidence-based practice, there is the assumption that evidence-based practice involves the use by practitioners and parents of many sources and types of evidence in making decisions about how to address the challenges they face (Littell & Shlonsky, 2010; Petr, 2009). One implication of this is that what counts as credible evidence depends on the question(s) we are trying to answer, or the problem we are trying to solve (Hammersley, 2013; Littell, 2010).

Despite this consensus regarding the nature of evidence-based practice, much of the discussion about evidence-based practice has focused on what is known about the efficacy and effectiveness of interventions. As Littell (2010) points out, these topics are not inherently more important than others, although intervention effects clearly do matter. Nevertheless, the

evidence-based treatment movement seized on the notion that clinicians need summaries of evidence provided by expert reviews. This has led to the generation of lists of evidence-based programs that practitioners were advised or even required to choose from. Fonagy et al. (2014) decry this practice:

Historically, there has been a tendency to assume that a treatment can be 'branded' once and for all as an evidence-based practice, so that no further reflection on how or for whom it is to be implemented is necessary. This 'idealisation' evidence must be avoided at all costs, as the existence of evidence increases the chances of a treatment being effective but is by no means sufficient to ensure success. We now know that evidence-based practice cannot be assured by 'choosing' a treatment from a list of approved options. This is but a parody of evidence-based practice and tantamount to mistaking the cover of a book for its contents.

This discussion raises the question of what terminology we should use for these concepts. Although evidence-based practice involves three elements, the dominant use of the term is to refer to the first element only (ie. the best research element). In order to encourage a more widespread understanding of the multidimensional nature of evidence-based practice, should we rename it? Some of the suggestions that have been made are shown in Box 1 below.

### **Box 1. Terminology**

Metz et al. (2007) distinguish between evidence-based programs and evidence-based practices or processes. Evidence-based programs refer to organized and typically multi-component interventions with clearly identified linkages between core components and expected outcomes, which have been experimentally evaluated and deemed efficacious in meeting specified goals. Evidence-based processes refer to skills, techniques, and strategies used by practitioners when interacting with program participants.

Littell (2010) reserves the term evidence-based practice to refer to a model of practice incorporating the three key elements, and uses the term evidence-based treatments to refer to programs that meet certain evidentiary criteria. These two approaches are fundamentally different from one another. Evidence-based practice is a bottom-up process through which clinicians integrate empirical evidence with clinical expertise and client preferences to make informed judgements in individual cases. Evidence-based treatment is a largely top-down process that seeks to identify treatments or programs that meet specific evidence conditions and ensure the widespread availability of these treatments (Littell, 2010).

Petr and Walter (2005) suggest we refer to the best research evidence element as empirically-based practice, and use evidence-based practice as the descriptor for the multidimensional version.

Others (Bowen & Zwi, 2005; Littell & Schlonsky, 2010; Rogers et al., 2008) have suggested that we retain evidence-based practice as the name for the best research evidence element, and use the term evidence-informed practice for the multidimensional model that integrates 'evidence' from different sources and focuses on processes as well as programs.

For the purposes of this paper, the following terminology will be adopted:

- **Evidence-informed practice** refers to the multidimensional model that integrates evidence from different sources (i.e., research evidence, clinical expertise and client values and beliefs)
- **Evidence-based programs** refers to interventions that have been experimentally evaluated and deemed efficacious in meeting specified goals
- **Evidence-based processes** refer to skills, techniques, and strategies used by practitioners when interacting with program participants

A more comprehensive definition of these terms, along with terms for other elements yet to be discussed, can be found in Box 2 (p. 32).

We will now explore the three elements – evidence-based programs, evidence-based processes, and client and professional values and beliefs – in more detail.

## Evidence-based programs

### Defining evidence-based programs

The criteria for judging the quality of evidence for the efficacy of programs or interventions in the health field are well established. The grading systems adopted in Australia (National Health and Medical Research Council, 2000) and other countries (Leigh, 2009) all give precedence to systematic reviews of randomised controlled trials (RCTs), considered the ‘gold standard’ for identifying effective interventions. However, there is no reference in this hierarchy for the two other elements considered to be part of the definition of evidence-informed practice, namely clinical expertise and patient values. The evidence hierarchy for medical research adopted in the US does include the first of these – in the form of opinions of respected authorities based on clinical experience, and reports of expert committees – but only in the lowest rung of the evidence hierarchy. None of the hierarchies address the question of how to incorporate client or patient values.

Relying solely or principally on randomised controlled trials (RCTs) to identify effective interventions is problematic, for a number of reasons:

- RCTs are subject to errors and biases (Freedman, 2010; Ioannides, 2005a<sup>3</sup>, 2005b) and many published research findings are false or exaggerated (Ioannides, 2014). Although RCTs are designed to reduce or eliminate the impact of researchers’ beliefs and values, these permeate all human endeavours and ultimately may be unavoidable (Dokecki, 1983; Kelly et al., 2015). It is a myth that evidence-based practice is value neutral; values impinge on judgements and the processes of interpretation of all steps in the evidence-based practice process (Kelly et al., 2015).<sup>4</sup>
- The strategy of focusing solely on programs tested through the RCT protocol does not guarantee that the most effective programs will be identified. There may be many other

<sup>3</sup> The research field has become much more aware of this problem as a result of this article – according to website of PLOS Medicine where this article was published, as of April 2016 it had been accessed more than a million and a half times.

<sup>4</sup> Ways in which some of these defects can be reduced have been identified (Ioannides, 2014; Ioannides & Khoury, 2013)

interventions that have not been subjected to such rigorous testing but which may be just as (or even more) effective than those that have. As Ashton (2006) has noted, 'No evidence of proof is not evidence of no proof.' The programs that are consistently identified through systematic reviews to be the most effective are those whose developers have been most assiduous in ensuring that the programs are repeatedly subjected to the most rigorous forms of efficacy assessment. As a result, we can be much more confident that these are indeed effective, whereas we cannot be sure that other programs that have not been so carefully tested are effective, even if they are based on stronger program logic models or more up-to-date research evidence.

- Once proven to be efficacious through RCT trials, programs must be delivered in precisely the same form as used in the trials. Fixsen et al. (2005) even recommend the use of 'purveyors', individuals or groups who work in a systematic way with local sites to ensure that they implement the model faithfully and not vary it for local circumstances. However, adherence to a treatment protocol, in psychotherapy at least, is not related to better outcomes: therapists who stick to the treatment, regardless of how the client responds, have poorer outcomes, and it is those who flexibly provide a treatment who achieve the best outcomes (Wampold & Imel, 2015). As we shall see later, flexibility would seem to be one of the key features of effective practice: unless programs incorporate some element of flexibility as an essential feature (as some do), the requirement to implement programs in an unvarying way can be problematic<sup>5</sup>.
- RCTs are not well suited to answering questions about human services addressing complex problems. They work well for simple questions about the efficacy of interventions where we can control all the variables except the treatment variable. However, they are not well suited to answering questions about the complex multifaceted problems that society is facing nowadays (Fonagy, 2001; Greenhalgh, 2012b; Hickie, 2011; Rogers & Vismara, 2008; Rosenbaum, 2010; Smyth & Schorr, 2009). As Fonagy (2001) puts it,

'The RCT is the best tool we have for evaluating medical interventions for our patients. The further upstream we go for our search for causes of disorder the less applicable is the RCT. An RCT to improve the social capital is beyond our grasp. We must therefore rely on observational evidence and judgment to formulate public health policies. This should not take place in the absence of evidence but we must not be paralysed into inaction while we wait for the evidence to be absolutely unimpeachable.'

- The reason RCTs cannot help in such circumstances is that designing studies capable of addressing complex social issues can be so challenging and expensive that the costs become prohibitive. Referring to the field of developmental disabilities, Rosenbaum (2010) argues that people tend to have unreal expectations of RCTs, stating that 'the requirements for an RCT are almost impossible to fulfil for the majority of big questions we need to answer'. The barriers include the need for huge sample sizes, participant retention over time, the necessarily long duration of the study, and the sheer expense of conducting such complex studies.

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<sup>5</sup> Olds et al. (2013) describe some recent changes to the Nurse-Family Partnership home visiting programs that allow more flexible collaboration between nurses and families to meet families' needs regarding visit frequency, content, and location of visits. However, the core content of the intervention remains unchanged from when the program was first developed in the 1970s.

- RCTs are also not well suited to identifying effective strategies for dealing with the infinite variety in people's personal histories, circumstances and resources, all of which can affect the implementation and efficacy of a program, no matter how strong its evidence base. In a provocatively titled opinion piece in a recent issue of the *British Journal of General Practice*, Trisha Greenhalgh (2012b) asks 'Why are Cochrane reviews so boring?' She notes that

Five thousand (mostly) high-quality Cochrane reviews notwithstanding, the troubling aspect of this enterprise is not the few narrow questions that the reviews answer but the many broad ones they leave unanswered. Lifestyle diseases require lifestyle interventions, and these require attention to people's identities, values, families, and communities.

The reason why Cochrane reviews are boring — and sometimes unimplementable in practice — is that the technical process of stripping away all but the bare bones of a focused experimental question removes what practitioners and policymakers most need to engage with: the messy context in which people get ill, seek health care (or not), receive and take treatment (or not), and change their behaviour (or not).

