Mother–Child Programs for Incarcerated Mothers and Children and Associated Health Outcomes: A Scoping Review

Martha Paynter, RN, PhD(c)
School of Nursing,
Dalhousie University
Halifax, NS

Keisha Jefferies, RN, PhD(c)
School of Nursing,
Dalhousie University
Halifax, NS

Shelley McKibbon, MLIS
Research Librarian
Libraries, Dalhousie University
Halifax, NS

Ruth Martin-Misener, PhD, NP, FAAN
Professor and Director
School of Nursing, Dalhousie University
Halifax, NS

Adelina Iftene, PhD
Assistant Professor
Schulich School of Law
Dalhousie University
Halifax, NS

Gail Tombin Murphy, RN, PhD
VP Research
Nova Scotia Health Authority
Halifax, NS

Abstract

Background: Increasing incarceration of women disrupts fertility, family formation, parenting and mother–child relationships. It is common in many jurisdictions, including Canada, to mitigate the harm of separation from the primary parent through programs allowing children to co-reside with their mothers in prison. In this scoping review, we asked the following questions: (1) What are the characteristics of residential mother–child programs in carceral facilities? (2) Who is eligible to participate? (3) How do these programs make a difference to maternal and child health outcomes?

Method: We use the Joanna Briggs Institute methodology for systematic scoping reviews. This approach includes a three-step search strategy developed with a clinical research librarian. Databases searched include MEDLINE, CINAHL, PsycINFO, Gender Studies Abstracts, Google Scholar and ProQuest Dissertations. The search yielded 1,499 titles and abstracts, of which 27 met the criteria for inclusion.

Results: Conducted from 1989 to 2019, across 12 countries, the studies included qualitative and quantitative methods. None was based in Canada. The most common outcomes among the studies included attachment, development, infection, neonatal outcomes, mental health, pregnancy and general experiences.

Discussion: Although supporting attachment, mother–child program participation is complex and challenging. High morbidity in the incarcerated population and lack of data collection before and after program participation prevent conclusions, and wide variations in contexts prevent comparisons.

Benefits from Reading: This scoping review illustrates the complexity of maternal and child health outcomes associated with mother–child programs. Initiation or continuation of or changes to such programs must be made with careful consideration.

Introduction

In Canada, and globally, women are the fastest growing population in prisons (Sawyer 2018). Women face many threats to health during incarceration, such as disruption in therapies, isolation from support systems and restricted access to health services. Worldwide, it is estimated that over two-thirds of incarcerated women are mothers (Glaze and Maruschuk 2010; Kouyoumdjian et al. 2016; McCampbell 2005). The increasing incarceration of women disrupts fertility (Jones and Seabrook 2017), family formation (Sufrin 2017) and parenting and mother–child relationships (Poehlmann 2005). Correlated with high rates of physical and sexual abuse, incarcerated women are at an elevated risk of post-traumatic stress (Jones et al. 2018) and substance use (Farrell MacDonald et al. 2015) – factors that may destabilize any mother–child relationship. Recognizing the potential for nurse leadership in addressing the policies and practices of care for incarcerated mothers with young children, we sought to review what researchers have studied with respect to programs that keep mothers and children together during the period of incarceration.

Separation of mothers from their children through incarceration poses additional threats and harms for mothers, including distress and anxiety (Shamai and Kochal 2008); loneliness, depression and pain (Chambers 2009); and fear of losing custody of their children and concern about their care (Luke 2002). Their children also face increased risks. Turney (2018) found that children with incarcerated parents are exposed to nearly five times as many adverse events as children who do not have this experience. Moreover, the children of incarcerated parents are at an increased risk of developing antisocial behaviours (Murray et al. 2012).

To reduce the harm of separation to both the mother and the child, some prisons allow children to co-reside with their mothers under the mother–child programs (MCPs) (Goshin et al. 2017). These programs have existed since at least the 1800s (Craig 2009) and are increasingly prevalent in North America (Goshin and Byrne 2009). MCPs may include parenting skills classes, counselling and prison nursery or off-site daycare services (Johnson 2017). The co-residential feature of these

programs differentiates them from other didactic or visitation parenting programs that may also be offered in prisons (Tremblay and Sutherland 2017). Researchers have found that in facilities that promote co-residing, mothers may be more likely to initiate and maintain breastfeeding (Senanayake et al. 2001), maintain or develop healthy bonds with their children and develop positive feelings toward themselves, such as self-esteem and confidence (Carlson 2001).

