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SING & GROW: THE CO-EXISTENCE OF EVALUATION RESEARCH AND CLINICAL PRACTICE IN AN EARLY INTERVENTION MUSIC THERAPY PROJECT.

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ABSTRACT

Sing & Grow is a short term early intervention music therapy program for at risk families. Sing & Grow uses music to strengthen parent-child relationships by increasing positive parent-child interactions, assisting parents to bond with their children, and extending the repertoire of parents’ skills in relating to their child through interactive . Both the Australian and New Zealand governments are looking for evidence based research to highlight the effectiveness of funded programs in early childhood. As a government funded program, independent evaluation is a requirement of the delivery of the service. This paper explains the process involved in setting up and managing this large scale evaluation from engaging the evaluators and designing the project, to the data gathering stage. It describes the various challenges encountered and concludes that a highly collaborative and communicative partnership between researchers and clinicians is essential to ensure data can be gathered with minimal disturbance to clinical music therapy practice.

Keywords: Early Intervention, evaluation, music therapy
Acknowledgements

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In the area of early childhood health and development, a number of studies in New Zealand and internationally have documented the extent to which interventions in early life interventions have benefits to subsequent health and wellbeing (Fergusson Grant, Horwood, & Ridder, 2005; Karoly, et al 1998; Shonkoff, 2006; Weikart, & Schweinhart, 1992). This evidence has been instrumental in securing new funding for early intervention initiatives (Australian Government Department of Family and Community Services (FaCSIA), 2004; Commonwealth Taskforce on Child Development, Health and Wellbeing, 2003; Ministry of Social Development, 2007). This has also brought about marked changes to the systems that fund the delivery of intervention services, including music therapy services. Increasingly Australian and New Zealand government sectors are seeking evidence that the services they support are providing measurable benefits to recipients. In both countries, government policies stress the importance of building an evidence base around effective interventions and the need to have ongoing evaluation and monitoring of funded services (Commonwealth Taskforce on Child Development, Health and Wellbeing, 2003; Family Services National Advisory Council, 2004; FaCSIA, 2004; Ministry of Health, 1998)

Music therapists and other service providers need to be able meet such requirements in order to gain funding. However, clinicians who have been trained in the delivery of professional services, may lack the research expertise necessary to undertake valuations of their programs and may seek partnerships with researchers. Alternatively, self-conducted evaluations may be viewed with suspicion, and some funding bodies require that external researchers are employed to undertake the evaluation. While there is the potential for these partnerships to provide important benefits, they also pose challenges and threats. This paper describes the background to and processes
involved in setting up a large-scale evaluation of a music therapy program that aims to promote early childhood healthy development. It has relevance to music therapy and other practitioners (whether working in early childhood or with other clients) by providing practical information about the benefits, challenges and effective strategies that underpin a successful clinical-research collaboration.

The Early Childhood Policy Context

In 2000 the Australian government’s Department of Family and Community Services and Indigenous Affairs (FACSIA) prioritised a National Agenda for Early Childhood. Out of this agenda came the Stronger Families and Communities Strategy (FaCSIA, 2004) which aims to help children in the earliest stages of life, and to set the scene for a positive developmental trajectory for the rest of their lives. The strategy places emphasis on early childhood initiatives and resources that can be used to achieve better outcomes for children and their families. Within the strategy, the Invest to Grow program provides funding for interventions that will contribute to improved outcomes for young children and their families. The initiative supports families and parents by funding projects that aim to develop strong parent-child relationships, improve parenting competence, foster the capacity and resources of families, and strengthen family functioning. Projects must also address early childhood developmental and learning outcomes such as improved child cognitive development, social competence and emotional development.

