Literature Review of Prison-based Mothers and Children Programs:
Final Report

Prepared for The Victorian Department of Justice and Regulation

Professor Aron Shlonsky
Dr. David Rose
The University of Melbourne, School of Health Sciences

Justine Harris
Bianca Albers
Dr. Robyn Mildon
Centre for Child Wellbeing, Save The Children Australia

Dr. Sandra Jo Wilson
Jennifer Norvell
Lauren Kissinger
Vanderbilt University, Peabody Research Institute

Social Work @ Melbourne School of Health Sciences,
The Centre for Wellbeing, Save the Children Australia &
Peabody Research Institute @ Vanderbilt University
Table of Contents

Literature Review of Prison-based Mothers and Children Programs: 1
Final Report ................................................................. 1

1. Executive Summary ..................................................... 3

2. Introduction ...................................................................... 7
  2.1. Background .................................................................. 7
  2.2. Purpose of this review ................................................. 9
  2.3. Structure of this report ................................................ 9

3. Methodology ..................................................................... 10
  3.1. Eligibility criteria ....................................................... 10
  3.2. Search strategy .......................................................... 10
    3.2.1. Database searches ................................................ 10
    3.2.2. Additional search activities ..................................... 11
    3.2.3. Selection of Study Reports for Review ...................... 11
    3.2.4. Data extraction ..................................................... 12

4. Results ........................................................................... 13
  4.1. Summary of included studies ....................................... 13
    4.1.1. Summary of methodological integrity of included studies 13
  4.2. Findings from included studies ..................................... 22
    4.2.1. The outcome of nursery programs for children .......... 27
    4.2.2. The outcome of nursery programs for mothers’ parenting and well-being ... 27
    4.2.3. The outcome of nursery programs for mothers’ recidivism .......... 29
    4.2.4. Common Program Components ................................ 30

5. Discussion ...................................................................... 44
  5.1. Summary of the effectiveness of nursery programs .......... 44
  5.2. Issues for consideration ............................................. 45
    5.2.1. Incarceration as an opportunity for change ............... 45
    5.2.2. The nursery program target group ......................... 45
    5.2.3. Group versus individual treatment ......................... 46
    5.2.4. The prison environment ....................................... 47
    5.2.5. Meeting the needs of children .............................. 48
    5.2.6. Meeting the needs of specific populations ............... 48
    5.2.7. Aftercare / transition from custody ....................... 48
  5.3. Recommendations ................................................... 49
    5.3.1. The What: Nursery program practices ..................... 50
    5.3.2. The “How”: High quality implementation of nursery programs .... 51

6. Limitations ............................................................... 53

7. Conclusion .................................................................. 53

8. References .................................................................. 54
1. Executive Summary

Overview
This report details a review of the literature related to prison-based mother and children programs conducted by The University of Melbourne, Save the Children Centre for Child Wellbeing and the Peabody Research Institute at Vanderbilt University. Corrections Victoria commissioned the review of local and international literature so as to better inform future program development and service provision of mother and children programs in the Victorian prison system.

Over the last decade, the imprisonment rate for women in Victoria has been substantially increasing, resulting in higher numbers of women in prison. The daily average number of female prisoners in Victoria increased from 310 in 2009-10 to 403 in 2013-14, with sharp increases (17.8 per cent) between 2012-13 and 2013-14 (Productivity Commission, 2015). The increase in the number of women in prison has brought new attention to issues relating to the care of their dependent children. In particular, when mothers remanded to custody are pregnant or are the primary caregivers of young children, there are concerns that removing children from their care may involve child placement in out-of-home care and may lead to poor long-term outcomes for children.

Prison nurseries have been developed and operate in Australia and internationally as a strategy to maintain the primary caregiver relationship between mothers and children while mothers are in prison. In Victoria, some form of Mothers and Children Program has been operating in prisons since the 1980s. The current Mothers and Children Program, administered by Corrections Victoria, is a full time residential program for infants and preschool children and aims to diminish the impact of the mother’s imprisonment on her dependent child.

Methods
The project used systematic search and data extraction techniques to execute a Rapid Evidence Assessment and associated Scoping Review of the literature on prison-based programs that allow mothers to continue raising their young children while in custody. The review included published academic literature as well as a tailored search of the grey literature that describes these programs. Studies were eligible for inclusion in the review if they described or evaluated a prison mother and child program or any such program in which young children resided with their mothers in a secure facility. Three large databases of citations and abstracts collected for systematic reviews conducted at the Peabody Research Institute at Vanderbilt University were searched along with an additional nine academic databases.

The evidence review focused on three key questions:
1. Are prison nurseries harmful and/or helpful for the wellbeing of children?
2. Are prison nurseries harmful and/or helpful for mothers’ parenting skills and wellbeing?
3. Do prison nurseries increase or decrease mothers’ recidivism?

In order to make recommendations for program improvement that built on the systematic portion of the review, the findings were then integrated with evidence from the general parenting literature using a narrative approach that relied on the expertise of the review authors.

Results
Systematic searches of the literature resulted in an initial 1318 records being identified, which was then reduced to 151 records through abstract screening. Full text screening then identified 34 reports (22 studies) meeting the eligibility criteria. From this pool of 22 studies, seven studies (one RCT and six quasi-experimental designs) were deemed suitable for data extraction and analysis of outcomes. The overall quantity and quality of studies was poor, limiting our capacity to make strong statements about the effectiveness of prison nursery programs. That said, results of studies were generally positive and, in at least one area (recidivism), we were able to conduct a meta-analysis.

1. Outcomes for children. Overall there was no evidence of harm to children involved in prison nurseries. While some results of studies were in the positive direction, these were not statistically significant and it is unclear whether this is a result of small sample size, poor content or delivery, or whether there is simply no difference in outcomes between children residing in prison nurseries and those separated from their mothers during their prison term.

2. Outcomes for mothers’ parenting and wellbeing. Overall, studies found no statistically significant difference in in terms of parenting skills or overall wellbeing for mothers in prison nurseries and those separated from their young children while serving their prison sentences. Again, while some results were in the positive direction, these were overwhelmingly not significant and it is unclear whether this is a result of small sample size, poor content or delivery, or whether there is simply no difference. One study, which included self-report measures of whether the mother retained custody of the child or retained their caregiving role after leaving prison, reported higher levels of continued caregiving by mothers who resided with their children in a prison nursery. While the results of this study are encouraging, they should be treated with caution due to the methodological limitations of the design.

3. Outcomes related to mothers' recidivism. Three of the included studies reported on recidivism rates. A meta-analysis (statistical combining of studies) was conducted and indicates that nursery program participants were less likely to return to prison than mothers who were separated from their children.

Implications of the review findings
This review examines outcomes of prison-based mother and children programs in three key areas: outcomes for children, outcomes for mothers’ parenting and well-being and outcomes related to recidivism. While the results of the review indicate that there is no evidence that children are harmed and that there appears to be potential to achieve outcomes in each of these three areas (particularly with respect to mothers’ recidivism), findings are far from conclusive with most studies finding no statistically significant effect for most outcomes.
Along with a general lack of relevant studies, there were also serious methodological and programmatic design flaws in the studies located. This may explain an overall lack of findings with respect to parenting and child functioning. In particular, the studies conducted to date are extremely under-powered (i.e., very small sample sizes and/or insufficient clusters), making the finding of statistically significant results more difficult than it should be.

Drawing on the core review of the seven included studies and the wider pool of 22 eligible studies, a number of key themes and necessary considerations emerged:

- Incarceration can be an opportunity for positive change, and mothers may be considerably more motivated to succeed in prison-related services (e.g., educational programs; substance misuse programs) by engaging them in their role as primary caregivers.
- A range of factors related to the mother (e.g., offence type, parenting risk factors) and the child (e.g., age range for inclusion, sibling groups) need to be considered in program design.
- Parenting programs, set in the prison context, are an obvious way to enhance outcomes for children and mothers. That said, all parenting programs are not equally effective, use the same type / level of staff, or are delivered in the same way.
- In particular, the use of group-based versus individual-based parenting interventions and the use of outside contractors to deliver the service may be two of the more important decisions made.
- The prison environment has to be suitable to meet the needs of children, including safe play spaces and flexibility around feeding and sleep requirements (Paddick, 2011).
- Appropriate staffing profiles (custodial and other health/support staff) for mother and children programs may be crucial for success.
- Children may have needs that are external to the prison environment, including maintaining relationships with broader family networks outside the prison.
- The specific needs of Aboriginal and Torres Strait Islander and other culturally diverse groups were notably absent from the literature.
- The importance of transition from custody/aftercare and safety of the child post-release was frequently referred to as an important feature of any program.

**Conclusion and Recommendations**

The evidence review indicates that, while there are generally few rigorous studies of prison nursery programs, the existing evidence does not indicate that children are being harmed. In addition, there is every reason to suggest that high quality programing focused on improving the parenting of incarcerated mothers will lead to better outcomes for both the mothers and their children. It is also recognised that provision of prison-based mother and children programs takes place within an environment that needs to balance both custodial and rehabilitation priorities. With this in mind, recommendations for the future development of these programs in Victoria include:

1. Recognise the opportunity for change the programs provide and consider adopting motivational interviewing approaches to enhance uptake of other important services.
that are available for incarcerated mothers (e.g., education credits; job skills training; substance abuse treatment; other forms of counselling).

2. Parenting content should, first and foremost, be evidence-based. That is, parenting programs that have proven efficacy in the general population, some of which have been used in prison settings, should be adapted for use in the prison setting. Effective parenting programs tend to have specific approaches (e.g., based on social learning theory; skills-based). Some beginning recommendations for programs include:
   a. The Incredible Years
   b. SafeCare
   c. Parenting Inside Out

In addition, content on ante-natal and post-natal care, similar to what nurse home visitors might deliver, should be highly integrated into the nursery service.

3. Parenting content should primarily be delivered individually rather than in a group modality. Most group-based programs deliver content, start to finish, with the same group of parents. The nature of incarceration (different entries dates and variable length of sentences) make it unlikely that everyone on a unit can begin and end at the same time. Parenting support groups can be used to augment parenting skills training delivered individually.

