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Building the capacity of family day care educators to promote children’s social and emotional wellbeing: 
Results of an exploratory cluster randomised-controlled trial

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THIS PAPER PRESENTS THE results of an exploratory cluster randomised-controlled trial that was used to pilot Thrive, a capacity-building program for family day care (FDC) educators. Participants were educators and coordinators from one FDC service in Melbourne, Australia. Data collection consisted of a survey including information on costs, an in-home quality of care observation and process evaluation. Data was collected over 12 months (2011-2012), at baseline and one, six and 12 months post-intervention. Positive caregiver interaction scores increased over time for the intervention group: F (3, 51.69) = 3.08, p < 0.05, and detached interaction scores decreased over time: F (3, 51.19) = 2.78, p < 0.05. Educators' knowledge and confidence in children's social and emotional wellbeing showed no significant change. Thrive gives important information about the challenges FDC educators face and is relevant to implementing changes in their education and support. For a program like Thrive to be successful in engaging educators, a stronger framework for supporting additional learning activities at both the FDC organisational and scheme level is warranted.

Introduction

In Australia, childhood mental health problems are common (one in seven) (Sawyer et al., 2000). This rate increases to one in five children for those living in low-income or single-parent families. Furthermore, only one in four children with a mental health problem whose condition would meet formal diagnostic criteria receives professional help (Sawyer et al., 2000). The current Australian health system does not have sufficient qualified health professionals to meet demand and it is unlikely that service delivery will ever be able to keep up with demand (ICCCH, 2006). Prevention is an important but neglected strategy that needs to include actions beyond, as well as within, the health sector (GermAnn & Ardiles, 2008; Herman, Saxena & Moodie, 2005; Knapp, McDaid & Parsonage, 2011). A major setting for young children is child care and early education. Childcare services have significant potential to promote children’s mental health given that a large proportion of the population use childcare services and that educators within childcare settings can influence the child at a formative age through the provision of warm, supportive interactions in a safe and stimulating environment.

Early childhood settings in Australia

In 2008, 35 per cent of all children were attending formal care services by age one; 48 per cent by age two; and 50 per cent by age three (ABS, 2008). The major forms of formal family child care in Australia are centre-based education and care programs, with services provided by qualified educators, and FDC, where a registered educator provides care within their own home. Recent changes require all educators to have attained, or to be working towards gaining a formal childcare qualification and to adhere to newly introduced national frameworks for quality: the Early Years Learning Framework (EYLF) and the National Quality Framework (NQF). The EYLF specifies that educators need to support children to have a strong sense of identity and a strong sense of wellbeing.
Given that neither the EYLF nor the NOF describe specific mechanisms for supporting and developing these aspects of children’s mental health, there is a sizeable lacuna with which the profession is currently grappling to ensure the guidelines are translated into everyday practice (Temple & Emmett, 2013). Our previous research has demonstrated that educators had difficulty identifying the causes and early signs of emotional and behavioural problems for children and appropriate approaches to promoting children’s social and emotional wellbeing (Davis et al., 2010; Davis et al., 2011a; Davis et al., 2011b; Sims et al., 2012).

Two programs have recently been developed to promote children’s mental health by building the knowledge and skills of educators: KidsMatter Early Childhood (KMEC; KidsMatter, 2012) and Response Ability Early Childhood (RAEC; Response Ability, 2012). KMEC is a national mental health promotion, prevention and early intervention initiative for long day care centres and preschools, while Response Ability is a Vocational Education and Training resource to prepare childcare workers for their role in supporting the development and wellbeing of children and young people. These programs have not been developed for, nor implemented in, FDC, thus there remains an important gap in our ability to support children’s mental health and wellbeing.

A new program for family day care

FDC is a unique environment, with educators being self-employed contractors and having only monthly visits from early-childhood-qualified coordinator staff (previously referred to as ‘fieldworkers’). The primary role of coordinator staff is to ensure that FDC educators offer inclusive, nurturing and learning environments for children, and are able to meet all the state and Commonwealth legislative requirements.

FDC educators are much more isolated than centre-based educators and provide care at a wide range of times of the day and night. As their income is dependent on the number of children they provide care for, it can be a financially unstable work environment. Recognising the unique environment and particular needs of FDC educators, our team developed Thrive, the first program that aims to build the capacity of FDC educators to promote children’s social and emotional wellbeing (Davis et al., 2011b).