- Interventions are often designed, trialed and deployed without the involvement of those for whom they are designed. As a result, the broader issues faced by parents and carers may be devalued. Greenhalgh et al. (2015) identify half a dozen such 'biases' in evidence-based medicine, including the lack of patient input to the research process, and the low status given to experience in the hierarchy of evidence. Greenhalgh and colleagues suggest ways in which these biases can be reduced.
- While RCTs can demonstrate that particular programs or interventions are efficacious, most are unable to determine why it works or what key elements make it effective. This is because of a failure to provide sufficient detail about the intervention and the functional relationships between the components to allow replication or to reveal what elements of the program were responsible for observed changes (Michie et al., 2009). Many RCTs 'treat evaluation like a "black box", carefully monitoring what goes in and what comes out of an intervention, but overlooking the active ingredients and processes that bring about change' (Prevention Action, 2012). To be effective, programs need to be based on a logic model or theory of change that links the activities of the program to the outcomes it hopes to bring about (Michie et al., 2009; Prevention Action, 2012).<sup>6</sup> The more clearly the effective core components of an intervention are known and defined, the more readily the program or practice can be introduced successfully (Michie et al., 2009).

Further, relying solely or principally on findings based on systematic reviews or traditional evidence hierarchies is problematic for the following reasons:

- Just as RCTs are subject to errors and biases, so are systematic reviews (Gambrill, 2015; Hammersley, 2013; Littell, 2008, 2010). Published reviews vary in terms of the transparency of inclusion criteria, strategies for locating relevant published and unpublished data, standards used to evaluate evidence, and methods used to synthesize results across studies (Littell, 2008).

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<sup>6</sup> This is not a weakness of the RCT model itself, but of how the model is often applied. Techniques such as mediational analysis (DeGarmo et al., 2009; Hayes & Preacher, 2014) can be used to overcome the problem.

- Systematic reviews are also subject to confirmation bias, the tendency to emphasise evidence that supports a hypothesis or program, and ignore evidence to the contrary (Littell, 2008). As a result, when clinicians look for evidence of effectiveness and when policymakers select services from the list of evidence-based treatments, the information they find is likely to be incomplete and potentially misleading (Littell, 2010). This is not an argument against conducting systematic reviews, since we need 'comprehensive, reliable, and unbiased syntheses of credible evidence to make well-informed choices' (Littell and Shlonsky, 2010), but does indicate that we need to scrutinize the quality of such reviews carefully before accepting their conclusions.
- Organisations compiling lists of evidence-based treatments vary in the procedures and resulting evidence claims they use, with some organisations being strict and some being permissive (Karlsson et al., 2014). Practitioners and policy makers should be aware of such variation in order to make informed decisions regarding which programs to use.
- As Littell (2010) notes, recent emphasis on evidence-based practice may have increased the demand for scientific evidence of intervention effects, but it has done little to increase the supply. There are hundreds of manualised treatment programs and the number continues to grow. In fact, there are too many programs to be properly evaluated by anyone other than the program designers. As such, we may never be in a position to be able to identify truly evidence-based interventions to address every situation or need.
- Once a particular program has proven to be efficacious, the program cannot evolve without being subjected to the same rigorous and time-consuming testing. As a result, programs that are likely to be regarded as the most effective are often programs designed decades ago, based on the theories of the time and the needs and circumstances of the children and families at the time. Theories, needs and circumstances have changed dramatically in recent years and our interventions need to evolve with these changes. While it is possible to modify elements of 'proven' programs – as Olds et al. (2013) have demonstrated – there are limits to how much can be changed without requiring wholesale retesting (O'Connor et al., 2007).
- There is evidence that the efficacy of evidence-based interventions can decline over time. For instance, the efficacy of cognitive behavioural therapy as a treatment for depression has declined since it was first shown to be effective in the 1970s (Johnsen & Friberg, 2015). According to Lehrer (2010), this problem of declining efficacy is not confined to psychotherapy but is wide-spread, including medicine and ecology. The cause of such temporal declines is unclear, but may reflect the biases in the original studies, or difficulties in conducting replication studies (Camfield and Palmer-Jones, 2013; Koricheva et al., 2013; Yong, 2012). It may also be reflective of changes in populations and social conditions, suggesting that treatments need to evolve, and the revised models subjected to ongoing testing.
- Obtaining definitive proof of intervention effects is difficult, and requires causal inferences that are among the hardest to confirm scientifically (Littell, 2010). As a result, systematic reviews of different forms of human services often fail to reach any conclusions about what works and what does not. This problem is well illustrated by a recent Cochrane review of postnatal parental education for optimizing infant general health and parent-infant relationships (Bryanton & Beck, 2010). The authors looked for randomised control trials of any structured postnatal education focusing on the care of an infant or parent-infant relationships and provided by an educator to individual parents or groups of parents within

the first two months after birth. Although the review identified 25 trials, only 15 provided useable data on outcomes of interest. The trials were small to moderate in size and of uncertain methodological quality, and no meta-analyses could be performed. The authors concluded that the benefits of educational programs to participants and their newborns were unclear. Since there was insufficient evidence to determine the effects of postnatal parental education for optimising infant general health and parent-infant relationships, they could not make any recommendations for practice changes at that time. Unfortunately this conclusion is not uncommon in systematic reviews of interventions in human services.

In commenting on this problem, Littell (2008) notes that reviewers sometimes lower the bar (that is, deviate from their original standards) in order to be able to reach a conclusion or support a hypothesis. However, as she observes, this is a slippery slope. The Cochrane Collaboration has adopted the practice of publishing 'empty' reviews when no credible evidence on a topic can be found. While this might not be very satisfying to reviewers or policy makers, at least such reviews do not lead readers to the wrong conclusions, and are useful in identifying important gaps in current knowledge (Littell, 2008).

- Even when systematic reviews identify programs that have been subjected to high quality trials and shown to be effective, these programs often account for only a small proportion of the variance in outcomes, ie. they are only modestly effective at best (Embry & Biglan, 2008; Fonagy et al., 2014; Shonkoff, 2012).
- There is also a problem of treatment heterogeneity – averaging results may disguise considerable variations in outcomes between sub-populations (Kent & Hayward, 2007; Kent et al., 2010; Kravitz et al., 2004; Pawson, 2013). This means that 'the benefit or harm of most treatments in clinical trials can be misleading and fail to reveal the potentially complex mixture of substantial benefits for some, little benefit for many, and harm for a few' (Kravitz et al., 2004). Kent and Hayward (2007) argue the fact that evidence-based medicine gives greater weight to impersonal statistical data than clinical experience, resulting in

'... a fundamental mismatch between the evidence provided by clinical trials and the needs of practicing doctors treating individual patients. Because many factors other than the treatment affect a patient's outcome, determining the best treatment for a particular patient is fundamentally different from determining which treatment is best on average.' (p. 60).

Moreover, as Greenhalgh et al. (2014) point out, statistically significant benefits may be marginal in clinical practice.

Taking all of these considerations into account, it is clear that, despite the RCT methodology's justifiable claim to be the most powerful way of establishing the efficacy of certain forms of intervention, we cannot rely upon it totally, especially when seeking the most effective way of dealing with complex social problems.<sup>7</sup>

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<sup>7</sup> Others who have concluded that we need to broaden the basis on which we make decisions about evidence include Fonagy et al. (2014), Goodman et al. (2010), McCall & Green (2004), Schorr (2009, 2012) and Schorr & Farrow (2011).

The discussion so far has focused on the first of the three elements of the broadened definition of evidence-based practice: evidence-based programs or treatments. We will now consider the second element: evidence-based practices.

### Evidence-based processes

#### Defining evidence-based processes

As outlined above, findings based on research are not sufficient. Instead, evidence-based programs must be complemented by evidence-based processes (Barth et al., 2012; Barkham et al., 2010; Charman & Barkham, 2005; Duncan & Miller, 2005; Lieberman et al., 2010; Miller et al., 2004).

There are several ways in which evidence-based processes can be conceptualised:

- as individual or collective clinical expertise or practice wisdom
- as concurrent gathering of evidence during practice ('practice-based evidence')
- as processes that have been proven to be effective across a wide range of interventions

#### Individual or collective clinical expertise and practice wisdom

In health settings, individual clinical expertise refers to the ability of individual practitioners to use their clinical skills and accumulated experience to rapidly identify each patient's unique health status and diagnosis, the individual risks and benefits of potential interventions, and their personal values and expectations (Sackett et al., 2000). Collective practice wisdom involves the development of clinical practice guidelines, which are formal advisory statements. Generally, these are developed via consensus or expert opinion. Rather than determining their effectiveness through research, clinical practice guidelines are 'validated' using a range of methods, including peer review (Charman & Barkham, 2005)<sup>8</sup>.

In social work, clinical expertise is often referred to as practice wisdom (Chu & Tsui, 2008; Klein & Bloom, 1995; O'Sullivan, 2005; Scott, 1990). Scott (1990) describes this as 'a process of incipient deduction', while Klein and Bloom (1995) define it as 'a personal and value-driven system of knowledge that emerges out of the transaction between the phenomenological experience of the client situation and the use of scientific information.' The results of this process are on-the-spot hypotheses that enable social workers to work effectively with parents in the absence of fully tested methods. Similar strategies for use in psychological therapies are described by Barkham et al. (2006, 2010).

