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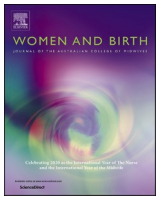

# Culturally responsive, trauma-informed, continuity of care(r) toolkits: A scoping review

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ABSTRACT

*Background:* Models of care that are culturally responsive, trauma-informed and provide continuity of care(r), are important components of care for Aboriginal and Torres Strait Islander parents during the broad perinatal period (pregnancy to 2 years after birth; first 1000 days). Many health services do aim to incorporate these concepts in care provision, but often focus on only one.

*Aim:* To identify practical toolkits that guide implementation of culturally responsive care, trauma-informed care, or continuity of care(r) in the perinatal period, and map the key elements.

*Methods:* A scoping review was conducted. Relevant databases and grey literature were searched to identify toolkits that guided implementation of any one of the aforementioned concepts in the perinatal period. Toolkit context, principles, core components and processes were extracted and synthesised.

*Findings:* Thirteen toolkits, from both Indigenous and non-Indigenous contexts, met the inclusion criteria. Six related to culturally responsive care, nine to trauma-informed care, and eight to continuity of care(r), with some overlap. Key principles included continuity of carer, collaboration, woman (or family) centred care, safety and holistic care. Individualised care, team work, having a safe service environment and continuity of care/r were highlighted as core components. Key processes related to planning, implementation, monitoring and evaluation, and sustainability.

*Discussion:* There are no available resources that support holistic implementation of all three concepts of culturally responsive, trauma-informed continuity of care(r), spanning the first 1000 days, for Aboriginal and Torres Strait Islander families. A synthesised toolkit of key principles, core components and key processes would assist implementation of this.

*Statement of significance:* Problem: Aboriginal and Torres Strait Islander families experience health inequalities and poorer perinatal outcomes due to a legacy of colonisation and ongoing discrimination.

*What is already known:* Culturally responsive care, trauma-informed care and continuity of care(r) are elements of perinatal care shown to improve outcomes and experiences.

*What this paper adds:* This review synthesises key aspects of culturally responsive, trauma-informed and continuity of care(r) models. It highlights the lack of resources to support services implementing models pertaining to these three concepts across the full First 1000 days, for Aboriginal and Torres Strait Islander families.

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## Introduction

The first 1000 days (the perinatal period from conception to two years of age [1]) is a critical time period that impacts both physical health and social and emotional wellbeing throughout the lifespan, and can affect health equity [2]. This is particularly important for Aboriginal and Torres Strait Islander peoples who experience health inequities due to a legacy of colonisation and ongoing discrimination [3]. Continuity of care(r), culturally responsive care, and trauma-informed care are all important system strategies for service provision, which have demonstrated positive impacts on both a woman and family's experience [4–8] and outcomes [7–10] and are recommended in the National Aboriginal and Torres Strait Islander Health Plan [11].

Continuity of care is provided by a team with a shared philosophy, way of working and information sharing [12], while continuity of carer is care provided by a primary named clinician or caregiver throughout the care period [13]. Continuity of carer is a model of care promoted in the maternity care setting, with a named primary midwife or clinician available to women throughout the pregnancy, birth and first postnatal weeks [14]. Continuity in maternity care is associated with positive experiences and improved perinatal outcomes [7,8], is shown to be beneficial for women and families experiencing social complexities [15], and to improve outcomes in specific contexts such as for Aboriginal and Torres Strait Islander families [10]. In Australia, adverse perinatal outcomes are significantly higher for Aboriginal and Torres Islander women and babies [16], highlighting the need for widespread implementation of models of care with proven benefits such as these. Continuity of care is also important, especially in the context of geographical complexities, staffing challenges or complex multidisciplinary care coordination needs [17]. Continuity of care is key when considering the first 1000 days, given the scope of practice of the clinicians and service providers involved in this period of care [18], to ensure family's needs are met continuously across this critical period.

Culturally responsive care is where an "active approach is taken by individuals, organisations and systems to promote and maintain cultural safety" [19]. It "[centres] culture to people's identity and [works] with them to determine what is culturally safe care for them as an individual" [19]. Being connected to culture is a core domain of Aboriginal and Torres Strait islander social and emotional wellbeing, [20] and has been shown to be associated with improved family wellbeing [21]. Given the disproportionate burden of poor perinatal outcomes in the Australian context, culturally responsive care is vital for Aboriginal and Torres Strait Islander families to feel safe and supported when accessing perinatal services [5] and is a core element of the National Aboriginal and Torres Strait Islander Health Plan [11].

Trauma-informed care "realises the widespread impact of trauma and understands potential paths for recovery; recognizes the signs and symptoms of trauma in clients, families, staff and others involved with the system; and responds by fully integrating knowledge about trauma into policies, procedures and practices, and seeks to actively resist re-traumatisation". [22] Trauma responses in the perinatal period can affect anyone who has suffered a traumatic experience [6], including intergeneration trauma impacting Aboriginal and Torres Strait islander communities, stemming from colonisation, violence and discrimination [5]. Implementing trauma-informed care aims to increase a sense of safety and support provided to those with a history of trauma [4], therefore improving care experiences and outcomes [9].

The implementation of any or all of these concepts will improve the quality and experience of perinatal care provision, and implementing more than one of them may result in compounded impacts. Resources such as toolkits may assist services implement one or more of these approaches [23].

This scoping review forms part of the Replanting the Birthing Trees project, which aims to implement and evaluate a comprehensive culturally responsive, trauma-informed, continuity of care(r) model in the perinatal period. The review aims to identify the existing toolkits pertaining to culturally responsive care, trauma-informed care, or continuity of care(r) in the broad perinatal period of the first 1000 days.

The review addresses the following questions:

1. What existing toolkits are available to support services to implement culturally responsive, and/or trauma-informed, and/or continuity of care(r) models of care?
2. What are the principles, components and key processes underpinning these models and their implementation?

The results of this review will be used to inform the development of a toolkit to assist services to establish culturally safe, trauma-informed, continuity of care(r) models for Aboriginal and Torres Strait Islander families through the first 1000 days.

## *Methods*

A scoping review of relevant literature was undertaken, following Joanna Briggs Institute (JBI) [24] and Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) [25] guidance.

### *Eligibility criteria*

Resources were included if they were a practical toolkit, related to a model of care in the perinatal period, and encompassed one (or more) of the review's key concepts (culturally responsive care, trauma-informed care, continuity of care or continuity of carer). Resources were included from any setting, any population and were not restricted by any type of caregiver. No date restrictions were applied, but where multiple versions of one resource were available, we selected the most recent update. Non-English language resources were excluded. Definitions of the inclusion criteria are listed in Appendix I.

### *Types of sources*

Relevant articles and publications were obtained via three main search means; 1) databases, 2) grey literature and 3) snowballing by manual searches of reference lists and citations, and a compilation of literature provided by the expert workstream group.

### *Search strategy*

The searches for all three search methods were conducted to March 2024 and are described below.

#### Database search (12 March 2024)

The database search strategy was developed by the research team with assistance from an experienced librarian (see Appendix II). Peer-reviewed articles were searched on three databases (Medline, Scopus and CINAHL), from inception of the database, combining terms related to toolkits for implementing culturally safe, trauma-informed, or continuity of care(r) models in the perinatal period.

#### Grey literature search (19 March 2024)

To retrieve the grey literature, a Google Advanced search of the relevant domains (Appendix II), compiled by the workstream members, was conducted. The search strategy utilised is detailed in Appendix II, and the first five pages of results on Google were reviewed for each domain.

#### Snowballing

Manual searches of the reference lists and citations of included studies were conducted to identify additional relevant publications. This sample also included literature and publications suggested by the expert members of the workstream team.

*Study screening and selection*

References from the database search were exported to EndNote, then to Covidence for screening. Results from the grey literature search and snowballing were saved and manually screened using Microsoft Excel. All texts underwent a staged screening process against the inclusion and exclusion criteria. First, they were screened by title and abstract (or equivalent for non-article resources), then the full text was reviewed to assess eligibility against the criteria.

Six reviewers (EM, SH, JD, MAK, CC and ML) screened the abstracts and full texts. To ensure consistency between the reviewers, two reviewers screened 33 % of the same database search results during the first stage of screening, and 20 % at full text review and final screening. Any conflicts were resolved by discussion to reach consensus and alignment on interpretation of the inclusion criteria.

Given the lack of a universal definition of 'toolkit' [23] a working definition was agreed as "a practical hands-on resource to help health services to design, implement and evaluate a model of care for culturally responsive, trauma integrated, and/or continuity of care(r) services". The questions below were used to assess whether this definition was met, with the answer to [1(a)] having to be *yes* AND *yes* to [2] OR [3].

- Does the resource clearly state its purpose and scope?
  a. Is the purpose of the resource to design and/or implement a service/model of care?
- Does the resource contain action-based steps or tasks to assist the reader to set up a service/model of care?
- Does the resource provide examples of templates ('tools') to use as part of the toolkit?
- To determine inclusion into the review, resources were screened against 'concept criteria' to assess whether the toolkit was truly relevant to culturally responsive care, trauma-informed care or continuity of care(r), with eight criteria per concept. The concept criteria are detailed in Appendix III and were agreed on by the Toolkit Working Group; a panel of experts in research methods, maternity care and Indigenous health. Explicit or implicit descriptions of the criteria were included, and each resource was assigned a score out of eight per concept. A concept was considered 'met' if six or more of the criteria were described.