The United Nations Office on Drugs and Crime (UNODC) (2011) *Rules for the Treatment of Women Prisoners and Non-custodial Measures for Women Offenders*, known as the "Bangkok Rules," articulate principles for MCPs. They were unanimously adopted by the United Nations (UN) member countries, including Canada (UNODC 2011) (Box 1). Many rules refer to children and suggest that prisons have a responsibility for monitoring and evaluating the health of mothers and children in co-residential programs.

Box 1. "Bangkok Rules" regarding mother–child programs		
Rule 2: "Prior to or on admission, women with caretaking responsibilities for children shall be permitted to make arrangements for those children, including the possibility of a reasonable suspension of detention" (UNODC 2011: 8).	**Rule 33:** "Where children are allowed to stay with their mothers in prison, awareness-raising on child development and basic training on the health care of children shall also be provided to prison staff, in order for them to respond appropriately in times of need and emergencies." (UNODC 2011: 4).	**Rule 42:** "The regime of the prison shall be flexible enough to respond to the needs of pregnant women, nursing mothers and women with children. Childcare facilities or arrangements shall be provided in prisons in order to enable women prisoners to participate in prison activities" (UNODC 2011: 15).

The right to be parented is enshrined in the United Nations *Convention on the Rights of the Child* (United Nations Human Rights 1989).

Yet it appears that only a small portion of incarcerated mothers have access to, or participate in, MCPs. For example, although one third of all incarcerated women in the world are imprisoned in the United States, there are only nine MCPs in the country, located in eight of 50 states (Goshin and Byrne 2009; Goshin et al. 2017). There are six MCPs in England, with a total of 65 places, and yet, the program is rarely full (Dolan 2019).

Although each of the six federal prisons for women in Canada in theory has MCPs (CSC 2016), research has found only a small number of women per year use the program (Brennan 2014). Black women, women of colour and Indigenous women

may be less likely to meet eligibility criteria, largely due to their disproportionate likelihood of being classified at higher security levels (Miller 2017).

Literature Review

Although most countries in the world allow mothers and children to live together in prisons (Warner 2015), MCPs are understudied and under-documented. Neither Correctional Services Canada (CSC) nor the federal watchdog for corrections, the Office of the Correctional Investigator, routinely collects health data among MCP participants. MCP programs are costly. The annual cost per woman (not accounting for children) in federal incarceration is $83,861. The cost per new bed expansion in women's facilities is $259,894 and for women in structured living environments is $533,765 (Office of the Parliamentary Budget Officer 2018). To justify continuation, changes or expansion, high-quality research must inform what types of MCPs exist, who is eligible to participate, rates of participation and to what extent MCPs make a difference to maternal and child health outcomes.

In our preliminary search in February 2019 of the Joanna Briggs Institute (JBI) (2019) Database of Systematic Reviews and Implementation Reports, CINAHL, Cochrane Library, PsycINFO and MEDLINE, we found no existing scoping or systematic reviews specifically addressing health outcomes associated with MCPs in carceral facilities. Ward (2018) authored an unpublished systematic review on the impact of MCPs on mothers' recidivism. All five databases included studies that were based in the United States, and all suggested MCPs result in a reduction in reoffence (Ward 2018). A rapid review of MCPs by Shlonsky et al. (2016), prepared for the Victorian Department of Justice and Regulation in Australia, focused on child outcomes broadly, mothers' parenting skills and mothers' recidivism. Only one of the studies in the review demonstrated MCPs to be associated with differences in outcomes related to children's health or well-being.

Given the paucity of literature about MCPs, the aim of this scoping review was to systematically map what is known about MCP eligibility criteria, review MCP program characteristics and discern the health outcomes for mothers and children in research examining the health of MCP participants. The results were analyzed to determine: the implications for policy governing the services for incarcerated mothers and their children, nursing practice when caring for this population and future research to address the needs of this marginalized population.

Methods

Research Questions

The questions that guided this scoping review were as follows: (1) What are the characteristics of MCPs and carceral facilities, such as whether they are full-time

or part-time and whether they are within the carceral facility or located in the community? (2) What are the eligibility criteria for mothers' and children's participation, such as non-eligibility for adult participants convicted of violent offences or age restrictions for child participants? (3) What health outcomes have been studied among mother and child participants, such as peripartum depression and breastfeeding among adult participants and birthweight and feeding experience among child participants?

