An intervention to facilitate the implementation of healthy eating and physical activity policies and practices in childcare services

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Childhood overweight and obesity

• Global prevalence of childhood overweight and obesity is high

• Early childhood is a critical period in the development of diet and physical activity behaviours

• Interventions to improve child diet and physical activity have been recommended to prevent the onset of obesity
Childcare services as a setting for obesity prevention

- Identified as a key setting to create environments more supportive of child healthy eating and physical activity
- Access to a large and growing number of children for prolonged periods each day
- Existing infrastructure to facilitate child healthy eating and physical activity
- Licensing and accreditation requirements
Childcare services as a setting for obesity prevention

- Best practice guidelines and evidence reviews recommend that services implement policies and practices to support healthy eating and physical activity
- Shown to improve child healthy eating and physical activity behaviours
- Evidence suggests childcare services are not implementing the recommended policies and practices
Previous research

• Limited number of trials to improve childcare service implementation of these policies and practices

• Previous research:
  - Five trials
  - Design limitations
  - Limited impact on practice change
Aim

- To assess the effectiveness of multi-component intervention in increasing the implementation of healthy eating and physical activity policies and practices by childcare services.
Study design

**Sample**
Long day care services and preschools
Hunter region, NSW, Australia

N = 195 childcare services
Declined to participate
N = 67

Randomly assigned
N = 128 childcare services

Allocated to Intervention
N = 64 childcare services

Baseline data collection
CATI - N = 64
Observation - N = 20

12 month implementation intervention

Follow up data collection
CATI - N = 62
Observation – in progress

Allocated to Control
N = 64 childcare services

Baseline data collection
CATI - N = 64
Observation - N = 20

Usual care

Follow up data collection
CATI - N = 60
Observation – in progress
Intervention: Policies and practices

- Written nutrition and physical activity policies
- Monitoring of children’s lunchboxes and provision of feedback to parents
- Provision of water or reduced fat milk only to children
- Staff role modelling of healthy eating and physically active play
- Provision of adult guided fundamental movement skill development activities
- Restriction of sedentary screen time
## Intervention: Strategies

<table>
<thead>
<tr>
<th>Intervention implementation strategy</th>
<th>Description</th>
</tr>
</thead>
</table>
| Implementation support staff        | • Allocated support officer provides support via face-to-face visits, telephone and email contacts  
• Use of continuous quality improvement principles |
| Securing executive support          | • Nominated Supervisors demonstrate leadership support for the trial and drive change |
| Staff training                      | • 3 one hour training workshops |
| Consensus process                   | • Consensus discussions to progress policies and practices at training workshops |
## Intervention: Strategies

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Academic detailing</strong></td>
<td>• 3 onsite visits post training to observe and support staff</td>
</tr>
<tr>
<td><strong>Tools and resources</strong></td>
<td>• Package of tools and resources to support implementation</td>
</tr>
<tr>
<td><strong>Performance monitoring and feedback</strong></td>
<td>• Performance feedback provided on progress towards implementation</td>
</tr>
<tr>
<td><strong>Communications strategy</strong></td>
<td>• Bimonthly printed newsletters targeting key messages and case studies of innovative implementation</td>
</tr>
</tbody>
</table>
Evaluation

• All services:
  - Computer assisted telephone interview (CATI) survey with the Nominated Supervisor and Room Leader of the 3-5 year room

• Randomly selected sample of 40 services:
  - One day direct observation by research staff
Measures

- Primary outcome:
  - Change in prevalence of services implementing each of the healthy eating and physical activity policies and practices

- Project records used to assess delivery of the intervention strategies

- Follow up CATI survey items assessed acceptability and satisfaction with the intervention
Results: % change relative to control group

- Written nutrition and physical activity policy
- Staff monitoring of children’s lunchboxes
- Provision of water or plain milk only
- Staff role modelling
- Staff provision of prompts and positive comments
- Fundamental movement skill development activities
- Restriction of sedentary screen time

* Denotes p<0.05
## Results: Intervention strategies

<table>
<thead>
<tr>
<th>Intervention strategy</th>
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<tbody>
<tr>
<td><strong>Implementation support staff</strong></td>
<td></td>
</tr>
<tr>
<td>- Service received support from implementation support staff</td>
<td>100</td>
</tr>
<tr>
<td><strong>Executive support</strong></td>
<td></td>
</tr>
<tr>
<td>- Nominated supervisor demonstrated executive support</td>
<td>98</td>
</tr>
<tr>
<td><strong>Consensus processes</strong></td>
<td></td>
</tr>
<tr>
<td>- Discussion following each staff training workshop occurred</td>
<td>98</td>
</tr>
<tr>
<td><strong>Staff training</strong></td>
<td></td>
</tr>
<tr>
<td>- Training session 1 delivered</td>
<td>98</td>
</tr>
<tr>
<td>- Training session 2 delivered</td>
<td>89</td>
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<tr>
<td>- Training session 3 delivered</td>
<td>76</td>
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</tr>
<tr>
<td>- Visit 3 delivered</td>
<td>73</td>
</tr>
<tr>
<td><strong>Tools and resources</strong></td>
<td></td>
</tr>
<tr>
<td>- Service received relevant resources</td>
<td>100</td>
</tr>
<tr>
<td><strong>Performance monitoring and feedback</strong></td>
<td></td>
</tr>
<tr>
<td>- Service received feedback at 6 intervals throughout intervention</td>
<td>97</td>
</tr>
<tr>
<td><strong>Communications strategy</strong></td>
<td></td>
</tr>
<tr>
<td>- Bimonthly newsletters distributed</td>
<td>100</td>
</tr>
<tr>
<td>- Service received recognition via certificate or case study in newsletter</td>
<td>76</td>
</tr>
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</table>
Results: Acceptability

- 100% supportive of implementing the policies and practices
- 98% found the telephone and face-to-face support to be acceptable
- 100% found the training, academic detailing, resources, performance feedback and newsletters to be acceptable
- 6% would have liked less support throughout the intervention
Discussion

• Intensive multi-component intervention delivered to large number of childcare services

• Intervention increased provision of recommended drinks and fundamental movement skills

• Did not result in changes to majority of policies and practices

• Highly acceptable
Discussion

• Able to compare self-report data and observational data

• Scope to investigate which implementation strategies were most effective at driving change in policy and practice

• Findings provide insight into the delivery of community based prevention programs
Acknowledgements

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