*Relevancy ranking*

After screening, resources were assessed and ranked by relevancy to ensure a clear and step-wise approach to data extraction, whereby data could be extracted from the most relevant toolkits first. Resources were ranked by population context (Aboriginal and Torres Strait Islander, Other Indigenous, Australian, or All Other), recency (2018+, 2010–2017, or <2010), and concept criteria score, as described above (see Appendix III).

A risk of bias assessment was not undertaken in this review. It is not a required step in a scoping review [24] and there is a lack of published tools available for assessment of bias for toolkits.

*Data extraction and analysis*

A data extraction tool was developed using Microsoft Excel to chart the scope and characteristics of each toolkit. Data extracted from the toolkits included context (population and geographical), description, aim and core principles of the model of care, aspects of perinatal care continuum, key personnel, key implementation steps, facilitators and barriers, and factors affecting sustainability.

References were grouped as a single toolkit if they related to each other (i.e. as part of same study or organisational publication) with any associated references.

Data extracted from the toolkits were thematically analysed using NVivo software, with two reviewers collaborating (EM & MAK) on 20 % of the toolkits to ensure consistency of coding. A coding tree was developed based on the concept criteria (Appendix III) to ascertain the elements of the toolkits that pertained to either culturally safe care, trauma-informed care, or continuity of care(r). Further analysis was undertaken to ascertain principles, core components and key processes within the toolkits. A visual map displaying principles, core components and key processes was prepared using R (Version 4.3.1, R Foundation for Statistical Computing, Vienna, Austria).

## Results

*Selection of resources*

The searches yielded 2160 articles for title and abstract screening after duplicates were removed (Fig. 1). One hundred and eighty-two full texts were screened and 118 were excluded. An additional 24 texts were identified during the citation and expert screen as 'associated references' (n=88 resources/studies, describing 44 'toolkits/studies'). After screening the 44 toolkits/studies against the 'toolkit' definition, 31 were removed for not meeting the inclusion criteria and 13 toolkits were included in this scoping review.

*Characteristics of included toolkits*

The population context and year of toolkit publication are shown in Table 1.

*Concept score*

Toolkits were scored against eight criteria for each of the three concepts; culturally responsive care, trauma-informed care and continuity of care(r) (Appendix III). Four toolkits encompassed all three concepts (Toolkits A, B, C and D), two toolkits covered two concepts (Toolkits F and G) and seven toolkits covered a single concept (Toolkits E, H, I, J, K, L and M).

Based on the criteria for determining relevant care, two toolkits scored eight (out of eight) across multiple concepts; The Aboriginal Maternal and Infant Health Service for cultural responsiveness and continuity of care(r) (Toolkit B), and Birthing on Country that scored eight across all three concepts (Toolkit A). Six toolkits had continuity of care(r) as their highest scoring concept (Toolkits A, B, F, G, H and K) (score range 7–8/8), six had trauma-informed care (Toolkits A, C, D, J, L and M) (score range 6–7/8) and four toolkits had culturally responsiveness as their highest scoring concept (Toolkits A, B, E and I) (score range from 6 to 8/8).

While several toolkits covered all three concepts, none related to the full spectrum of care provided across the first 1000 days.

*Results of individual resources*

Table 1 displays the characteristics of each toolkit, including concept scores, which were finalised after coding in NVivo to the concept criteria. The dates reflect the recency of the publication of the toolkits, however it is acknowledged that work by the Birthing on Country team remains on going and current [48].

While evidence of effectiveness was not one of the inclusion criteria in this review, we found two of the toolkits had published implementation or evaluation findings, which have been included as part of their associated references; the Aboriginal Maternal and Infant Health Service [30,31] and the RISE Framework [34].

All toolkits related to care provision in the perinatal period [1], and in almost all cases this inferred clinical care, even when also including social and emotional wellbeing. The one exception to this was Evidence and Guidelines for Trauma-Informed Doula Care [46]. Doulas provide holistic, non-clinical support during pregnancy, birth and the postnatal period [49].

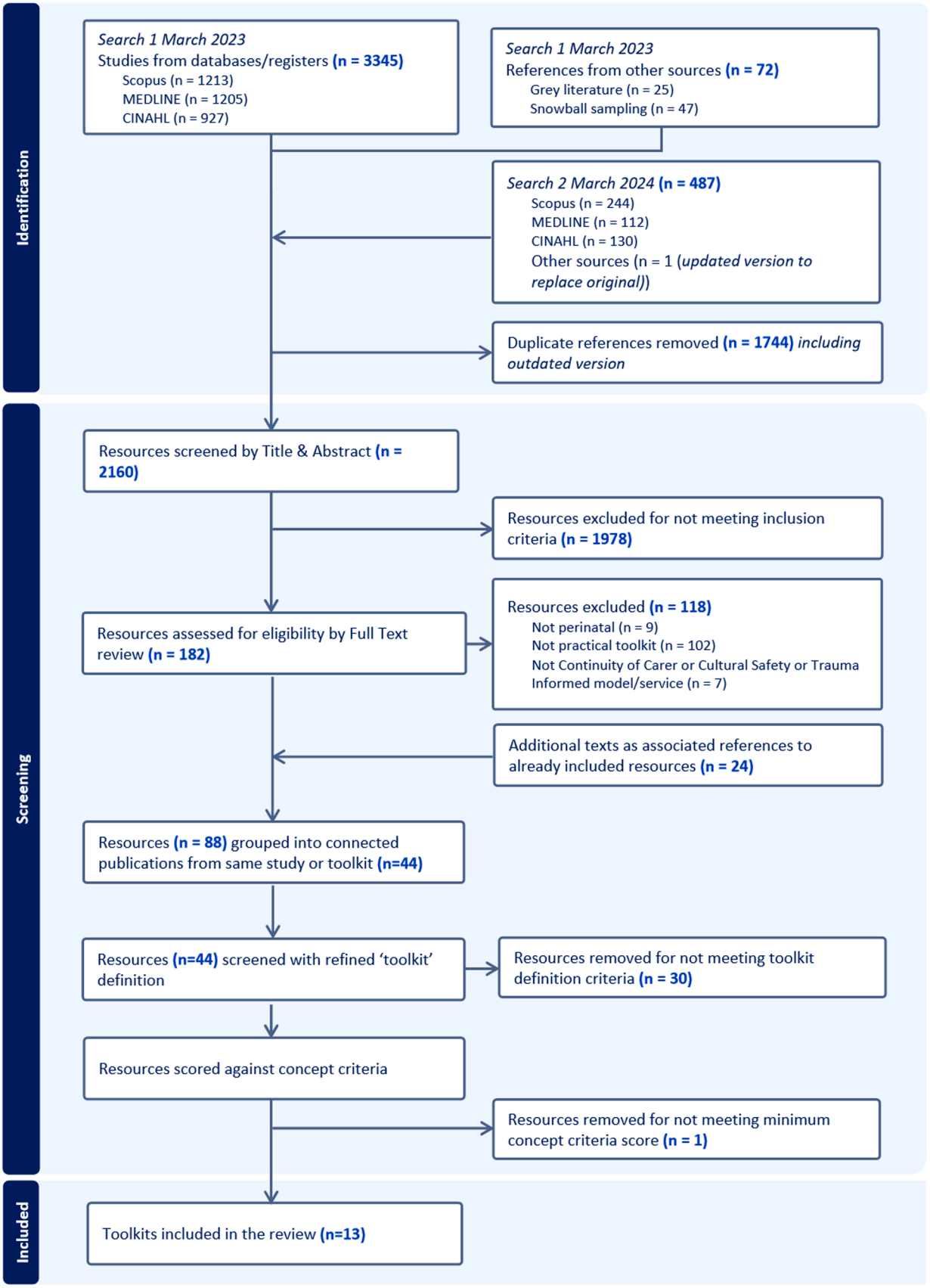


**Fig. 1.** PRISMA flow chart outlining scoping review screening process and results.

**Table 1**
Summary of included toolkits.

| | | | | *Continuity of Care(r)* | *Culturally responsive* | *Trauma-informed* |
|---|---|---|---|---|---|---|
| *A* | **Birthing on Country [26–28]** | Aboriginal and Torres Strait Islander | 2010-2017 | 8 | 8 | 8 |
| *B* | **Aboriginal Maternal and Infant Health Service [29–31]** | Aboriginal and Torres Strait Islander | 2010-2017 | 8 | 8 | 6 |
| *C* | **RISE Framework [32–34]** | Aboriginal and Torres Strait Islander | 2018+ | 7 | 7 | 8 |
| *D* | **Bringing Birth Back Aboriginal Midwifery Toolkit [35–38]** | Other Indigenous (*Canada*) | 2018+ | 7 | 7 | 8 |
| *E* | **Te Hā o Whānau: A culturally responsive framework of materni ty care [39]** | Other Indigenous (*New Zealand*) | 2018+ | 1 | 8 | 3 |
| *F* | **Continuity of Care Models: A Midwifery Toolkit (NSW Health) [13]** | Other Australian | 2018+ | 8 | 5 | 6 |
| *G* | **Delivering continuity of midwifery care to Australian women [40] (*Based on Delivering continuity of midwifery care to Queensland women* [41])** | Other Australian | 2010-2017 | 8 | 3 | 6 |
| *H* | **Midwifery Continuity of Carer Model Toolkit (WA Department of Health) [42]** | Other Australian | 2010-2017 | 8 | 2 | 4 |
| *I* | **Queensland Rural and Remote Maternity Services Planning Framework. A toolkit for collaboration, consultation and co-design [43]** | Other Australian | 2018+ | 2 | 6 | 1 |
| *J* | **A good practice guide to support implementation of trauma-informed care in the perinatal period [6]** | All other (*UK*) | 2018+ | 3 | 0 | 8 |
| *K* | **Delivering Midwifery Continuity of Carer at full scale. Guidance on planning, implementation and monitoring [44,45]** | All other (*UK*) | 2018+ | 7 | 1 | 1 |
| *L* | **Evidence and guidelines for trauma-informed doula care [46]** | All other (*US*) | 2018+ | 0 | 0 | 7 |
| *M* | **Trauma-informed maternity care [47]** | All other (*US*) | 2018+ | 0 | 0 | 6 |