Design

We conducted a scoping review following the JBI (2019) methodology. The population of interest was MCP participants. The concept was MCP characteristics, eligibility criteria and participant health outcomes. The context was incarceration.

Search strategy

The JBI method uses a three-step comprehensive search strategy to find both published and unpublished studies: First, an experienced medical librarian led a limited search of MEDLINE and CINAHL using keywords. She analyzed the text in the titles/abstracts and index terms to develop a tailored search strategy for each information source. Keywords included the following: carceral, penal, custod*, jail, prison*, incarcerat*, correction*, penitentiar*, detention, inmate*, offender*; baby, infant, child, newborn; co residential, residential, resid*, onsite, liv* with; mother*, maternal, antenatal, postpartum.

Second, databases were searched using the keywords and index terms identified from the initial limited search. The databases we searched included the following:

- MEDLINE,
- CINAHL,
- PsycINFO and
- Gender Studies Abstracts.

The search for unpublished studies included the following:

- Internet search engine (first 100 hits on Google Scholar) and
- ProQuest dissertations.

A full search strategy for CINAHL is detailed in Appendix 1 (available online at www.longwoods.com/content/26189). Finally, to help identify any additional studies, the reference lists of all literature meeting the inclusion criteria of this review were examined for potentially relevant studies. The JBI method for scoping reviews does not include quality assessment of the studies, and as such, this was not performed.

Inclusion criteria

This scoping review included studies with participants who met the following criteria: mothers and/or their children, regardless of age, who participated in an MCP during maternal incarceration. We included transgender women in the term "mother." Community-based and carceral facility-based programs were included. All adult (mother) participants must have been serving a custodial sentence during participation in the MCP. Studies conducted in the community or in carceral facilities, for example, jails, prisons, detention centres, police lock-up, immigration detention and juvenile detention, were included.

This scoping review considered studies of health outcomes associated with MCPs for incarcerated mothers. Deciding what counted as a "health outcome" was difficult and our judgments are a limitation. This review included experimental and quasi-experimental study designs as well as qualitative research, such as ethnographies, case studies and studies using grounded theory and phenomenology. Only studies or protocols published in English were included. No specific date range was used.

Exclusion criteria

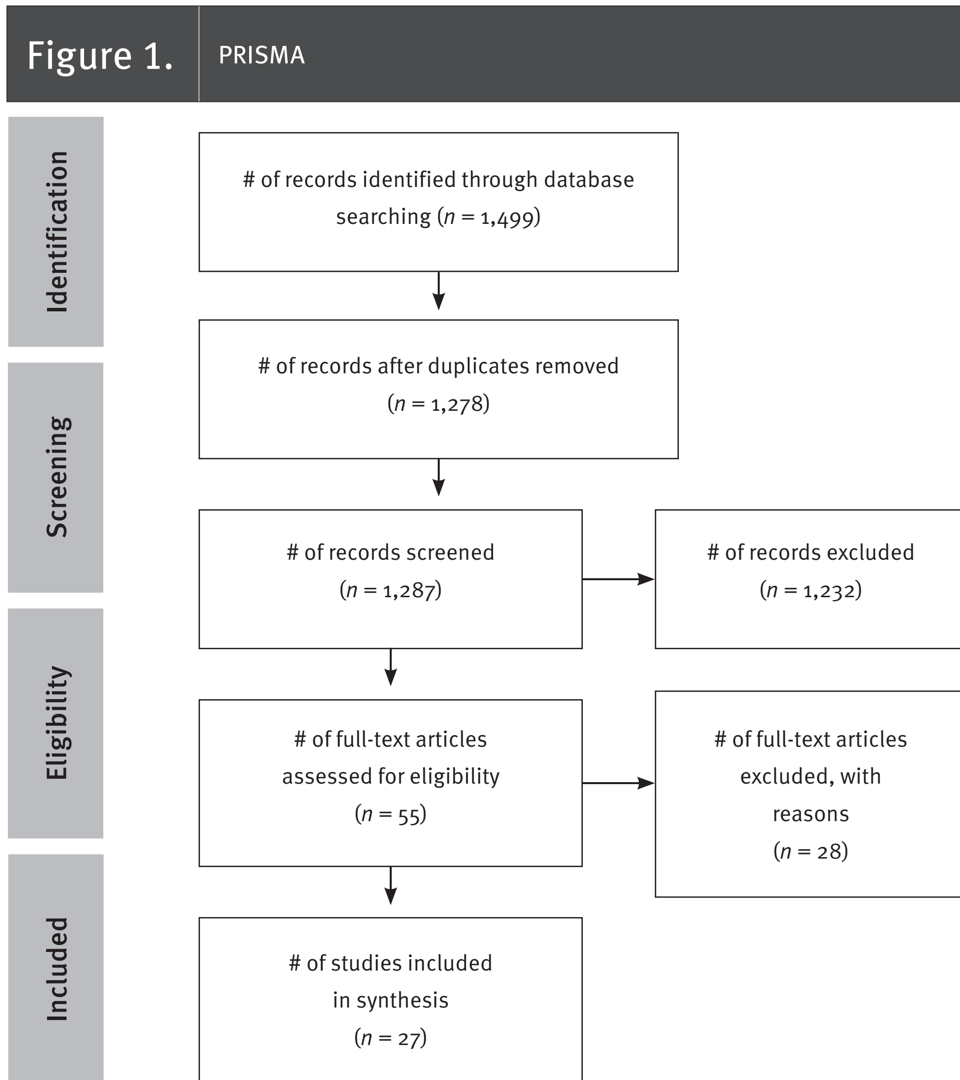
This review excluded fathers or parents not specified as "mothers." We excluded non-residential programs, such as parenting education programs, and programs for formerly incarcerated people, such as those on parole. This review excluded residential drug treatment programs unrelated to criminal charges. As the focus on this review and the keywords addressed health, we did not consider studies that examined outcomes not described as health related, such as educational attainment of children or recidivism rates among mothers, although we recognize that these are likely to influence health experiences. The review did not include systematic reviews, literature reviews, commentaries or editorials and excluded all publications not available in full text in English.

