

Culturally Safe Mental Health Screening for Aboriginal Mothers: An exploration of the value of Baby Coming You Ready program in child health settings.

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**This thesis is presented for the Degree of Accelerated Research Master's with Training
Murdoch University, January 2024**



“My child health nurse and I have literally been through a lot. Like she was there through all of it. You know, if there had been anyone else, like, who knows if I would have got through it, you know, they're just little things that she did to help”.

- Participant 5



Thesis Declaration

I, BRIDGETTE KELLY, verify that in submitting this thesis; the thesis is my own account of the research conducted by me, except where other sources are fully acknowledged in the appropriate format, the extent to which the work of others has been used is documented by a percent allocation of work and signed by myself and my Principal Supervisor, the thesis contains as its main content work which has not been previously submitted for a degree at any university, the University supplied plagiarism software has been used to ensure the work is of the appropriate standard to send for examination, any editing and proof-reading by professional editors comply with the standards set out on the Graduate Research School website, and that all necessary ethics and safety approvals were obtained, including their relevant approval or permit numbers, as appropriate.

Statement of Contribution

In accordance with the Murdoch University Graduate Degree Regulations, it is acknowledged that this thesis represents the work of the candidate with contributions from their supervisors and, where indicated, collaborators. The Candidate is the majority contributor to this thesis with no less than 75% of the total work attributed to their efforts.

Candidate: Bridgette Kelly

Principal Supervisor: Roz Walker

Acknowledgements

I want to acknowledge and recognise the incredible time, knowledge, effort, and wisdom of everyone who shared anything with me regarding the completion of this research. The yarns shared with me during this research has been significant in motivating my research to strive towards changing systematic barriers faced by Aboriginal women and their families daily.

Special acknowledgements to my supervisors: Professor Roz Walker, Dr. Jayne Kotz, Adjunct and Associate Professor Tracy Reibel for their support and guidance and expertise regarding qualitative research methods and data analysis with their extensive experience in Aboriginal maternal and child health and social and emotional wellbeing. In addition, I would like to express my gratitude to Professor Rhonda Marriott for providing Indigenous leadership and supporting my study as part of Ngangk Yira's commitment to strengthening Aboriginal scholarship in Aboriginal maternal health services to improve outcomes. My deepest gratitude is also expressed to Mel Robinson, Director for Aboriginal Health, for always being a big support for me with guidance from a professional, personal and cultural lens- I am extremely grateful. I would also like to acknowledge my colleague and BCYR co- lead Trish Ratajczak for her words of encouragement as we travelled this unforgettable journey together. As a novice in the quantitative analysis, I would also like to thank both Akilew Adane, epidemiologist and Michelle Preston, business manager at Ngangk Yira for their support and expert guidance throughout my research journey. Their contributions and supervision were meaningful, supportive, encouraging and caring and I will be forever grateful for the guidance provided.

Without the participation of the five determined, passionate mothers who kindly shared their experiences with me, this research would not feel as significant - I am truly humbled to be a part of your journeys.

This research is Aboriginal led and the support given, particularly from my supervisors, in aspects of time and resources allowed me to continue research while working and provided culturally safe and welcoming space to work and meet in at the Ngangk Yira Institute for Change.

Abstract

Background: Existing perinatal mental health tools and resources for Aboriginal women in postnatal settings lack cultural sensitivity, often leading to inaccurate responses, fears of judgment, and neglect of individual circumstances, impacting health outcomes for children in the first 2000 days. Disparities in culturally safe child health service delivery between metropolitan and remote areas increase the gap in access to care.

Research Questions: The research question for this thesis is twofold:

- 1) What contributes to strong trusting relationships between child health nurses, Aboriginal clients and their families?
- 2) Which features of the BCYR program impact this relationship and how?

Hypothesis: The *Baby Coming You Ready* program will promote stronger relationships between Aboriginal women and community health nurses whilst offering more culturally safe appointments and enhanced engagement within child health settings.