4. Developing and delivering high quality parenting skills training in a prison environment is complex. Effective implementation is the key to achieving outcomes. We would recommend engaging with an intermediary group to develop and implement a continuous quality improvement strategy that includes the implementation of an effective parenting skills training as an adjunct to the current program in Victoria.
2. Introduction

2.1. Background

The impact of parental imprisonment on children has been long recognized, although determining the exact number of children affected is difficult (Flynn et al., 2015). Children of incarcerated parents are five to six times more likely to become involved in criminal activity than the average child (Rowland & Watts, 2007). A meta-analysis found that the children of incarcerated parents were twice as likely as their peers to exhibit antisocial behaviour problems, such as aggression, noncompliance, and stealing, even when other risk factors for these problems were considered (Murray et al., 2009).

In Australia, an estimated number of 145,000 children under 16 years old (almost 5% of all children) have had a parent imprisoned, rising up to 20% of under 16 years old from the minority Aboriginal communities (Robertson, 2007).

The imprisonment rate for women in Victoria has been substantially increasing resulting in higher numbers of women in prison. In the decade from 2003-04 to 2013-14 the female imprisonment rate rose from 12.4 to 17.5 per 100,000 people (ABS, 2014). The daily average number of female prisoners in Victoria increased from 310 in 2009-10 to 403 in 2013-14, with the rise in the 12 months from 2012-13 to 2013-14 representing a 17.8% increase (compared to 13.0% for male prisoners) (Productivity Commission, 2015). With the increase in the number of women in prison there is a commensurate increase in issues relating to the care of children that has implications for child protection and for long-term outcomes for children. Corrections Victoria data indicates that at the end of June 2014 there were 401 female prisoners of which 71.7% indicated they had children and 28.9% noted they were the primary caregiver for children. In 2012-13 there were between 5 to 15 children living with their mothers in Victorian prisons at any one time.

With the increasing imprisonment rate of women the demand for this type of living arrangement for incarcerated mothers and their children is likely to increase, but the body of evidence describing the benefits and requirements of these arrangements is unclear.

In Victoria, the “Mothers and Children Program” administered by Corrections Victoria, Department of Justice, has been in operation within the Women’s Prisons Region since the original establishment of the Mother and Child Program in Fairlea Prison in 1981. It is a full time residential program for infants and pre-school children and aims to diminish the impact of the mother’s imprisonment on her dependent child, especially where infants and young children are involved. The Program is available to all women received into prison custody who can demonstrate that they are the ‘parent’ of the infant or pre-school aged child, to

---

whom the application relates. Eligibility also implies that the mother would have day-to-day care and control of the child, and would be the parent with whom the child would normally reside, if she were not in prison. Pregnant women are also eligible to apply for the program, as are women on remand. The decision to allow a child to reside with his or her mother in prison is based on an assessment considering whether

- The applicant was the ‘parent’ of an infant or pre-school aged child immediately prior to their imprisonment
- It is in the best interests of the child to live with his or her mother in the prison
- The management, good order or security of the prison will not be threatened by the child living in prison

All women who make an application to have their child reside in prison with them through the Mothers and Children Program are required to undergo a check with Child Protection and are informed that this occurs. For all pregnant women making an application to the program, the Women’s Prisons Region will request information regarding the child protection history as it relates to the application. A detailed protocol guides the staff of both Child Protection and Corrections Victoria in their collaboration in these cases. It also aims to ensure an effective exchange of information between both organisations and an appropriate, streamlined service response to applications for children to reside in custody with their mothers. During enrolment in the program, the mother is responsible for the safety and care of her child at all times.

Since 2010, 33 children together with their imprisoned mothers have been enrolled in the Tarrengower Mothers and Children program (similar data are currently unavailable for DPFC). The average age of the children residing in the program was 14 months when they entered the program. 14 of these children were born while their mother was in custody. The oldest children in the program were 4.5 years old at their mother’s enrolment. On average, the time children spent with their mother in prison was 9 months. Eleven children belonged to an ethnic minority, and in one case siblings, who were born as twins, lived together with their imprisoned mother.

Corrections Victoria wishes to assess the quality of program components of the mothers in prison program based on the current best evidence for in operation of prison-based mother and children programs in contexts similar to the Australian system. This review summarises this evidence and discusses the evidence against the background of the Victorian context.

---

2 In much of the literature, and in the USA, *prison-based mother and children programs* are referred to as *prison nurseries* and these two terms are used interchangeably throughout this report.
2.2. Purpose of this review

The purpose of this project is to undertake a rapid evidence assessment and associated scoping review that describe prison-based programs that allow mothers to continue raising their young children while in custody.

The material located was synthesized using meta-analytic and narrative techniques that interpret and contextualize findings for the Victorian context. The review was based on a systematic international search of the published academic literature as well as a tailored search of the grey literature that describes these programs. The review stresses the evaluative performance of such programs; provides detail about program delivery specifications; and to a more limited extent some of the theoretical and ethical frameworks that underpin these programs, their governance and policy requirements, and performance monitoring approaches.

This information is augmented by existing applicable evidence about parenting programs and practices in the non-incarcerated population. That is, while evidence about infant-mother programs for incarcerated mothers may be limited, evidence from the larger body of research about parenting programs is fairly robust and has its application in any parenting context. The final synthesis includes a set of recommendations, based on existing evidence, on strategies to employ that are likely to facilitate positive parent-child interactions for incarcerated mothers. In addition, a limited set of recommendations about the implementation of programs in the context of complex social interventions is provided.

2.3. Structure of this report

The following section of this report provides a brief overview of the methods that have been applied to identify, screen and select studies for this review. Subsequently key data included in the seven quantitative outcome studies of prison nursery programs located in the literature are summarized.

The outcomes of these programs are presented within three groups: Child outcomes, outcomes for the quality of mothers’ parenting, and outcomes for mothers’ recidivism and prison functioning. Information from evaluation studies that did not adequately measure outcomes but that, nevertheless, provided information about the programs themselves or the experiences of participants were integrated into discussions of findings and recommendations. All studies were used to identify common components of nursery programs and the major programmatic issues they encountered. These are presented and discussed. The final section of the report is a discussion of implications of the findings from this review and their contextualisation within the Victorian human service system. In the final section, there is a clear focus on the intersection between corrections and human services.
Some of the terms used in the text are technical and require explanation. We therefore provide a glossary with Appendix 3.

3. Methodology

3.1. Eligibility criteria

Studies were eligible for inclusion in this review if they described or evaluated a prison nursery program or any such program in which young children resided with their mothers in a secure facility. Any study design was eligible in the initial screening of studies, though the analysis of outcomes was limited to those studies that used a comparison or control group. Only English language studies were included. Peer reviewed articles, theses, book chapters, and grey literature were included in an attempt to maximize search results.

3.2. Search strategy

3.2.1. Database searches

Three large databases of citations and abstracts collected for systematic reviews on related topics conducted at the Peabody Research Institute at Vanderbilt University were searched for studies describing mother-infant programs where children reside with their mothers in the prison setting. Because the databases were developed for different purposes and used different search terms, the terms used for each of the three searches of the existing databases are slightly different.

In addition, because the above described search databases were not current, we searched nine academic databases to the present. Broad search terms (i.e., titles and abstracts rather than subject headings; all derivations of keywords) associated with mothers, children and imprisonment were used.

The search using PsycINFO is presented here as an example.

Search terms used with PsycINFO database

ti,ab((mother* and bab* and *prison*) OR (mother* and bab* and incarcerat*) OR (Mother* and infant* and *prison*) OR (Mother* and infant* and incarcerat*) OR (Nurser* and *prison*) OR (Nurser* and incarcerat*) OR (nurser* and correctional) OR (nurser* and corrections) OR (Nurser* and wom*n and inmat*) OR “Mother and Baby Unit**” OR
(mother* and child* and *prison*) OR (mother* and child* and incarcerat*) OR (Pregnan* and nurser* and *prison*) OR (Pregnan* and nurser* and incarcerat*) OR (Pregnan* and nurser* and inmat*)

The complete search strategies, specific to each database, are provided in Appendix 1.

### 3.2.2. Additional search activities

The bibliographies of all included studies were searched for additional potentially eligible studies. In addition, all included studies were entered into google scholar and any studies citing the target study were examined for potential eligibility.

### 3.2.3. Selection of Study Reports for Review

Studies were screened for inclusion in two stages: 1) Initial title and abstract screening, 2) full text screening. Figure 1 below illustrates the flow of studies through the search and screening process. Reference lists for all studies reviewed at the full-text screening stage are included in Appendix 2.

#### 3.2.3.1. Title and abstract screening

The titles and abstracts of all of the citations identified in the above-described searches were evaluated by two trained reviewers to determine whether the article described or evaluated a prison nursery program or any such program in which young children resided with their mothers in a secure facility. At this stage, because prison nurseries are relatively rare, we retained any study that described a relevant program whether an evaluation was clearly mentioned or not. Titles for which reviewers were unsure about the nature of the program were carried forward for full-text screening.

#### 3.2.3.2. Full-text screening of articles

The full-text reports of all studies rated as relevant by one or both of the abstract screeners were reviewed using the following eligibility criteria:

1. Studies must have described an evaluation of the effectiveness of a program. Evaluations were not required to be quantitative or employ comparison group designs to be included in the review (though the synthesis of the effectiveness of the programs was limited to studies employing a control / comparison group).
2. Studies must have evaluated a prison nursery program or other similar program in which children resided with their incarcerated or adjudicated mothers in secure facilities.
Following this procedure, studies were moved forward to the data extraction phase, described below, if they described a credible experimental (RCT) or quasi-experimental (QED) research design. Studies providing credible evidence were defined as those that employed a randomized or quasi-experimental research design and that adequately measured outcomes pre and post intervention.

<table>
<thead>
<tr>
<th>Full-text Eligibility</th>
<th>34 reports (22 studies) described evaluations of eligible</th>
<th>103 reports did not meet eligibility criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>49 Not evaluations of programmes</td>
<td></td>
</tr>
</tbody>
</table>

Figure 1. Flow of articles through the review.