Thrive was developed in partnership with FDC educators and coordinators, with the support of the organisation with which they worked. To inform program development, qualitative focus groups were conducted with FDC educators in one scheme to determine strategies to build their capacity to promote children’s social and emotional wellbeing (Davis et al., 2011b). The educators identified strategies that could be mapped onto the NSW Capacity Building Framework for Building Health in the key areas of workforce development, resource allocation and enhancing leadership and creating partnerships (NSW Health Department, 2001). Recurring themes from the focus groups included: FDC educators wanted more mentoring and support from other educators and coordinator staff, and specialised training in child mental health and effective communication. They identified potential barriers as lack of resources, lack of time and unclear role delineation for educators and fieldworkers.

This study aimed to test the appropriateness, acceptability and feasibility of Thrive. The program was established to increase FDC educators’ and coordinators’ knowledge, confidence and skills in promoting children’s social and emotional wellbeing. At an organisational level, Thrive aimed to build the capacity of the FDC scheme to promote children’s social and emotional wellbeing (as measured by workforce development, resource allocation and leadership). Cost and effectiveness, subject to the constraints of a pilot study, were also assessed.

Methods

Design

An exploratory, pilot cluster randomised-controlled trial was conducted. Clusters for randomisation were coordinator staff who each supervised 10–15 educators. A cluster design was used because much of the information and support that educators receive depends on their coordinator staff. Coordinator staff and educators were randomly assigned to either an intervention or a control group. The intervention group received the Thrive program and those in the control group continued with standard practice. Full details of the aims and design of the trial are given in the protocol paper (Davis et al., 2011b). The trial received approval from The University of Melbourne Human Research Ethics Committee (HREC 113844) and is registered with the Australian and New Zealand Clinical Trials Registry (343312).

Participants

All coordinator staff (n = 4) and educators (n = 60) from one FDC scheme in a low socioeconomic area of Victoria were eligible to participate. A low socioeconomic area was selected because the prevalence of child mental health problems is higher in less advantaged areas (Sawyer et al., 2000). All educators were contacted during August 2011 and informed about the study by scheme administrators. Educators who expressed interest (n = 40) were contacted by researchers to ascertain if they would like to be a part of Thrive. Twenty-four educators agreed to participate (40 per cent response rate), and completed the baseline survey. Eight educators participated in the intervention group, and 16 were allocated to the control group. For coordinators, two participated in the intervention and two were part of the control group. The flow of participants through each stage of the trial is detailed in Figure 1.
Demographic details of the participants are reported in the baseline results to Thrive (please see Davis et al., 2014). In summary, the educators were mainly born in Australia (62–78 per cent) and had a mean age of 48 years. Educators in the intervention group were ‘qualified’ with either a Certificate III in Children’s Services or a Diploma, as opposed to 86 per cent of the control group whose qualifications ranged from a Certificate III to a Master’s degree. The mean age of coordinators was 42 years. Coordinators in both the intervention and control groups were considered ‘qualified’ (i.e., had completed a Certificate), however those in the control group had greater years of experience as a coordinator ($M = 7$ years vs. 1.5 years).

To allocate participants, the method of minimisation was used as an alternative to a randomisation process given the small number of clusters and the potential for the creation of imbalanced groups (Iaves, 2010). Minimisation variables were length of experience of the fieldworker, qualifications and training. The procedure was conducted by author Mackinnon who was independent of the administration of the intervention using the MINIM program (Evans, Royston & Day, 2013). Educators were blinded to their intervention allocation. Coordinators were not blinded as to which arm they were allocated to but they were made aware of the blinding process and the necessity to ensure that educators remained blind. Researchers making assessments were blinded as to which intervention educators were receiving.

**Intervention components**

The four components of the Thrive intervention were:

**Workshops**

Three two-hour workshops were carried out with educators and coordination staff. Workshops were conducted by an expert consultant in early childhood education, care and mental health. Sessions were interactive and covered topics including: child mental health problems, resilience, promoting social and emotional wellbeing, communicating and partnering with parents. Coordinators in this group also completed an additional three-hour training session on environments for learning and responding to behaviour.
Resource provision

Resources on child mental health were provided, including those developed by KMEC (KidsMatter, 2012) and RAEC (Response Ability, 2012). Resources consisted of evidence-based information on a wide variety of topics related to child social and emotional wellbeing, reference guides and content on where to find additional information or seek further support.