Toolkit concept scores ≥6 were considered to be 'met' and are highlighted

## Description of included toolkits

To ascertain the contents of the toolkits, they were broken down and represented in three categories; principles, core model components and key processes. A summary of the overarching themes and content of the toolkits related to these categories is represented in Fig. 2, with the number of toolkits they are present in.

### *Principles*

In this review, principles are described as 'overarching values that influence and guide the model of care'. Table 2 shows key principles identified across the toolkits. The toolkits are coloured according to the concept scores they achieved, as in Table 1. While some were only identified in toolkits relating to one of the three concepts, several spanned concepts, and there were four principles which stood out as being the commonly referenced across all the concepts. These were *continuity of carer*, *collaboration*, *woman or family centred care* and *safety* and are explored below.

**Continuity of carer** is highlighted as a key principle in nine of the toolkits [6,13,26–28,32,33–38,40,41–45]. All continuity of care(r) toolkits found were midwifery continuity of carer toolkits. Continuity of care/r was also highlighted as an important principle in toolkits relating to culturally responsive care [26–28,32,33–38]. [27]

**Collaboration** is highlighted as a core principle across the majority of the toolkits [6,13,26–34,39,42], emphasising the importance of the role that it plays. Within the toolkits, collaboration is discussed in relation to various groups, including with community, with service users, with the multi-disciplinary team and external support agencies, as well as between service providers. Collaboration is vital to providing safe and effective care in the perinatal setting [52–54].

Within collaboration comes partnership and sharing of power. This is of particular importance in the toolkits relating to culturally responsive care, which emphasise the need for Aboriginal and Torres Islander governance and leadership, and a partnership approach to service implementation and provision [26,32,39]. This includes "facilitating involvement by people in the issues which affect their lives, based on autonomy, shared power, skills, knowledge and experience" [29].

**Woman or family-centred care** feature as key principles in multiple toolkits [13,26–34,40,41–43], and **safety** within "the environment and interpersonal interactions" [46], including emotional, cultural and physical safety. An important aspect of cultural safety within a service or model of care, is that it is self-determined by the service user as being culturally safe [55]. As such, this was included as one of the eight concept criteria for scoring of the culturally responsive toolkits, it was however a criterion that was met by only four of these toolkits. This is perhaps because it could be considered implied through other criteria, for instance support of Aboriginal self-determination and community participation, but given the critical important of this to ensuring safety it is worth noting this as a frequent omission.

**Holistic care** is highlighted in five toolkits as a key principle, spanning all three concepts [13,26–38]. While only noted as a key principle in these toolkits, several more mention it through their texts as an aspect of care to consider.

### *Core model components*

Core model components are 'elements or aspects of care provision', which are central to the effectiveness and success of a model of care. Twelve core components were identified across the toolkits, with four