It has been argued that this form of knowledge been devalued by the widespread tendency to conflate the evidence-based paradigm with evidence-based programs. Hamersley (2013) states: It is clear that, in some significant respects, the evidence-based practice movement is anti-professional: it challenges the claims of professional practitioners – whether doctors, teachers, social workers, police officers etc. – to be able to make expert judgements on the basis of their experience and local knowledge. Instead, it is argued that what is good practice can only be determined through research.

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<sup>8</sup> See the US *National Guideline Clearinghouse* – <http://guideline.gov/> – for examples.



## Practice-based evidence

Another interpretation of practice-based evidence is that it involves evidence gathered in practice. This notion of practice-based evidence has two elements: gathering evidence of the effectiveness of one's practice or service as it is delivered, and using this evidence to modify one's practice to achieve better results.

As defined by Scott Miller and colleagues from the Institute for the Study of Therapeutic Change (<http://scottdmiller.com>), practice-based evidence focuses on the outcomes desired by parents, gets regular feedback from parents as to whether these are being achieved, and adjusts the method being used to achieve the outcomes that the parents want (Duncan et al., 2004; Miller, 2004; Miller et al., 2004). Reflecting on their exhaustive review of mental health interventions for children and young people, Fonagy et al. (2014) also note the crucial importance of routine observations of the impact of treatment of patient's well-being.

Evidence to support the value of feedback comes from studies of what distinguishes the most effective practitioners from those who are less effective (Ericcson et al., 2006; Miller et al., 2008). On the basis of studies of top performers across a wide range of professions, Ericcson et al. (2006) conclude that the best performers not only work harder at improving their performance, but also seek and attend to feedback much more than others do. For instance, the most effective psychotherapists consistently seek client feedback (especially negative feedback) about how the client feels about them and their work together (Green & Latchford, 2012; Miller et al., 2008). Similarly, the most effective teachers constantly monitor the results of their own teaching (Farr and Teach for America, 2010; Hattie, 2008; Ripley, 2010).

Tools for obtaining feedback in clinical work have been developed (Miller et al., 2006; Miller & Bargmann, 2012). Miller and colleagues at the International Center for Clinical Excellence (<http://www.centerforclinicaexcellence.com/store>) have developed a model of Feedback Informed Treatment backed by a series of manuals (International Center for Clinical Excellence FIT Manuals Development Team, 2011a, 2011b). Evidence that the use of these tools leads to improved outcomes has been found in parents receiving psychotherapy (Reese et al., 2009) and in patients adhering to medication regimes (Pringle et al., 2011).

## Common features of evidence-based processes

The third way of conceptualising evidence-based processes is to seek to identify the common features shared by different efficacious programs – focusing on effective processes rather than on efficacious programs. Thus, they represent a way of pooling findings across programs whose efficacy has already been established through RCTs.

Several ways of identifying effective practices have been described:

- *practice-based syntheses* (Dunst et al., 2002a, 2002b; Dunst, 2009),
- *evidence-based kernels* (Embry, 2004; Embry & Biglan, 2008), and
- *core intervention components* (Blasé & Fixsen, 2013).

## Practice-based syntheses

Dunst and colleagues (Dunst, 2009; Dunst et al., 2002) are critical of most evidence-based research syntheses because they are written for researchers rather than practitioners, and pay

little attention to the direct implication for practice. In their definition, evidence-based practices are informed by research findings and demonstrate a relationship between the characteristics and consequences of an experience or opportunity that tell someone what they can do to produce the desired outcome. A practice is evidence-based when findings from different studies of the same practice replicate and show that the same practice characteristics are related to the same outcomes. To make research syntheses more practical, Dunst and colleagues have developed practice-based syntheses, an approach that seeks to identify the functional relationship between particular features of interventions and the outcomes they produce.

A practice-centered research synthesis involves systematic analysis and integration of small bodies of research that have investigated the same or similar practices and the same or similar outcomes with an explicit eye on the characteristics of the practices that are related to desired effects and therefore should be the focus of what practitioners and parents “do” to produce positive benefits. (Dunst et al., 2002)

Examples of evidence-based practices identified through practice-based syntheses include the characteristics of maternal responsiveness that promote infant attachment (Dunst & Kassow, 2007, 2008) and the key features of effective family help-giving practice (Dunst et al., 2007, 2008).

### ***Evidence-based kernels***

According to Embry and colleagues (Embry, 2004; Embry & Biglan, 2008), most of the best practices involved in efficacious programs involve what they call evidence-based kernels. These are not programs or curricula in the conventional sense, but fundamental units of behavioural influence that appear to underlie effective prevention and treatment for children, adults, and families (Biglan, 2004). Kernels involve one or more of the following mechanisms: reinforcement, altering antecedents, changing verbal relational responding, or changing physiological states directly. Embry and Biglan (2008) describe 52 of these kernels. For example, the practice of timeout was one of the first developed kernels of behaviour-influence (Wolf, et al., 1964). Demonstrated to reduce the frequency of a wide range of problem behaviors in children, timeout has become central in many evidence-based prevention programs for parenting (Sanders and Markie-Dadds, 1996; Forgatch et al. 2005) and has replaced harsher methods of child discipline as a preferred and more effective option.<sup>9</sup>

### ***Core intervention components***

According to Blasé & Fixsen (2013), few programs are able to identify what they call core intervention components – those features that are essential to the efficacy of the program – and other features that can be adapted without jeopardizing outcomes. However, when an intervention is to be replicated or scaled up, it is critical not only to know whether it is effective, but also which program elements are essential in making the program successful (Blasé & Fixsen, 2013; Michie et al., 2009). When a program fails to achieve its outcomes, an understanding of the core intervention components and whether they were implemented correctly is essential for diagnosing what was the cause of the failure. Blasé & Fixsen (2013) outline an approach to identifying core intervention components that, among other strategies,

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<sup>9</sup> However, this practice is now being challenged by the new wave of ‘brain-based’ parenting experts (e.g. Hughes, 2009; Hughes & Baylin, 2012; Siegel & Bryson, 2014).

involves usability testing as a way of gaining the experience and information needed to better operationalise a program and identify its core intervention components.

These three ways of identifying effective processes have much in common. In particular, they all generate effective processes from analyses of evidence-based programs. However, as we have seen, the methodology used to identify evidence-based programs has limitations, and analyses based on the products of this methodology will necessarily reflect these limitations.

To gain a fuller picture of effective intervention processes, we need to draw on a different body of evidence, relating to the process of service delivery, that is, the manner in which parents are engaged and services delivered. This aspect of service delivery is often neglected in the evidence-based paradigm – programs that are the subject of RCTs are typically described in terms of their content rather than the nature of the relationship formed between service deliverers and parents. The reasons for this neglect are unclear. It may be that researchers and program deliverers take the process aspects of service delivery for granted, acknowledging their importance but not seeing them as a unique feature of the particular intervention and therefore not measuring them. However, it may also be that process features of service delivery are regarded as unimportant, and as not having any impact on the efficacy of the program.

Whether or not the process features of service delivery are important is an empirical question. We will now review the research to see what the evidence suggests regarding this question.

Different ways of identifying effective processes have been developed, including:

- *The common factors or common elements approach* (Chorpita et al., 2005, 2007; Drisko, 2004; Duncan et al., 2010; Rosenszweig, 1936; Sprenkle et al., 2009)
- *Effective help-giving practices* (Dunst & Trivette, 1996; Trivette & Dunst, 2007)

### ***Common factors or common elements approach***

The common factors approach was developed in the field of psychotherapy and is a way of understanding how psychotherapy works. It is an excellent illustration of how effective processes can be identified. There is a great deal of evidence to show that psychotherapy is effective (Carr, 2008; Miller et al., 2008; Wampold & Imel, 2015), but little evidence that any particular model of therapy is more effective than another, or how therapy works (Sprenkle et al., 2009; Wampold & Imel, 2015).

First articulated by Saul Rosenzweig in 1936, the common factors approach suggests that there are particular therapist attributes, relationship variables, and other factors that make therapy effective (Ahn & Wampold, 2001; Drisko, 2004; Duncan et al., 2010; Johnsen & Friborg, 2015; Moloney, 2016; Sprenkle et al., 2009; Wampold et al., 2009). In the words of Johnsen and Friborg (2015), these common factors ‘represent the chassis that enables the motor to move the vehicle forward.’

Summarising the evidence for this proposal, Sprenkle et al. (2009) suggest that psychotherapy works predominantly not because of the unique contributions of any particular model of therapy or unique set of interventions (known as the model-driven change paradigm) but rather because of a set of common factors or mechanisms of change that cuts across all effective therapies (known as the common-factors-driven change paradigm). These two paradigms are not opposites: models do play an important role in common-factors-driven change. However, models are not unique sources of change but more the vehicles through which common factors operate.

Therapists need models to give their work coherence and direction, but the common-factors-driven paradigm values them more for their capacity to activate common mechanisms of change found in all successful psychotherapies (Sprenkle et al., 2009).