Methodology: The study combines qualitative and quantitative research methods and data analysis utilising Indigenous methodologies. This includes clinical yarning, semi-structured interviews, and stakeholder consultation. Ethical considerations such as Indigenous NHMRC values, privacy, confidentiality, and informed consent in Aboriginal contexts are maintained.

Anticipated Outcomes: Findings of this study will provide strong evidence and recommendations for a child health adaptation of *Baby Coming You Ready* that support the needs of mothers with infants, child health nurses and community health services in Western Australia. Recommendations include co-design of *Bubba Here What Now*, image and language adaptations to improve postnatal usability and a research pilot to be undertaken across Aboriginal health services offering child health services.

Conclusion: This research will address the urgent need for culturally sensitive mental health screening tools for Aboriginal mothers in postnatal care settings. By analysing women's experiences using *Baby Coming You Ready* compared to current standard practices, the study contributes to the knowledge base regarding effective child health community services and provides recommendations to improve mental health screening and care. If adopted these recommendations could ultimately reduce healthcare disparities among Aboriginal and Torres Strait Islander women and children.

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Terminology

Aboriginal: The WA Health Department use the following definition as:

“Within Western Australia, the term Aboriginal is used in preference to Aboriginal and Torres Strait Islander, in recognition that Aboriginal people are the original inhabitants of Western Australia. Aboriginal and Torres Strait Islander may be referred to in the national context and Indigenous may be referred to in the international context. No disrespect is intended to our Torres Strait Islander colleagues and community.” (Department of Health WA, 2015, p. ii)

Baby Coming You Ready: The BCYR program centres around a digital web-based assessment.

Using touch screen images and Aboriginal voices overs, both users (client and clinician) are guided through an engaging, culturally safe ‘yarn’. This process supports women to identify and reflect on their strengths and worries, prioritise these and based on this, create their own solutions or ‘way forward’. (Baby Coming You Ready, n.d.)

Child Development Information System is a computer application for clinicians to document on. CDIS stores data within a reliable and secure centralised database and is currently used in Perth metro child health sites. (Department of Health Victoria, 2023)

Child health nurse and **community health nurse** terms are used interchangeably throughout this literature review, however, both terms are in reference to nurses providing care in a community health setting to women in the first 2 years of having a newborn. More recently, these roles are referred to as maternal child family health practitioners. (Nursing and Midwifery Board Ahpra, 2023)

Community setting implies care outside of acute care settings such as a hospital and can include a health clinic or consumer’s home.

Cultural safety is a term that is used with and in the context of this research refers to “a health system where Indigenous cultural values, strengths and differences are respected; and racism and inequity are addressed.” (Australian Institute of Health and Welfare, 2023)

Cultural security is the third stage of cultural competence and is directly links from understanding and actions of cultural safety and cultural awareness combined. (Coffin, 2007)

Cultural sensitivity is defined as creating “a space where ideal health outcomes are available for everyone, and prejudice is non-existent. Cultural sensitivity embraces and engages

with everyone's different cultural identities and values, which ultimately creates an environment that is optimally comfortable and productive." (Ausmed Education, 2024)

Koolunga is the noongar word for child however can be spelt in many ways across WA. (Whitehurst, 1992)

Postnatal is used interchangeably with the 'first 1000 days' in this paper and refers to the two-year period, or the 'first thousand days' refers to the period of development from conception to age two. (Centre for Community Child Health, 2017).

Screening: In the context of *Baby Coming You Ready*, it is important to note that the digital platform has been designed in response to Aboriginal people expressing the need to replace existing screening tools such as the Family and Domestic Violence, alcohol and drugs, and EPDS to create joint understandings between women and clinicians (Kotz et al., 2023) which is discussed during extensive BCYR training.

Therapeutic Friendship is a term that has been drawn from the research from Kalyakool Moort- Always Family (Kotz, 2021) and refers to the relationship being more than clinical with a woman and is built on trust, transparency, continuity of care and engagement.