Coordinator discussions with educators

Coordinators dedicated one of their monthly visits to educator’s homes to focus on the social and emotional wellbeing of children in their care.

Activity exchange

Educators were connected with one another by their coordinator to support children’s social and emotional wellbeing by exchanging activities or ‘experiences’ that supported child wellbeing in FDC. Each week a different educator submitted an experience that was circulated by the coordinator to other educators.

Outcome measures

Baseline data using the following outcome measures have been reported in a separate paper (Davis et al., 2014). Data was collected at baseline, then post-intervention at one, six and 12 months. Measures used at each collection period were:

A survey for educators and coordinators

This contained questions addressing:

a. Knowledge about children’s social and emotional wellbeing

Items were developed based on Farrell and Travers’ study (2005). Items included ‘How would you rate your knowledge about children’s social and emotional wellbeing?’ and ‘How would you rate your knowledge of who to contact and what to do if you are worried about the social and emotional wellbeing of a child in your care?’ (scale 0–10 with 0 = almost no knowledge, 10 = very knowledgeable). In addition, the extent of agreement with several statements about children’s social and emotional wellbeing was rated. Also included were open-ended questions about risk and protective factors for good/poor social and emotional wellbeing; early signs of social and emotional problems for young children and school-aged children; and strategies to promote children’s social and emotional wellbeing.

b. Confidence in promoting children’s social and emotional wellbeing

Items were developed to measure this construct based on Farrell and Travers (2005). Example questions included:

‘Overall how confident are you in your ability to promote children’s social and emotional wellbeing?’ and ‘How confident are you in talking with parents about promoting their children’s social and emotional wellbeing?’ (scale 0–10 with 0 = not confident, 10 = very confident).

Quality of care observations

Skills in promoting children’s social and emotional wellbeing were measured by assessing the quality of the interactions between educators and children, as well as by the quality of the environment. Quality of the FDC environment was assessed by observations made by a trained researcher using the Family Child Care Environment Rating Scale Revised Edition (FCCERS-R) (Harms, Cryer & Clifford, 2007). In this study, three subscales (24 items) of the FCCERS-R were used that focused on interactions and environments expected to influence child social and emotional wellbeing such as listening and talking, activities and interactions. Each item is scored on a criterion-based scale ranging from one (inadequate) through three (minimal), five (good) to seven (excellent). A score of four indicates an acceptable level of care, where, nevertheless there is room for improvement. The FCCERS-R has high inter-observer reliability (0.83–0.90) and moderate to high internal consistency for the subscales (0.70–0.93).

Quality of interactions was assessed through the Caregiver Interaction Scale (CIS) (Arnett, 1989; Harms et al., 2007). The CIS has 26 items divided into four subscales—Positive, Harsh punitive, Detached and Permissive. These measure sensitivity, harshness, detachment and permissiveness of caregivers in the childhood care/education environment. Items are scored from one (not at all true) to four (very much true). It has a moderate to high inter-observer reliability (0.75–0.97) and high internal subscale consistency (0.81–0.91) (Arnett, 1989).

Before undertaking in-home observations, research assistants (n = 4) watched short videos of FDC interactions and scored them. Scores were then compared after each clip and the group (including lead researchers) reached a consensus based on the explicit FCCERS-R guidelines by discussing reasons behind decision making. By the end of training, research assistants had consistent scoring approaches. As the CIS guidelines are less explicit, the group reached consensus on scoring based on their interpretation of the CIS scoring information.

Organisational capacity-building audit

An organisational audit interview was conducted with the manager at baseline and 12 months post intervention commencement. The audit included items on organisational capacity for building health based on the NSW Capacity Building Framework. Questions assessed organisational development; workforce development; resource allocation and leadership.
Statistical methods

Primary analyses were undertaken on an intent-to-treat basis, including all participants randomised regardless of the extent of participation in the intervention or withdrawal from the study. Mixed-model repeated measures (MMRM) analyses were used because of the ability of this approach to accommodate clustering effects, appropriately model the relationship between measures over time and to include participants with missing data (Brown & Prescott, 2006; Donner & Klar, 2000). Planned contrasts were used to test hypotheses addressing the effectiveness of the program compared to control at 12-month follow-up.