According to Wampold et al. (2009), the two main conjectures behind the common factors approach are:

- that all treatments based on cogent psychological bases, that use therapeutic techniques consistent with the rationale of the treatment, and that are delivered by competent therapists who believe in the treatment to patients seeking treatment, are equally effective, and
- the therapeutic alliance and therapists are both potent therapeutic ingredients.

The proposal that both the therapeutic alliance (that is, the joint working relationship between the therapist and the client) and the personal qualities of the therapists themselves are both significant contributors to the efficacy of psychotherapeutic interventions has empirical support. In the field of psychotherapy, there is considerable evidence that therapist qualities matter (Blow et al., 2007; Sprenkle et al., 2009) and that the therapeutic alliance also plays a significant, albeit modest, role in determining therapy outcomes (Green, 2006; Horvath, 2001; Martin et al., 2000). Similarly, in other fields, numerous researchers have concluded that the relationship between parents and professionals is the key to effective practice (Barnes, 2003; Barnes and Freude-Lagevardi, 2003; Berlin et al., 1998; Bruner, 2004; Daro, 2009; Davis & Day, 2010; Dunst, et al., 1988; Dunst & Trivette, 1996; Scott et al., 2007).

An illustration of the importance of the service deliverer and their relationship with parents comes from a study by McKay et al. (2006) that looked at the potential effect that psychiatrists have on patient outcomes. This took the form of a randomised control study using data from a study of the psychopharmacological treatment of depression. The study found that a particular drug (imipramine hydrochloride) was significantly more beneficial than a placebo for people undergoing treatment for depression. However, who the patient saw rather than what they prescribed had a bigger effect: 7% to 9% of the variability in outcomes was due to the psychiatrist and only 3.4% to the drug. Some psychiatrists were consistently more effective than others, regardless of whether they were prescribing the drug or the placebo. In fact, the top third performing psychiatrists in the study achieved better outcomes using the placebo than the bottom third did using the drug. McKay et al. conclude that we should consider the psychiatrist 'not only as a provider of treatment, but also as a means of treatment.'

Closely related to the common factors approach is the common elements approach (Chorpita et al., 2005, 2007). As summarised by Barth et al. (2012), a common elements framework conceptualizes clinical practice in terms of generic components that cut across many distinct treatment protocols, and focuses heavily on identifying specific clinical procedures common to multiple effective and evidence-based manualised treatments. Garland et al. (2008) have shown how this approach can be used to identify the common elements of a number of different effective treatment programs for children with behaviour problems (e.g., principles of positive reinforcement, problem-solving skills training, role-playing, and assigning homework).

Both the common factors and common elements approaches incorporate flexibility within fidelity: Flexibility in engaging clients is central to an outcome-informed approach. Treatment should be adapted to meet a client's characteristics and preferences, including the therapist's own style or methods. Fidelity here means assessing the client's perspective of the treatment to insure that

the client's goals are being met and, if not, changing course. In this way, fidelity does not mean staying true to a treatment manual, but staying true to the client's goals in the treatment process. (Barth et al., 2012)

### ***Effective help-giving***

Another way in which the processes of service delivery have been analysed is in terms of the key features of effective helping (Dunst & Trivette, 2007, 2009). On the basis of their research over 20 years, Dunst and Trivette (2009) identify twelve principles of effective help-giving. Help-giving is more likely to be effective when:

- It is both positive and proactive and conveys a sincere sense of help giver warmth, caring, and encouragement.
- It is offered in response to an indicated need for assistance.
- It engages the help receiver in choice and decisions about the options best suited for obtaining desired supports and resources.
- It is normative and typical of the help receivers' culture and values and is similar to how others would obtain assistance to meet similar needs.
- It is congruent with how the help receiver views the appropriateness of the supports and resources for meeting needs.
- The response-costs for seeking and accepting help do not outweigh the benefits.
- It includes opportunities for reciprocating and the ability to limit indebtedness.
- It bolsters the self-esteem of the help receiver by making resource and support procurement immediately successful.
- It promotes, to the extent possible, the use of informal supports and resources for meeting needs.
- It is provided in the context of help giver-help receiver collaboration.
- It promotes the acquisition of effective behaviour that decreases the need for the same type of help for the same kind of supports and resources.
- It actively involves the help receiver in obtaining desired resource supports in ways bolstering his or her self-efficacy beliefs.

Translating these principles into practice, effective help-giving involves three components (Dunst et al., 2007):

- *Technical quality* includes the knowledge, skills, and competence one possesses as a professional, and the expression of this expertise as part of practicing one's craft.
- *Relational practices* include behaviours typically associated with effective help-giving (active listening, compassion, empathy, etc.), and positive practitioner attributions about help-receiver capabilities. Relational practices also include help giver beliefs about existing family member strengths and their capacity to become more competent.
- *Participatory practices* include behaviours that involve help-receiver choice and decision making, and which meaningfully involve participants in actively procuring or obtaining desired resources or supports or achieving desired life goals. Participatory practices also

include help giver responsiveness to a family's situation and changing life circumstances, and help giver flexibility to these situations and circumstances.

All three of these components need to be present for help-giving to be truly effective. Thus, there is evidence that family-centred programs incorporating participatory help-giving practices are more effective in empowering families (ie. in supporting and strengthening family competencies and problem solving abilities) (Judge, 1997; King, et al., 1999; Thompson et al., 1997; Trivette et al., 1996).

### ***Culturally safe and competent service delivery***

The concept of cultural safety is drawn from the work of Maori nurses in New Zealand and has been defined by Williams (1999) as:

[A]n environment that is safe for people: where there is no assault, challenge or denial of their identity, of who they are and what they need. It is about shared respect, shared meaning, shared knowledge and experience of learning, living and working together with dignity and truly listening.

There is increasing evidence that the blatant disparities between Indigenous and non-Indigenous health and social outcomes are linked to issues regarding accessibility (Downing et al., 2011). Cultural competency is a key strategy for reducing inequalities in access to services and improve the quality and effectiveness of care for Indigenous peoples (Cunningham, 2009). The need for culturally competent services and workforces is described in the United Nations Declaration on the Rights of Indigenous Peoples (2008) and by Walker et al. (2014), where the responsibilities of the state is outlined as providing accessible, quality health care (and over services) to Indigenous peoples and to respect and promote Indigenous health systems, both of which must be satisfied in order to achieve improved health and social outcomes for Indigenous peoples (Cunningham, 2009). Developing and embedding cultural competence in health and other services requires a sustained focus on knowledge, awareness, behavior, and skills at all levels of service delivery.

### **Conclusions regarding effective processes**

Overall, the evidence considered indicates that how services are delivered is as important as what is delivered (Davis & Day, 2010; Dunst et al., 1988; Moore, 2014; Pawl & St. John, 1998; Small et al., 2009). Thus, as Davis and Day (2010) suggest, 'Outcomes are not simply the result of advice (e.g. take drug X or play with your child) but are determined also by the ways in which advice is given'. And, as Dunst and Trivette (2009) have noted, the manner in which support is provided, offered, or procured influences whether the support has positive, neutral, or negative consequences.

The evidence also indicates that the quality of the relationships between practitioners and parents are central to achieving the objectives of services (Bell & Smerdon, 2011; Braun et al., 2006; Greenhalgh et al., 2014; Moloney, 2016; Scott et al., 2007). As Greenhalgh et al. (2014) have argued of medical services, 'Real evidence based medicine builds (ideally) on a strong interpersonal relationship between patient and clinician.' Barlow and Scott (2010) make the same point of child protection service provision:

'[T]he answer to working effectively with families in which there is concern that a child is being harmed, lies not in the whole-sale adoption or implementation of evidence-based manualised programs; rather, *such* programs need to be implemented as part of a broader approach that is underpinned by a recognition of the importance of a long-term and supportive relationship.' (p. 59)

Bell and Smerdon (2011) use the term Deep Value to convey the importance of the practitioner-parent relationship:

Deep Value is a term ... that captures the value created when the human relationships between people delivering and people using public services are effective. We believe that there are real benefits in delivering public services in ways that put the one-to-one human relationship at the heart of service delivery. In these relationships, it is the practical transfer of knowledge that creates the conditions for progress, but it is the deeper qualities of the human bond that nourish confidence, inspire self-esteem, unlock potential, erode inequality and so have the power to transform.

Another important aspect to consider when examining effective processes is whether the service system can be more specific about the manner in which services are delivered? In a recent literature review (Moore et al., 2012) conducted for ARACY, my colleagues and I looked at the evidence regarding service delivery processes and strategies, and effective methods of engaging with families experiencing vulnerabilities that are associated with better outcomes for these families. This review complemented an earlier review (McDonald et al., 2012) that had looked at the evidence regarding the most effective programs for working with families of young children who are experiencing vulnerabilities.

The review of effective processes concluded that there is general support for the notion that process aspects of service delivery matter for outcomes in human services. A number of key elements of effective service delivery processes have been repeatedly identified in the research literature: regardless of the focus or content of the intervention, effective programs

- are relationship-based;
- involve partnerships between professionals and parents;
- target goals that parents see as important;
- provide parents with choices regarding strategies;
- build parental competencies;
- are non-stigmatising;
- demonstrate cultural awareness and sensitivity; and
- maintain continuity of care.