Study selection

Following the search, all identified citations were collated and uploaded on Covidence. Duplicates were identified and deleted. Two reviewers independently screened the titles and abstracts for assessment against the inclusion and exclusion criteria. Titles and abstracts that met the inclusion criteria were retrieved in full and assessed by two independent reviewers using the inclusion criteria. Where any conflicts occurred, a third reviewer was available to assist. Full-text studies that did not meet the inclusion criteria were excluded.

The search strategy retrieved 1,499 hits. Removal of 212 duplicates resulted in 1,287 articles for title and abstract review. Two reviewers independently screened articles to identify those eligible for full-text review. A total of 55 articles were included for full-text review, of which 27 met the inclusion criteria (Figure 1).

Figure 1. PRISMA



Source: Moher et al. 2009

Reasons for exclusion of 28 articles included the following: not research (10), duplicate (seven), not focused on health outcomes (seven), not the population of interest (two), not in English (one) and record could not be located (one). Please see Preferred Reporting of Items for Systematic Reviews and Meta-Analyses (PRISMA) in Figure 1, adapted from Moher et al. (2009).

Data extraction

Data were extracted from included papers using Excel. The items extracted from the full text included study characteristics (e.g., year of publication, country), program eligibility criteria, program elements, study design and methods and health outcomes for mother and child participants (Table 1;

go to www.longwoods.com/content/26189). Any disagreements that arose between the reviewers during data extraction were resolved through discussion.

Results

Study Characteristics

The 27 studies were published between 1989 and 2019. The settings included 12 countries: one study each in Brazil (Leal et al. 2016), India (Planning Commission 2006), Iran (Rahimipour Anaraki and Boostani 2014), Italy (Ferrara et al. 2009), Portugal (Freitas et al. 2016), South Africa (Eloff and Moen 2003), Spain (Jiménez and Palacios 2003), Sri Lanka (Senanayake et al. 2001), Turkey (Kutuk et al. 2018) and the United Arab Emirates (Al Salami et al. 2018); six in the United Kingdom (Baradon et al. 2008; Birmingham et al. 2006; Catan 1989; Dolan et al. 2013; Gregoire et al. 2010; Sleed et al. 2013); and 11 in the United States (Barkaukas et al. 2002; Borelli et al. 2010; Byrne et al. 2010; Carlson 2001; Cassidy et al. 2010; Condon 2017; Fritz and Whiteacre 2016; Goshin 2015; Goshin et al. 2014; Lennon 1992; Schehr 2003). None of the studies was based in Canada.