In order to build the Australian evidence base about what works in prevention and early intervention, it is a requirement of the Invest to Grow funding, that projects employ an external researcher to evaluate project implementation and effectiveness.
The Sing & Grow Project

Structure

Sing & Grow is a 10 week group music therapy program conducted by registered music therapists (RMTs) and funded under the Invest to Grow initiative (2005-2008). It is designed as an early intervention for high risk parents of infants and young children (0-3 years), where music and song are used as non-threatening, enjoyable media for engaging with parents and young children. (Abad, 2002; Williams & Abad, 2005). Interactive music-based activities are employed as a means for: encouraging parents to connect with and take pleasure from their children; teaching parents specific skills for fostering their children’s behavioural, social and communication skills; promoting positive parenting behaviours; and enhancing parents’ sense of parenting competence and mental health. Specific parenting strategies that are modelled include: the use of praise and positive reinforcement; non-verbal communication through eye contact, smiling and physical affection; direct teaching through modelling and hand-over-hand facilitation of gross and fine motor skills; the use of simple verbal instructions; setting boundaries for children; and using music and song for engaging, soothing or calming children.

The program teaches parents activities that extend children’s behavioural, social and communication skills, and demonstrates how repetition and practice enhances developmental competence. To aid in the transfer of activities to the home environment, participants are provided with a CD and song book. Sing & Grow is also designed to increase participants’ contacts with other service providers, and both formal and informal referrals are provided to families when needs are identified.
The Sing & Grow service is located within the Playgroup Association of Queensland, and offered nationally through partnership agreements with each state-based Playgroup Association. Families are referred to the program by health/community professionals, from frontline community organisations with client bases of families who would benefit from the intervention. Programs are hosted by the referring agencies. Staff from the agencies (for example, social workers, therapists and family support workers) are encouraged to attend groups to become familiar with the families and their possible ongoing service needs.

Funding

The project was originally funded for two years from 2001-2003 under the Child Abuse Prevention Program in Queensland, Australia. In 2003 a funding extension of 12 months was granted, at the end of which the project was invited to apply for Invest to Grow funding as an existing program with capacity to expand. The funding was eventually granted and the national expansion began in January 2005. Originally the funding was to be for 4 years, but due to government timelines, the original 4 year program was to be conducted in 3.5 years. From January 2005 – June 2008, 300 programs will be offered across Australia. The aim is for 10 sessions to be conducted per group program on a weekly basis with the same families. The optimum number is 10 families per group.

Engagement of Evaluators

Following the announcement of the national funding in December 2004 the Sing & Grow team began exploring options for the appointment of an independent evaluator as required by the
funding agreement. Initial scoping of potential candidates was done through discussions with networks and reading of academic and research profiles and papers. On this basis, one potential candidate was identified from each of the three major universities in Brisbane, Australia based on the candidates’ experience in the design and implementation of evaluations in related settings (with families, community projects and/or early interventions). Interviews were then conducted with each potential candidate. The purpose was to identify an evaluator with the following qualities: an open and inquiring mind in regards to music therapy (none had prior experience with music therapy); willing to listen to and value the views of the Sing & Grow management and clinical teams; recognised the vulnerability of the program’s clients and the need to place the least amount of burden as possible on them; and willing to find creative yet valid ways of measuring results. For example, Sing & Grow had previously trialled the collection of outcomes data from parents using two standard psychometric tools with results indicating that these were inappropriate for use with our clients due to the natural tools themselves and the results they yielded. Parents found the questionnaires to be intrusive and distressing, and their self-reported behaviours appeared to be unreliable when compared to clinical observations (Williams, 2006). It was important therefore, to find an evaluator who was able to suggest alternative approaches that were more compatible to Sing & Grow clients.

Dr Jan Nicholson from the School of Public Health at Queensland University of Technology\(^1\) was one of the three potential candidates approached. When told about the type of clinical work and client population serviced by Sing & Grow, she suggested including her colleague Dr Donna Berthelsen from the School of Early Childhood in the initial meeting. Together, the two brought expertise in research design, the evaluation of large implementation trials, and comprehensive

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\(^1\) Subsequently moved to Griffith University, Brisbane Australia.
knowledge of early child development and parenting. This turned out to be a valuable partnership and immediately demonstrated to the Sing & Grow team that a collaborative approach, rather than an hierarchical one, could be possible. After the initial interview, which included brainstorming some possible evaluation design and methods, they were appointed.