These process variables appear to be of particular importance for the families experiencing the most vulnerabilities, who are less likely to make use of professional services that do not possess these qualities. Ways of effectively engaging and empowering vulnerable and marginalised families have been identified. These include providing services

- that help them feel valued and understood, and that are non-judgmental and honest;
- that have respect for their inherent human dignity, and are responsive to their needs, rather than prescriptive;
- that allow them to feel in control and help them feel capable, competent and empowered;
- that are practical and help them meet their self-defined needs;
- that take into account their cultural practices and have established respectful relationships with the community;
- that are timely, providing help when they feel they need it, not weeks, months or even years later; and
- that provide continuity of care – parents value the sense of security that comes from having a long-term relationship with the same service provider.

### **The relationship between evidence-based processes and evidence-based programs**

This discussion of the processes of effective service delivery raises an important question: what is the relationship between the processes just outlined (how services are delivered) and the actual interventions themselves (what is delivered)? A thorough review of the evidence regarding interventions relevant to the prevention of mental health problems of infants and toddlers (Barnes, 2003; Barnes & Freude-Lagevardi, 2003) provides answers to this question. This review concluded that there appears to be a number of necessary, but not sufficient, factors associated with enhanced early intervention outcomes. They can be divided into primary (threshold) factors that function in an all-or-nothing manner and secondary factors (fine-tuning).

There are six primary factors:

- shared decision-making between parent and therapist/intervenor;
- quality of relationship between the parent and the intervenor;
- non-stigmatising presentation of intervention;
- cultural awareness/sensitivity;
- flexible settings/hours; and
- crisis help prior to other intervention aims.

The secondary factors include:

- choice of theoretical model;
- choice of timing of intervention;
- choice of location to offer intervention—home, clinic, community location; and
- choice of intervenor—professional, paraprofessional.

As Barnes and Freude-Lagevardi (2003) explain,

.... if a reasonably satisfying therapeutic relationship cannot be established between intervenor and client, then the duration or intensity of an intervention program may be of little consequence. The same applies if the intervention model fails to match the client's needs, when the client is not involved in the decision-making or disagrees with any prescribed program goals/outcomes, when the program is experienced as stigmatising/labelling, when the cultural background of the participant is ignored, when the parent is so overwhelmed by urgent and basic needs that this crisis prevents any



focus/engagement with the program content, or simply, when they are prevented from participation due to time and/or location barriers. It appears that these primary factors are predominantly factors of participant perceptions/beliefs, and it is these which may need to be ascertained and addressed when planning or executing any early intervention programs.

The primary or threshold factors identified by Barnes and Freude-Lagevardi are nearly all process factors, whereas the secondary factors relate to the actual programs delivered. What this suggests is that the process factors represent a necessary precondition for effective delivery of actual interventions. However, this does not mean that such factors are more important than the interventions or program.

A telling illustration of the importance of combining effective relational support with effective programmatic intervention comes from a study by Hebbeler and Gerlach-Downie (2002). This took the form of an in-depth analysis of a program that provided monthly home visits to mothers over the first 3 years of the child's life. The study looked at the content of the home visits and the nature of the interaction between the home visitor and the mother in order to understand precisely how the program improved developmental outcomes for children or, alternatively, to explain why it did not. The program was found to be not very effective: there were small and inconsistent effects of participation in the home visiting program on parent knowledge, attitude and behaviour but no overall gains in child development or health. This is despite the fact that the parents were overwhelmingly positive about the program and spoke highly of their relationships with the home visitors. Analyses of the home visitors' theories of change (ie. how they understood the program produced results) showed that they saw their prime responsibility as being the provision of social support, and, although they recognised the importance of parent-child relationships, they did little to model or teach the parents better ways of interacting with the children. Even when they did so, the parents did not recognise what they were doing and thought the home visitor was trying to teach the child something. Many parents did not see the importance of replicating the types of home visitor-child interactions and activities they observed.

What this suggests is that providing effective relational support is a necessary but not sufficient condition for producing changes in behaviour and hence desirable outcomes. Conversely, providing effective interventions programs in the absence of effective relational support will compromise the efficacy of the programs. Thus, the two elements – how services are delivered and what is delivered – are essential for achieving positive outcomes.



The discussion so far has focused on the first two of the elements of evidence-informed practice: evidence-based programs and evidence-based processes. The following sections consider the third element: client and professional values and beliefs.

### Client and professional values and beliefs

The third element of broadened definition of evidence-informed practice concerns the values and beliefs of parents / clients as well as of service providers.

### Client values

For services to be effective, they must not only be based on evidence-based programs and evidence-based processes, but they must also reflect the values of parents and the outcomes that are important to them. The relative neglect of the role of values has led to calls for values-based care or values-based practice (Fulford et al., 2012; McCarthy & Rose, 2010; Petrova et al., 2006; Thistlethwaite, 2012). According to Thomas et al. (2010), 'Values-based care is a blending of the values of both the service user and the health and social care professional, thus creating a true, as opposed to a tokenistic, partnership' (p. 15). They argue for 'more qualitative, value-based evidence to be implemented within health and social care environments in an attempt to balance the existing dominance of quantitative, evidence-based evidence and to support the inclusion of stakeholders' (p. 22). Similarly, Pengra (2000) advocates a values-based approach to multicultural services in which services are based on the parent's values, arguing that such an approach supports pluralism and increases positive outcomes, including an enhanced quality of life.

As defined by Sackett et al. (2000), patient values refer to the unique preferences, concerns and expectations each patient brings to a clinical encounter and which must be integrated into clinical decisions if they are to serve the patient. There is consistent evidence that services are less effective if they do not address issues that parents see as important, do not address outcomes they value, and do not use strategies that parents are happy to use (Affleck et al., 1989; Barnes & Freude-Lagevardi, 2003; Moore et al., 2012; Sprenkle et al., 2009). One of the themes repeatedly emerging from studies of effective processes is the importance of addressing the needs that parents – rather than professionals – identify as important. For instance, in the psychotherapy literature, there is consistent evidence that therapists need to adapt to client preferences, expectations and characteristics if they are to be effective in helping people (Sprenkle et al., 2009). Providing support to parents in response to an indicated need for help is associated with positive consequences, whereas providing social support in the absence of an indicated need for support has negative consequences (Affleck et al., 1989).

To ensure that the outcomes targeted are those that are important to parents, professionals need to build genuine partnerships with parents. As noted earlier, the review of effective processes of service delivery (Moore et al., 2012) found that two of the key elements of effective service delivery processes were that they involve partnerships between professionals and parents, and target goals that parents see as important. Similarly, the review by Barnes & Freude-Lagevardi (2003) found that one of the six primary factors for effective service delivery was shared decision-making between parent and therapist/intervenor.

Basing services on outcomes that are valued by parents is in contrast to the commonly used approach of basing services on a pre-selected evidence-based program. The reason for focusing first on outcomes valued by parents – rather than interventions chosen by professionals – is that it is possible for a particular intervention to have been shown to be effective by the most rigorous research standards yet not preferred because it does not lead to the family's desired outcomes. As our ideas about what we are trying to achieve evolve, some 'proven' strategies or interventions may no longer be the best option because they do not achieve the ends professionals and parents now have in mind.

Outcomes-based approaches 'start with the end in mind', that is, they begin by identifying the outcomes parents want to achieve and work backwards from there (Anderson, 2005; Friedman, 2000, 2005; Moore, 2006, 2010). Outcomes-focused services or professionals define what they

offer or provide in terms of the outcomes that they seek to achieve. In contrast to this approach, service-based agencies or professionals define what they offer in terms of the services they provide. As Dunst (2012) has shown, agencies and professionals are more likely to describe what they offer in terms of the services they provide rather than the outcomes they achieve when federal legislation or funding for the particular service sector uses a service-based rather than an outcomes-based definition of the service in question.

This may be a concern given that service-based definitions and descriptions encourage providers and consumers alike to equate outcomes with services – that is, to think that the aim of the service is to deliver certain programs or interventions, and that this aim is being achieved if the services are delivered as planned. But that is to confuse the means with the ends: all the technical expertise of professionals and the various forms of service are only a means to an end – to improve outcomes in the child and family. The important questions are what kind of outcomes are being sought, and how do professionals know if their services are producing these outcomes? Unless the end is kept in mind at all times, there is a danger that practitioners will not check if the services they are providing are having the desired effect, and may persist in using strategies that are not working for the particular parents. There is also a danger that policy makers and funders will frame accountability in terms of outputs rather than outcomes – that is, they will require the services they fund to report whether they have provided the services they are funded to provide rather than whether these services have actually made a positive difference in the lives of parents.<sup>10</sup>

There have been a number of models developed to help service systems adopt an outcomes-based approach (Centre for Community Child Health, 2009; Centre for the Study of Social Policy, 2001; Chinman et al., 2004; Friedman, 2000, 2005; Wandersman et al., 2000; Wiseman et al., 2007). The best known of these is Mark Friedman's Results-Based Accountability model (Friedman, 2005) which is widely used in Australia (eg. Results Leadership Group – [www.resultsleadership.org](http://www.resultsleadership.org)). The Centre for Community Child Health (CCCH) has also developed an outcomes-based approach for child and family services (CCCH, 2010). This involves five phases: vision planning, action planning, translation and implementation, evaluation, and analysis and review. The first three steps in using this outcomes-based approach are: 'Starting with the end in mind' (being clear about the desired outcomes), identifying objectives and indicators that will show when the outcome has been achieved, and identifying effective strategies for achieving these outcomes.