Process evaluation and cost

Each component of the intervention was assessed using a process evaluation approach. Study participants were asked about their access to and use of resources (coordinator discussions and paper resources on promoting children’s social and emotional wellbeing, activity exchange) and workshop attendance. In addition they were asked to evaluate the usefulness of each of the intervention components. Costs calculated were based on the program resources and workshops, average incremental time and travel for participation in workshops, relevant Thrive activities and associated resources. Costs associated with the initial development of the program and associated materials were not included in the analysis as these are considered ‘sunk costs’ from an economic perspective (Drummond et al., 2005) and would not be incurred in the continued administration and delivery of this type of intervention. Costs associated with conducting the research component of the study were also not included. Costs were determined by administration of a resource use questionnaire at one month, six months and 12 months post-intervention. This questionnaire asked trial participants about time and travel allocated to Thrive-related activities and any other relevant resources purchased during the period of time of interest.

Results

Educator level outcomes

a. Perceived knowledge

At baseline, the two perceived knowledge items (promoting children’s social and emotional wellbeing; perceived knowledge of who to contact and what to do if you are worried about a child’s social and emotional wellbeing) were only moderately correlated (r = 0.48), therefore were retained as separate items. Means and standard deviations for perceived knowledge item variables across the four time points for the intervention and control group are shown in Table 1. Mixed model analysis demonstrated that, for educators in the intervention group, knowledge about children’s social and emotional wellbeing did not increase over time: F (3, 52.35) = 0.30, p > 0.05. Educators’ knowledge of what to do and who to contact if they were worried about a child’s social and emotional wellbeing did increase over time in the intervention group: F (3, 51.23) = 3.94, p < 0.05; however, there were no differences in this pattern between educators in the intervention and control group: F (3, 51.23) = 0.34, p > 0.05.

b. Open-ended knowledge items

A series of open-ended items required educators to list early signs of problems for young children; early signs of problems for primary-school-aged children; risk factors for problems; protective factors for preventing problems; and strategies to promote children’s social and emotional wellbeing. The total number of responses provided was recorded. Given that these items were also only moderately correlated (r = 0.40–0.60), all items were kept separate. Means and standard deviations for this series for the intervention and control group are demonstrated in Table 2. The intervention and control group did not report an increased number of early signs of problems for young children: F (3, 53.49) = 0.32, p > 0.05 or primary-school-aged children: F (3, 47.96) = 2.62, p > 0.05, over time. The mean number of risk factors educators reported did not increase significantly: F (3, 51.23) = 0.34, p > 0.05.

<table>
<thead>
<tr>
<th>Perceived knowledge items</th>
<th>Baseline</th>
<th>1 month</th>
<th>6 months</th>
<th>12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intervention (n = 8)</td>
<td>Intervention (n = 7)</td>
<td>Intervention (n = 7)</td>
<td>Intervention (n = 7)</td>
</tr>
<tr>
<td></td>
<td>Control (n = 16)</td>
<td>Control (n = 14)</td>
<td>Control (n = 12)</td>
<td>Control (n = 11)</td>
</tr>
<tr>
<td>Knowledge about social and emotional wellbeing</td>
<td>Intervention 6.88 (0.99)</td>
<td>7.29 (0.95)</td>
<td>7.29 (0.48)</td>
<td>7.57 (1.13)</td>
</tr>
<tr>
<td></td>
<td>Control 7.25 (1.53)</td>
<td>7.43 (0.94)</td>
<td>7.59 (1.50)</td>
<td>8.0 (1.18)</td>
</tr>
<tr>
<td>Knowledge of who to contact and what to do if you are worried about the social and emotional wellbeing of children in your care</td>
<td>Intervention 7.75 (1.16)</td>
<td>7.86 (0.89)</td>
<td>7.86 (0.89)</td>
<td>8.57 (1.13)</td>
</tr>
<tr>
<td></td>
<td>Control 7.69 (1.70)</td>
<td>8.29 (1.07)</td>
<td>8.17 (1.27)</td>
<td>8.63 (1.12)</td>
</tr>
</tbody>
</table>
Table 2. Means and standard deviations of reported knowledge