Acronyms

AHPRA	Australian Health Practitioner Regulation Agency
AIHW	Australian Institute of Health and Welfare
AHT	Aboriginal Health Team
APA	American Psychology Association
APAR	Aboriginal Participatory Action Research
ASQ	Ages & Stages Questionnaire
BCYR	Baby Coming You Ready
CAHS	Child and Adolescent Health Service
CCH	Community Child Health
CDIS	Child Development Information System
CES	Clinical Event Summary
EPDS	Edinburgh Postnatal Depression Scale
DASS21	Depression, Anxiety, Stress Score 21
K5	Kessler 5
KMMS	Kimberley Mums Mood Scale
KPI	Key Performance Indicators
NYIC	Ngangk Yira Institute for Change
PASS	Perinatal Anxiety Screening Scale
SNAICC	Secretariat of National Aboriginal and Islander Child Care
WACHS	Western Australia Country Health Service

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Preface

I am a Kamilaroi woman from NSW and a child health nurse. My background is working in community health space as a child health nurse. I have always been passionate about helping other women where I can. This research is important to me as I have seen too many times, situations where professionals in organisations are not considerate of the importance of culture for Aboriginal people, especially women and their families.

I have witnessed and advocated for many people inside and outside of health organisations around the impact that colonisation has had on Aboriginal people. These impacts are so easily overlooked by many professionals.

I am passionate and committed to help contribute to closing the service gaps within the health systems in WA by doing this research, and it would make my heart happy to know that Aboriginal women and their families feel safer to attend services if my research contributes to transforming WA maternal and child health systems to become culturally secure.

I aim to document my research using a decolonised, strength-based perspective to demonstrate that Aboriginal families know what they want from services and know how to engage where they feel there is a need. Importantly, it is time to reframe research away from deficit model's that contribute to existing narratives indicating that Aboriginal people can't/ don't want to make changes in their own lives, or they don't know what they want/ need. In contrast, I want to highlight the strategies, implementations and actions being taken by Aboriginal people and allies that contribute to strong families and communities.

As an experienced child health nurse working in the field of Aboriginal health and wellbeing, I frequently meet clients who are so familiar and disengaged with the way clinicians' use the Edinburgh Postnatal Depression Scale (EPDS) to assess their mental health that many decline to complete it. Instead, they comment how they feel at the time, regardless of 'score'. These tools can be useful when used as originally intended in specific population groups and alongside a thorough wellbeing assessment. However, results are often manipulated by clients to achieve low-risk scores, rendering the process at best unhelpful (Kotz, 2021). This is particularly problematic for Aboriginal mothers where trust and engagement in mainstream services is poor (Nolan- Isles et al. 2021). It is vital that health care services continually reflect

and identify new ways of working with Aboriginal community to provide best health outcomes.

This study examines the critical role and importance of establishing a good relationship between child health nurses, Aboriginal women, and their families. It shows that through routinely using BCYR the potential to develop and enhance therapeutic relationships, increase cultural safety, improve engagement with health services, and strengthen holistic care is greatly enhanced. It identifies the need for policy changes in maternal and child health.

My study is part of the component of the BCYR pilot study which was situated in Child and Adolescent Community Health (CAHS) in several sites across the Perth metropolitan area. CAHS is a comprehensive health service for children and young people in WA. It includes Neonatology, Community Health, Mental Health and Perth Children's Hospital. CAHS aspires to be a safe, trusted and professional leader in child and adolescent health and wellbeing, which genuinely partners with children, young people and their families to best meet their needs. (Government of Western Australia, 2023b)

1. Introduction

1.1 Background:

Traditionally, Aboriginal family and child raising was a collaboration of Clans composed of mothers, fathers, uncles, aunties, brothers, sisters, cousins and so on. Strong family values and raising a child was everybody's responsibility that relied on and nurtured strong family ties and Kinship connections as a means of passing on cultural beliefs from one generation to the next (Dudgeon & Walker 2011). Prior to colonisation love was abundant and life was straightforward. Despite the impacts of colonisation for many Aboriginal Families, Kinship connections and shared cultural and parenting beliefs remain strong (Dudgeon & Walker 2011).