**Evaluation Design**

Designing the evaluation was an interactive process. The evaluators and senior Sing & Grow staff met on several occasions to discuss the aims of the intervention and optimal methods or collecting evaluation data. The evaluators attended Sing & Grow sessions to familiarise themselves with the program. A range of alternative approaches were presented to the Sing & Grow team, and draft evaluation plans and measurement tools were sent to the Sing & Grow team for feedback. Where new measurement approaches were required to be developed, this was undertaken jointly by evaluation and clinical team members. As a result, a fully collaborative approach was employed throughout, and the final design and data collection tools, were developed by consensus.

Once the evaluation plan had been approved by the fund body (Nicholson & Berthelsen, 2005) and Ethics Committee, the evaluators provided the initial training to Session Leaders on the evaluation methods and their roles in collecting data. To assess feasibility and appropriateness, a formal pilot test was then undertaken, with Sing & Grow staff providing feedback on what worked, what didn’t work, and where refinements were required. Throughout

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2 Approval granted by the Human Research Ethics Committee at Queensland University of Technology, Brisbane Australia (ID 4210H, 2005-2008).
these early stages of planning and trialling, the evaluation team were in frequent contact with the
Sing & Grow senior staff.

The broad aims of the evaluation are:

- to examine how well the national implementation process worked, in terms of taking a
  program developed in Queensland and making it available in all states and territories; and
- to quantify the extent to which the program provides benefits to the parents and children
  who participated.

In the design process, care was taken to ensure high quality data were collected in a way that did
not overload the Session Leaders or clients, and that complimented (or at least did not impede)
quality clinical practice.

The Invest to Grow funding scheme required evaluators to prepare a detailed program evaluation
plan. This involved specifying a program logic model, an approach also recommended in New
Zealand policies on family intervention (Family Services National Advisory Council, 2004).
This involves mapping the areas to be assessed and the theoretical pathways between these areas,
and the ultimate outcome – community-wide improvements in family functioning and child
development. Use of a program logic model helps to clarify the outcomes expected from a
project and the processes and pathways to achieving these outcomes. It is a useful first step for
enabling researchers to determine (in consultation with the clinical team) what measurement
approaches are needed to assess initial, intermediate and final outcomes. The evaluation for Sing
& Grow is designed to address three levels of implementation as shown in Figure 1: project
level; program level; and individual level (Nicholson & Berthelsen, 2005).
At the broad project level, the evaluation examines how well the overall project was established in terms of: the resources provided; the establishment of relationships with state-based playgroup associations for rolling out the program across all states; and the employment and training of suitable RMTS as State Directors (4 in all) and as Session Leaders to run programs. Key methods for collecting project level data include document and record audits (for example, partnership agreements, procedural documents, and employment records), individual interviews conducted with senior staff from Sing & Grow and the partnering Playgroup Associations, and questionnaire data provided by staff from collaborating agencies.

At the program level, the evaluation focuses on the provision of services. This assesses the extent to which the goals are achieved in terms of: how many services are provided (“quantity”); who they are provided to (“reach”); the extent to which parents who start a Sing & Grow program, complete a sufficient number of sessions to receive what is believed to be a therapeutic minimum (6 sessions: “intensity”); and the extent to which quality delivery is maintained across all programs and staff (“quality”). Principal methods for collecting program level data are attendance records and quality ratings completed for each session by the Session Leaders.

At the individual level, the evaluation collects data assessing the extent to which parents and children gain benefits from their participation in Sing & Grow. The problems inherent in offering standardised questionnaires to “at risk” families have been discussed in a previous paper.
(Williams, 2006). Problems included: the level of comprehension required was too high for the education and literacy levels of the target population; the length of time required to complete questionnaires; and the focus on problems and skills deficits was upsetting to clients and inconsistent with the strengths-based philosophy of the program. Additionally, from the clinicians’ perspective, there were concerns about: the appropriateness of the tools to the range of developmental ages of participating children; their sensitivity for detecting clinical changes occurring over a short time period; reliability and validity of use with culturally and linguistically diverse clients; and the costs associated with the purchasing, administration, scoring and interpretation of the measures.