<table>
<thead>
<tr>
<th>Reported knowledge factors</th>
<th>Baseline</th>
<th>1 month</th>
<th>6 months</th>
<th>12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intervention (n = 8)</td>
<td>Intervention (n = 6)</td>
<td>Intervention (n = 7)</td>
<td>Intervention (n = 7)</td>
</tr>
<tr>
<td>Early signs of problems in young children</td>
<td>3.75 (1.58)</td>
<td>4.77 (1.17)</td>
<td>4.71 (2.29)</td>
<td>5.43 (1.13)</td>
</tr>
<tr>
<td></td>
<td>Control (n = 16)</td>
<td>Control (n = 13)</td>
<td>Control (n = 12)</td>
<td>Control (n = 11)</td>
</tr>
<tr>
<td>Early signs of problems in primary-school-aged children</td>
<td>4.29 (1.49)</td>
<td>4.5 (1.39)</td>
<td>4.86 (3.08)</td>
<td>4.14 (1.77)</td>
</tr>
<tr>
<td></td>
<td>(n = 7)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Control (n = 15)</td>
<td>3.15 (1.51)</td>
<td>3.58 (0.79)</td>
<td>4.45 (1.13)</td>
</tr>
<tr>
<td>Risk factors for experiencing problems</td>
<td>3.62 (2.06)</td>
<td>4.0 (1.41)</td>
<td>4.0 (2.16)</td>
<td>4.86 (2.34)</td>
</tr>
<tr>
<td></td>
<td>Control (n = 13)</td>
<td>3.23 (1.59)</td>
<td>3.5 (1.17)</td>
<td>3.73 (0.79)</td>
</tr>
<tr>
<td>Protective factors for children</td>
<td>3.0 (0.93)</td>
<td>3.17 (1.17)</td>
<td>3.7 (1.38)</td>
<td>3.86 (1.46)</td>
</tr>
<tr>
<td></td>
<td>Control (n = 13)</td>
<td>2.6 (1.31)</td>
<td>2.73 (1.42)</td>
<td>2.83 (1.03)</td>
</tr>
<tr>
<td>Strategies to promote children's social and emotional wellbeing</td>
<td>4.63 (1.69)</td>
<td>4.17 (1.33)</td>
<td>4.43 (1.51)</td>
<td>4.14 (1.21)</td>
</tr>
<tr>
<td></td>
<td>Control (n = 15)</td>
<td>3.67 (1.68)</td>
<td>2.69 (1.49)</td>
<td>3.25 (1.42)</td>
</tr>
</tbody>
</table>

increase over time: F (2, 51.44) = 3.81, p < 0.05, however, no differences were found between the intervention and control group: F (3, 50.44) = 0.41, p > 0.05. The intervention and control group did not report an increased number of protective factors over time: F (3, 53.60) = 0.39, p > 0.05, or an increased number of strategies to promote children's social and emotional wellbeing: F (3, 49.34) = 1.74, p > 0.05.

c) Confidence

As the item assessing confidence in promoting children's social and emotional wellbeing was highly correlated with the item assessing confidence in identifying social and emotional problems (r = 0.93), these two items were collapsed into one variable: confidence in promoting wellbeing and identifying problems. As the item assessing confidence in talking with parents about children's social and emotional wellbeing was also highly correlated with the item assessing confidence in talking with parents about social and emotional problems at baseline (r = 0.70), these items were collapsed into one variable: confidence in talking to parents about social and emotional wellbeing and problems. Means and standard deviations for this series for the intervention and control group are demonstrated in Table 3. Confidence in promoting wellbeing and identifying problems did increase over time: F (3, 52.38) = 7.60, p < 0.05, however no differences were found between the intervention and control group: F (3, 52.38) = 0.14, p > 0.05. Similarly, confidence in talking to parents did increase over time: F (3, 52.68) = 6.33, p < 0.05, however no differences were found between the intervention and control group: F (3, 52.68) = 0.61, p > 0.05.