It should be noted that the third of these steps – identifying effective strategies – also involves value judgments. As Hammersley (2013) points out, there is an assumption underlying the conventional model of evidence-based practice that as long as a strategy is evidence-based, then it can be applied. But there are wider issues to be considered, such as what are and are not acceptable means for policy-making and practice. Factual knowledge cannot determine good practice:

One reason for this is that it cannot determine what the ends of good practice should be or even, on its own, what are and are not appropriate means. These matters necessarily rely upon judgements, in which value assumptions play as much of a role as factual ones. Furthermore, the effectiveness of any practical action usually depends not just on what is

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<sup>10</sup> This is the current funding model system in many health, social and ECEC services, which is why there is still such a noticeable disparity between outcomes for disadvantaged communities and others.

done but also on how it is done and when. Skill and timing can be crucial (Hammersley, 2013).

Of all the philosophical frameworks for working with families that have been developed, the one that best exemplifies a values and outcomes approach is what is known as family-centred practice in early intervention and family support services, and family-centred care in medical services. In this approach, services are not predetermined by professionals but based on family outcomes and values.

Numerous statements of the key principles of family-centred practice and family-centred care exist (e.g. Bailey et al., 2012; Dunst, 1997; Dunst et al., 2007, 2008; Kuo et al., 2012; Moore & Larkin, 2006; Rosenbaum et al., 1998; Rouse, 2012; Trivette & Dunst, 2000). According to Dunst et al. (2008),

Family-centered practices are characterized by beliefs and practices that treat families with dignity and respect; practices that are individualized, flexible, and responsive to family situations; information sharing so that families can make informed decisions; family choice regarding any number of aspects of program practices and inter-vention options; parent-professional collaboration and partnerships as a context for family-program relations; and the active involvement of families in the mobilization of resources and supports necessary for them to care for and rear their children in ways that produce optimal child, parent, and family benefits.

Recent literature reviews and meta-analyses of research across a wide range of medical and early intervention service sectors have consistently shown that family-centered practices have positive effects in a diverse array of child and family domains, such as more efficient use of services, decreased health care costs, family satisfaction with services, family well-being, building child and family strengths, parenting practices, and improved health or developmental outcomes for children (American Academy of Pediatrics, 2012; Bailey et al., 2012; Dempsey & Keen, 2008; Dunst et al., 2007, 2008; Dunst & Trivette, 2009; Gooding et al., 2011; Kuhlthau et al., 2011; McBroom & Enriquez, 2009; Piotrowski et al., 2009; Raspa et al., 2010; Rosenbaum et al., 1998).

### **Professional values**

Professional values play a role at three levels: the personal values of practitioners, the ethical practices and guidelines of professions, and the way in which science and evidence are conceptualised.

At the personal level, what needs to be acknowledged is that everyone has values, even if they are not well articulated or consistent, and these guide our perceptions and responses to people and events (Haidt, 2012). This is as true of professionals as it is of parents (McCarthy et al., 2010). If professionals are not aware of their values (eg. values regarding ethnicity, cultural differences, sexual orientation) and how these can affect their responses to particular parents, then they may find themselves behaving in ways that undermine their ability to form a strong relationship with the family. It is important that professionals are aware of their values and learn to manage the responses they trigger so that they do not compromise their work and families' best interests.

Professionals are also guided by the general values and ethical guidelines of their disciplines and services. For example, as Kaiser and Hemmeter (1989) note, professionals in early childhood intervention services have an ethical responsibility to choose interventions that strengthen families as well as address specific family needs. Therefore, they argue, interventions that address identified needs without building family capacities should not be used. In the UK, the National Institute for Health and Clinical Excellence (NICE, 2008) has developed a set of social value principles to guide its work in developing evidence recommendations for the health sector.

Another way in which values play a role, albeit often unacknowledged, is in shaping the way we view the scientific enterprise itself, and evidence-informed practice in particular. As Dokecki (1989) notes, 'In the quest to produce usable knowledge, social scientists have typically espoused a logical positivistic version of empiricism, with its separation of fact and value and its aspiration to value-neutral inquiry.' However, since values are unavoidable in all human knowledge, this approach is unlikely to succeed (Dokecki, 1989); Kelly et al., 2015). While efforts have been made to reduce bias in the evidence, the role of values has been almost completely ignored (Kelly et al., 2015). All scientific practices and procedures are value-laden, and evidence-based practice and evidence-based medicine are necessarily value-laden. Properly understood, evidence-based practice acknowledges and embraces values (Greenhalgh et al., 2014; Kelly et al., 2015).

### **Client and professional beliefs**

People's belief systems also play a major role in guiding their behavior. Recent analyses of family-centred practice have highlighted the crucial role that both parental and professional beliefs play in effective service delivery (Dunst et al., 2007, 2008). Parents' beliefs play an important mediating role in achieving positive outcomes. These beliefs take two forms: belief in the intervention plan and belief in their personal ability to implement the intervention as planned (parental efficacy beliefs). Family-centered practices are not directly related to child development outcomes but rather indirectly mediated by these beliefs. This is thought to be the case because family-centered practices strengthen parental beliefs about their own efficacy, and that parents who feel empowered about their parenting capabilities are more likely to provide their children development-enhancing learning opportunities (Dunst et al., 2007, 2008).

Professional beliefs also play an important role in the adoption and implementation of effective practices (Trivette et al., 2012a, 2012b). These also take two forms: belief in the efficacy of the intervention, and belief in the parent's ability to implement the plan. Service delivery is more effective when professionals not only believe in the power of the agreed intervention strategy to achieve the desired goals, but also in the caregiver/parent's ability to implement the strategy.

### **Conclusions regarding values and beliefs**

The evidence just reviewed indicates that client and professional values and beliefs play an important role in determining whether parents accept and use the services that professionals offer.

The next section outlines what general conclusions can be drawn regarding evidence-informed practice, based on the evidence considered in the previous sections.

## Evidence-informed practice: Conclusions

This review of the evidence regarding the three elements of a broadly conceptualised understanding of evidence-informed practice (i.e., evidence based programs, evidence based processes and client values) has shown that there is evidence that all three play a significant role in determining whether interventions in the human services are effective or otherwise. Relying solely on evidence-based programs will lead to modest benefits at best and fail to benefit certain cohorts altogether, particularly the most vulnerable. To support the most vulnerable in our communities, we need services that engage them effectively and address issues of personal significance to them. However, we should also note that basing services solely on effective engagement practices or parent values will not produce significant change either: all three elements of evidence-informed practice are needed if interventions are to be more effective.

While there is general agreement about what the key sources of evidence are, there is no consensus on what they should be called. In this paper, we refer to the three sources of evidence as evidence-based programs, evidence-based processes, and client and professional values and beliefs, and to the overall process as evidence-informed practice, as shown in the Figure 1.



*Figure 1: Evidence-informed practice and its components*

We also need to find a way of blending these sources of evidence in practice (Barlow & Scott, 2010; Fonagy et al., 2014; Greenhalgh et al., 2014; Schorr & Farrow, 2011). Reflecting upon their comprehensive review of mental health treatments for children and adolescents, Fonagy et al. (2014) note that

... the mere availability of evidence-based therapy is unlikely to deliver good outcomes for children and young people and their families, and that there are many more issues that clinicians need to consider in relation to ensuring that clinical practice is scientific ... (p. x)

The field has ... shifted away from a simple list of treatments that we can designate as 'evidence-based' to a recognition that evidence-based practice must be a process of mental health care delivery comprising a range of components, only one of which directly concerns research evidence. (p. 3)

Fonagy and colleagues argue that what is needed is a much more nuanced and multidimensional conceptualisation of evidence-based practice and offer the following definition:

Evidence-based practice in mental health ... may be described as practice that is consistently science-informed, organised around client intentions, culturally sensitive, and that continually monitors the effectiveness of interventions through reliable measures of the child and family's response, contextualised by the events and conditions that impact on treatment. (Fonagy et al., 2014, p. 4)

Reflecting on their review of child protection evidence, Barlow and Scott (2010) conclude that

'... the answer to working effectively with families in which there is concern that a child is being harmed, lies not in the whole-sale adoption or implementation of evidence-based manualised programs; rather, such programs need to be implemented as part of a broader approach that is underpinned by a recognition of the importance of a long-term and supportive relationship.' (p. 59)

Similarly, reflecting on their review of evidence-based medicine and its discontents, Greenhalgh and colleagues (2014) conclude that, despite much progress, evidence-based medicine has not resolved the problems it set out to address, and they urge a return to its founding principles – 'to individualise evidence and share decisions through meaningful conversations in the context of a humanistic and professional clinician-patient relationship.'

In the following section, we will address the question of how the three elements of evidence-informed practice can be incorporated into practice, beginning with a consideration of three forms of implementation fidelity.