Study designs included eight qualitative studies (Baradon et al. 2008; Condon 2017; Eloff and Moen 2003; Freitas et al. 2016; Fritz and Whiteacre 2016; Goshin 2015; Rahimipour Anaraki and Boostani 2014; Schehr 2003), 16 quantitative studies (Al Salami et al. 2018; Barkaukas et al. 2002; Borelli et al. 2010; Byrne et al. 2010; Carlson 2001; Cassidy et al. 2010; Catan 1989; Dolan et al. 2013; Ferrara et al. 2009; Goshin et al. 2014; Gregoire et al. 2010; Jiménez and Palacios 2003; Kutuk et al. 2018; Lennon 1992; Senanayake et al. 2001; Sleed et al. 2013) and three mixed-methods studies (Birmingham et al. 2006; Leal et al. 2016; Planning Commission 2006). Sample sizes varied from three, as in the study by Schehr (2003), to 495, in the mixed-methods study by Leal et al. (2016).

Program Eligibility

A total of 16 studies included information regarding eligibility criteria for participation in the MCP. Common criteria included child age limits or length of participation limits and ineligibility of mothers with a history of violent offences. Additional requirements included that applicants be pregnant when they applied, demonstrate the ability to parent and pass urine drug screens. Both Gregoire et al. (2010) and Birmingham et al. (2006), whose studies are set in the United Kingdom, reported subjective determination of the "best interests of the child" as a condition for participant eligibility.

Program Characteristics

The evidence in this review points to great variation in characteristics associated with the MCP. Nine studies did not include information about MCP

characteristics. A few programs had multiple supplemental elements: Condon (2017) described monthly pediatrician visits, therapeutic childcare, support and coaching for mothers; by contrast, Senanayake et al. (2001) described children accompanying their mothers to prison labour placements. One study (Sleed et al. 2013) compared groups within an MCP: the case group received access to an extra intensive parenting program, whereas the control did not.

Health Outcomes

A total of 14 studies examined child outcomes and 19 examined maternal outcomes. Common health outcomes among the child-focused studies were breastfeeding (six), development (five), neonatal outcomes (three), attachment (three), infection (three) and immunization (two). Studies examined more than one outcome. Common health outcomes among the mother-focused studies included mental health/stress (seven), qualitative experiences (six) and perinatal (six). Seven studies presented outcomes for both mothers and children.

Child outcomes

In this review, seven studies mentioned breastfeeding. Lennon (1992), based in the United States, and the Planning Commission (2006), based in India, found that 20% of MCP participants breastfed. Both Senanayake et al. (2001), based in Sri Lanka, and Ferrara et al. (2009), based in Italy, found that 70% of MCP child participants were breastfed. Barkauskas et al. (2002), based in the United States, found that 19.4% of MCP participants breastfed at discharge from hospital, compared with 2.9% of controls who were incarcerated mothers unable to return to the prison with their infants. Fritz and Whiteacre (2016), also in the United States, found breastfeeding rates of 60% for MCP participants compared to 33% for non-participants. Kutuk et al. (2018) in Turkey found a mean duration of breastfeeding of 8.3 months for MCP participants.

All five studies that examined child development used an established tool. Four generated results that suggested no marked developmental harm associated with MCP participation (Catan 1989; Goshin et al. 2014; Jiménez and Palacios 2003; Lennon 1992). However, Kutuk et al. (2018) found that 14 of the 26 children in their study experienced a developmental disorder.

Three studies examined neonatal outcomes. Barkauskas et al. (2002) found birth weights, gestational age and neonatal APGAR health scores among children in MCPs to be similar to those of children in the control condition. Ferrara et al. (2009) found a statistically significant difference in the gestational ages at birth of babies born to the in-prison group (lower) versus the control, as well as earlier time of weaning. Lennon (1992) found nine of the 116 infants in her study to be born preterm.

All three studies that explored attachment found favourable or normal levels among the child participants in MCPs (Byrne et al. 2010; Cassidy et al. 2010; Condon 2017).

The three studies examining infection and two examining vaccination were less uniform in their findings. Ferrara et al. (2009) found higher rates of respiratory illness among the case group (MCP) than in controls and inadequate immunization among MCP children. Among the 116 infants in her study, Lennon (1992) found 182 incidences of respiratory illness and 135 of ear infection (children could be ill more than once). In a sample of 30 children, Senanayake et al. (2001) found that 23% had scabies, 10% had pediculosis and 7% had impetigo; all immunizations were up to date.