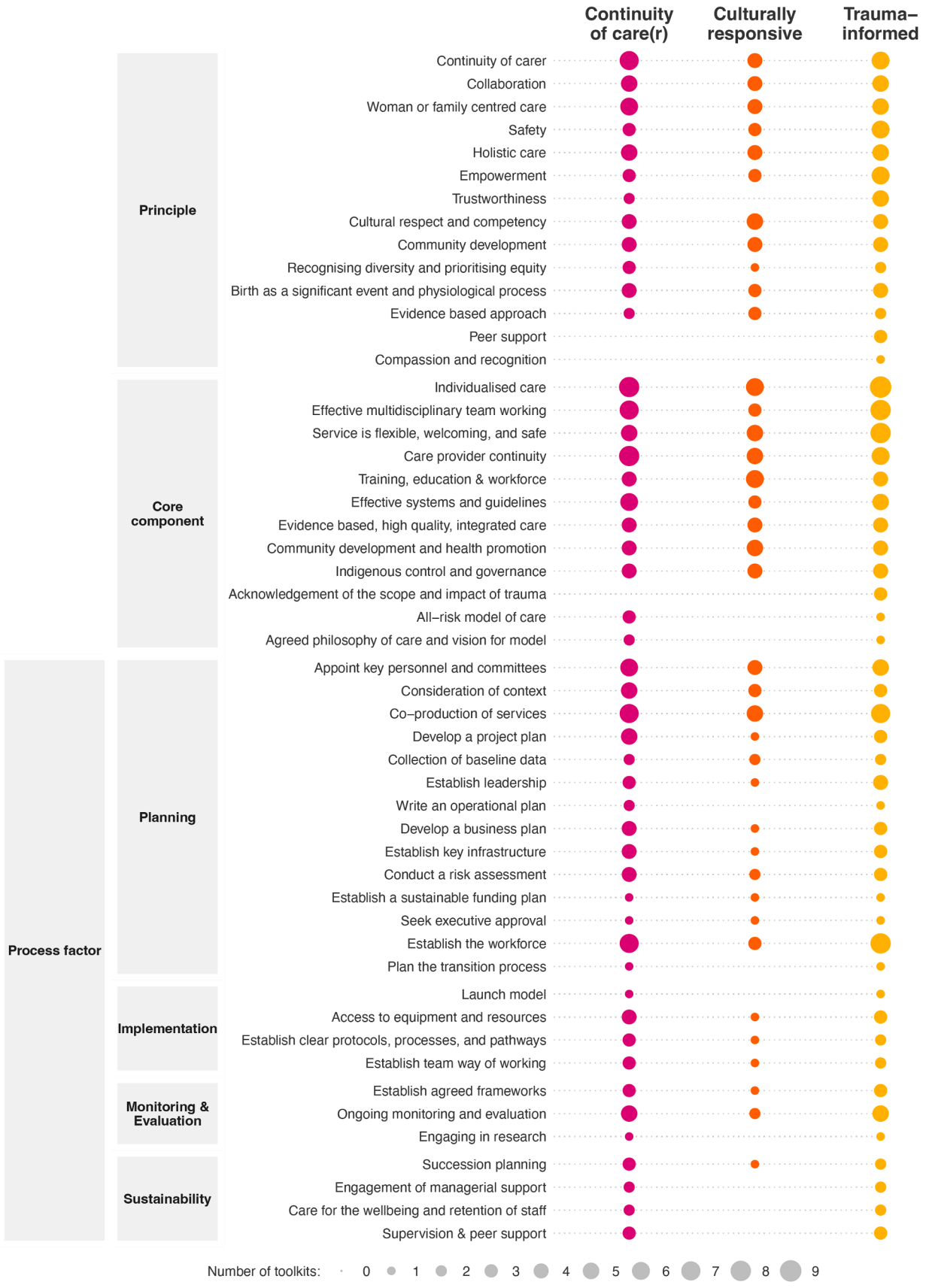


**Fig. 2.** Bubble map displaying number of toolkits available for each concept examined.

**Table 2**
Principles ([50,51]).

| *Principle* | *Description* | *Toolkits (for Toolkit details see Table 1)* | | | |
|---|---|---|---|---|---|
| | | Toolkit Reference | Continuity of care(r) | Culturally responsive | Trauma-informed |
| **Continuity of carer** | When care is provided by a primary named caregiver through the full length of the period of care [antenatal, intrapartum and postnatal]. [13,14] | A | | | |
| | | B | | | |
| | | C | | | |
| | | F | | | |
| | | G | | | |
| | | H | | | |
| | | I | | | |
| | | J | | | |
| | | K | | | |
| **Collaboration** | The ensuring of a partnership approach with the target community or population when establishing a new model of care. Collaboration should facilitate the "involvement of people in the issues which affect their lives, based on autonomy, shared power, skills, knowledge and experience" [29]. | A | | | |
| | | B | | | |
| | | C | | | |
| | | E | | | |
| | | F | | | |
| | | H | | | |
| | | J | | | |
| **Woman or family centred care** | Provision of individualised care, focused on the woman/family's unique needs, expectations and aspirations; recognises her right to self-determination in terms of choice, control and continuity of care; and addresses her social, emotional, physical, psychological, spiritual and cultural needs. Woman centred care also encompasses the needs of the baby, the woman's family, significant others and community, as identified by the woman herself. [50] | A | | | |
| | | B | | | |
| | | C | | | |
| | | F | | | |
| | | G | | | |
| | | H | | | |
| | | I | | | |
| **Safety** | Care that strives to maintain physical, emotional and cultural safety, so as to prevent harm and further traumas occurring. [4] | A | | | |
| | | C | | | |
| | | D | | | |
| | | J | | | |
| | | L | | | |
| | | M | | | |
| **Holistic care** | Care that addresses the family's "social, emotional, physical, psychological, spiritual and cultural needs and expectations". [40] | A | | | |
| | | B | | | |
| | | C | | | |
| | | D | | | |
| | | F | | | |
| **Empowerment** | The maximising of choice, control and autonomy for the individual in decision making about their care and care provision [4]. This includes being supported to make informed choices, and in the right to refusal.<br><br>For Indigenous communities, the right to self-determination is a key element of empowerment [29,36,39]. | B | | | |
| | | D | | | |
| | | E | | | |
| | | F | | | |
| | | J | | | |
| | | L | | | |
| | | M | | | |
| **Trustworthiness** | Care that fosters trust between care providers and people accessing care, as well as between staff and other key stakeholders. [22] | F | | | |
| | | G | | | |
| | | J | | | |
| | | L | | | |
| | | M | | | |
| **Cultural respect and competency** | Cultural respect is the "recognition, protection and continued advancement of the inherent rights, cultures and traditions" of a culture, and encompasses the respect of "cultural values, strengths and differences" [51].<br>Cultural competence is defined as "a set of congruent behaviours, attitudes, and policies that come together in a system, agency, or among professionals and enable that systems, agency of those professionals to work effectively in cross-cultural situations" [51]. | A | | | |
| | | B | | | |
| | | C | | | |
| | | D | | | |
| | | E | | | |
| **Community development** | Utilising appropriate techniques and approaches to ensure there is access and inclusivity for all community members[29], and includes community activities and health promotion [29].<br>The building and strengthening of local capacity is also key within this [26,36], based on the recognition of "skills, knowledge and expertise that people contribute and develop by taking action to tackle issues that impact on the wider social determinants of health" [29]. | A | | | |
| | | B | | | |
| | | C | | | |
| | | D | | | |
| **Recognising diversity and prioritizing equity** | Recognising diversity and prioritizing equity is a critical element of creating a service that effectively serves its target community or population. Perinatal and maternity care services must be inclusive of the diverse experiences of those accessing care, including their social, cultural and historical backgrounds, religious beliefs, health, disability, sexual orientation and gender [13]<br>Particularly pertinent for Indigenous communities is the recognition that "the good health and well-being of Indigenous parents and their babies is crucial to the strength and resilience of Indigenous families and communities" [35]. | B | | | |
| | | F | | | |
| | | K | | | |
| **Birth as a significant life event and a normal physiological process** | Recognition that birth is a normal physiological process, and a significant life event [12]. | A | | | |
| | | C | | | |
| | | D | | | |
| | | F | | | |
| **Evidence based approach** | An evidence-based approach underpins health services. However, services which serve Indigenous populations must be established with "the commitment to balance an evidence-based approach with a community development approach that recognises and multiplicity of evidence" and have a foundation of local cultural knowledge [26]. | A | | | |
| | | C | | | |
| | | I | | | |
| **Peer support** | Support from individuals with shared lived experiences to enhance feelings of safety, hope and trust, and to promote recovery and healing. [22] | J | | | |
| | | L | | | |
| | | M | | | |
| **Compassion and recognition** | Care that recognises the prevalence of trauma, and its impacts on individuals. It acknowledges and demonstrates belief in the individual while responding with kindness and compassion. [6] | J | | | |

being particularly prevalent and spanning all three concepts.

**Provision of individualised care** was identified as a core model component across all 13 toolkits. Individualised care means receiving care, based on the recipients wants, needs, strengths and preferences [56]. This is represented in various ways across the toolkits including woman-centred care [13,26–38,40,41,42], family-centred care [26–28,32,33,34,39] and personalised care [6,44–47]. It is also reflected in caregivers facilitating informed choice and a right to refusal when making a person is making decisions about their own care [6,13,35–38,40,41,43,46,47]. The Birthing on Country toolkit highlights the need for a holistic risk assessment process within care provision, to ensure consideration is given to cultural, emotional and spiritual needs, as well as clinical or biomedical ones [26].

**Effective multi-disciplinary team (MDT) working** is key to success of a model, and was noted in 10 of the 13 toolkits. As discussed above, collaboration across the MDT is essential for the provision of safe care [52,53], and in the perinatal space encompasses several different care groups; the immediate maternity care team, the wider team including external support agencies, and services such as Child and Families services. Whole of service involvement in MDT working is key to establishing new models of care [44].

An interdisciplinary, collaborative midwifery continuity of care model was highlighted as key in the toolkits related to continuity of care (r) [13,35–38,40,41,42,44,45] and allows for continuity by the primary care giver, even when complications requiring additional input arise [13]. It was also noted in one toolkit that each team having a linked obstetrician is particularly pertinent to ensuring high quality multidisciplinary care [44].

Clear referral pathways, knowledge of referral and support options, and integrated services are essential, and noted in toolkits across the three concepts [6,13,26–31,35,36–38,46,47]. Prompt, appropriate referral to the right services improves the quality of care within the perinatal period, for which service providers must have a comprehensive knowledge of what referral options are available or appropriate, as well as how referrals are made. Birthing on Country highlights the need for referrals to be made to programs with strength-based approaches to ensure the safety of care [26–28], while the Aboriginal Maternal and Infant Health Service and NSW Continuity of Care Models Toolkit emphasise the importance of a smooth transition from maternity services to child and family service [13,29–31].

A **service that is flexible, welcoming and safe** for service users is a core model component in 10 toolkits [6,26–34,39,40,41,43,46,47]. Several toolkits highlighted the aspect of being community based and integrated with other community or health services as a contributing towards this [26–28,32,33,34].The safety of a service must consider the holistic safety of the people accessing care, including their physical, emotional and cultural needs. Reflecting this, Te Hā o Whānau: A culturally responsive framework of maternity care [39] suggests that services should create an environment that "respects, encourages and facilitates… cultural values and practices". Ensuring this cultural safety also entails having staff who are culturally competent and respectful [13,26–28,32,33,34].

Both **continuity of carer** and **continuity of care** are important aspects of perinatal care provision across the care continuum, as previously discussed. **Continuity of carer** is highlighted as a key element of perinatal models of care across nine of the toolkits[13,27–39,41–46]and is used as a singular term to convey both concepts. Continuity of care is also noted as key to providing trauma-informed care in the perinatal period [6], as well as for care that spans the first 1000 Days [57].

Table 3 highlights eight other core model components identified across the toolkits. As with Table 2, the toolkits are coloured according to the assigned concept scores (Table 1).

Additional components of a model of care which have been noted as impacting on its effectiveness or success include team size [44], caseload size [44], having designated, ongoing funding [26–28,35,36–38] and for all public hospitals to be able to care for women whose birth is unplanned and imminent [43].

### *Key processes*

Key processes are 'steps for implementation of the model of care'. The representation of this varied across the three concepts in implementation perspective. The continuity of care(r) toolkits are health system focussed, and view implementation of a model of care from this perspective; the "operationalisation of midwifery continuity of carer" [44]. The toolkits pertaining to trauma-informed care tended to be aimed at the individual clinical or service provider, with the key processes representing steps for the individual to ensure their care provision is trauma-informed, and implementing the core components as above. The exception to this is "A good practice guide to support the implementation of trauma-informed care in the perinatal period" [6] which does provide health service implementation steps as well as practical tips. The toolkits relating to culturally responsive models of care are from the perspective of community engagement and co-design. The key processes fall into four main categories; planning, implementation, monitoring and evaluation, and sustainability, as seen in Table 4.

## Discussion

This scoping review identified 13 existing toolkits pertaining to culturally responsive, trauma-informed or continuity of care(r) models of care in the perinatal period. The prevailing **principles** across the concepts were *continuity of carer*, *collaboration*, *woman- or family- centred care*, *safety*, and *holistic care.* The **core model elements** which were highlighted across the toolkits and concepts were *individualised care*, *effective multidisciplinary team working*, *service provision which is flexible, safe and welcoming*, and *continuity of care(r)*. The **key processes** across the toolkits and concepts fell into four stages; *planning*, *implementation*, *monitoring and evaluation*, and *sustainability*.

The review identified toolkits which pertain to multiple concepts, however they almost exclusively relate to the period of maternity care provision (pregnancy, birth and the first weeks after birth). There appeared to be a gap in the availability of resources beyond the maternity setting and into community health. While the National Aboriginal Council of Midwives (now known as the National Council of Indigenous Midwives) toolkit "Bringing Birth Back" [35–38] does refer to care extending into the broader perinatal period, it maintains a midwifery lens, rather than the cross-profession view required to provide wrap-around care for the families for the full perinatal period. We found no toolkits which incorporated the full first 1000 Days, with a cross-sector or cross-profession lens, for the Aboriginal and Torres Strait Islander population.