### Forms of fidelity

In considering ways of increasing the effectiveness of interventions, some prominent theorists and advocates within the implementation science movement have stressed the importance of program or implementation fidelity (Durlak & DuPre, 2008; Fixsen et al., 2005; Stith et al., 2006).<sup>11</sup> Also known as adherence, compliance, integrity, or faithful replication, program fidelity is the extent to which the innovation corresponds to the originally intended program (Durlak & DuPre, 2008). This form of fidelity is concerned with the faithful delivery of interventions that have been demonstrated through rigorous research protocols to be efficacious and replicable, and therefore only addresses the first of the three elements of the broadened conceptualisation of evidence-informed practice, namely best research evidence.

This paper proposes that, in keeping with this broader understanding of evidence-informed practice, there are three types of implementation fidelity to be considered: program fidelity, process fidelity and values fidelity.

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<sup>11</sup> Other implementation theorists adopt a more flexible, participatory and localized approach (eg. Greenhalgh et al., 2004, 2005; Curran et al., 2008).

- *Program fidelity* is concerned with what is delivered, and with ensuring the faithful delivery of 'proven' programs and strategies according to their original design.
- *Process fidelity* is concerned with how services are delivered, and ensuring that services are delivered in ways that are known to be effective in engaging and changing client behaviours.
- *Values fidelity* is concerned with ensuring that the focus of service and method of service delivery are consistent with client values.

Each of these forms of fidelity can and should be measured constantly to ensure that help is implemented in the most effective way, as follows:

- The strategies or programs used should be evidence-based. Service providers should be able to draw on a suite of evidence-based strategies to address the range of challenges that parents face in caring for their children. To ensure that evidence-based strategies are delivered consistently and rigorously, *measures of program fidelity* should be regularly used.
- The process variables identified as essential for effective service delivery represent the threshold features of effective service delivery – the bedrock on which the service is based. These service features are the starting point for all service delivery as well as the core qualities that continue to infuse all subsequent service delivery. The key qualities include relationship-based, partnership-based, capacity-building, provision of choices, addressing immediate practical issues, and addressing background factors. To ensure that service delivery is faithful to these core practices, *measures of process fidelity* should be regularly used.
- The identification of goals and of strategies to achieve these goals needs to be done in partnership with parents. To help ensure that the process of selecting goals and strategies is done systematically, decision-making algorithms and guidelines should be developed. To ensure that the goals and strategies are compatible with parental values and priorities, *measures of values fidelity* should be regularly used.

As noted, program fidelity is the form of fidelity that is usually meant when issues of implementation are discussed (eg. Durlak & DuPre, 2008; Fixsen et al., 2005, 2009; Stith et al., 2006). These discussions focus on the identification of evidence-based programs and what happens when they are delivered in real world settings (Durlak and DuPre, 2008). Research on this process indicates that the diffusion of effective interventions typically yields diminishing returns as the process unfolds (Durlak & DuPre, 2008). The recommended solution is to put in place procedures to ensure that practitioners stay faithful to the original model (Fixsen et al., 2005; Wiggins et al., 2012).<sup>12</sup>

A second problem with the intervention science agenda is that it appears to be at odds with the evidence that effective service delivery needs to be flexible and tailored to local needs and values. The issue of adapting programs for local conditions is a contentious one, with some arguing that it can (or should) be done (eg. Castro et al., 2004; Collins et al., 2004; Kendall et al.,

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<sup>12</sup> There are problems with this strategy, however (Greenhalgh et al., 2014; Hammersley, 2013). One concern is that the overemphasis on following algorithmic rules in decision-making 'can crowd out the local, individualised, and patient initiated elements of the clinical consultation' (Greenhalgh et al., 2014).



2008), while others argue against it (eg. Elliott & Mihalic, 2004). In discussing the use of evidence-based manualised programs in psychotherapy, Kendall et al. (2008) propose that 'flexibility within fidelity' is both possible and desirable, arguing that effective therapists value the strengths and interests of individual parents when planning for treatment and are prepared to adapt features of the treatment to match their needs and interests. Others are concerned that evidence-based programs may not meet local needs. Littell and Shlonsky (2009) note that the widespread adoption of 'model' programs can squelch innovation and adaptations necessary to meet individual needs, respond to local conditions, and respect cultural traditions. Similarly, McBeath et al. (2010) conclude that there is insufficient evidence to support the uniform application of such programs in human services, particularly in contexts serving ethnic minority parents.

In seeking to reconcile the competing demands for program fidelity and values fidelity, we need to remember that our services cannot be effective if they are not acceptable to and used by parents. Therefore, whatever process of service delivery we use must maximise the 'take-up' of services by parents.

### Maximising 'take-up'

The ultimate aim of effective implementation is helping parents find solutions to the challenges that face them. Thus, implementation fidelity is not an end in itself, but a means to an end. The real issue we should be concerned with is the extent of 'take-up' by those we seek to support – that is, the extent to which parents are able to make use of the support provided, and the extent to which that leads to actual changes in behaviour.

In considering how to maximise take-up of services, there are several points to note. First, those we are trying to help are more powerful than we may give them credit for. As psychotherapy researchers Sprenkle et al. (2008) point out, although we commonly assume that what therapists do is the most important element of therapy, it is in fact the parents who are the most important factor in the success or failure of therapy: 'Clients are the ones who choose what to pay attention to and how to make it work.' Thus, although it may seem that the balance of power in a professional-parent relationship lies with professionals, parents have one decisive source of power: they can take no notice of what the professional says.

Second, evidence-based programs in isolation, no matter how faithfully they are implemented, are not guaranteed to produce desirable changes in parents (Fonagy et al., 2014; Whitaker & Cowley, 2012). They depend entirely upon their acceptability to parents and the extent to which they can be implemented by parents in their (often messy) real world circumstances. On the basis of a very thorough review of evidence-based interventions for mental health concerns in children and young people, Fonagy et al. (2014) conclude that 'the mere availability of evidence-based therapy is unlikely to deliver good outcomes for children and young people and their families,' and highlight two other key factors influencing outcomes: the involvement of families and children in decision-making concerning their therapy, and the routine observation of the impact of treatment on patient's well-being. They suggest that 'at least as much gain in outcome can be attributed to shared decision-making and ongoing outcome monitoring as to choosing the treatment that works for a specific disorder.'

Third, the more effective professionals are at engaging, communicating and forming partnerships with parents, the better the child and family outcomes will be. In early childhood intervention services, successful engagement with parents leads to greater use of agreed strategies between

home visits (Peterson et al., 2007). In medicine, effective communication results in greater adherence to recommended treatment plans and better health outcomes (Nobile & Drotar, 2003; Stewart et al., 1999). Engaging parents as partners also leads to better outcomes. As Sweeney et al. (1998) have observed,

Patients are not passive recipients waiting for doctors to make decisions about their health: the evidence suggests that the more actively patients participate in consultations, the better controlled are their chronic diseases.

Fourth, families experiencing the most vulnerabilities are the ones least likely to access and engage with services (CCCH, 2010). This is partly because of the complex and co-occurring problems these families face, such as lower family incomes, lower levels of parental education and intergenerational trauma. These often undermine their efforts to care for their children as they would wish, or to carry through a particular practice or program that has been recommended. Additionally, vulnerable parents are less likely to access and engage in services as they can be particularly sensitive to the manner in which services are delivered. Common problems include not trusting services, misperceiving what services offer, lacking the social skills and confidence to negotiate with professionals, and being easily intimidated or put off by perceived attitudes of staff or other parents (Anning et al., 2007; Attride-Stirling et al, 2001; Barlow et al., 2005; Carbone et al., 2004; Winkworth et al., 2009, 2010). For many Indigenous families this may be due to their own negative experiences of institutionalised services (such as schools and hospitals) characterised by racism and a lack of understanding and respect for their people and culture. As a result, many Indigenous families are not empowered to support their children's learning, given their lack of trust in, or understanding of, the system. In medicine, the more vulnerable patients are - either psychosocially or because they are feeling particularly unwell – the more they need their doctor to use patient-centred care practices (Little et al., 2001).

Fifth, there has been a tendency for professionals to view parents who do not make good use of their support as 'non-compliant' or 'resistant'. This kind of language locates the problem within the client, rather than with the professional or the service system. Similarly, families experiencing vulnerabilities have often been referred to as 'hard to reach', implying that the problem exists in the families themselves, rather than in the services provided for them (Brackertz, 2007; Brackertz & Meredyth, 2008; Slee, 2006). There is a growing consensus that, rather than thinking about certain families as being hard to reach, it is more appropriate to think of them as being people whom services find difficult to engage and retain in their services (Slee, 2006). Thus, the onus is upon professionals and services to design and deliver services that will engage and retain families experiencing vulnerabilities more effectively and ensure greater take-up of services.

### Towards an evidence-informed decision-making framework

It is clear from the above analysis of evidence-informed practice that selecting an effective intervention strategy is not simply a matter of choosing an intervention from a list of 'proven' strategies. Instead, one must take account of all contributing factors, including the outcome that is desired, the circumstances in which the intervention is to be implemented, and the values and preferences of those involved.