### 3.2.4. Data extraction

A four-person team of trained reviewers extracted data from the eligible randomised and quasi-experimental studies. Data extracted at the study level included: study design, characteristics of the intervention and comparison conditions, dosage, format, and delivery personnel of the intervention, characteristics of the mothers and children in the studies, and any information about implementation that was available (e.g., fidelity, cost, problems with
implementation, etc.). When available, mother and child outcomes were recorded in four domains: (1) adverse impacts or harms experienced by children; (2) child functioning and development; (3) mother’s functioning and parenting; and, (4) recidivism or institutional outcomes (i.e., behaviour incidents in prison) among the mothers.

4. Results

4.1. Summary of included studies

4.1.1. Summary of methodological integrity of included studies

The included studies described prison nursery programs based in the United Kingdom and the United States. Table 1 below describes the key features of the interventions and comparisons in the seven studies.

- Overall, there were few studies that used a comparison group and these had substantial methodological issues.
- The one RCT that met out inclusion criteria (Sleed et al., 2014) tested whether the inclusion of a parenting program within a prison nursery improved outcomes, but did not test whether prison nurseries, in and of themselves, improved outcomes.
- The remaining quasi-experimental studies suffered from substantial methodological limitations, but nonetheless provide tentative information about program effectiveness and important information about program components.

A more detailed summary is available in Appendix 3: Methodological Detail.
<table>
<thead>
<tr>
<th>Study</th>
<th>Design/Comparison</th>
<th>Location</th>
<th>Intervention</th>
<th>Dosage &amp; Format</th>
<th>Population</th>
<th>Comparison</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleed, et al., 2013</td>
<td>Cluster randomised trial</td>
<td>UK</td>
<td>New Beginnings is a psychoanalytic, experience-based parenting program that was delivered in the context of a traditional mother-baby prison unit. New Beginnings sessions focused on topics that should activate and build on the mother-baby attachment relationship. The traditional mother-baby unit provided standard health and social care services for the mothers and babies.</td>
<td>New Beginnings is a 4 week program with two 2-hour sessions 1x per week; mothers could have been in the mother-baby unit prior to participating in New Beginnings. Sessions were delivered to mothers and babies in groups of about six dyads by two psychotherapists.</td>
<td>Incarcerated women aged 18-42y (mean=26y) with infants from birth to 24m (mean=5m). Inclusive program with mother ethnicities as follows: 43% White, 42% Black, 7% Asian, and 8% other.</td>
<td>Comparison mothers resided in traditional mother-baby units in UK prisons and received standard health and social care services.</td>
<td>Mothers and babies attended an average of 7.1 of the 8 sessions; 87% of mothers and babies attended at least half of the sessions.</td>
</tr>
<tr>
<td>Gat, 2000</td>
<td>Quasi-experimental design</td>
<td>USA</td>
<td>The Mother/Offspring dyads may</td>
<td>Five incarcerated</td>
<td>1. Participants in the traditional</td>
<td>No information</td>
<td></td>
</tr>
<tr>
<td>Study</td>
<td>Design/Comparison</td>
<td>Location</td>
<td>Intervention</td>
<td>Dosage &amp; Format</td>
<td>Population</td>
<td>Comparison</td>
<td>Findings</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------</td>
<td>--------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>-----------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Mother/Offender Lifetime Development Program (MOLD) + Prison Nursery vs. MOLD vs. traditional incarceration</td>
<td>Quasi-experimental design</td>
<td>USA</td>
<td>Life Development Program (MOLD) is a prison-based parenting and visitation program to which an on-site nursery was added. Women reside with their babies in the prison nursery, are required to work part-time, and participate in classes that focus on parenting skills, child development education, and the parent-child relationship.</td>
<td>Mothers are generally allowed to keep their infants with them for 18 months.</td>
<td>Incarcerated women aged 16-45 years (mean=30 years). Inclusive.</td>
<td>MOLD program had access to the same MOLD classes as the intervention group and had the option of overnight and extended visitation with their children.</td>
<td>Provided.</td>
</tr>
</tbody>
</table>

Staley, 2002 | Quasi-experimental design | USA                | The New York Department of Correctional Services administers a prison nursery program to which an on-site nursery was added. Women reside with their babies in the prison nursery, are required to work part-time, and participate in classes that focus on parenting skills, child development education, and the parent-child relationship. | Mothers are generally allowed to keep their infants with them for 18 months. | Incarcerated women aged 16-45 years (mean=30 years). Inclusive. | Comparison group consisted of all women released from Department of Correctional Services’ nursery program. | No information provided. |
<table>
<thead>
<tr>
<th>Study</th>
<th>Design/Comparison</th>
<th>Location</th>
<th>Intervention</th>
<th>Dosage &amp; Format</th>
<th>Population</th>
<th>Comparison</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carlson, 2009</td>
<td>Quasi-experimental design</td>
<td>USA</td>
<td>The nursery program was implemented as part of an already existing program, the Mother/Offspring Development Program (MOLD). Programming</td>
<td>Mothers and babies can stay for up to 18m, but the average length of stay is much shorter. During the first five years of the study, the average stay was</td>
<td>Incarcerated women with mean age of 25y. Inclusive program with mother ethnicities as follows: 76% White, 12% Black, 7%</td>
<td>Comparison group mothers gave birth in the prison prior to the establishment of the nursery program and were required to give up custody of their infants.</td>
<td>Based on surveys of participants, 95% of mothers reported a stronger mother-child bond as a result of the</td>
</tr>
</tbody>
</table>

3 Approximately 75% of incarcerated women in New York correctional institutions in 1998 were mothers (Staley, 2002).
<table>
<thead>
<tr>
<th>Study</th>
<th>Design/Comparison</th>
<th>Location</th>
<th>Intervention</th>
<th>Dosage &amp; Format</th>
<th>Population</th>
<th>Comparison</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>establishment of the nursery (1991-1994)</td>
<td>included prenatal parenting, infant care and child development education, and hands-on training.</td>
<td>2.86m The average stay during last five years of the study was 6.8m. Classes are mandatory and delivered by the nursery program coordinator.</td>
<td>Hispanic, and 5% Native American</td>
<td></td>
<td></td>
<td>program and felt the parenting classes were helpful. Only 15 percent of mothers felt better prepared to be a working mother after release. Extensive information on costs of the nursery program is provided. For the first two years of the program, it is estimated that the government and taxpayers could save $6,753 per</td>
</tr>
<tr>
<td>Study</td>
<td>Design/Comparison</td>
<td>Location</td>
<td>Intervention</td>
<td>Dosage &amp; Format</td>
<td>Population</td>
<td>Comparison</td>
<td>Findings</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------</td>
<td>----------</td>
<td>--------------</td>
<td>----------------</td>
<td>------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>Whiteacre, et al., 2013</td>
<td>Quasi-experimental design</td>
<td>USA</td>
<td>The Wee Ones Nursery Program allows incarcerated pregnant women to keep their infants in a special housing unit. Mothers receive parenting classes and assistance from nannies from the offender population who live on the unit.</td>
<td>Mother-baby dyads could remain in the nursery for up to 18m. On average, women spent 8 weeks in the program prior to birth and 12 weeks after giving birth.</td>
<td>Incarcerated women with mean age of 27y. Inclusive program with mother ethnicities as follows: 67% White, 26% Black, 3% Hispanic, and 4% Other/Multiple</td>
<td>Women who gave birth while incarcerated at the Indiana Women’s Prison prior to the establishment of WON in 1998. Presumably, these women would likely have been eligible for the program.</td>
<td>The majority of respondents regarded staff as caring and responsive; appreciated the provided supplies, materials, and dorms; and would recommend the expansion of the program to include more beds. Several respondents were unsatisfied</td>
</tr>
</tbody>
</table>

Whiteacre, et al., 2013

The Wee Ones Nursery (WON) vs. women who gave birth while incarcerated prior to the establishment of the nursery.
### Literature Review: Mothers in Prison

<table>
<thead>
<tr>
<th>Study</th>
<th>Design/Comparison</th>
<th>Location</th>
<th>Intervention</th>
<th>Dosage &amp; Format</th>
<th>Population</th>
<th>Comparison</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catan, 1989</td>
<td>Quasi-experimental Mother and Baby Units vs. Comparison Group of incarcerated mothers not residing with child</td>
<td>UK</td>
<td>Mother and Baby Units in three prisons provide facilities for infants to live with their imprisoned mothers. Mothers in the program are primarily responsible for their children's care. Program</td>
<td>Mothers and infants may reside together for up to 9m in 2 prisons and for up to 18m in the third. The following average lengths of stay were provided by prison: Holloway=13 weeks, Styal= 17</td>
<td>Incarcerated women. No age or ethnicity information provided.</td>
<td>Comparison group consists of similarly aged children who were separated from their imprisoned mothers. Two-thirds were looked after by members of the extended family and one-third by social services foster parents.</td>
<td>Descriptive information on infants' experiences suggest the Units may not be appropriate for infants. While most activities with adults were</td>
</tr>
<tr>
<td>Study</td>
<td>Design/Comparison</td>
<td>Location</td>
<td>Intervention</td>
<td>Dosage &amp; Format</td>
<td>Population</td>
<td>Comparison</td>
<td>Findings</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------------------</td>
<td>------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>----------------</td>
<td>------------------</td>
<td>--------------------------------------------------------------</td>
</tr>
<tr>
<td>Goshin et al., 2014</td>
<td>Quasi-experimental</td>
<td>USA</td>
<td>The prison nursery program involved either a focus on health or a focus on maternal-infant synchrony. A nurse practitioner provided</td>
<td>Mothers and their babies could remain in the nursery program for up to 18 months. The average length of stay was 9 months.</td>
<td>Incarcerated women. Participating mothers were 45% white, 32% black, and 23% Hispanic.</td>
<td>Control group data was drawn from participants of the Fragile Families and Child Wellbeing Study. These mothers with a history of incarceration had been separated from their</td>
<td>classified as care, comfort, and social interaction, educational or explorative play was infrequent. Babies were observed spending extended periods of time confined in strollers, chairs, and bouncers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>staff assists mothers with the care and development of the baby and provide access to parenting skills and advice.</td>
<td>weeks, and Askham Grange=19 weeks. No information provided on format of programming or delivery personnel.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study</td>
<td>Design/Comparison</td>
<td>Location</td>
<td>Intervention</td>
<td>Dosage &amp; Format</td>
<td>Population</td>
<td>Comparison</td>
<td>Findings</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------</td>
<td>----------</td>
<td>--------------</td>
<td>----------------</td>
<td>------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>from their incarcerated mothers (sample from the Fragile Families &amp; Child Wellbeing Study)</td>
<td>guidance on infant development, responsive parenting, maternal life goals, and maternal coping skills.</td>
<td></td>
<td>at the time of birth was 28y.</td>
<td>child within a month of his/her birth.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.2. Findings from included studies

Despite methodological concerns, the included studies contain useful information with respect to key outcomes of nursery programs for mothers and children.