While there have been high quality reviews that have highlighted the importance of midwifery continuity of carer in improving perinatal health outcomes, this appears to be the first scoping review examining the available practical toolkits to support services to improve care in the perinatal period relating to culturally responsive and/or trauma-informed and/or continuity of care(r) models of care.

While a rigorous systematic approach was taken with this scoping review, it is important to acknowledge several limitations to this review. Firstly, including toolkits across three differing concepts led to difficulties synthesising them. The exclusion of non-English resources may potentially have excluded pertinent toolkits published in other languages. Furthermore, while every effort was made to score key concept themes whether explicitly stated or implicitly observed, it is possible that screening and scoring has not accurately identified the presence of concepts in all resources. It is noted that outside the refined toolkit definition, an abundance of quality literature exists which pertains to culturally responsive, trauma-informed, continuity of care(r) interventions for specific circumstances, which are not practical toolkits for designing or implementing a model of care. These may additionally add value to future service design and delivery and are not included in

**Table 3**
Core model components ([58–60]).

| *Core component* | *Description* | ***Toolkits** (for Toolkit details see Table 1)* | | | |
|---|---|---|---|---|---|
| | | *Toolkit Reference* | *Continuity of care(r)* | *Culturally responsive* | *Trauma-informed* |
| **Individualised care** | Provision of care in a way that means recipients have choice and control over their care and decisions made, based on their individual wants, needs, strengths and preferences [56]. | A | ■ | ■ | ■ |
| | | B | ■ | ■ | ■ |
| | | C | ■ | ■ | ■ |
| | | D | ■ | ■ | ■ |
| | | E | | ■ | |
| | | F | ■ | | ■ |
| | | G | ■ | | ■ |
| | | H | ■ | | |
| | | I | | ■ | |
| | | J | | | ■ |
| | | K | ■ | | |
| | | L | | | ■ |
| | | M | | | ■ |
| **Effective multidisciplinary team working** | Staff across different teams and disciplines working together to share expertise, knowledge and skills to impact on patient care [58]. | A | ■ | ■ | ■ |
| | | B | ■ | ■ | ■ |
| | | D | ■ | ■ | ■ |
| | | F | ■ | | ■ |
| | | G | ■ | | ■ |
| | | H | ■ | | |
| | | J | | | ■ |
| | | K | ■ | | |
| | | L | | | ■ |
| | | M | | | ■ |
| **Service is flexible, welcoming, and safe** | Provision of a service that allows service users to feel safe and welcomed in the space, as well as having flexibility within the service provision to suit needs of individuals.<br><br>This includes provision of clinical, social, emotional, and financial support for women and their families who may need to travel for their care [43]. | A | ■ | ■ | ■ |
| | | B | ■ | ■ | ■ |
| | | C | ■ | ■ | ■ |
| | | E | | ■ | |
| | | F | ■ | | ■ |
| | | G | ■ | | ■ |
| | | I | | ■ | |
| | | J | | | ■ |
| | | L | | | ■ |
| | | M | | | ■ |
| **Continuity of care/r** | Continuity of care/r refers to both continuity of care and carer. *Continuity of care* is "a team of caregivers working within the same philosophy and framework and sharing information" [13], while *continuity of carer* refers to "care [that is] provided by a primary named caregiver through the full length of the period of care" [13]. | A | ■ | ■ | ■ |
| | | B | ■ | ■ | ■ |
| | | C | ■ | ■ | ■ |
| | | D | ■ | ■ | ■ |
| | | F | ■ | | ■ |
| | | G | ■ | | ■ |
| | | H | ■ | | |
| | | I | | ■ | |
| | | K | ■ | | |
| **Training, education and workforce** | Commitment to and investment in the workforce through recruitment and ongoing training and education is vital to impacting safe care provision, as well as retention and sustainability.<br><br>This is particularly true for Indigenous models of care, which must work with the community to ensure a partnership approach and two-way learning [26]. Priority must be for a First Nations workforce [32,35,39], and opportunities for education, employment, and clear career pathways for the local community [26,29,32,35,43]. | A | ■ | ■ | ■ |
| | | B | ■ | ■ | ■ |
| | | C | ■ | ■ | ■ |
| | | D | ■ | ■ | ■ |
| | | E | | ■ | |
| | | I | | ■ | |
| **Effective systems and guidelines** | Effective systems and guidelines that have clarity from the outset of the model are key will allow for safe and efficient care provision. This includes IT systems [26] and communication pathways [26], as well as guidelines relating to elements of care such as consultation and referral, escalation and transfer [13,26,29,36,40,42]. | A | ■ | ■ | ■ |
| | | B | ■ | ■ | ■ |
| | | D | ■ | ■ | ■ |
| | | F | ■ | | ■ |
| | | G | ■ | | ■ |
| | | H | ■ | | |
| **Evidence based, high quality, integrated care** | Evidence-based, high quality, integrated care underpins safe care provision. This must be established in a partnership approach with the community being served, and with a recognition of the multiplicity of evidence in models providing care to Indigenous communities [13,26,32,36,39]. | A | ■ | ■ | ■ |
| | | C | ■ | ■ | ■ |
| | | D | ■ | ■ | ■ |
| | | E | | ■ | |
| | | F | ■ | | ■ |
| **Community development and health promotion** | Empowerment of the local community to develop and utilise skills that will more directly and effectively address issues specifically pertinent to them [59].<br><br>This includes supporting communities to reclaim and restore their culture and ceremony [36]. | A | ■ | ■ | ■ |
| | | B | ■ | ■ | ■ |
| | | C | ■ | ■ | ■ |
| | | D | ■ | ■ | ■ |
| | | I | | ■ | |
| **Indigenous control and governance** | Indigenous control and governance embeds services for Indigenous peoples in their community and within their control. Community investment, ownership and engaged participation is associated with improved maternal and infant health outcomes [60]. The governance and control needs to be extensive and systematic across all areas of the service [32]. | A | ■ | ■ | ■ |
| | | B | ■ | ■ | ■ |
| | | C | ■ | ■ | ■ |
| | | D | ■ | ■ | ■ |
| **Acknowledgement of the scope and impact of trauma** | Care that appropriately encompasses recognition, assessment, awareness and support for those that have suffered trauma and are receiving perinatal care [4]. This includes sensitive screening, a compassionate response and appropriate support [6,46,47].<br>While mainly focussed on the care provision, it is also important for services to acknowledge and recognise the impact of vicarious trauma on the staff providing care [6,46]. | J | | | ■ |
| | | L | | | ■ |
| | | M | | | ■ |
| **All-risk model of care** | A model that provides care to women experiencing all levels of risk in their pregnancy.<br>Women experiencing obstetric and psychosocial complexities have been shown to benefit from continuity of carer [15]. | F | ■ | | ■ |
| | | H | ■ | | |
| | | K | ■ | | |
| **Agreed philosophy of care and vision for model** | A philosophy of care that is developed as agreed shared values and vision for a way of working within the model of care. | F | ■ | | ■ |
| | | H | ■ | | |