Quality of care observations

Means and standard deviations for the intervention and control group are demonstrated in Table 4. Positive interaction scores on the CIS significantly increased over time for the intervention group but not the control group: F (3, 51.69) = 3.08, p < 0.05. Furthermore, scores on the attached scale of the CIS significantly decreased over time for the intervention group but not the control group: F (3, 51.19) = 2.78, p < 0.05. The harsh scores on the CIS did not change over time for the intervention or control group: F (3, 52.70) = 0.10, p > 0.05.
Table 3. Means and standard deviations of confidence in promoting children's social and emotional wellbeing

<table>
<thead>
<tr>
<th>Confidence items</th>
<th>Baseline</th>
<th>Post-intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intervention</td>
<td>1 month</td>
</tr>
<tr>
<td>Confidence in promoting wellbeing and identifying problems</td>
<td>Intervention (n = 8)</td>
<td>7.06 (1.34)</td>
</tr>
<tr>
<td></td>
<td>Control (n = 16)</td>
<td>7.25 (1.41)</td>
</tr>
<tr>
<td>Confidence in talking with parents</td>
<td>Intervention (n = 8)</td>
<td>6.19 (1.58)</td>
</tr>
<tr>
<td></td>
<td>Control (n = 14)</td>
<td>7.06 (1.92)</td>
</tr>
</tbody>
</table>

Table 4. Means and standard deviations of quality of care domains

<table>
<thead>
<tr>
<th>Quality of care domain</th>
<th>Baseline</th>
<th>Post-intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intervention</td>
<td>1 month</td>
</tr>
<tr>
<td>CIS domain—positive</td>
<td>Intervention (n = 8)</td>
<td>2.76 (0.51)</td>
</tr>
<tr>
<td></td>
<td>Control (n = 14)</td>
<td>2.83 (0.37)</td>
</tr>
<tr>
<td>CIS domain—harsh</td>
<td>Intervention (n = 7)</td>
<td>1.2 (0.28)</td>
</tr>
<tr>
<td></td>
<td>Control (n = 11)</td>
<td>1.26 (0.28)</td>
</tr>
<tr>
<td>CIS domain—detached</td>
<td>Intervention (n = 8)</td>
<td>1.38 (0.69)</td>
</tr>
<tr>
<td></td>
<td>Control (n = 12)</td>
<td>1.75 (0.38)</td>
</tr>
<tr>
<td>CIS domain—permissive</td>
<td>Intervention (n = 8)</td>
<td>2.13 (0.74)</td>
</tr>
<tr>
<td></td>
<td>Control (n = 14)</td>
<td>1.32 (0.54)</td>
</tr>
<tr>
<td>FCCERS—Listening and talking</td>
<td>Intervention (n = 8)</td>
<td>4.42 (1.58)</td>
</tr>
<tr>
<td></td>
<td>Control (n = 14)</td>
<td>3.38 (1.24)</td>
</tr>
<tr>
<td>FCCERS—Activities</td>
<td>Intervention (n = 7)</td>
<td>3.59 (1.29)</td>
</tr>
<tr>
<td></td>
<td>Control (n = 11)</td>
<td>3.29 (0.89)</td>
</tr>
<tr>
<td>FCCERS—Interaction</td>
<td>Intervention (n = 8)</td>
<td>4.59 (1.50)</td>
</tr>
<tr>
<td></td>
<td>Control (n = 12)</td>
<td>4.29 (0.77)</td>
</tr>
</tbody>
</table>
Similarly, permissive scores on the CIS did not change over time for the intervention or control group: F(3, 52.60) = 1.92, p > 0.05. In terms of the FCCERS, mixed model analyses demonstrated that there were no changes over time for intervention or control group for the listening and talking scores: F(3, 53.62) = 2.00, p > 0.05; activities scores: F(3, 52.96) = 1.24, p > 0.05; or the interaction scores: F(3, 52.48) = 1.84, p > 0.05.

**Coordinator-level outcomes**

Perceived knowledge was moderate for the coordinators in the intervention and control groups although there was not a clear pattern from the time baseline to 12 months post-intervention (ranging from 6.5–9.5 over time one to four). Confidence scores were 5.5–9.5 for both groups. The number of early signs of social and emotional problems showed a range of 3–6.5; number of risk factors (3–8); protective factors (1.5–5) and strategies to promote social and emotional wellbeing (3–5.5). There were no clear patterns for these variables and the sample size precludes statistical analyses.

**Organisational-level outcomes**

At baseline, coordinators were receiving training about the changes in regulations and quality framework but not on children’s social and emotional wellbeing. At 12-months post-intervention, coordinators and educators in the intervention group had completed the training as part of Thrive. At baseline, coordinators did not have time allocated to focus on children’s social and emotional wellbeing, but at 12 months, coordinators in the intervention group were discussing children’s social and emotional wellbeing at monthly visits. At baseline and at 12-months post-intervention, coordinators were not running training sessions on children’s social and emotional wellbeing.