An overview of key data is provided in table 2 below, followed by a detailed summary of findings for three distinct classes of outcome:

- **The outcome of nursery programs for children**
- **The outcome of nursery programs for mothers’ parenting**
- **The outcome of nursery programs for mothers’ recidivism**

The next two results sections list and discuss: 1) common nursery program components; 2) major themes identified in the included literature.

In addition, information from studies that were not included in the original seven studies is integrated with findings from the outcomes component of the review. These include information contained in sub-studies of the included studies (e.g., Byrne, Goshin and Joestl (2010)), prevalence studies, studies of similar populations that did not meet our inclusion criteria, qualitative studies, and evaluation studies that did not have a control / comparison condition.

The limited research in this area means that the findings should be considered with caution for two main reasons: 1) positive findings may not hold under better experimental conditions; 2) null findings may be due to small sample sizes, which lead to ‘underpowered’ studies that have limited ability to detect an effect of an intervention if this effect actually exists.

Our discussion of the findings and our link to other relevant research are attempts to maximize the limited information available from well-conducted evaluations.

**Glossary for Table 2**

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attrition (%loss)</td>
<td>Proportion of mothers who enrolled in the study and participated in at least one data collection period, but who then dropped out of the study without secondary measurement of outcomes.</td>
</tr>
<tr>
<td>Child Outcomes</td>
<td>Pre (study beginning)-post (study end) measures of status or progress, as detailed in the studies.</td>
</tr>
<tr>
<td>Confidence Interval (CI 95%)</td>
<td>The effect size is a statistical estimate that has a degree of uncertainty, and this uncertainty is expressed as a confidence interval. A general rule of thumb is that 95% confidence intervals are</td>
</tr>
</tbody>
</table>
used to correspond to setting a statistical significance level at 
$p=0.05$. That is, we are reasonably certain that the real effect size for 
the population falls somewhere within the confidence interval. If a 
confidence interval for an effect size includes 0, it is not significant. 
If the confidence intervals of two different effect sizes overlap, the 
effect sizes are not statistically different from each other.

| Effect Size | A standardized measure of how effective a program is with respect 
to a control group. A statistical test only measures whether there is 
a difference between two groups. An effect size measures how large 
the effect is, and the standardized nature of the effect size allows 
comparisons to be made between studies (i.e., an effect size of 0.5 
in one study is comparable to an effect size of 0.5 in another study). 
A standard rubric for effect sizes was proposed by Cohen (1977): 
0.2=small effect; 
0.5=medium effect; 
0.8=large effect. |
|---|---|
| Mother Outcomes | pre (study beginning)-post (study end) measures of status or 
progress, as detailed in the studies. |
| Reporter Type | Self report versus observation. |
| Sample Size | Total number of mothers participating in an individual study. |
## Table 2. Sample Size, Attrition, Mother and Child Outcomes, and Study Findings

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size &amp; Attrition (% loss)</th>
<th>Mother Outcomes</th>
<th>Effect Size [95% CI]</th>
<th>Child Outcomes (Reporter Type)</th>
<th>Effect Size [95% CI]</th>
</tr>
</thead>
</table>
| Sleed et al., 2013 | Intervention: 88 (30%) Comparison: 75 (29%) | • Positive parental engagement (obs.)  
• Parent-child relations (obs.)  
• Positive perceptions abt. parenting (SR)  
• Negative perceptions abt. parenting (SR)  
• Mother depression (SR) | • -0.05 [-0.48, 0.37]  
• -0.38 [-0.81, 0.05]  
• 0.35 [-0.06, 0.77]  
• 0.12 [-0.35, 0.58]  
• 0.20 [-0.16, 0.57] | • Engagement w/ mom (obs) | • -0.08 [-0.50, 0.34] |
| Gat, 2000a*      | MOLD + Nursery: 5 (0%) vs. MOLD: 20 (20%) | • Parent-child relations (SR)  
• Parenting knowledge (SR)  
• Anxiety, stress (SR)  
• Perspective-taking, empathy (SR)  
• Moral reasoning (SR)  
• Decision-making, self-efficacy (SR) | • 0.64 [-0.47, 1.76]  
• 0.80 [-0.24, 1.83]  
• 0.38 [-0.63, 1.39]  
• -0.06 [-1.06, 0.95]  
• 0.40 [-0.62, 1.42]  
• 0.08 [-0.92, 1.09] | • None | • None |
| Gat, 2000b*      | MOLD + Nursery: 5 (0%) vs. Incarcerated only: 5 (20%) | • Parent-child relations (SR)  
• Parenting knowledge (SR)  
• Anxiety, stress (SR)  
• Perspective-taking, empathy (SR)  
• Moral reasoning (SR)  
• Decision-making, self-efficacy | • -0.80 [-2.24, 0.64]  
• 1.12 [-0.30, 2.53]  
• 0.81 [-0.56, 2.17]  
• -0.33 [-1.65, 0.99]  
• -0.59 [-1.94, 0.75]  
• -1.24 [-2.68, 0.19] | • None | • None |
<table>
<thead>
<tr>
<th>Study</th>
<th>Intervention</th>
<th>Comparison</th>
<th>Recidivism (official records)</th>
<th>Recidivism (rate)</th>
<th>None</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staley, 2002</td>
<td>179 (16%)</td>
<td>2,109 (0%)</td>
<td>5% tx vs. 8% ct</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Carlson, 2009</td>
<td>65 (0%)</td>
<td>30 (0%)</td>
<td>17% tx vs. 50% ct†</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Whiteacre, et al., 2013</td>
<td>90</td>
<td>98</td>
<td>Recidivism (CSR)</td>
<td>26% tx vs. 31% ct</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Catan, 1989</td>
<td>74 (nr)</td>
<td>33 (nr)</td>
<td>None</td>
<td>None</td>
<td>Cognitive development</td>
<td>No data reported</td>
</tr>
<tr>
<td>Goshin et al., 2014</td>
<td>97 (52%)</td>
<td>50 (nr)</td>
<td>Harsh or negative parenting (SR)</td>
<td>0.42 [-0.09, 0.93]</td>
<td>Externalizing (Mother)</td>
<td>0.22 [-0.18, 0.62]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Physical discipline (SR)</td>
<td>0.11 [-0.45, 0.66]</td>
<td>Attention problems (Mother)</td>
<td>0.19 [-0.21, 0.59]</td>
</tr>
</tbody>
</table>
The Gat (2000) study compared the intervention group to two separate comparison groups; both are reported here.
† p<.05; statistically significant difference.

Table Notes: All effect sizes in the table are standardized mean differences and are scaled such that positive effects indicate that the intervention group is favoured and negative effects indicate that the comparison group is favoured; 95% confidence intervals that include zero indicate that the effect size is not statistically significantly different from zero; obs.=observational measure; SR=self-reported measure; nr=not reported.
4.2.1. The outcome of nursery programs for children

4.2.1.1. Summary of Outcomes for Children

- Overall, there was no evidence of harm to children residing in prison nurseries.
- Children raised by their mothers in prison nurseries may have fewer internalizing behavior problems than children separated from their mothers, though this was found in only one study.
- For all other measured outcomes, children raised by their mothers in prison nurseries did no better and no worse than children separated from their mothers.
- It is unclear whether these ‘null’ findings are a result of small study sample size, the quality of the non-maternal caregiver, low quality or poor delivery of programmatic content, or whether there really are no differences.

4.2.1.2. Detailed Outcomes for Children

Three of the studies reported on the effects of prison nurseries for children (Catan, 1989; Goshin et al., 2014; Sleed et al., 2013), though only two provided data sufficient for calculating effect sizes.

Sleed et al. (2013) coded interactive behaviors between mother and children during observations. Children’s engagement with their mothers was not significantly different across the two groups, both of whom were in prison nursery settings (es = -0.08, 95% CI [-0.50, 0.34]). Catan (1989) reported that they found no differences in cognitive development for children in prison nurseries versus children separated from their incarcerated mothers. Goshin et al. (2014) examined child outcomes among a sample of preschool (aged 3-4) children who had lived in prison nurseries with their mothers as infants and compared these children to a sample of children from the Fragile Families and Child Wellbeing Study who had been separated from their incarcerated mothers as infants. Children who had lived in prison nurseries evidenced less externalizing behaviour, attention problems, internalizing behaviour, and shy or withdrawn behaviour and better adaptive adjustment than children in the comparison group. However, only the effect for internalizing behaviour was significantly different (p<0.05) between the groups.

4.2.2. The outcome of nursery programs for mothers’ parenting and well-being
• There is some evidence to suggest that mothers enrolled in prison nurseries are more likely to maintain their caregiving role than other incarcerated mothers after release from prison.

• For all other measured outcomes, mothers receiving prison nursery services did no better and no worse than mothers in the general prison population. Outcomes measured for mothers included: parenting skills and behaviours, perceptions of parenting, parent-child relations, and wellbeing.

• It is unclear whether these ‘null’ findings are a result of small study sample size, the quality of the caregiving environment (in either the nursery or non-nursery setting), low quality or poor delivery of programmatic content, or whether there really are no differences.