**Table 4**
Key processes ([61-63]).

| Planning | | | | | |
|---|---|---|---|---|---|
| ***Process factor*** | ***Description*** | ***Toolkits*** *(for Toolkit details see Table 1)* | | | |
| | | *Toolkit Reference* | *Continuity of care(r)* | *Culturally responsive* | *Trauma-informed* |
| **Appoint key personnel and committees** | Establishing a new model of care should begin with the recruitment and appointment of key personnel and committees to guide the planning and implementation.<br><br>Key personnel include a project officer, key stakeholders, community involvement members and an executive sponsor.<br><br>Key committees include a steering committee, and a local governance committee for models working with Aboriginal and Torres Strait Islander families. Local governance is critical in these models of care to provide Indigenous governance and cultural oversight [26–28,32,33,34,43], and allows for the voice of Elders and knowledge keepers to be represented [35–38]. This can also be a vehicle for planning for the restoration and preservation of Indigenous midwifery knowledges and birth knowledges [35–38]. | A | | | |
| | | C | | | |
| | | D | | | |
| | | F | | | |
| | | G | | | |
| | | H | | | |
| | | I | | | |
| **Consideration of context** | The local context for each model and health service will need to be considered prior to establishing models of care. The domains for context can be summarised as complexity of care, workforce (including sustainability through appropriate training and education), clinical support services and service networks and integration [26–28]. Considerations must also be made for regional and rural areas [13,43].<br><br>Understanding of the currently maternity service journey, birth rate and community birth history. A good starting point for this is to map the current service and woman's journey [13,42,44,45]. Understanding the local community's birth history and story is also important, particularly for Indigenous communities [35–38]. | A | | | |
| | | D | | | |
| | | F | | | |
| | | H | | | |
| | | I | | | |
| | | K | | | |
| **Co-production of services** | Co-production of models of care is essential for health services to provide effective and safe care, that meet the needs of the local or target community. This means "facilitating involvement by people in the issues which affect their lives, based on autonomy, shared power, skills, knowledge and experience" [29] This is true for models of care across all three concepts. Culturally responsive models of care must be produced in partnership with the community they are serving, trauma-informed models of care in partnership with service users with lived experience and those that understand the vulnerabilities or triggers of trauma survivors [47], and continuity of care(r) models targeting communities most in need [44]<br><br>This co-production will require consultation and engagement activities with the target community [13] and establishing of important components of the model, appropriate to local need [13,26,40,43]<br><br>Noted as vital within this co-production is the development and maintenance of effective partnerships and collaboration with local services and community controlled organisations, including Local Health Districts and Aboriginal Community Controlled Health Organisations, GPs and relevant agencies such as Family and Community Services, housing, and Centrelink [29]. | A | | | |
| | | B | | | |
| | | C | | | |
| | | D | | | |
| | | F | | | |
| | | G | | | |
| | | I | | | |
| | | J | | | |
| | | K | | | |
| **Develop a project plan** | Development of a project plan assists to clearly describe the purpose and key steps of the project [13]. This can include details of how the project will progress, and can include a timeline or Gantt chart, implementation plan and a communication or engagement plan.<br>It is also vital to establish the key components for the model, such as type of continuity of care(r), specifics of service capability, or workforce Indigeneity [26]. | A | | | |
| | | F | | | |
| | | G | | | |
| | | H | | | |
| | | K | | | |
| **Collection of baseline data** | Collection of baseline data allows for accurate depiction of the current service, prior to establishment of a new model of care, meaning change can be meaningful, sustainable and accurate evaluation and monitoring is able to take place [13]. | A | | | |
| | | F | | | |
| | | I | | | |
| **Establish leadership** | Well established and supportive leadership is critical for the development of a new model of care, from clinical leadership, right through to health service administration and government [32]. Leaders within a model implementation must embrace and understand the key elements and philosophy of the model of care for it to succeed [40]. They have an essential role in fostering a culture of improvement, as well as being in a position to address and influence policies and procedures [6]. | C | | | |
| | | F | | | |
| | | G | | | |
| | | J | | | |
| **Develop a business plan** | A business plan is used to articulate the purpose and design of the model, and how it will be resourced. Developing a business plan can be done concurrently with an operational plan, as one will impact the other. [13] | D | | | |
| | | F | | | |
| | | G | | | |
| | | H | | | |
| **Write an operational plan** | An operational plan expresses how a model will function, its activities and organisation, and the day-to-day working [13]. | F | | | |
| | | H | | | |
| **Establish key infrastructure** | Establishment of key infrastructure needs to be considered and accounted for in planning and costing. This includes equipment such as clinical supplies, IT and communication equipment and resources such as office and clinical space, education provisions and staffing [13]. | D | | | |
| | | F | | | |
| | | G | | | |
| | | K | | | |
| **Conduct a risk assessment** | Effective and proactive management of risk will increase the potential for the development or establishing of a model of care to achieve its aim [26]. This is best done with a wide range of stakeholders to best consider and identify all potential risks of the proposed service [13]. | A | | | |
| | | F | | | |
| | | G | | | |
| | | H | | | |
| | | I | | | |
| **Establish a sustainable funding plan** | Establishing a funding plan, and ensuring it's sustainability, is key to the longevity and continuation of a service. | D | | | |
| **Seek executive approval** | Once endorsed by the steering committee, presenting of the business case, operational plan, costing and risk assessment for executive approval [13]. | F | | | |
| | | I | | | |
| **Establish the workforce** | Establishing the workforce is essential to any model of care, from recruitment to professional development and training and retention.<br><br>Having a recruitment plan and the hiring of appropriate staff is the first step to having a sustainable workforce [13,29,36,40,42,44]. Following on from this, applicable training and professional development are key to ensuring the model of care is implemented appropriately [6,13,44,46]. This is true across all three concepts, but particularly pertinent for trauma-informed care, where sensitive screening and appropriate follow up are a critical pillar of the model [6,46,47].<br><br>In relation to culturally responsive care, the training, recruitment and retention of Indigenous midwives and health workers is essential [13,29,32,36]. This requires an ongoing commitment to the development of the workforce from management [29].<br><br>Midwifery education and supporting students at newly qualified staff to work in the models has been noted as key to ensuring exposure to the model of care, and therefore succession planning for future workforce [13,36]. | B | | | |
| | | C | | | |
| | | D | | | |
| | | F | | | |
| | | G | | | |
| | | H | | | |
| | | J | | | |
| | | K | | | |
| | | L | | | |
| | | M | | | |
| **Plan the transition process** | A transition team, set up in advance of the launch of the model of care, will allow establishment of the team is a smooth process, with processes in place to respond to any unanticipated issues [13]. The process can include implementing of communication plans, sourcing equipment, establishing team ways of working, and considering the necessary support for the initial weeks of the new model. | F | | | |

(*continued on next page*)

**Table 4** (*continued*)

| Implementation | | | | | |
|---|---|---|---|---|---|
| ***Process factor*** | ***Description*** | ***Toolkits*** *(for Toolkit details see Table 1)* | | | |
| | | *Toolkit Reference* | *Continuity of care(r)* | *Culturally responsive* | *Trauma-informed* |
| **Launch model** | Launch the new model of care, reflecting the work put into its establishment, and championing its purpose and aim. | F | | | |
| **Ensure access to appropriate equipment and resources** | As in the transition process, ensure all resources and equipment are appropriate and utilised. | D | | | |
| | | F | | | |
| | | G | | | |
| | | K | | | |
| **Establish clear protocols, processes, and pathways** | Establishing of clear protocols, processes and pathways from the outset of the model will allow for safe and effective working within the model from the beginning. These will include referral processes [36,40,44] , multidisciplinary working guidelines [40,44], communication pathways [40], clinical governance processes [40] and Standard Operating Procedures [44]. | D | | | |
| | | G | | | |
| | | K | | | |
| **Establish team way of working** | The first weeks and months are of critical importance to transition to the new model of care, and establish the ways of working [29,40]. The Aboriginal Maternal and Infant Health Service suggest that no women should be recruited into the model in the first few months, as these should be dedicated to learning about the community, and developing local networks and connections [29].<br><br>Regular team meetings are key to maintaining links between works, as well as the service as a whole, especially when the model of care involved large amounts of individual or isolated working [42]. Proactive monitoring of caseloads and allocations will insure balance and equity, and impact on workforce wellbeing and sustainability [13], as well as ensuring clinical supervision is an integral element of the model [13,42]. | B | | | |
| | | F | | | |
| | | G | | | |
| **Monitoring and Evaluation** | | | | | |
| ***Process factor*** | ***Description*** | ***Toolkits*** *(for Toolkit details see Table 1)* | | | |
| | | *Toolkit Reference* | *Continuity of care(r)* | *Culturally responsive* | *Trauma-informed* |
| **Establish agreed frameworks** | Frameworks for monitoring and evaluating the model of care must be established from the outset to ensure safe and effective care is maintained. These can include a program logic model [26], a risk management framework [26], and a clinical governance framework [13,40]. | A | | | |
| | | F | | | |
| | | G | | | |
| **Ongoing monitoring and evaluation** | Using the frameworks mentioned above, ongoing monitoring and evaluation of the model of care is critical [6,13,29,36,40,44]. Reporting on key outcomes and indicators includes clinical outcomes of mothers and babies, women's satisfaction and midwives experience [6,13,40,44]. In Australia, it is suggested that these are reported at program level, Local Health District level, and State level [29]. | B | | | |
| | | D | | | |
| | | F | | | |
| | | G | | | |
| | | J | | | |
| | | K | | | |
| **Engaging in research** | Engaging in research to continue to develop and advance evidence base, and promote safe and effective models of care. Adhering to Indigenous Data Sovereignty Principles is of the utmost importance when Indigenous Data is being utilised, or when Indigenous people may be affected [61]. | F | | | |
| **Sustainability** | | | | | |
| ***Process factor*** | ***Description*** | ***Toolkits*** *(for Toolkit details see Table 1)* | | | |
| | | *Toolkit Reference* | *Continuity of care(r)* | *Culturally responsive* | *Trauma-informed* |
| **Succession planning** | Essential to the sustainability of a model of care [13], succession planning can be achieved through multiple strategies. These include exposure of students to the model and way of working through placements, opportunities within the team for newly qualified midwives and staff, and encouraging staff to "act up" into higher grade roles for exposure and operational knowledge [13,42]. | D | | | |
| | | F | | | |
| | | G | | | |
| **Engagement of strong and visible managerial support** | Strong managerial commitment and leadership will create a supportive culture, to enable the safe and effective establishment of a model of care [13]. Leadership is able to communicate and influence change, and embed the new model into strategic plans and pathways [6]. | F | | | |
| | | J | | | |
| | | K | | | |
| **Care for the wellbeing and retention of staff** | There are many factors which will impact on protecting the wellbeing of staff, and therefore positively influence retention. These are noted as regular communication and meetings within the team, having clear reporting lines and escalation processes, and effective multidisciplinary team working, based on trust between individuals [13].<br><br>Optimised team size and caseload to allow for sufficient protected time off are also key [45,62], as well as ensuring a well-balanced skill mix within the team [44,45]. | F | | | |
| | | K | | | |
| | | L | | | |
| **Supervision and peer support** | Clinical supervision is a vital component of models of health care [13,42,44,45], as a "support mechanism for practicing professionals within which they can share clinical, organisation, developmental and emotional experiences with another profession in a secure confidential environment in doer to enhance knowledge and skills" [63]<br><br>Reflective supervision and peer support are particularly key when implementing trauma-informed care, and recognising the impact of vicarious trauma for care providers [6,46]. | F | | | |
| | | H | | | |
| | | J | | | |
| | | K | | | |
| | | L | | | |

this review.