The majority of Aboriginal women are strong, resilient, nurturing mothers who raise healthy happy children (Scrine et al., 2020). However, for some women, the devastating ongoing effects of colonisation, including exploitation, assimilation, the removal of children from their families (the Stolen Generation), extreme social disadvantage, discrimination, and racism have had significant, cumulative and ongoing impacts on the social, emotional, spiritual and physical and mental health and wellbeing of Aboriginal families (Dudgeon et al., 2014, Milroy, Dudgeon & Walker 2014). Around 33% of descendants from the Stolen Generation were more likely to have experienced adverse outcomes over a broad range of health, socioeconomic and cultural indicators (Australian Institute of Health and Welfare, 2018). The disruption to strong parenting practices for many has become intergenerationally damaging (Chamberlain et al., 2020).

There is substantial evidence to confirm that the importance of culturally safe child health services and support is vital for the health and wellbeing all Aboriginal families (Centre for Community Health, 2017, p. 25). This is particularly important for families impacted by both the consequences of colonisation and the cumulative impacts of contemporary social and economic determinants.

Family Matters report stated, "the Social and Emotional Wellbeing (SEWB) of an Aboriginal and Torres Strait Islander child is dependent upon family and community wellbeing and connection to ancestry, culture, spirituality and country." (Australian Institute of Family Studies, 2018) It is important for women to feel that they can have trust with their

practitioner, particularly if they need to raise a concern they may have about their child. Misinterpretation from clinicians can lead to misplaced referrals to social work and ultimately child protective services. The high levels of fear from parents in Aboriginal families is particularly high and a recent study from Nolan- Isles et al. (2021) who interviewed a number of Aboriginal community members and healthcare professionals found that the cultural competency of non-Aboriginal staff and services and developing trust and consistency was also considered important. It goes further to explain the importance of ensuring that all professionals are culturally safe to ensure trust and that employing Aboriginal staff isn't enough to build trust.

The Birthing on Noongar Boodjar research findings identified:

“There are limited cultural safety education learning opportunities that promote culturally secure maternity care, or which challenge non-Aboriginal personnel to improve their knowledge of Aboriginal people and cultural practices. This situation leads to culturally unsafe environments, and often contributes to poor service engagement by Aboriginal women. There are limited examples of evidence based, culturally secure maternity care for Aboriginal women being implemented, measured, reported on or sustained.” (Reibel, 2019)

Additionally, a study by Bertilone and colleagues examining the provision of culturally competent services found that “partnerships, communication and genuine engagement with Aboriginal staff can improve the cultural appropriateness of practice within a range of partner organisations including general practices, imaging services and hospital maternity units.” (Bertilone et. al. 2016) This study goes on to publish that women who accessed culturally secure services might be providing better lifelong health outcomes for their infants.

“Given the association between preterm birth and infant mortality, as well as the impact of prematurity on chronic disease throughout life, programs providing access to culturally secure antenatal care for Aboriginal women may have long-term benefits for their children.” (Bertilone et. al. 2016)

“Factors that often impede cultural safety are related to communication, healthcare structures, such as colonised healthcare delivery, and ongoing health inequities.” (Moloney et al., 2023, p. 272). This suggests that services not actively employing cultural safety

considerations, are potentially failing clients and harming client outcomes and limiting accessibility to the benefits of health services, through women's reluctance to attend.

There is a body of literature that shows that existing screening tools and resources for Aboriginal women in postnatal settings lack cultural sensitivity. This can result in fears of judgment, inaccurate results, and neglect of individual circumstances (Carlin et al. 2019a; Kotz et al. 2021; Chan et al., 2021), resulting in disengagement from services and poorer outcomes for children in the first 2000 days.