The most promising findings could be found in a study by Whiteacre et al. (2013), who used a parent self report measure to indicate whether mothers reported that they: 1) retained custody of their child; 2) retained their caregiving role. Both custody and caregiving roles had significant positive effects favouring the prison nursery group, with an attributable risk reduction post release of 19 per cent for custody maintenance (86% treatment v. 67% control retained custody) and 28 per cent for role maintenance (86% treatment v. 58% control retained caregiving role). While this finding is encouraging, the methodological limitations, small study sample and lack of replication of findings dictates a cautious optimism that mothers may be better able to maintain their parenting role post release if they have been allowed to continue in their parenting role while in prison.

Four of the seven studies reported on the effects of prison nurseries on mother’s well-being and parenting skills and behaviors (Gat, 2000; Goshin et al., 2014; Sleed et al., 2013; Whiteacre et al., 2013). In terms of parenting, Goshin et al. (2014) found that prison nursery mothers reported less harsh or negative parenting, neglect, or physical punishment than mothers separated from their children, though none of these differences was statistically significant. Sleed et al. (2013), however, reported less positive parental engagement among the prison nursery group receiving the attachment intervention versus the mothers in the traditional nursery group. This difference was not statistically significant (es = -0.05, 95% CI [-0.48, 0.37]).

Three studies reported on various measures of parent-child relations (Gat, 2000; Sleed et al., 2013; Whiteacre et al., 2013). None of the differences between prison nursery and comparison groups were statistically significant on any measure of parent-child relations.

Three studies (Goshin et al., 2014, Sleed et al., 2013; Whiteacre et al., 2013) reported on mothers’ perceptions of their own parenting. These outcomes varied and included both positive perceptions of parenting and being a parent and well as more negative or stressful perceptions of parenting. While all three studies found that prison nursery mothers had more positive or less negative perceptions of parenting than their comparison group counterparts, none of these differences was statistically significant.

Gat (2000) and Sleed et al. (2013) reported on various aspects of mothers’ functioning. Sleed et al. (2013) found that mothers in the attachment program within the prison nursery were not significantly more or less depressed than mothers in the traditional prison nursery.
program (es = 0.20, 95% CI [-0.16, 0.57]). With only five mothers in the prison nursery condition, the Gat (2000) study is severely under-powered (i.e., the capacity to find statistical differences between groups, even if they exist, is unlikely unless the effect size is huge). Not surprisingly, there were no significant differences between the prison nursery group and the two comparison groups on measures of parent functioning.

### 4.2.3. The outcome of nursery programs for mothers’ recidivism

- There is evidence to suggest that mothers participating in prison nurseries are less likely to return to prison than mothers residing in the general prison population.

Three studies report on reincarceration rates, allowing us to conduct a meta-analysis (results shown in Figure 2).

<table>
<thead>
<tr>
<th>Glossary for Figure 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Term</strong></td>
</tr>
<tr>
<td>Study</td>
</tr>
<tr>
<td>Treatment n/N</td>
</tr>
<tr>
<td>Control n/N</td>
</tr>
<tr>
<td>Odds Ratio</td>
</tr>
<tr>
<td>Weight</td>
</tr>
<tr>
<td>95% CI</td>
</tr>
</tbody>
</table>
The meta-analysis across the three studies shows that the overall likelihood of reoffending, indicated by the diamond at the bottom of the figure, was substantial and significantly lower among prison nursery participants (OR = 2.29, p<.05, 95% CI [1.41, 3.70]). Importantly, while the definition of recidivism as ‘return to prison’ was similar across the three studies (allowing us to meta-analyze), the follow-up timeframe for recidivism ranged from a minimum of one year (Whiteacre et al., 2013) to up to ten years (Carlson, 2009). This relatively long follow-up period across studies gives us more confidence in the findings than would be the case with less follow-up.

4.2.4. Common Program Components

All seven studies included some information about the program components that mothers received. They included

- Mother and Child Health Information
  - Prenatal care, Preparing for birth, antenatal care, including breastfeeding in units that have nurses/midwives (Carlson, 2009; Gat 2001,
- Parenting
  - Insufficient details about the specific content of the programs was included in the articles and reports prohibiting us from presenting commonalities between programs.
• Mother-child Interaction
  o Focus on parent-child relationship utilizing psychodynamic approaches (Sleed et al., 2014)
• Group-based approaches frequently used (Carlson, 2009; Sleed et al., 2014)
• Access to regular prison programming including education classes, job training and substance abuse treatment (Staley, 2002)

All seven studies included brief information about the program components that mothers received whilst in the nursery. Programs received included: mother and child health information and hands-on-training which included prenatal care, preparing for birth, antenatal care, including breastfeeding in units that have nurses/midwives (Carlson, 2009; Gat 2001); Parenting programs; Mother-child Interaction approaches; access to standard prison programming including education classes, job training and substance abuse treatment (Staley, 2002) and most programs were delivered in a group setting.

There were insufficient details about the specific content of the programs included in the articles and reports to present any in-depth comment about the content of these programs. (Catan, 1989). One exception was the New Beginnings program which was evaluated by Sleed and colleagues (2013). New Beginnings is a parenting program that addresses the early attachment relationship between mothers and babies in prison and prepares them for separation should that occur. It was initiated, developed and delivered in collaboration with the Anna Freud Centre (AFC), a psychoanalytically oriented child mental health treatment centre. The program is described in detail in the Baradon and colleagues article (2008). Results from the New Beginnings program showed no significantly findings between those that received the New Beginning group and the control group.

Programs do not acknowledge the impact of the treatment milieu on the mother and baby instead reporting on the impact of specific treatment components. The effect of nursery environment itself on the mother and child is not accounted for in any of these studies. The impact of the environment, having continuous access to their children, the incidental support and advice received from staff and others inmate and other contextual influences are not accounted for.

**Summary of Program Specifics**

As part of the review, we conducted an ad hoc international search of existing prison nursery programs, extracting information about the rules governing such programs (Table 3). Some of the programs are among the studies included in the review but the search was not limited to included studies.

In reviewing the available information on Prison Nursery Programs there appears to be variability in age cut off with an age range from 30 days to over 5 years. The average seems to be around 18 months to 3 years. Program decisions regarding age depend on program philosophy and set up of the prison. Prisons have made decisions based on the value to the child (attachment to mother; the importance of breastfeeding; right to be with their mother versus right regarding freedom); characteristics of the mother’s sentence (length of
sentence – so that mother and baby can leave at the same time) and whether the prison offers a program or whether it is just about allowing mums to have contact with their child in their “normal” prison cell (e.g. where mother can pay for child to be with them for 30 days).

Most programs exclude violent offenders and mothers who have child abuse or child endangerment charges. However this does not appear to be the case in Denmark where it is the right of children to live with their parent.

Mothers can be exited from the units for a number of reasons, including infringements such as drug use or violence, and mental health concerns. They can also exit due to institutional logistics (i.e., there are no places available, the mother is transferred, or the mother wants to attend a work placement). Exit may also occur when there are concerns that it is no longer in the best interest of the child to reside in the prison and mothers can also choose to voluntarily exit from the program.

If a child leaves the program earlier than the mother, the most common option is for the child to reside with an alternative approved caregiver who was nominated at the outset of the program. If there is no approved carer, the child is placed into out-of-home care (foster care) by child protection services.
### Table 3. Prison Nursery Program Specifics

<table>
<thead>
<tr>
<th>Name of Program</th>
<th>Source of Info</th>
<th>Age Cutoff</th>
<th>Exclusion of Violent Offenders</th>
<th>Reason for exit</th>
<th>What happens when children leave earlier than parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT</td>
<td>Laws on Children Residing with Parents in Prison (US Congress)</td>
<td>Up to 4 years of age</td>
<td>Eligibility: The applicant’s criminal history does not give rise to child safety or security concerns. Of specific concern are sexual offending, violence and indications of impulsive or anger driven high risk behaviour</td>
<td>This may relate to evolving needs of the child; security, safety or good order concerns or operational constraints.</td>
<td>There is an available suitable alternative carer in the community to take the child to and from the centre for approved external appointments and to take over full time care in the event of there being a need to suspend or terminate care in custody</td>
</tr>
<tr>
<td>WA Bandyup Training Centre, Boronia Pre-Release Centre</td>
<td>Hartz-Karp, 1983; Corrective Services website; Paddick, 2011</td>
<td>In purpose-built minimum security facilities, the age limit at which a child’s residency ceases will generally be when the child turns four (4) years of age</td>
<td></td>
<td></td>
<td>The child is transferred to an approved alternate carer. If no one is available the Superintendent will consult with the DCD to arrange the child’s removal from the prison.</td>
</tr>
<tr>
<td>Adelaide Women’s</td>
<td>Paddick, 2011</td>
<td>3 years of</td>
<td>In order to be eligible</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>Website</td>
<td>Under School Age</td>
<td>Decision Making Consideration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------</td>
<td>------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prison, SA, Australia</td>
<td>Govt website</td>
<td>Under school age</td>
<td>The primary decision-making consideration is the best interests of the child in the context of the prison environment and management. The Commissioner will also consider other factors such as the incarcerated mother’s behaviour in custody, program participation, reason for the request, the nature of the offences, whether the involved in the commission of a serious prison offence moved to a hospital, or transferred to a protection or management unit, which is not considered suitable for accommodating a child.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Victoria, Australia</td>
<td>Govt website</td>
<td>Under school age</td>
<td>An alternative caregiver identified at the beginning of the program looks after the child.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
mother was the primary caregiver prior to imprisonment, current or previous involvement with Child Protection and whether the prison can provide suitable accommodation.