Recognising these concerns the research team developed a purpose-designed parent questionnaire (see Figure 2) that drew on very brief, validated, clinically sensitive, and age appropriate measures which taped each of the outcomes identified in the program logic model. This assessed parent-reported: satisfaction with the program; the extent of use of Sing & Grow activities and skills in the home setting; parenting skills and competence; rents’ mental health; children’s cognitive, social and behavioural skills; the extent to which participation improved families’ formal and informal social networks. These outcomes are assessed by means of parent questionnaires completed at the start and end of each 10-week program. Maintenance of change is assessed by questionnaires mailed to parents who provide consent, three months after completion of the program. Confidentiality was ensured by providing parents with stickers to seal closed their completed questionnaires before returning them to the clinical staff. However, the back page of the post questionnaire was non-confidential and designed to provide
clinicians with immediate feedback on clinically relevant information, including the parents’ sense of music and song, and their specific recommendations for future program improvements.

Insert Figure 2 Here

Additionally, at the individual level of evaluation, parent and child behaviours are assessed by direct clinical observations, conducted by Session Leaders on four occasions: two sessions at the start and two sessions at the end of the program. While this process was developed for evaluation purposes, it was also used as a means of providing clinical supervision, with senior RMTs attending 10% of sessions and undertaking simultaneous independent observations. RMTs reported that the observation process helped to facilitate their clinical practice by focusing their attention on the skill gains and needs of individual participants, resulting in greater tailoring of the intervention to these areas.

The data collection tools and methods of administration are summarised in Figure 3. As shown, the collection of evaluation data relies on a number of activities undertaken by the RMTs employed to deliver Sing & Grow, that are additional to the regular service-delivery elements. These include: ensuring that all attending parents complete the 1-page demographic information form at commencement (a requirement of the funding body); explaining, distributing and collecting parent pre and post questionnaires (first and last session) and surveys for agency staff; recording attendance (every session); rating session quality (every session); rating observations of parent-child interactions for each parent-child pair (4 sessions); and collation, cleaning and return of data to evaluation team.
To facilitate the Session Leaders’ roles in the data collection process, the evaluation team provide a detailed procedures manual that describes the data collection processes for each session, and a data management form that gives a checklist of what data collection is required on a session by session basis. They also provided initial training in the data collection procedures, which included practicing the observational ratings using videotape examples. This training is now provided to any new staff by the State Directors.

**Challenges in Undertaking an Evaluation**

In implementing the evaluation of *Sing & Grow* a number of challenges have arisen, the resolution of which has been a learning process for both the clinical and evaluation teams.

**Clinical challenges**

While Session Leaders understand the value of the data collection, the range of tools used in this evaluation has meant there is a particular need to ensure all staff receive adequate training to successfully administer the tools and answer any queries about them. It also highlights the importance of working with staff who are committed to the idea of the data collection, and will not inadvertently undermine this in any way.

The importance of training and commitment to the project is also seen in the presentation of the evaluation tools to the families in the first instance. Effective engagement of families is critical to
the quality of the evaluation, as well as the clinical outcomes. Scientific quality will be judged by
the proportion of families attending that complete the evaluation questionnaires at each time
point, to ensure the data are as representative as possible of the wide range of families who
attend the program. Therefore it is imperative to persuade parents to complete the questionnaires.
However, it is also critically important that this process does not adversely impact on initial
rapport building between the RMT and the family in a short term project such as this. The RMT
has to manage the somewhat competing tasks of explaining the importance of the research while
at the same time building the trust that is vital for any therapeutic change to occur.

Another challenge concerns the levels of literacy that exist amongst the client population. Many
have low levels of educational attainment and the population can be culturally and linguistically
diverse. These issues are not unresolvable, but often require extra funding. There is the
possibility of translation into a number of different languages, and ensuring that there are enough
workers/volunteers at the groups to assist those that require help with completion of the
paperwork.