Others who have come to similar conclusions include Littell and Shlonsky (2009), McCarthy and Rose (2010), Mitchell (2011), and Petr and Walter (2005; 2009). Making the case for what they call values-based care, McCarthy and Rose (2010) argue that evidence should be seen as part

of a broader vision of practice which places equal value on a holistic vision of the needs of patients and clients, professional knowledge and intuition, and seeing patients and clients as partners in their care. Petr and Walter (2009) propose that the current reliance on evidence-based practice be replaced with an approach they call multidimensional evidence-based practice that 'validates consumer wisdom, professional experience, and qualitative research as equal partners to quantitative research in determining current state-of-the art best practices'. Similarly, Littell and Shlonsky (2009) note that, although rigorous evidence about the impacts of child welfare programs and policies is needed to inform policy and practice, this evidence cannot tell us how to move forward. Even the best evidence must be combined with other considerations to formulate wise decisions. They call this evidence-informed decision-making, and this is the usage we will adopt in this paper.

Combining all these factors in the decision-making process is not a simple matter. What would be beneficial is a decision-making or service-delivery framework to guide practitioners' work with parents. Based on the analysis in this paper, such a framework should include the following elements:

- First, we need to align program content and methodology with client values, addressing what the client sees as most important for them.
- Second, we need to be attuned and responsive to the views and circumstances of the parents, and engage them as partners.
- Third, we need to use a purposeful process of joint decision-making in identifying goals to work on and choosing strategies to use.
- Fourth, we need to be able to offer parents the choice of a range of evidence-based strategies and program modules to address the goals that have been agreed.
- Finally, we need monitor all three types of fidelity on an ongoing basis and make immediate corrections when it is apparent that they are not being met.

A framework that meets these criteria is described below.

- **Step 1. *Begin to build a partnership relationship with the family.*** The key qualities of effective relationships are engagement, attunement and responsiveness, and the key skill is reflective listening. The process of building a sound relationship is ongoing, not something that is done once, but is built over time through a process of repeated reconnections and feedback.
- **Step 2. *Explore what outcomes are important to the family.*** This involves an exploration of family values and circumstances, and what achievable change would make the most difference to their lives. Finding out what matters most to the family is critical, but it is also important that, over time, the professionals also share what they see as important outcomes. The final decision, however, always rests with the family.<sup>13</sup>
- **Step 3. *Agree what outcome will be the focus of work with the family.*** Identify how the family will know when the outcome has been achieved, and how this will be measured. The outcomes chosen by families initially may not be what the professionals would have chosen, but it is important to respect their first choices as a basis for building a sound partnership.

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<sup>13</sup> The only exception to this is when there are concerns about a child's safety.

With continued mutual sharing of information, the choices that the family makes should become progressively better informed.

- **Step 4. *Explore what strategies are available for addressing the outcomes chosen.*** This involves exploring with the family what strategies they already know about or use, as well as sharing with them information about what evidence-based strategies are available. The emphasis here should be on identifying and building upon existing family strengths and resources, as well as on building new competencies, and promoting the family's capacity to meet the needs of family members.
- **Step 5. *Agree on what strategy or strategies will be used.*** The strategies should be acceptable to the family and able to be implemented in their family circumstances. The result should be an action plan that describes the outcomes and strategies chosen, how the implementation will be monitored, and what roles the parents, professionals and any others will play.
- **Step 6. *Monitor the process of intervention implementation.*** During the actual implementation phase, the role of the professional is to support the family as they implement the strategy, and to help them make any necessary adjustments. The issues to be addressed are whether the strategies chosen are able to be implemented as intended, and whether they are being implemented with program fidelity. Any problems identified should be addressed promptly and the plan modified as required. It is important not to persist with strategies that are not working or are causing undue stress.
- **Step 7. *Review the process of implementation.*** In addition to the ongoing support and monitoring of the implementation, time should be made for a review of action plan. The key questions are whether the strategy has been able to be implemented and everyone has been able to contribute as planned. If not, then Steps 4 and 5 should be revisited. This is also a time for reviewing the parent-professional partnership. The professionals should be seeking feedback as to whether the parents feel their views are being heard and respected, and whether they are being helped to develop new competencies.
- **Step 8. *Monitor the intervention outcomes.*** In addition to monitoring the processes involved in implementation, it is also important to monitor the actual outcomes. The role of the professional is to help the family use measures identified earlier (Step 3) to check whether the strategies produced the intended outcomes. Family capacities and circumstances vary so much that it is impossible to be sure that any particular strategy, even one that has been effective elsewhere, will work for a particular family. Any indication that a strategy is not effective or is even causing harm in some way should be a signal for immediate review.
- **Step 9. *Review the outcomes.*** At an agreed point, a review of the whole intervention plan should be undertaken by the professional and parents. The main questions to be addressed are whether the desired outcomes were achieved, and, if not, then why not. This is also a time for a general reflection on what has been learned – by the family (what new skills have they developed?) as well as by the professional (what new strategies did they discover?).

Although the framework is presented as a series of steps, this is a schematic representation only: in practice, the steps are not discrete, and the different processes flow into one another. In addition, progress through the steps is not always sequential and may be iterative, as there will

sometimes be a need to circle back and repeat some earlier steps as part of a process of refocusing.

At the heart of this framework lies the partnership relationship. This is the medium through which practical help is provided and positive changes made. The process described in the framework begins with engagement and tuning into family values and priorities, rather than with professionals deciding beforehand what the family needs and what strategies are most appropriate for meeting those needs. Evidence-based programs and strategies have an important role to play, but always in the context of family values and priorities. Information about such programs is not introduced until a partnership has been established and the professional has understood the family values and circumstances.

The process described allows for constant adjustments based upon feedback. It is not assumed that the strategies will always work in the ways intended, and indeed assumes that there may need to be modifications. This flexibility is a strength rather than a weakness, as the process of constant adjustments makes it more likely that the interventions will be manageable for the family and ultimately effective.

This service framework is generic, in that it can be used by an individual practitioner or team working with a client or family, an agency working with groups of parents or families, a network of services working with a community, or even a government department working with service networks. Whatever the context, the use of this framework should maximise parents' 'take-up' of the service.

## Conclusions

This paper began by noting that the assumption behind the push to promote greater implementation fidelity is that, to get better results from our intervention efforts, we need to be much more thorough about ensuring that practitioners are able to deliver evidence-based programs faithfully and consistently. It has been argued that evidence-based practice in its narrow form cannot provide us with all the information or practices we need to deliver effective services in real world settings. Instead, we need to broaden our understanding of evidence-informed practice to include three elements – research evidence (evidence-based programs), practice evidence (evidence-based processes), and client and professional values (client and professional values).

Implementation initiatives that are based on a narrow interpretation of evidence-based practice and that focus principally on ensuring program fidelity are not likely to make a significant difference to service efficacy. Instead, effective service delivery involves ensuring three forms of fidelity, corresponding to the three elements of a broader conceptualisation of evidence-informed decision-making.<sup>14</sup>

A key question to consider is whether this broader multidimensional concept of evidence-informed practice represents a paradigm clash with the traditional conceptualization of evidence-based practice. The argument presented in this paper appears to be at odds with the positivist and empirical paradigm that is currently dominant in academia and that underpins both the evidence-based practice and implementation science agendas (Pawson, 2006; Sweeney, 2006). However, the two paradigms are not incompatible. As others have argued (eg. Mitchell, 2011),

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<sup>14</sup> See Box 2 for definitions of key terms.

the two approaches can and should be blended to ensure fully effective services. The service framework proposed here is one way in which this can be done.

A second key question to consider is whether 'implementation science' really is a science, as Fixsen et al. (2005) suggest? Drawing on the work of Montgomery, Trisha Greenhalgh (2012a) suggests that medicine – the discipline that spawned the evidence-based practice movement – is neither a science nor an art, but a practice: 'specifically, an uncertain, paradox-laden, judgment-dependent, science-using, technology-supported practice'. Moreover, it is a practice that depends upon skills in developing and sustaining positive partnerships with parents as much as it does upon the use of evidence-based interventions. As de Boer & Coady (2006) have stated,

'... good helping relationships are more ways-of-being than they are about strategies and techniques. If the effort a worker avails in establishing a positive relationship with clients is prescriptive and technique driven, it is likely to fail. Workers' relationship and engagement skills can only blossom when they are rooted in genuine care and respect for the clients they serve. Specific techniques can augment an empathic, supportive, and collaborative approach, but they cannot substitute for this' (p. 40).

As this paper argues, while it may not be a science in the sense envisaged by Fixsen et al. (2005), implementation can and should involve practice rigour through the regular monitoring of three forms of fidelity discussed in this paper.

### **Box 2. Definitions**

Evidence-informed practice refers to the multidimensional service delivery model that integrates evidence from different sources:

- Evidence-based programs are interventions that have been experimentally evaluated and deemed efficacious in meeting specified goals
- Evidence-based processes are the skills, techniques, and strategies used by practitioners when interacting with program participants
- Client and professional values are the values and beliefs that parents and professionals bring to working relationship

Evidence-informed decision-making is the process whereby the three sources of evidence are blended when making decisions about the goals and strategies to be used in practice.

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The Centre for Community Child Health is a department of The Royal Children's Hospital and a research group of Murdoch Childrens Research Institute.