**Process evaluation with intervention group**

One coordinator attended all four Thrive workshops with the other attending three workshops. Two educators did not attend any workshops, two attended one workshop and three attended all three. Five out of six educators reported the workshops were somewhat to extremely useful at time two and these responses were consistent at time four. Educators spent two to three hours going to workshops including in transit. Successful elements of the workshop were reported as: having a greater understanding of the importance of children’s social and emotional wellbeing for ‘every aspect of a child’s development through life’; what educators can do to ‘make a difference’; providing good ideas and resources to support the promotion of children’s social and emotional wellbeing; and stimulating conversations between educators. The first session was perceived as less useful and less interactive, focusing on background information about child social and emotional wellbeing rather than practical exercises.

Almost all educators (75 per cent, n = 6) received resources on promoting children’s social and emotional wellbeing by one-month post-intervention. Most educators rated the resources as being somewhat or very useful and this evaluation was maintained until time four. Resources were described as good reference materials should issues arise and a reminder to promote children’s wellbeing.

Coordinator discussions were introduced prior to six months post-intervention. At one-month post-intervention, only one educator indicated that their coordinator discussed promoting children’s social and emotional wellbeing. This increased to five and six educators at six and 12 months post-intervention respectively. The discussions were rated as being somewhat useful to extremely useful. The discussions were seen as useful reassurance, a way to gain a different perspective and ideas, and to problem solve. Conversations that were not seen as very useful featured the coordinator listening without providing advice or simply focusing on paperwork rather than discussing children’s wellbeing.

All responding educators reported that they participated in the activity or ‘experience’ exchange at six months (87 per cent, n = 7) and at 12 months one educator was no longer participating. Educators put great effort into creating their activity to be sent around to other educators, spending between 30 and 75 minutes in preparation. Five educators had submitted one activity at six months and by 12 months four educators had submitted two activities. The activities were widely used at six months (five of six educators) and at 12 months all educators used the activities. Two educators at six and 12 months said they saved over 30 minutes in planning by using the activities. The activity exchange was seen as useful because it gave educators new ideas and an indication of what others were doing with children in their care. Reports of the usefulness of the activity exchange and the appreciation of new ideas had increased by 12 months post-intervention. One educator did not find the exchange useful as she already is happy with her ‘creations and thinking’ with the children.

**Costs of the Thrive program**

The overall average cost of delivering the Thrive program was $5628 with 90 per cent of this cost attributable to the delivery of the workshops and associated resources used to educate both coordinators and FDC educators in Thrive. This amounted to costs of $2318 per coordinator and $795 per FDC educator. In relation to the costs borne by the FDC educators, baseline testing of overall resource use at baseline revealed no significant difference between control and intervention groups. Over the course of the study the incremental cost accrued by the intervention group (n = 8) over the control group (n = 15) amounted to $156 (non-significant, p > 0.05) which was mostly attributed to time and travel for participation in Thrive training and workshops. Purchasing of relevant resources and researching and participating in activities promoting children’s social and emotional wellbeing accounted for a much smaller component of this incremental difference ($29).
The incremental cost of $363 (non-significant, p > 0.05) associated with coordinators delivering the Thrive program over control coordinators for the course of the trial was also heavily driven by time and travel-related costs associated with participation in the workshops ($264 or 73 per cent). The remaining $99 of additional resources used by the Thrive coordinators over the control coordinators was mostly attributed to time allocated to researching and discussing approaches to promote children’s social and emotional wellbeing with FDC educators.

Discussion

The results from this exploratory trial showed that positive caregiver interaction increased and detached interactions decreased for the intervention group but not the control group; however, there was no difference in the two groups in terms of participants’ perceived knowledge, reported knowledge or confidence, the harshness or permissiveness of observed interactions, or the overall quality of family childcare environment. Despite this, we believe the study provides an improved practical understanding of the processes needed to support the capacity of educators to promote children’s social and emotional wellbeing. Key findings emerging from the data have highlighted: a) difficulties and complexities in FDC educators being involved in this type of program; b) elements of the program that appeared to run successfully and be received positively by educators; c) low cost of the program; and d) feasibility of the outcome measures. We discuss each of these in turn, taking account of the limitations of the study.