<table>
<thead>
<tr>
<th>Location</th>
<th>Service Provider</th>
<th>Accommodation Period</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emu Plains, Correctional Centre, Jacaranda Cottages and Parramatta Transitional Centre NSW, Australia</td>
<td>Corrective Services NSW, The Mothers and Children’s Program (2011); Paddick, 2011</td>
<td>Up to school age - extended holidays stays are provided for children up to 12 years</td>
<td>If rules or expectations are broken, e.g. drug use then the result is a return into a higher security facility, a loss of privileges and no access to the Mother and Baby program</td>
</tr>
<tr>
<td>Queensland, Australia</td>
<td>Corrective Services, Queensland Website</td>
<td>12 months and then reviewed and up until school age</td>
<td>Reasons Include: the prisoner with whom the child is accommodated requests the removal; the child is not a child mentioned in section 30(1)(b)(ii) of the CSA and becomes eligible to start primary school, In the event a mother is unable to care for her child, for example due to illness, the general manager or nominee must ensure the child's care and safety needs are met while simultaneously taking steps to find a suitable alternative placement for the child.</td>
</tr>
</tbody>
</table>
refer section 6 of this standard operating procedure; the prisoner with whom the child is accommodated is transferred to another corrective services facility and the chief executive or authorized delegate decides the accommodation at the other corrective services facility is not suitable for the child; and the chief executive or authorized delegate is satisfied it is in the interests of the good order and management of the facility

Where conditions for eligibility are no longer being met, or the mother has requested the child be removed, and it has been determined the child should no longer be accommodated in the facility, a separation plan must be developed.

<table>
<thead>
<tr>
<th>NT</th>
<th>Up to 6 years</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New Beginning, Mothers with Babies Units, New Zealand</strong></td>
<td></td>
</tr>
<tr>
<td>Corrections Website</td>
<td>Aged two</td>
</tr>
<tr>
<td>The inmate has no convictions for sexual or violent offences involving children</td>
<td>Drug use, violence</td>
</tr>
<tr>
<td>An alternative caregiver has to be identified at the start of the program that is approved by child welfare</td>
<td></td>
</tr>
</tbody>
</table>
for the inmate to be eligible for the program.

<table>
<thead>
<tr>
<th>Location</th>
<th>Authors/Reference</th>
<th>Duration</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Beginnings (UK)</td>
<td>Sleed et al (2013)</td>
<td>24 months</td>
<td>The mother is able to demonstrate behaviours and attitudes which are not detrimental to the safety and well being of other unit residents, or the good order and discipline of the unit.</td>
</tr>
<tr>
<td>HMP Bronzefield</td>
<td>Paddick, 2011</td>
<td>18 months; Mothers who are serving a long sentence have to give up their babies at 6 months of age.</td>
<td>If a mother tests positive for illicit drugs she may be removed from the Unit, and would have to re-apply to return. Similarly if they are found to be distributing illicit drugs they may be removed from the Unit.</td>
</tr>
<tr>
<td>HMP Peterborough</td>
<td><a href="http://www.totalspace">www.totalspace</a></td>
<td>18 months; Mothers who are serving a long sentence have to give up their babies at 6 months of age.</td>
<td>As above</td>
</tr>
<tr>
<td>HMP Holloway Mother and Baby Unit (UK)</td>
<td>Catalan, 1989</td>
<td>9 months</td>
<td>As above</td>
</tr>
<tr>
<td>HMP Styal Mother and Baby Unit (UK)</td>
<td>Catalan, 1989</td>
<td>9 months</td>
<td>As above</td>
</tr>
<tr>
<td>Study</td>
<td>Location</td>
<td>Duration</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---------------------------------------------</td>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>HMP, Askham Mother and Baby Unit (UK)</td>
<td>Catalan, 1989</td>
<td>18 months</td>
<td>As above</td>
</tr>
<tr>
<td>MHP Cornton Vale, Scottish Prison System Scotland</td>
<td><a href="http://www.totalspace">www.totalspace</a> design.com.au</td>
<td>1 year</td>
<td>As above</td>
</tr>
<tr>
<td>Mother/Offspring Development (MOLD) Program, York Nebraska</td>
<td>Carlson, 2001, 2009 Gt, 2001, Gt, 200</td>
<td>1 year</td>
<td>Excludes violent offenders and mothers who have a history of child abuse</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Misconduct e.g. fighting when mother chooses work program over nursery program</td>
</tr>
<tr>
<td>Residential Parenting Program Washington Corrections Center for Women in Gig Harbor, Washington</td>
<td>Davis (2012); WPA (2009)</td>
<td>30 months</td>
<td>Inmates need to have minimum security rating and have no history of child or sex crimes or violent offenses</td>
</tr>
<tr>
<td>Program</td>
<td>Source(s)</td>
<td>Length</td>
<td>Criteria</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>--------------------------------</td>
<td>--------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Residential Parenting Program Washington Correctional Centre for Women</td>
<td>Rowland &amp; Watts, (2007)</td>
<td>18 months</td>
<td>Criteria include type of offense, sentence structure, judgment and sentence conditions, behaviour, and over all institutional adjustment.</td>
</tr>
<tr>
<td>York Women’s Correctional Facility in York, Nebraska</td>
<td>Gat, 2001; WPA, 2009</td>
<td>18 months of age</td>
<td>No violent offence; no prior conviction for child abuse offences</td>
</tr>
<tr>
<td>Spectrum Nursery Program Massachusetts</td>
<td>Carlson, 2009</td>
<td>18 months</td>
<td>Must meet minimum security classification</td>
</tr>
<tr>
<td>Achieving Baby Care Success (ABCS) Ohio Reformatory</td>
<td>Mawhorr &amp; Ward, 2001</td>
<td></td>
<td>She has never been convicted of a violent crime or any type of child abuse or child</td>
</tr>
<tr>
<td>Location</td>
<td>Program Name</td>
<td>Duration</td>
<td>Eligibility Conditions</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------------------------</td>
<td>----------</td>
<td>----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Women’s Prison, Indiana</td>
<td>Wee Ones Nursery (WON)</td>
<td>18 months</td>
<td>Have no convictions for a violent crime or child abuse/endangerment;</td>
</tr>
<tr>
<td>Parenting Centre</td>
<td>Pacific Correctional Women’s Centre</td>
<td></td>
<td>Only those incarcerated for non-violent offenses were eligible</td>
</tr>
<tr>
<td>West Virginia</td>
<td></td>
<td>18 months</td>
<td>Only non-violent inmates serving short sentences</td>
</tr>
<tr>
<td>South Dakota</td>
<td></td>
<td></td>
<td>Only for mothers who are “non violent”</td>
</tr>
<tr>
<td>Bedford Hills, NY</td>
<td>Byrne et al., 2015</td>
<td>18 months</td>
<td>Excludes women with prior crimes against children, and initially deny women with a poor prison disciplinary record or with a history of violence, although</td>
</tr>
<tr>
<td>Location</td>
<td>Source</td>
<td>Duration</td>
<td>Exception</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------</td>
</tr>
<tr>
<td>Taconic Correctional Facilities, NY</td>
<td>Byrne et al., 2015</td>
<td>18 months</td>
<td>As above</td>
</tr>
<tr>
<td>Canada</td>
<td>Laws on Children Residing with Parents in Prison (US Congress); Warner, 2015</td>
<td>Up to age 4 and weekends and holidays until aged 12</td>
<td>Excludes offenders convicted of serious crimes</td>
</tr>
<tr>
<td>Iran</td>
<td>Anaraki &amp; Boostani, 2013</td>
<td>Up to age 3</td>
<td></td>
</tr>
<tr>
<td>Argentina</td>
<td>Lejarraga et al., 2011</td>
<td>Up to age 3</td>
<td></td>
</tr>
<tr>
<td>Horserod State Prison, Denmark</td>
<td>[<a href="http://www.totalspace">www.totalspace</a> design.com.au](<a href="http://www.totalspace">http://www.totalspace</a> design.com.au)</td>
<td>Up to age 7 (and up to age 15 can spend the weekend with their parent)</td>
<td>View it as a right to house children even in maximum security</td>
</tr>
<tr>
<td>Sweden</td>
<td>[<a href="http://www.totalspace">www.totalspace</a> design.com.au](<a href="http://www.totalspace">http://www.totalspace</a> design.com.au); Laws on Children Residing with</td>
<td>Up to age 1</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>Reference</td>
<td>Foster Care</td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>------------------------------------------------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>Finland</td>
<td>Poso et al., 2010</td>
<td>Up to 2 in closed institutions and up to 3 in open institutions within prison systems</td>
<td>Since early 2010, it is the duty of the municipal child protection system to assess whether it is in the best interest of the child to enter the prison with his or her parent.</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Laws on Children Residing with Parents in Prison (US Congress)</td>
<td>Up until age 3</td>
<td></td>
</tr>
<tr>
<td>Preungsheim Prison, Germany</td>
<td>Warner, 2015</td>
<td>Until 5 for low security Until 3 for high security</td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>Irish Prison Rules, 2007</td>
<td>Up to 1 year</td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>Laws on Children Residing with Parents in Prison (US Congress)</td>
<td>Up to age three</td>
<td></td>
</tr>
<tr>
<td>Neve Tirsta, Israel</td>
<td>Laws on Children Residing with Parents in Prison (US Congress)</td>
<td>Up to 2 years if breastfeeding</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>Source Description</td>
<td>Placement Duration</td>
<td>Notes</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------------------</td>
<td>-----------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>France</td>
<td>French Justice website</td>
<td>Up to 18 months</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>Jimenez-Morago, 2005</td>
<td>Up to age three</td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td>Govt website</td>
<td>Up to age three</td>
<td></td>
</tr>
<tr>
<td>South Africa</td>
<td>Laws on Children Residing with</td>
<td>Up until aged 2</td>
<td>The Department of Correctional Services (the Department) is required to take the necessary steps to find a proper placement for the child in cooperation with the Department of Social Development</td>
</tr>
<tr>
<td></td>
<td>Parents in Prison (US Congress)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. Discussion

5.1. Summary of the effectiveness of nursery programs

Systematic searches of the literature resulted in the inclusion of seven studies (one RCT and six quasi-experimental designs) from a pool of 22 eligible studies on prison mother and children programs. These studies were analysed with respect to outcomes in three key areas:

1. Outcomes for children - such as resilience to anxiety/depression related behavioural problems and prevention of attachment difficulties to the mother/alternative caregiver.
2. Outcomes for mothers’ parenting and wellbeing - such as improved wellbeing of mothers, improved mother-child relationships over time and increased likelihood of maintaining legal custody of children post release.
3. Outcomes related to mothers’ recidivism - lower rates of recidivism/reincarceration following release from prison.