Maternal outcomes

Each study in our review used established tools for measurement of maternal outcomes. As shown in Table 1, results varied. In their sample of 55 MCP participants, Birmingham et al. (2006) found that 35% had personality disorders, 35% had a neurotic disorder, 16% had a "hazardous drinking" disorder and 36% had drug use disorders. Of the participants, 31% had current need for mental health treatment. In their sample of 85, Dolan et al. (2013) found that 51% had depression and 57% had anxiety. Goshin et al. (2014) found that one third of the caregivers of the 47 infants in their study reported prenatal substance use or problem drinking. In their sample of 112, Gregoire et al. (2010) found that 90% had one or more of the five categories of mental disorder for which they surveyed. Kutuk et al. (2018) found that all 24 mothers in their study scored in clinical ranges for emotional abuse, emotional neglect and physical neglect. Cassidy et al. (2010) found that Beck Depression Inventory scores fell on average among the 20 mothers who participated in the MCP, but that the result was not statistically significant. Sleed et al. (2013) did not find any change in depression scores over time among the 88 MCP participants in their study.

Although a dominant theme across the qualitative studies is the mother–baby dyad as its own "home" and "family" and the MCP as supportive, some researchers uncovered mental and emotional distress among participants. For example, Freitas et al. (2016) remarked, "Women whose children live with them in prison experience some advantages, but motherhood also increases suffering due to restrictions on liberty" (p. 415).

Perinatal outcomes included pregnancy rate, pregnancy intention, parity and mode of deliveries. The rate of pregnancy among incarcerated women in MCPs was reported to be 0.7% in one study (Birmingham et al. 2006) and 3% in another (Planning Commission 2006). Leal et al. (2016) identified high rates of unplanned or unwanted pregnancy among their study participants but did not provide an overall rate of pregnancy among incarcerated women. Although the mode of

delivery rates varied widely among the studies, no study identified the C-section rate among MCP participants as out of the ordinary for their context.

Importantly, two studies addressed carceral force: Leal et al. (2016) found that 36% of that respondents were held in restraints during labour. Fritz and Whiteacre (2016) reported that the use of ankle cuffs was a normal practice during birth, with 40% of the MCP participants reporting negative emotions regarding their use. The amount and the implications of carceral force remain curiously rare outcomes of study.

Discussion

This systematic scoping review aimed to create an international picture of what types of health outcomes researchers have examined among participants in MCPs in carceral settings and how MCPs differ in terms of program characteristics and eligibility criteria. Given the sparsity of synthesized information, the scoping review approach was appropriate to begin to understand the nature of existing MCPs and the types of health outcomes under scrutiny and how they have been studied.

In a third of the studies in our review, the eligibility criteria for participating in MCPs are not described. Indeed, in some, participation is presented as maternal choice (Planning Commission 2006). Between the studies, criteria contradict each other: in some, the applicant must be pregnant (Cassidy et al. 2010); in others, up to three children may come with the mother. Sometimes, only those with a history of substance use may apply (Barkaukas et al. 2002); in others, participants must have a negative urine drug screen (Birmingham et al. 2006). As Gregoire et al. (2010) noted, although mental illness may not be a criterion for exclusion, the other criteria may effectively exclude potential participants with mental health concerns. In general, the only restriction in terms of the children was their age, usually limited to the first year of life. These wide differences in eligibility, and in the consequent differences in characteristics of participants, prevent any generalizations.

In Canada, the Commissioner's Directive 768 governs eligibility to the full-time federal MCP. Prospective applicants must have a child who is four years or younger, be classified as medium or minimum security and have no convictions for actions endangering a child (CSC 2016). Nurses may be able to directly support applicants by using their independent professional authority and leadership to influence expediting paperwork, supporting efforts for applicants to reach lower security classifications and by helping applicants frame their applications as in the best interest of the child.

The variability in MCP contexts impairs our ability to make comparisons among outcomes across multiple settings. The term "prison nursery," although used often, is obfuscating. It may refer to a unit in which mothers and children co-reside or to a nursery school/daycare option in addition to co-residence. The absence of

day-care in settings where incarcerated women are required to work could be a deterrent to maternal willingness and ability to join the MCP. Baradon et al. (2008) found that mothers felt guilty about bringing their children into the prison environment. The potential negative implications for mother participants vis-à-vis other aspects of imprisonment and MCP participation must be disentangled from a presumption of benefit for all.