**Partnership challenges**

There are a number of difficulties that could have arisen from undertaking a contract between a
clinical service delivery team and external evaluators. This is particularly the case in this
situation where the evaluators come from non-music therapy disciplines and the individuals were
not previously known to each other. Probably the biggest potential challenge was the possibility
that the evaluation process would be incompatible with the service delivery goals, that it would
be overly burdensome to staff and clients, or it would fail to meet the needs of the Sing & Grow
staff. Another potential problem, concerns the possibility that the evaluation may produce data that are threatening to Sing & Grow either in terms of negative comments from clients, staff or partner agencies, or by failing to find evidence of benefits to parents and children. These threats are going to be present in any formal evaluation.

To date, these potential problems have not eventuated. To a large extent, we believe that this can be attributed to the nature of the partnership that has been established. In particular, within our clinical and evaluation teams there is a high degree of mutual respect, with members of each team recognising and valuing each others’ skills and expertise. From the perspective of the evaluators, there is a perception that the music therapists have a good understanding of the research process and the requirements for quality research. From the perspective of the clinicians, there is a perception that the evaluators have a good appreciation of clinical demands and a desire to have the evaluation compliment rather than compete with these demands. The role of individual personalities should not be overlooked. We have been fortunate in bringing together a group of individuals with largely complimentary personalities and work ethics. This has been facilitated by open and frequent communication the evaluation methods and tools were developed jointly, leading to shared ownership of the process; attempts were made to ensure a match with the data collection procedures so that they could be used to inform clinical practice and supervision; and the pilot period enabled tools and methods to be trialled and adapted where they were proving to be impractical.

One of the benefits of having an evaluation conducted by people external to the program is that this provides a safe environment for clients, staff and partners to express their views. The
research process guarantees confidentiality which enables freer expression of views. Also, because the evaluators see the data from all participants, they are able to judge the extent to which the views expressed represent general, shared co or are more individual perspectives. This in turn enables them to give some weighting in interpreting the results.

**Resources and time challenges**

Possibly the largest single challenge encountered in the current evaluation is the (in)adequacy of funding. While the Sing & Grow project is unusual in that 10% of overall funding was exclusively allocated for an evaluation, this still fall short of what would be ideal for high quality research. Specifically, the funding covers the ct costs of data collection from those who are enrolled in the program. There is no funding for data collection from a comparison group of clients – for example, those waiting for a program. In the absence of control group data, the evaluation is not able to determine whether any changes observed from the start to the end of the program are a result of the intervention, or are due to the normal effects of turation. The lack of rigorous evaluation designs using control groups has been identified as a significant limitation in current music therapy research (Abad & Williams, 2004; Nicholson et al., 2006).

As noted, funding covers basic data collection costs. It does not cover the time put into the project by the evaluators (approximately 20% of their respective full-time workloads). Nor does it cover the costs of data entry, data cleaning, analyses and the preparation of papers and reports. In this project, Sing & Grow have been fortunate in finding evaluators who have bee very enthusiastic and have taken on the evaluation as their personal research. Thus the evaluators do not charge consulting fees for their own time, which has greatly enhanced what has been able to
be done for the funding. Additionally, they have sourced other university and consulting funds to employ data entry staff.

A final challenge inherent in the research process concerns the time lag between the collection of data and the production of findings. Clinicians have access to their own observation data and can view the non-confidential music use data and feedback provided on the post questionnaires. These can be used to inform ongoing improvements in clinical practice. However, in terms of the overall evaluation, the time lag between data collection and reporting of detailed analyses is around 12 months. This is normal for a project of this size and complexity, which means that everyone has to be patient! To address potential frustrations, the evaluators provide the clinical team, Playgroup Associations and the funders, with updates every 6-months on the project- and program-level data, which are relatively easy to collate.