While the results of the review indicate potential to achieve outcomes in each of these three areas, particularly with respect to mothers’ recidivism, findings are far from conclusive with most studies finding no effect for most outcomes.

On the positive side, no studies found harmful effects for either mothers or children. In addition, the strongest positive findings appear to be related to recidivism, and it may be that the provision of a mother-child nursery program leads to a stronger investment on the part of mothers to make the types of changes necessary to keep them out of prison once released. Related to this, offering mothers the opportunity to continue in their primary parenting role while they serve their sentence may be associated with an increased likelihood that they continue in this role post release, though this finding is less firm than the finding of decreased recidivism. Also positive, one study found improvements in child internalizing behaviour, indicating the potential for gains in child behaviour and mental health.

Along with a general lack of relevant studies, there were also serious methodological and programmatic design flaws in the studies located. That may explain an overall lack of findings with respect to parenting and child functioning. In particular, the studies conducted to date are extremely under-powered (i.e., very small sample sizes and/or insufficient clusters), making the finding of statistically significant results more difficult than it should be.
The one high quality trial we located Sleed et al. (2014) also did not adequately contrast the treatment and control groups (i.e., both groups received the most important part of the intervention: mothers residing with their children in prison). More importantly, the types of interventions described and the lack of information about the implementation of these programs within the prison setting leads us to believe that there is a strong potential for well-designed mother and children’s nursery programs to achieve positive outcomes for both mothers and children while also leading to reduced recidivism.

5.2. Issues for consideration

Despite the lack of clear evidence on nursery program’s effectiveness for child and parent outcomes, the included studies indicate that these programs may have the potential to create change for families if well conceptualised. While the prison environment presents many challenges for caring for infants and young children, prison-based mother and children programs have the potential to better maintain the connection between mothers and their children during incarceration. They also offer opportunities for improving the likelihood that parents will maintain or increase their motivation to change the types of behaviours that led to their incarceration and for introducing positive parenting techniques that are linked with improved outcomes for high risk children.

Against this background, and by drawing on the core review of seven outcome studies and the wider pool of 22 eligible studies describing prison-based mother and children programs, a number of key issues for consideration in the further development of this type of program were identified as part of this scoping review.

5.2.1. Incarceration as an opportunity for change

Incarceration represents a key opportunity for change, and mothers are likely to be more open to engaging with parenting programs and other resources, such as substance misuse treatment, if offered the opportunity to continue in their role as primary caregiver. However, these services must be readily available and, if they are to provide any benefit, should be of high quality (i.e., effective).

5.2.2. The nursery program target group

When considering who to include in nursery programs, several factors – relating to mothers, their children, and their family – need to be considered:

**Mothers**

- Many incarcerated mothers will display a number of high risk factors for poor parenting skills that can be targeted for intervention. These include poorly or
untreated mental illness, substance misuse, histories of trauma, poor role modelling from their own parents including parental incarceration, poor prenatal care and poor knowledge about childcare (Borelli et al., 2010; Byrne et al., 2010; Carlson, 2001; Cassidy et al., 2010; Goshin et al., 2013; Lejarraga et al., 2011; Schehl, 2003; Sleed et al., 2014). As there is a high likelihood that many mothers entering prison will have substance use problems, ensuring that they can receive effective treatment whilst residing in the mother and baby unit will be crucial for the success of nursery programs.

- Excluding women with violent offences or offences against children limits opportunities for these women to maintain their caregiving roles and to use this opportunity to make positive changes. On the other hand, the risk posed to other women and to the children in the program may be substantial and will need thorough safety planning. This may be something to consider for the future, after the next phase of development of the program has been successfully tested.
- In many cases, the decision regarding the inclusion of mothers into nursery programs is based upon her release prior to the child reaching the program’s cut-off age. This may be something to reconsider or to consider on a case-by-case basis. That is, there may be instances where the sentence is longer than the child can stay on the unit, but the overall benefit to the child is greater if they can reside with their mother for as long as possible.

**Children**

- A highly limited age range for children can limit the viability of the program due to concerns about a low census (i.e., too few mothers to efficiently run a separate unit). Our reviews identified a wide age eligibility range for young children (range was 0 to 5). Victoria has one of the larger age ranges, but is still generally within the norm.
- The wider age range means that mothers are caring for children at different developmental stages. Intervention design and targets must take this into consideration.
- Although not explicitly stated or evidenced in the studies, it is unlikely that the benefits and/or complexity (i.e., school attendance, peer relationships, beginning identity development) of a child residing in the prison setting with their mother past the age of five outweigh the potential harms.

Finally, it is relevant to consider the role of siblings when a mother is incarcerated with her child—especially when these siblings are close in age. The literature does not indicate how often this occurs, but it is likely to be an issue in a substantial number of cases.

### 5.2.3. Group versus individual treatment

Most studies report that they use group based treatment models for prison mother child programs (Carlson, 2009; Sleed et al., 2014). However, given the typical incarceration patterns of women (e.g. shorter sentences) and the variation in ages of their children at entry (i.e., some are newborn and some are four or more years old), individually based programs appear to offer the opportunity for the greatest benefit, whereas the strength of
group work is to create a more supportive environment. Individual-based modalities can be augmented with supported group activities related to parenting.

5.2.4. The prison environment

Considering the physical resources for nursery programs is of paramount concern for their successful implementation. The research located in this review found mother and child programs have been implemented in a range of prison settings including residing among the larger prison population to residing in separate nursery settings to residing in what amount to highly supervised half-way houses (see Paddick, 2011 for a more fulsome review). In general, children require:

- Adequate room to explore
- Safe and adequate indoor play areas
- Safe and adequate outdoor play areas
- Safe sleeping arrangements
- Constant access to toys and other objects of interest

As such, there may be tensions between the custodial environment and the care of children and associated risk/responsibility for children’s safety and wellbeing.

Also part of environmental considerations is mothers’ need to be able to practice the skills they are taught by having appropriate parental control over their child and being able to make decisions about their child including what they eat, what they do and when and how they sleep (Luther & Gregson, 2011).

Providing high quality nursery programs likely also involves the successful management of collaboration among multiple services, both internal and external, within the prison environment (e.g., when mothers also need to take part in substance misuse treatment programs).

Finally, the role of prison staff as an environmental factor is important to consider when providing nursery programs. The role of prison staff in the provision of parenting-related services is different from standard prison work and may involve union and other work-related considerations. Even if prison staff are not charged with the delivery of specific parenting content, the presence of children and their mothers on a unit is likely to require a very different set of skills and actions by all involved staff as well as contracted service providers. A successful program will find a way to integrate the intervention with normal prison rules and expectations, and will also train staff and help them develop the skills required to maintain a setting that is supportive of parenting. Notable in the studies eligible for this review was that many included nurses and, in some prisons, midwives in program delivery, especially if mothers enter the unit pre-birth (Byrne et al., 2010; Gat, 2001; Goshin et al., 2013; Siefert & Pimlett, 2001).
5.2.5. Meeting the needs of children

Children and pregnant mothers require access to high quality health care. Many children of incarcerated mothers have had poor prenatal care and will have high health needs that can not be met by prison health services that are adult focused (Byrne et al., 2010). They will require access to specialist health services, good nutrition and similar supports.

Simultaneously, children have the need to maintain regular contact with their wider family, and nursery programs need to consider in which ways these relationships can be upheld and nurtured. Given that an estimated 74% of incarcerated women are single parents of minor children (Morton & Williams, 1998), and that children of incarcerated women are often cared for by their grandmothers (Engstrom, 2008; Poehlmann, Park, Bouffiou, Abrahams, Shlafer, & Hahn, 2008), it will be important to examine whether including grandparents and other carers in the intervention is a useful strategy for supporting both mothers and their children. Involvement may also enable these carers to benefit from parenting education as well as preparing for aftercare and the transition from custody. While this would represent an indirect service, it can also be framed as a way to help mothers build a positive, post-release environment that supports parenting.

5.2.6. Meeting the needs of specific populations

The literature provides little information about how nursery programs can accommodate diversity. No information was included on how they can be utilised for an Aboriginal and Torres Strait Islander (ATSI) population. Programs included in this scoping review were offered to racially diverse populations including indigenous populations in the US (Carlson, 2009; Goshin et al., 2014; Sleed et al., 2013; Staley, 2002; Whiteacre et al., 2013). However, no specific findings related to ethnicity were included, and knowledge about how to adjust nursery programs to a culturally diverse population will need to be drawn from the wider literature focusing on diversity and cultural competence in social work and corrections.

5.2.7. Aftercare / transition from custody

In order to enhance the likelihood that results achieved through a nursery program are sustained, planning for the end phase of custody and transition to other living arrangements for both the mother and the child is crucial. Among key considerations is the need to assess the impact of changes on children’s life when children have to leave the program earlier than their mother. It will also be important to ensure that children who leave the prison are maintained in a safe environment, and that mothers get the opportunity to maintain and generalise gains made in the prison program through connections to effective community based services. The latter requires that prison transitional support services are involved in a process of multidisciplinary coordination and collaboration together with parenting and child support services, child protection services, health services and other required social supports for the prisoner and the child.
5.3. Recommendations

This scoping review of the literature on nursery programs has found few studies that lend themselves to evaluating and improving the likely performance of the existing prison based nursery programs in Victoria. However, the extensive review did not uncover any adverse outcomes for mothers or children. Most of the findings were neutral or positive, and the extensive literature on non-prison-based parenting programs can be used to offset some of the knowledge gaps.

It is also recognised that provision of prison-based mother and children programs takes place within an environment that needs to balance both custodial and rehabilitation priorities. In this context, a mother and children program might be viewed as primarily a custodial management strategy for prisoners with young children (with the primary consideration being that the prison environment does not present greater risk to young children) through to higher level rehabilitative goals such as potential impact on recidivism and potential to achieve other positive outcomes for mothers and children. Considering this balance of custody and rehabilitation, key findings from the review and knowledge of the broader parenting literature can be used to generate conclusions and recommendations for future program improvement efforts. Our key conclusions are:

1. No studies found harmful effects for either mothers or children and so, at minimum, provision of a prison-based mother and children program appears to present no greater risk to mothers or children than separation of the mother/child through imprisonment.

