The Effectiveness of a Parental Education Intervention about a Child-oriented Approach to Toileting for Healthy Thai Toddlers

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Acknowledgement

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Payap University, Chiang Mai, Thailand.
Project Funder
Toilet training (TT)

- An important milestone in toddler development
- Critical task for achieving independence and self-esteem of a child

TT in Thailand

- Starts as early as 4 months of age
- Involves a parent-centered approach
- Lacks practice guidelines
- Needed by working parents to place children in daycare
PICOT Question

In parents and caregivers of healthy toddlers in Thailand, how does a child-oriented toilet training method affect their knowledge, self efficacy, and achievement of child in toileting skills?
Review of the Literature

Key words:

TT or potty train, TT and healthy infant or toddlers, TT method or procedure, and TT best practice guidelines.

Search Engines:

AHRQ: 2 hits, 1 relevant source; CINAHL: 32 hits, 6 relevant sources; Cochrane Library: 3 hits, 2 relevant sources; and Medline: 5 hits, 1 relevant source
Inclusion criteria:
- 2005-2012
- TT method for a healthy child
- Measure outcomes of child’s achievement or failure in TT
- Best practice guidelines

Exclusion criteria:
- Lack of quality evidence
- Studies of TT in children with co-morbidities that affect quality of life
### Relevant Evidence Appraisal From 2005-2012

<table>
<thead>
<tr>
<th>Publication(s)</th>
<th>Level of Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Klassen et al. (2006)</td>
<td>I</td>
</tr>
<tr>
<td>Vermandel, Weyler, Watchter &amp; Wyndaele (2008)</td>
<td>II</td>
</tr>
<tr>
<td>Vermadel, Kampen, Gorp &amp; Wyndaele (2008)</td>
<td>V</td>
</tr>
<tr>
<td>Ngarmrungnirund &amp; Plubrukarn (2011)</td>
<td>V</td>
</tr>
<tr>
<td>Mota &amp; Barros (2008)</td>
<td>V</td>
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<tr>
<td>Koc, Camurdan, Beyazova, Ilhan &amp; Sahin (2008)</td>
<td>VI</td>
</tr>
<tr>
<td>Jansson, Danielson &amp; Hellstorm (2008)</td>
<td>VI</td>
</tr>
<tr>
<td>Choby &amp; George (2008)</td>
<td>VII</td>
</tr>
</tbody>
</table>
Decision to Change Practice

- The reviewed evidence supports the implementation of the child-oriented approach to toileting healthy toddlers.
- The guidelines recommended healthy children who demonstrate physically and emotionally readiness for TT should be trained with parents involved.
- With the DNP guidance, parents can be trained to provide appropriate TT at home.
Implementation

Pre-Survey
Participants Recruitment

Parent Education
Pre/Post intervention parent’s knowledge and SE were assessed

TT Begins at home
A potty log maintained by parents

Achievement of child’s toileting skills evaluation
Follow-up every 2 weeks, using face-to-face meeting and telephone call
Recruitment and Sample

Pre-survey questionnaire
- Interest in participation
- Child readiness

Initial sample
- N = 36
- Primary caregivers
- Not yet TT
Implementation: Preparation

- Create educational materials
- Create/translate data collection instruments
- Experts review of materials
Implementation: Parent Education

- Lead by DNP student
- A Half-day education
- Content discussed
  - How to toilet train a child
  - Parent readiness
  - Child readiness
  - Motivational strategies, anger management, and problem solving
Implementation: TT Begins at Home

- 12 week follow-up
- Potty log
- Advice and support at school
- Telephone consultation
Analysis

- Descriptive statistics: demographics of the sample and the success of child toileting skills.
- The paired sample $t$-test
  - Pretest/Posttest of knowledge
  - Pretest/Posttest of self-efficacy
# Evaluation

## Sample Characteristics (N = 36)

<table>
<thead>
<tr>
<th></th>
<th>Count</th>
<th>Percentage</th>
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<tbody>
<tr>
<td><strong>Parent's Gender:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>34</td>
<td>94.4%</td>
</tr>
<tr>
<td>Male</td>
<td>2</td>
<td>5.6%</td>
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<tr>
<td><strong>Relationship:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mothers</td>
<td>32</td>
<td>88.8%</td>
</tr>
<tr>
<td>Fathers</td>
<td>2</td>
<td>5.6%</td>
</tr>
<tr>
<td>Grandparents</td>
<td>2</td>
<td>5.6%</td>
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<tr>
<td><strong>Child's Gender:</strong></td>
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<td></td>
</tr>
<tr>
<td>Girls</td>
<td>14</td>
<td>38.9%</td>
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<tr>
<td>Boys</td>
<td>22</td>
<td>61.1%</td>
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## Evaluation: Parent Knowledge

### Paired Sample t-test for Pretest and Posttest

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<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>36</td>
<td>14.92</td>
<td>4.07</td>
<td>35</td>
<td>12.38</td>
<td>0.001</td>
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<tr>
<td>Posttest</td>
<td>36</td>
<td>24.50</td>
<td>2.38</td>
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</table>
# Evaluation: Parent Self-efficacy

## Paired Sample t-test for Pre- and Post-SE

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<th>SD</th>
<th>df</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>36</td>
<td>39.53</td>
<td>5.20</td>
<td>35</td>
<td>6.29</td>
<td>0.001</td>
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<tr>
<td>Posttest</td>
<td>36</td>
<td>44.53</td>
<td>3.62</td>
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</table>
Achievement of Children in Toileting Skills

- Achieved
- Not Achieve

Number of Children

<table>
<thead>
<tr>
<th>Number of Weeks</th>
<th>Achieved</th>
<th>Not Achieve</th>
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<tbody>
<tr>
<td>1</td>
<td>31</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
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<td>6</td>
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Education intervention really does have an effect on knowledge and self-efficacy level.
Each child and family is unique for the ideal age and duration for TT.
The approach to parental education about TT, should emphasize on developing positive parent-child interactions.
Findings can be a source of guidance and support that will assist Thai parents to TT their child.
Recommendations

Practice

- DNP's role in providing anticipatory guidance

Theory

- The use of self-efficacy concept and adult learning Theory is fit for parental education
Recommendations

Research
- The use of telephone consultation
- To determine factors influencing the duration to achieve toileting skills of a toddler
- Teacher and caregiver involvement

Education
- Anticipatory guidance and counseling programs in the nursing course.
- Nurse educators should implement EBP research in nursing courses.
References


Thank You for Your Attention