**Critical factors for a successful evaluation**

In terms of planning evaluations of complex programs like *Sing & Grow*, there are several factors that are critical for the development of a successful partnership with external evaluators. These include:

- Carefully selecting the evaluators to ensure there is a good match between the clinical team and the researchers in terms of philosophies, theoretical approaches and personalities;
- Regular communication which is essential throughout the project, but especially in the early development and design stages;
- Consultation to ensure there is a good match between the research and clinical goals;
• The researchers need to be aware of the skills of the clinical team as well as limiting factors, and to understand what is and is not appropriate to collect from clients;

• There also needs to be a clear understanding on the part of the clinical team regarding the importance of collecting high quality data, and a willingness to commit to the extra efforts that are required for this; and

• The provision of regular feedback so that everyone involved is able to see the benefits from collecting evaluation data; and to ensure that learnings from the data collection inform the ongoing development and refinement of the services provided.

Additionally, it is imperative to attend to the needs of each of the relevant stakeholder groups – both internally and externally. This involves identifying what each group needs to get from the evaluation, and planning a process that enables these varying needs to be met. For example, in terms of **Sing & Grow**:

• For the funding body (FaCSIA), 6-monthly updates on a number of indicators of progress and outcomes are required;

• For the Playgroup Associations, it has been important to provide regular updates of progress in their state, as well as providing updates on the emerging findings with respect to outcomes;

• For the **Sing & Grow** clinical team, again regular feedback is important. In his case, it is concerned not only with the outcomes for families, but also tracking the delivery of programs and identifying areas that may need to be added – for example, whether they are on track with the types of groups who are receiving services, and the quality of the interventions delivered; and
For the researchers, having the chance to publish their findings in peer-reviewed scientific journals is important for their careers. In Sing & Grow, the clinical and evaluation teams have developed an authorship agreement document outlining processes for publication and presentation of findings to ensure everyone has the opportunity to gain these benefits.

Despite initial misgivings amongst some staff, on the whole the music therapists employed on the Sing & Grow project have commented that it is exciting and motivating to be involved in a national project that is contributing valuable data to the national evidence base for early childhood. This partnership between clinicians and evaluators is an important one for Music Therapy in Australia. In the current political climate, if there is hard evidence that supports the success of the program, then there is increased likelihood of attracting funding, and this is very important to all the clinicians at Sing & Grow. This partnership also allows the program to remain accountable to the funding body FaCSIA, through the monitoring of the program against the aims that are set out in the evaluation plan.

It is likely that governments in both Australia and New Zealand will continue to increase their financial support of music therapy services in the future, as has occurred in other developed countries such as America and the United Kingdom. It is also highly likely that rigorous evaluation procedures will continue to be required of government funded projects. Increasingly music therapists will need to demonstrate high level skills in either designing their own evaluation frameworks, or engaging with external researchers of various disciplines. This paper
has presented an overview of some of the challenges and learning’s from our evaluation experiences, with the aim of providing music therapists with a checklist of things to consider and plan for in their own evaluations. Anecdotal reports have suggested that the research collaboration has been a really important journey for all the clinicians at Sing & Grow. The use of systematic procedures has facilitated organisation, planning and time management skills, and the overall process (particularly the in-session observations) has focussed attention on the needs and achievements of individual participants. Thus, we strongly believe that it is possible to collect quality evaluation data in a manner that does not compromise clinical practice, and informs and strengthens clinical skills.
REFERENCES


Family and Community Services, Ministry of Social Development, Wellington, NZ.


Figure 1: Sing & Grow Evaluation Plan

Not evaluated

High Level Outcomes

Community-wide improvements in family functioning and child development

Medium Level Outcomes

Positive parent-child interactions

Parenting skills Parenting confidence Child development Parent mental health

Low Level Outcomes

Service links Observed parent-child interactions Using SnG at home Group social support Participant satisfaction

Outputs

Program reach Program intensity Program quality

Processes

Establish contacts with agencies Participant referrals Staff training Implementation barriers & facilitators

Inputs

Partnership agreements Staff recruitment

Invest to Grow funding Playgroup in-kind Sing & Grow resources
Figure 2: Content of parent-report questionnaire