Difficulties and complexities

While there was no evidence that the Thrive program increased educators’ knowledge about children’s social and emotional wellbeing, this may be attributed in part to the small sample size and possible sampling bias. Despite working in partnership with the one FDC scheme for years prior to the trial, and including educators at every stage of developing the Thrive program, the intervention sample was smaller than anticipated and skewed towards educators who were more highly qualified. In a previous study, we demonstrated that almost all educators reported that they needed to increase their knowledge about children’s social and emotional wellbeing (Davis et al., 2015), and they indicated that they would be keen to be a part of a new program. When it came time to recruit however, many reported that they were too busy to attend the workshops. From conversations with educators there seemed to be a number of issues that may have prevented educators from being involved, including a) they were uncomfortable with home visits and assessment; b) they did not have the mental space to take on one more ‘extra’ thing; c) they were unable to commit to training at night; and d) they were nervous about being involved in research.

It would be important, for FDC schemes that choose to adopt and invest in the Thrive program in the future, to consider these concerns of educators and develop other processes to improve the penetration of the intervention activities into the FDC service and organisational context. To improve the practical workability of Thrive, educators could be paid for their time to attend the program, given that it could potentially prevent them from earning income while caring for children at that time. Alternatively, schemes could run alternative forms of child care (e.g. a playgroup) at the times when training is offered so that parents are not disadvantaged in being unable to access care, and educators do not lose income.

Successful elements of the program

Several elements of the program were feasible and received well by educators and could be useful for other FDC schemes. Although it was difficult for educators to attend the workshops, those who did reported positively about them. Educators were most interested in the practical topics, including responding to challenging behaviours, building relationships and connections with children and communicating with parents. They also found the resources useful (KMEC; RAEC), both of which are freely available and could be easily circulated to all FDC educators. The fact these resources are not being used suggests that a framework is needed that directs educators to these resources when they identify that they need them. The workshops provided the opportunity for educators to actively engage with the materials and these did not need to be specifically tailored for FDC. In an earlier study (Davis et al., 2011a), FDC educators reported that they wanted resources specific for FDC, however it appears that there was a lot of general information that was useful for them. Therefore, having materials developed specifically for FDC may not be necessary. A discussion guide that helped coordinators discuss children’s social and emotional wellbeing with educators also appeared to be a simple, low-cost mechanism for supporting educators. Given the large amount of paperwork that coordinators need to discuss with educators, it is encouraging that coordinators prioritised discussions about children’s social and emotional wellbeing and that these were useful for educators. Finally, the activity exchange appeared to be a helpful way of sharing experiences that can be useful for children with a wide age range in a FDC context.

Low cost

The overall cost of delivering Thrive was heavily driven by the cost of conducting the workshops and time allocated by FDC coordinators and educators to participate in these. The cost analyses suggested little difference in the costs for the intervention and control groups. The resulting costs per coordinator and per educator presented were based on the present sample size; however, if more coordinators and FDC educators attended the workshops, economies
of scale would reduce the costs. As there have been no other economic studies of similar interventions published in the literature to our knowledge, a comparison to existing studies is not possible. Caution is required when interpreting the cost results: there was missing data in both the control and intervention arms at all time points, which was excluded from the analysis thereby further reducing the already small sample sizes in both the coordinator and educator datasets. Hence these cost results must be considered preliminary and indicative only. Although there appears to be some support for the conclusion that the Thrive intervention does not appear to result in large excess costs, a full economic evaluation is warranted.

Feasibility of research methods

Several new outcome measures were piloted in this study. While the questionnaires appeared to be feasible and well received, the knowledge and confidence items were new and thus have unknown psychometric properties. Furthermore, educators’ skills in promoting children’s social and emotional wellbeing are difficult to measure and were thus operationalised as interactions with children, and whether the resources relevant to promoting children’s social and emotional wellbeing were being used. That said, both the observation tools (CIS and FCCERS) were relatively easy to use in the Australian FDC context and may have usefulness as quality improvement tools.

Conclusion

Although Thrive primarily set out to increase knowledge and confidence of childcare educators in promoting children’s social and emotional wellbeing, the study highlights a number of capacity-related considerations that are pertinent to the successful integration of an intervention like Thrive into FDC settings. The findings from this study can inform the practical workability of other similar programs for FDC. The study also informs decision makers in FDC schemes on a range of supports for FDC educators to further their knowledge of children’s emotional and social wellbeing.

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