Implications of this review for practice are that culturally responsive, trauma-informed continuity of care(r) is important for ensuring the best possible care in the critical first 1000 days. Toolkits are an effective mechanism for implementing evidence-based care in healthcare settings [64], and the results of this review will be able to be utilised by health services to implement culturally responsive, trauma-informed, or continuity of care(r) models of care.

The importance of continuity of care/r is apparent across the toolkits as both a value to be upheld within models of care, and an essential element of care provision. As noted, while *continuity of carer* wasn't specified for inclusion over *continuity of care*, the majority of the currently available toolkits covering this concept relate to midwifery continuity of carer [13,26–28,32,33–38,40,41,42,44,45]. While the benefits of relational continuity of carer are well established [7,8] and this model of care is seen as exemplary, it is pertinent to note the importance of *continuity of care* when *continuity of carer* is unavailable, or unable to be implemented. Reasons for this may include geographic limitations, or size of service, for instance in regional or rural settings with no birthing services. The Aboriginal Maternal and Infant Health Service [29–31] highlights the importance of maintaining the maximal achievable continuity, both from the perspective of the woman, midwife and Aboriginal Health Worker [29]. Continuity of care is similarly important when surrounding a continuity of carer model to encompass differing services or supports [44], for example a named obstetrician or linking with external services, including social and other critical support that families need in the first 1000 days.

Policy implications include the requirement for senior level leadership and buy-in to be able to implement these models in a safe and effective manner. This calls for commitment at the highest level to influence policy to put implementation of models of care which concurrently provide culturally responsive, trauma-informed, continuity of care(r) at the top of the health service agenda. They also highlight the need for dedicated, sustainable funding, which would require policy dedication to ensure long term success. This funding is needed for Aboriginal and Torres Strait Islander Community Controlled

Organisations (ACCOs), in addition to funding for hospitals and mainstream health services, who should work to develop genuine and productive partnerships with the ACCO sector. Prioritisation must be given by policy makers to address barriers and facilitate both mainstream health services and ACCOs to enable implementation of these models of care [65]. It is also important to note that while these findings are discussed in relation to services needed for Aboriginal and Torres Strait islander women and families, they are likely to be relevant for all women and families, including other First Nations, migrant and refugee communities.

As identified when examining key processes, the toolkits had varying implementation perspectives. The toolkits relating to culturally responsive models of care all had a basis of community engagement and co-design, however many of these remain from the health service perspective for engagement with the population they serve. The National Aboriginal Council of Midwives (now known as the National Council of Indigenous Midwives) toolkit "Bringing Birth Back" [35–38] is the only resource in the review that discusses how to design and implement a culturally safe perinatal service from the perspective of the Indigenous workers and communities. Where trauma can be perpetuated within colonial systems, healing can be achieved when care is designed, implemented and delivered through an Indigenous lens [4]. Embedding Aboriginal ways of knowing, being and doing into the service from conceptualisation assists in meeting many of the key principles and core model components described above. This is an important reflection when establishing models of care in colonised countries and moving to shift power dynamics and decolonise the healthcare system. This lens could further be enhanced by focussing on the importance of the workforce and succession planning, and improving equity of access measures to increase the Indigenous workforce. The development of genuine partnerships between health services, universities and ACCOs could include student opportunities, such as that within the Waijungbah Jarjums program [66] which offers cadetships to Indigenous midwifery students into their model.

While revealing the available resources, this scoping review has also identified research gaps in the availability of toolkits for multi-conceptual models of care. The review revealed no existing toolkits which incorporated each of (1) the first 1000 Days, (2) a cross-sector or cross-profession lens and (3) an Aboriginal and Torres Strait Islander lens.

## Conclusion

This scoping review has synthesised 13 toolkits relating to continuity of care(r), culturally responsive care and trauma-informed care in the perinatal period. It has defined the scope of these toolkits and highlighted the principles, core model components and key processes that are represented across the concepts. The findings of this review provide valuable insight into current gaps in resources, highlighting the need for a single toolkit to support services to develop culturally responsive, trauma-informed, continuity of care(r) across the full first 1000 days, for Aboriginal and Torres Strait Islander families.

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## Ethical statement

Not applicable.

## CRediT authorship contribution statement

*EM* Methodology, Investigation, Formal analysis, Data Curation, Writing – Original Draft, Writing - Review & Editing, *SH* Investigation, Formal analysis, Writing – Original Draft, Writing - Review & Editing, *MAK* Methodology, Investigation, Supervision, Writing - Review & Editing, *JD* Investigation, Writing - Review & Editing, *ML* Investigation, *NS* Writing - Review & Editing, *JS* Supervision, Writing - Review & Editing, *HM* Writing - Review & Editing, *DF* Writing - Review & Editing, *TMS* Visualisation, Writing – Review & Editing, *SS* Writing - Review & Editing, *RM* Conceptualisation, Review, *CC* Conceptualisation, Funding Acquisition, Methodology, Writing - Review & Editing

## Declaration of Competing Interest

There are no competing interests to declare.

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## Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at doi:10.1016/j.wombi.2024.101834.

## References

[1] R.E. Helfer, The perinatal period, a window of opportunity for enhancing parent-infant communication: an approach to prevention, Child Abus. Negl. 11 (4) (1987) 565–579.
[2] Moore T.G., Arefadib N., Deery A., West S. The First Thousand Days: An Evidence Paper. Parkville, Victoira: Murdoch Children's Research Institute, 2017.
[3] Australian Government. National Aboriginal and Torres Strait Islander Health Plan 2013-2023. In: Health Do, editor. Canberra; 2013.
[4] C. Chamberlain, G. Gee, S. Brown, et al., Healing the past by nurturing the future-co-designing perinatal strategies for aboriginal and torres strait islander parents experiencing complex trauma: framework and protocol for a community-based participatory action research study, BMJ Open 9 (6) (2019) e028397.
[5] S. Kildea, S. Tracy, J. Sherwood, F. Magick-Dennis, L. Barclay, Improving maternity services for Indigenous women in Australia: moving from policy to practice, Med J. Aust. 205 (8) (2016) 374–379.
[6] Law C., Wolfenden L., Sperlich M., Taylor J. A good practice guide to support implementation of trauma-informed care in the perinatal period. Blackpool, UK: The Centre for Early Child Development, 2012.
[7] Sandall J., Coxon K., Mackintosh N., Rayment-Jones H., Locock L., Page LwobotSKs. Relationships: the pathway to safe, high-quality maternity care Report from the Sheila Kitzinger symposium at Green Templeton College October 2015. Green Templeton College, Oxford., 2016.
[8] J. Sandall, C. Fernandez Turienzo, D. Devane, et al., Midwife continuity of care models versus other models of care for childbearing women, Cochrane Database Syst. Rev. 4 (2024).
[9] M. Benton, A. Wittkowski, D. Edge, et al., Best practice recommendations for the integration of trauma-informed approaches in maternal mental health care within the context of perinatal trauma and loss: a systematic review of current guidance, Midwifery 131 (2024) 103949.
[10] S. Kildea, Y. Gao, S. Hickey, et al., Effect of a birthing on country service redesign on maternal and neonatal health outcomes for first nations Australians: a prospective, non-randomised, interventional trial, Lancet Glob. Health 9 (5) (2021) e651–e659.
[11] Australian Government, National Aboriginal and Torres Strait Islander Health Plan 2021-2031. Australian Department of Health, Commonwealth of Australia, Canberra, 2021.
[12] COAG Health Council, Woman-centred care: strategic directions for Australian maternity services, Department of Health, Canberra, 2019.
[13] N.S.W. Ministry, of Health. Continuity of Care Models: a Midwifery Toolkit, in: N.S. W. Ministry (Ed.), of Health, 2023.