In Canada, there is no on-site day-care for the MCPs. Children are ineligible when they reach five years of age and are expected to attend school regularly (CSC 2016). Nurses who work in corrections in Canada must consider how balancing work and caregiving responsibilities and ubiquitous concerns for mothers is a strain for MCP participants, who lack flexibility, have next to no income and are also trying to fulfill institutional requirements for their eventual release.

Given the stigma criminalized mothers experience, we expected a greater focus on outcomes of the child over those of the mothers and were surprised to find more studies focused on mothers. We also expected more studies to examine health outcomes among both the mother and the child, as the pair is strongly connected in their experiences of health. The range of outcomes introduced in this review speak of the enormous complexity of creating a healthful environment within an institution.

We anticipated breastfeeding and healthy attachment as likely key outcomes to study; this expectation was confirmed by the review. The strong interest in infant development buttresses concerns we often hear that the prison environment is sterile and inadequately stimulating for children. Although limited, findings in this review demonstrate that developmental delay is not an overarching concern for MCP participants and, rather, that separation may increase anxiety.

The research reporting on health outcomes for children reflected a broad view of child health and considered the impact of physical infrastructure in the prisons, resources for gross and fine motor skills development and the presence of stimulating play items and recreational equipment in the prison (Jiménez and Palacios 2003; Planning Commission, Government of India 2004). Nurses should consider the complexity of healthy child development in their care and advocate for MCP participants. Future research should be conducted in collaboration with colleagues in early childhood education, social work, recreation therapy and other health disciplines.

Eight of the 27 studies explored how MCPs affect maternal and infant health in the perinatal period, that is, pregnancy, labour, birth, postpartum and neonatal outcomes. We questioned whether to include these studies at all, as they do not address outcomes associated with a child *living* with their mother. Thus, it is not the MCP that likely influences these health outcomes but rather prenatal incarceration and institutional

accommodations for pregnancy, labour and birth. However, including these studies allows us to note, with concern, the greater focus on pregnancy and neonatal outcomes than longer term health outcomes for both mother and child, in or out of MCPs. Although giving birth in ankle cuffs is an extraordinary trauma, separation from one's child for their infancy is likely far harder to endure.

As might be expected, MCPs may have a greater influence on postpartum well-being than antenatally or during labour and birth. Fritz and Whiteacre (2016) found that prenatal, labour and delivery outcomes do not differ significantly between mothers who participated in MCP versus those who did not but that the mothers had differing postpartum experiences. MCP participants were less likely to experience trauma with separation from the infant and were more likely to breastfeed.

We were pleased to find that about one quarter of the studies in this review mentioned breastfeeding; in our earlier scoping review of maternal health outcomes of incarcerated women (Paynter et al. 2019), we critiqued the lack of attention to breastfeeding. Breastfeeding is recognized as a key determinant of maternal and infant well-being (Victora et al. 2016). Breastfeeding initiation, exclusivity and duration would be expected to be mediated by proximity and co-residence with the child. Although likely influencing breastfeeding outcomes among MCP participants, local cultural norms regarding breastfeeding were not examined in our scoping review.

Mental illness is both a common precursor to incarceration of women and a common complication of pregnancy and as such was unsurprisingly the most common outcome of study in the review. Seven studies examined indicators such as maternal depressive symptomatology, presence of psychiatric disorder and/or receipt of treatment. Birmingham et al. (2006) noted that mothers who are deemed to have stable mental health may be more likely to be admitted to MCPs. However, high rates of depression, other psychiatric disorders and substance use found among MCP participants in the scoping review are unsurprising. In Canada, more than three quarters of federally incarcerated women have histories of mental illness, and two thirds have co-occurring substance use disorder or personality disorder (Office of the Correctional Investigator 2019). Almost half are prescribed psychotropic medication (Office of the Correctional Investigator 2016). Nurses can recognize not only the physiological value for infants to room in with their mothers during withdrawal from uterine substance exposure (Johnson 2020) but also for mothers to develop self-esteem and self-worth through uninterrupted bonding in the early infant period.

This review finds a lack of research related to MCPs in Canada, resulting in gaps in knowledge to inform policy making, clinical care and research. We recommend first

and foremost a census. In Canada, neither CSC nor the Office of the Correctional Investigator systematically tracks or analyzes how many mothers and children are affected by maternal incarceration. To our knowledge, the health outcomes for criminalized mothers and their children under community supervision have also not received substantial study. This oversight requires immediate attention.