2. The strongest positive findings from the included studies appear to relate to recidivism indicating that investment in a well-designed mother and children program may result in reduced recidivism.

3. In addition to the custodial management imperatives and potential impact on recidivism, mother and children programs have the potential to adopt proven parenting interventions and to utilise the opportunity imprisonment presents for engaging mothers in other services that are likely to achieve positive outcomes for both mothers and children.

In the following, we provide a number of recommendations which are geared toward improving the existing nursery program in use in Victoria. They are informed by current best evidence on parenting, and on the effective implementation of programs and practices in human services.

An important starting point for reviewing an existing program is to emphasise that participants do not benefit from these programs if they do not receive them. This points to the fact that, far too often, programs are implemented incorrectly, fail to reach the intended population, and / or cannot be maintained. Hence, the successful improvement of the Victorian program will hinge on both the selection of effective program practices / effective program elements (the “what”) and their effective implementation (the “how”) in the prison setting.
5.3.1. The What: Nursery program practices

When providing nursery programs, it is important to recognise the opportunity for change the programs provide. Mothers are more likely to be open to participating in parenting programmes when imprisoned, and to take part in educational and treatment programs than when outside of prison (Eddy et al., 2008). In order to strengthen the motivational component of nursery programs, providers may consider the use of Motivational Interviewing (MI) to improve the likelihood of successful uptake of complementary services. MI is an approach to facilitate and engage intrinsic motivation within clients and thereby enable behaviour change. It is an evidence-based practice whose effect has been documented through a large number of primary studies and systematic reviews summarising its impact within different sectors and on different populations (Rubak et al., 2005; McMurran, 2009; Romano & Peters, 2015; Smedslund et al., 2011; Yakovenko et al., 2015; Borrelli et al., 2015). Several studies involving the successful use of Motivational Interviewing with prison populations have been documented (McMurran, 2009; Kouyoumdjian et al., 2015).

The provision of nursery programs implies the delivery of content related to parenting practice. As highlighted above, this delivery should primarily be individual rather than group-based due to the varying ages of children, the complex nature of the environment, and the need to tailor parenting information to individual parent need. A group support component might also be helpful, but it should be secondary to individually tailored services. Furthermore, parenting content should be based on social learning theory and include a substantial skill-building component that involves both training and coaching. The evidence from parent training programs would suggest that this is the most effective form of parent training (see, for example, Centers for Disease Control, 2009), and there is no reason to suggest that this would be different in a prison setting.

Another relevant consideration in relation to nursery program practices can be the adoption of one or more manualised parenting programs that have proven efficacy in the general population and which are being used in prisons. The use of a manualised program, if affordable and adaptable to the prison context, saves development and research time. Furthermore, when implemented well, it is likely to yield positive results for mothers and children. The following programs have been used with a prison population:

- **The Incredible Years®** is a series of interlocking, evidence-based programs for parents, children, and teachers, supported by over 30 years of research. The goal is to prevent and treat young children's behaviour problems and promote their social, emotional, and academic competence. The programs are used worldwide in schools and mental health centres, and have been shown to work across different cultures and socioeconomic groups. Currently they are used in the New Zealand mother and babies units (Elliot-Hohepa & Hungerford, 2013), although efficacy is yet to be shown for the prison population and is, in the main, a group-based modality.
- **SafeCare** is an individualised, manualised, highly structured behavioural skill-training model. SafeCare modules address (a) parent/child or parent/infant interaction, basic caregiving structure and parenting routines; (b) home safety; and (c) child health.
(Chaffin et al., 2012). SafeCare has been found to be effective with high-risk parents (e.g., referred with child protection concerns) and has been successfully adapted for use with indigenous populations.

- **Parenting Inside Out** has been designed specifically for incarcerated and criminal justice involved parents. The program is for parents with children aged over three (Eddy et al., 2008), so would need to be offset with other parenting content geared toward younger children.

- **Nurse Family Partnerships** Highly studied program that uses home visits by registered nurses to improve pregnancy and post-natal outcomes for first-time, low-income mothers. The program is geared toward improving child health, development and safety through the promotion of competent care-giving. Nurse Family Partnerships has been evaluated extensively and has been deployed across a large number of countries, including Australia, and has also been delivered in prison settings.

### 5.3.2. The “How”: High quality implementation of nursery programs

The question about how to ensure the quality of the delivery of nursery programs refers to the quality of its implementation. Implementation is a set of intentional and planned strategies to change or introduce empirically supported practices, programs or policies in real-world settings (Mitchell, 2011).

Evidence suggests that a carefully planned and sufficiently resourced implementation is key to successful outcomes. An influential review of studies assessing the outcomes from prevention and health programs concluded that the quality of implementation affects program outcomes, and that effect sizes were at least twice as high for studies where optimal implementation conditions existed (Durlak & DuPre, 2008). Simultaneously, many attempts to implement change in practice have been unsuccessful due to problems in the implementation process (Aarons, Hurlburt, & Horwitz, 2011; Mildon & Shlonsky, 2011; Sandfort & Mouton, 2015). Organisations therefore need to consider the quality of their implementation efforts when applying programs or practices aiming to create change for individuals.

To this end, there is a growing number of implementation frameworks and associated actions that can support implementation practices and enhance the likeliness to apply programs in complex social settings with success (Powell et al., 2015; Mildon et al., 2014).

Two of the core components of high quality implementation that emerge from the literature on implementation science are competencies and the permanent use of local data to continuously assess and improve practice.

**Competencies** point to the need of well considered staffing and skill building around a nursery program. As highlighted above, the application of nursery programs in a prison setting requires a substantial skill-building component that involves both training and regular coaching of staff involved in program delivery. While training can lay the foundation
of theoretical knowledge needed by staff in order to change practice, coaching is the
element that will help practitioners to continuously monitor their own practice and develop
the necessary skills to change habits and routines into ongoing mastery in daily practice.

If the nursery program in Victoria is to be updated, re-developed and renewed through, for
example, the integration of parenting components, it will be crucial to consider how the
involved staff can be prepared for this change, what basic training will be required, and how
the implementation of new practice components can be embedded into coaching structures
that support staff in their ongoing use of these practices. Manualised parenting programs
often have conceptualised the way in which coaching or consultation is delivered as part of
program implementation. When selecting such a program it will therefore be important to
assess in what way these coaching routines can be embedded into a prison setting.

**Continuous Quality Improvement** has long been a standard in healthcare (Blumenthal &
Kilo, 1998; Rubenstein et al., 2014) and is slowly gaining ground in allied health and other
professions as a process of ‘planning to improve a product or process, plan implementation,
analysing and comparing results against those expected, and corrective action on differences
between actual and expected’ (Lorch & Pollak, 2014 p. e97066). Even if a program is of high
quality, it can be improved, and there are effective ways to do this even in challenging
environments.

CQI refers to having a systematic approach to continuously collecting and reviewing data or
information about the implementation of a program in order to identify opportunities to
improve this implementation with the end result of delivering better services to customers
or clients. CQI emphasises an ongoing process of improvement and evaluation often based
on a plan-do-study-act (PDSA) cycle based thinking. The field of CQI research has been
characterised by methodological heterogeneity and a lack of consistency in identifying clear
characteristics of CQI studies, but in a recent study three features of CQI methods were
highlighted as essential by several experts (Rubenstein et al., 2014). These are: ‘Systematic
data guided activities’, ‘designing with local conditions in mind’, and ‘iterative development
and testing’, all of which can be applied in a wide range of human services.

For the Victorian nursery program this means that both program process and outcome
quality indicators could be revisited, and the program’s content and environment could be
scanned in collaboration with professionals with content expertise. This group can then use
CQI methods to work with prison staff and management to identify ways to improve the
physical environment, tailoring schedule and access services in ways that maximise the
opportunity for positive parenting without compromising security or other important
corrections needs. Included in this improvement work should be considerations regarding
the program’s linkages to providers of services located outside of the prison. This includes
access to maternal child health providers to ensure mothers and children get appropriate
services.
6. Limitations

Due to limits on funding and time, this rapid evidence assessment and scoping review is not a full systematic review of the literature such as can be found in the Cochrane and Campbell Collaborations. For instance, this review only sourced English literature. Publications written in other languages and summarising results from nursery programs in use in non-English speaking areas of the world are therefore not included here. In addition, there is the possibility that grey or published literature on prison nurseries was missed. An article by Warner (2015) points to the existence of prison nurseries in not only the U.S. (where nine states provide nursery programs) and the UK (eight so called mother and baby units exist in the country) but also in Germany, South America (Mexico, Bolivia, Columbia) and Africa (Kenya). Warner also highlights Canada as a country providing nursery programs. However, no studies were identified that indicate the existence of evaluations of Canadian nursery programs.

That said, the major limitation of this review is the limitation of the literature itself. Despite many years of providing prison nursery services, there has been scant attention paid to evaluating its overall effectiveness and testing different practices or models within the service.

7. Conclusion

There is little doubt that the quality of the relationship between mothers and their children, as well as the quality of parenting that children receive, have a great deal of influence on child outcomes. A break in primary caregiving as a result of incarceration has the potential to disrupt this relationship and, in order to avoid the unintended consequences of incarcerating others of young children, prison nursery programs have become more widespread.

The main concern expressed by corrections about such programs is the possibility that children may suffer harm by residing with their mothers in a prison setting. This evidence review indicates that, while there are generally few rigorous studies of prison nursery programs, the existing evidence would suggest that children are not harmed by these programs.

In addition, potential harms can be mitigated by investing in appropriate environments for raising children. Moreover, there is every reason to suggest that high quality programing focused on improving the parenting of incarcerated mothers can lead to better outcomes for both mothers and their children. Improvements to existing programs can be relatively easily made, and they are unlikely to be prohibitively expensive.
8. References


Social Work @ Melbourne School of Health Sciences, The Centre for Wellbeing, Save the Children Australia & Peabody Research Institute @ Vanderbilt University


• **Whiteacre, K.,** Fritz, S., Owen, J. (2013). *Assessing Outcomes for Wee Ones Nursery at the Indiana Women’s Prison.* University of Indianapolis Community Research Centre