[14] Australian Institute of Health and Welfare, Maternity models of care in Australia, 2023, AIHW, Canberra, 2023.
[15] H. Rayment-Jones, T. Murrells, J. Sandall, An investigation of the relationship between the caseload model of midwifery for socially disadvantaged women and childbirth outcomes using routine data – a retrospective, observational study, Midwifery 31 (4) (2015) 409–417.
[16] Australian Institute of Health and Welfare, Australia's mothers and babies, AIHW, Canberra, 2023.
[17] L. Barclay, S. Kruske, S. Bar-Zeev, et al., Improving aboriginal maternal and infant health services in the 'top end' of Australia; synthesis of the findings of a health services research program aimed at engaging stakeholders, developing research capacity and embedding change, BMC Health Serv. Res. 14 (1) (2014) 241.
[18] N. Sivertsen, O. Anikeeva, J. Deverix, J. Grant, Aboriginal and torres strait islander family access to continuity of health care services in the first 1000 days of life: a systematic review of the literature, BMC Health Serv. Res. 20 (1) (2020) 829.
[19] Turner N. Cultural safety through responsive health practice. Policy position statement.: Indigenous Allied Health Australia; 2019.
[20] G. Gee, P. Dudgeon, C. Schultz, A. Hart, K. Kelly, Aboriginal and torres strait islander social and emotional wellbeing, Work. Together.: Aborig. Torres Strait Isl. Ment. Health Wellbeing Princ. Pract. 2 (2014) 55–68.
[21] A. Wright, V.N. Davis, M.M. Brinckley, et al., Relationship of Aboriginal family wellbeing to social and cultural determinants, Central Australia: 'Waltja tjutangku nyakunytjaku, Fam. Med Community Health 10 (4) (2022).
[22] Substance Abuse and Mental Health Services Administration. SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach. In: Administration SAaMHS, editor. Rockville, MD; 2014.
[23] R. Barac, S. Stein, B. Bruce, M. Barwick, Scoping review of toolkits as a knowledge translation strategy in health, BMC Med. Inform. Decis. Mak. 14 (1) (2014) 121.
[24] Peters M., Godfrey C., McInerney P., Munn Z., Tricco A., Khalil H. Chapter 11: Scoping Reviews. In: Aromataris E, Munn Z, eds. JBI Manual for Evidence Synthesis; 2020.
[25] A. Tricco, H. Colquhoun, T. Horsley, et al., PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation, Ann. Intern. Med. 169 (7) (2018) 467–473.
[26] Kildea S., Lockey R., Roberts J., Magick Dennis F. Guiding Principles for Developing a Birthing on Country Service Model and Evaluation Framework, Phase 1: Mater Medical Research Unit and the University of Queensland on behalf of the Maternity Services Inter-Jurisdictional Committee for the Australian Health Ministers' Advisory Council, 2016.
[27] Kruske S. Culturally Competent Maternity Care for Aboriginal and Torres Strait Women Report. September 2012.: prepared on behalf of the Maternity Services Inter-Jurisdictional Committee for the Australian Health Ministers' Advisory Council, 2012.
[28] Kildea S., Van Wagner V. 'Birthing on Country' maternity service delivery models: an Evidence Check rapid review. Sydney: Brokered by the Sax Institute (⟨http://www.saxinstitute.org.au⟩) on behalf of the Maternity Services Inter-Jurisdictional Committee for the Australian Health Ministers' Advisory Council, 2013.
[29] NSW Health. Service Delivery Model Aboriginal Maternal and Infant Health Service. In: NSW Health, editor.; 2014.
[30] Murawin Consulting and Human Capital Alliance. Final report of the 2016-2018 evaluation of the AMIHS program. Sydney: NSW Minitsry of Health, 2019.
[31] N.S.W. Ministry of Health. Evaluation of the NSW Aboriginal Maternal and Infant Health Service (AMIHS) - NSW Health Response, 2021.
[32] S. Kildea, S. Hickey, L. Barclay, et al., Implementing birthing on country services for aboriginal and torres strait islander families: RISE framework, Women Birth 32 (5) (2019) 466–475.
[33] S. Kildea, Y. Roe, Utilising the RISE framework to implement birthing services for first nations families, Women Birth 35 (6) (2022) 521–523.
[34] S. Ireland, E.L. Maypilama, Y. Roe, A. Lowell, S. Kildea, Caring for mum on country: exploring the transferability of the birthing on country rise framework in a remote multilingual Northern Australian context, Women Birth 34 (5) (2021) 487–492.
[35] National Aboriginal Council of Midwives. Bringing Birth Back. Aboriginal Midwifery Toolkit., 2014.
[36] National Aboriginal Council of Midwives. Preparing the path. A community readiness guide for bringing midwifery back to our communities, 2021.
[37] National Council of Indigenous Midwives. Indigenous Midwifery Knowledge and Skills: A Framework of Competencies, 2019.
[38] National Council of Indigenous Midwives. Restoring Midwifery and Birth Workbook, 2021.
[39] K. Stevenson, S. Filoche, F. Cram, B. Lawton, Te Hā o Whānau: A culturally responsive framework of maternity care, N. Z. Med. J. 133 (1517) (2020) 66–72.
[40] Australian College of Midwives, Delivering midwifery continuity of care to Australian women: a handbook for hospitals and health services. Midwives, Australian College of, Canberra, 2017.
[41] Nursing and Midwifery Office. Delivering continuity of midwifery care to Queensland women. A guide to implementation. Brisbane: Queensland Government; 2012.
[42] Western Australia Department of Health. Midwifery continuity of carer model toolkit. In: Western Australia Department of Health, editor.: Health Networks Directorate; 2016.
[43] Queensland Government. Queensland rural and remote maternity services planning framework. A toolkit for collaboration, consultation and co-design. In: Queensland Health, editor.: State of Queensland (Queensland Health); 2022.
[44] NHS England, and NHS Improvement. Delivering Midwifery Continuity of Carer at full scale. Guidance on planning, implementation and monitoring 2021/22, NHS England and NHS Improvement, London, 2021.
[45] NHS London Strategic Clinical Networks. Increasing the number of women who receive continuity of midwife care: A best practice toolkit. London; 2015.
[46] E.A. Mosley, R.K. Lanning, Evidence and guidelines for trauma-informed doula care, Midwifery 83 (2020) (N.PAG-N.PAG).
[47] Gerber M.R. Trauma-Informed Maternity Care. In: Gerber M., ed. Trauma-Informed Healthcare Approaches: Springer, Cham; 2019. 2019, (Ed.)in: M.R. Gerber, .
[48] Molly Wardaguga Research Centre C.D.U. Birthing on Country. ⟨https://www.birthingoncountry.com/⟩ (accessed 11/03/2024 2024).
[49] Australian Doulas. What is a doula? 2024. ⟨https://www.australiandoulas.com.au/⟩ (accessed 22/01/2024 2024).
[50] Australian Government. Clinical Practice Guidelines Pregnancy Care. In: Department of Health, editor.; 2020.
[51] Australian Health Ministers' Advisory Council. Cultural Respect Framework 2016-2026 for Aboriginal and Torres Strait Islander Health. A national approach to building a culturally respecful health system. In: Committee AHMACsNAaTSIHS, editor.; 2016.
[52] J. Harris, S. Beck, N. Ayers, et al., Improving teamwork in maternity services: a rapid review of interventions, Midwifery 108 (2022) 103285.
[53] J.H. Susan, A.J. Patricia, S. Lee, A.C. Elaine, S.M. George, L.P. Karen, Effect of a collaborative interdisciplinary maternity care program on perinatal outcomes, Can. Med. Assoc. J. 184 (17) (2012) 1885.
[54] H.L. McLachlan, M. Newton, F.E. McLardie-Hore, et al., Translating evidence into practice: implementing culturally safe continuity of midwifery care for First Nations women in three maternity services in Victoria, Australia, eClinicalMedicine 47 (2022) 101415.
[55] National Aboriginal Torres Strait Islander Health Workers Association. National Aboriginal and Torres Strait Islander Health Workers Association: cultural safety framework. 2017.
[56] NHS England. Universal personalised care. Implementing the comprehensive model., 2019.
[57] R. Ritte, S. Panozzo, L. Johnston, et al., An Australian model of the First 1000 Days: an Indigenous-led process to turn an international initiative into an early-life strategy benefiting indigenous families, Glob. Health Epidemiol. Genom. 1 (2016) e11.
[58] S. Nancarrow, A. Booth, S. Ariss, T. Smith, P. Enderby, A. Roots, Ten principles of good interdisciplinary team work, Hum. Resour. Health 11 (2013) 19.
[59] M. Snijder, A. Shakeshaft, A. Wagemakers, A. Stephens, B. Calabria, A systematic review of studies evaluating Australian indigenous community development projects: the extent of community participation, their methodological quality and their outcomes, BMC Public Health 15 (1) (2015) 1154.
[60] J. Smylie, M. Kirst, K. McShane, M. Firestone, S. Wolfe, P. O'Campo, Understanding the role of Indigenous community participation in Indigenous prenatal and infant-toddler health promotion programs in Canada: a realist review, Soc. Sci. Med. 150 (2016) 128–143.
[61] Maiam nayri Wingara. Indigenous Data Sovereignty Communique Indigenous Data Sovereignty Summit 20th June 2018, Canberra, ACT., 2018.
[62] F.E. McLardie-Hore, H.L. McLachlan, D.A. Forster, S. Holmlund, P. McCalman, M. S. Newton, Comparing the views of caseload midwives working with first nations families in an all-risk, culturally responsive model with midwives working in standard caseload models, using a cross-sectional survey design, Women Birth 36 (5) (2023) 469–480.
[63] G. Lyth, Clinical supervision: a concept analysis, J. Adv. Nurs. 31 (3) (2000) 722–729.
[64] J. Yamada, A. Shorkey, M. Barwick, K. Widger, B. Stevens, The effectiveness of toolkits as knowledge translation strategies for integrating evidence into clinical care: a systematic review, BMJ Open 5 (4) (2015) e006808.
[65] Y. Roe, J. Allen, P. Haora, et al., Enabling the context for aboriginal and torres strait islander community controlled birthing on country services: participatory action research, Women Birth 37 (2) (2024) 368–378.
[66] State of Queensland (Queensland Health). Waijungbah Jarjums Evaluation Report, 2020.