The *Bangkok Rules* require (1) a comprehensive health history when a woman is admitted to custody, (2) state responsibility for child well-being and (3) provision of equal access to women's healthcare in prison as is available in the community (UNODC 2011). We suggest that the aforementioned three health system indicators are minimal requirements for researchers to assess in evaluation of MCPs. Our scoping review identifies many others (Box 2).

Box 2. Key health outcomes for participants in MCPs

- Reproductive health history
- Current reproductive, physical and mental health needs
- Breastfeeding and infant feeding
- Child and mother nutrition
- Infectious disease and immunization
- Maternal mental health: presence of psychiatric disorder or substance use disorder, access to therapy, use of psychotropic medication
- Child development
- Child and mother attachment
- Accidental injury
- Carceral force, restraints and maltreatment
- Access to services: pediatric, perinatal, emergency, specialty, etc.
- Oral hygiene and dental care
- Maternal satisfaction with MCP
- Maternal self-esteem and self-efficacy

From the perspective of clinical practice, the health outcomes listed in Box 2 inform what nurses must ensure are part of their support for incarcerated mothers and child health. Given that incarcerated women experience elevated rates of mental illness and substance use, nurses must ensure that MCP participants have access to comprehensive mental health and support for substance use disorder. Peripartum depression is a common complication of pregnancy and more predictable in a context of limited access to support, constant surveillance and restricted activities of daily living. Without adequate emotional support, MCP participants risk instability and challenges meeting institutional expectations and eligibility

requirements. Nurses have a critical role to play in providing trauma-informed mental healthcare and in advocating for access to additional resources, such as opioid replacement therapy, counselling by elders and talk therapy. Nurse confidence in the value of mothers and children being together could be important to supporting prospective MCP applicants.

Policy makers and administrative stakeholders for prisons for women in Canada and internationally must observe the *Bangkok Rules* (UNODC 2011) and the UN *Convention on the Rights of the Child* (United Nations Human Rights 1989) and permit mothers to parent their children wherever possible. They must recognize that if children are to be co-incarcerated, their complex needs in early childhood must be reliably met. In geographically large countries with small incarcerated populations, such as Canada, this could be exceedingly resource intensive. Non-carceral options for mothers and children must be explored rather than using resource intensity as a rationale to separate the dyad. From a professional position of trust and expertise in the evidence of maternal and child well-being, nurses can advocate for alternatives to incarceration. For participants in MCPs, nurses can advocate for respite and day care to support mothers' participation in required correctional programs and, training and employment to expedite release and facilitate community reintegration.

Limitations

This review has limitations. The studies included in this review span five continents, providing limited information about areas that require in-depth monitoring and research with attention to local contexts. This review was restricted to articles published in English. Some of the studies are over 30 years old; contexts have changed drastically in that time. We did not assess study quality. Although many social and economic factors are known to be determinants of health, this review only includes research studies in which outcomes are described as health related by the study authors. The authors of this review recognize that trans and nonbinary parents may be imprisoned in facilities for men or women, and "mother" is a problematic term. Future research must include trans and nonbinary parents.

Conclusion

This review maps the great variation in MCP eligibility criteria, program characteristics and outcomes of interest in studies examining maternal and child health associated with participation. It identifies key outcomes that nurses can apply to research, clinical practice and policy. We found no studies of health outcomes associated with the MCPs in Canada, and yet, every federal prison for women in Canada has an active program.

To justify continuation of, changes in or expansion of MCPs, high-quality research must inform decisions. The rising incarceration of women in Canada and globally

(World Prison Brief 2017) is driving increasing concern about the well-being of affected children and consequent advocacy for MCPs. The paucity of evidence about the health benefits of MCPs suggests consideration should be given to alternatives to family incarceration and serious evaluation of variations among program options.

Nursing leaders should advocate for not only creative and extensive research, comprehensive care and policy in line with the *Bangkok Rules* but also alternatives to research, care and policy of incarceration for mothers and children together. Nurses can promote a vision of future mother–child dyad-centred research, care and policy that breaks down the prison walls.

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Conflicts of Interest

Martha Paynter is the volunteer president of the Board of Women's Wellness Within, a non-profit organization supporting criminalized women in the perinatal period in Nova Scotia. There are no financial conflicts to declare for any of the authors.

Correspondence may be directed to: Martha Paynter, School of Nursing, Forrest Building, Dalhousie University, PO Box 15000, 5869 University Avenue, Halifax, NS B3H 4R2. She can be reached by phone at 902-292-7082. Her email is mpaynter@dal.ca.

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