<table>
<thead>
<tr>
<th>Construct</th>
<th>Description</th>
<th>No. Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parent Report</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental responsiveness</td>
<td>Parental expression of physical affection and enjoyment of the child</td>
<td>6</td>
</tr>
<tr>
<td>Irritable parenting</td>
<td>Frequency of parental anger and irritability towards the child</td>
<td>5</td>
</tr>
<tr>
<td>Parenting self-efficacy</td>
<td>Parental confidence in undertaking tasks associated with raising an infant</td>
<td>4</td>
</tr>
<tr>
<td>Play and incidental teaching</td>
<td>Frequency of activities in a typical week</td>
<td>5</td>
</tr>
<tr>
<td>Parent mental health</td>
<td>Psychological symptoms over the last 4 weeks</td>
<td>6</td>
</tr>
<tr>
<td>Child behavioural problems</td>
<td>Mood, temper, and manageability</td>
<td>4</td>
</tr>
<tr>
<td>Child social play skills</td>
<td>Social awareness, social interactions</td>
<td>5</td>
</tr>
<tr>
<td>Child receptive communication skills</td>
<td>Awareness, understanding of instructions</td>
<td>5</td>
</tr>
<tr>
<td><strong>Clinician Observation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed parent behaviours</td>
<td>Sensitivity, effective engagement, acceptance</td>
<td>3</td>
</tr>
<tr>
<td>Observed child behaviours</td>
<td>Responsiveness to parent, interest &amp; participation, social engagement with others</td>
<td>3</td>
</tr>
</tbody>
</table>
**Figure 3: Data collection tools and methods of administration**

<table>
<thead>
<tr>
<th>Tool</th>
<th>Content</th>
<th>Time of measurement</th>
<th>Completed by</th>
<th>Administered and/or collected by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Sheet*</td>
<td>Basic demographic information on parent and child</td>
<td>Session 1</td>
<td>Parent</td>
<td>Session Leader</td>
</tr>
<tr>
<td><strong>Pre Questionnaire</strong></td>
<td>Parenting skills and competence; parents’ mental health; children’s cognitive, social and behavioural skills; social networks and expanded demographic information.</td>
<td>Session 1</td>
<td>Parent</td>
<td>Session Leader</td>
</tr>
<tr>
<td><strong>Post Questionnaire</strong></td>
<td>As above Plus ratings of gains, barriers, satisfaction.</td>
<td>Session 10</td>
<td>Parent</td>
<td>Session Leader</td>
</tr>
<tr>
<td><strong>Follow-up Questionnaire</strong></td>
<td>As above</td>
<td>3 months after completion</td>
<td>Parent</td>
<td>Evaluators</td>
</tr>
<tr>
<td><strong>Agency Questionnaire</strong></td>
<td>Satisfaction with service and staff, intention to use again.</td>
<td>By Session 10</td>
<td>Agency staff member</td>
<td>Session Leader</td>
</tr>
<tr>
<td><strong>Session Records</strong></td>
<td>Attendance records (each family), session quality</td>
<td>Each Session</td>
<td>Session Leader</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Observations of Parent and Child</strong></td>
<td>Ratings of three parenting behaviours and three child behaviours for each attending parent and child.</td>
<td>Each Session</td>
<td>Session Leader</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Record Audits</strong></td>
<td>Documentation of key processes and policies</td>
<td>Ongoing</td>
<td>Sing &amp; Grow management</td>
<td>Evaluators</td>
</tr>
<tr>
<td><strong>Interviews</strong></td>
<td>Qualitative data on the development of partnerships, facilitators and barriers to program implementation</td>
<td>Early and late in program, with senior staff in each state</td>
<td>Sing &amp; Grow senior staff, Play group executive officers.</td>
<td>Evaluators</td>
</tr>
</tbody>
</table>

*While these data are used in the evaluation, their collection from all participating parents has been set as a requirement by the funding body. All other data are collected voluntarily, on the basis of informed consent.*