Isangula et al. (2023), completed a study focusing on the importance of nurse-client relationships. They found that nurses who have compassion, competence and are responsive to their clients improve client engagement, positive health outcomes and continuity of care.

1.2 Current Context:

Despite the increase in routine mental health screening in child health services in Australia over the last twenty years, maternal and infant outcomes remain largely unchanged (Moss et al., 2020). The disparity between Aboriginal and non-Aboriginal maternal and infant outcomes is unacceptable (Australian Institute of Health and Welfare (AIHW), Aboriginal and Torres Strait Islander Health Performance Framework summary report, 2020b). Poorer outcomes such as infants being born prematurely, poor service engagement by Aboriginal consumers or increased mental health conditions including depression, anxiety and suicide, can be directly linked to poor maternal mental health (Adane et al., 2022). Current mental health and wellbeing screens in community child health (CCH) are not achieving outcomes intended to identify and support women with mental health concerns (Moss et al., 2020; Jones et al., 2023). Babies born with a low birth weight are more likely to live in remote areas compared to major cities according to the AIHW Australian mothers and babies 2018 report (AIHW, 2020a).

Current screening tools routinely used within the community child health setting include the EPDS, the Depression, Anxiety, Stress Score 21 (DASS21), the Perinatal Anxiety Screening Scale (PASS) and the Kessler5 (K5); considered gold standard in clinical practice until recent years. However, Kotz and Robinson (2018) found that using the score based EPDS can be traumatic for Aboriginal women as they fear the consequences of being 'scored' and 'judged'. Poor experiences and inaccurate responses to screening questions often leads to poor follow up

and client outcomes. Further, these 'gold standard' screening tools are not culturally safe, nor person-centred. Consisting of generalised, universal screening questions, these tools do not consider individual circumstances, ethnicity, gender, or previous trauma. In WA Health CCH settings the tools are mandatory for clinical use and can be considered standardised key performance indicators (KPIs) for output-based funding. Importantly, results from these tools are used for care planning. Given the impacts of colonisation and the resultant social disadvantage and intergenerational and complex trauma experienced by many Aboriginal and Torres Strait Islander women (Chamberlain et al., 2021; Marriott et al., 2020), failing to consider these impacts in care planning is at best neglectful (Kotz, 2021). Considering these circumstances, new approaches to assessing the perinatal mental health of Aboriginal and Torres Strait Islander women are needed. It is vital that perinatal health services, including CCH, offer culturally safe effective screening tools. Provision of culturally safe tools that accurately assess mental wellbeing and holistically consider physical, social, emotional, and spiritual wellbeing will improve health and life expectancy outcomes for Aboriginal and Torres Strait Islander people (Gee et al., 2014).

I have adopted a collaborative qualitative and quantitative methodology of combining 'stories and numbers' to understand and quantify the role of Aboriginal cultural values in promoting wellbeing (Cairney et al. 2017), in this case the perinatal mental health of Aboriginal women using CCH services. This approach has been valuable to my study to clearly demonstrate that respect for and incorporation of cultural needs and values in assessment and policies, along with genuine community involvement, plays a significant role in community empowerment and holistic wellbeing (Cairney et al., 2017; Dudgeon et al., 2020a).

1.3 Maternal Health Impacts

There is growing epigenetics evidence which suggests the postnatal mental health of mothers and fathers impacts infant neurodevelopment and motor development (Aktar et al., 2019; Galbally et al., 2021). Additionally, parenting styles impact child development and emotional intelligence. Individual parents experiencing poor mental health can unintentionally and negatively respond to their children. This can lead to infant trauma and negative life events later in life (Mah et al., 2019; Verbeek et al., 2012; Milroy et al., 2014; Moore et al., 2017). A study into raising strong, solid *koolungas*, showed that infants and children are very reliant on their parent's responses to their environment and children's behaviour can often be reflected

by the way they are raised (Scrine et al., 2020). This confirmed that participants reported the connection with culture and strong connection to identity were very important to them. As the report findings stated:

“Participants were also unanimous about the importance of building and strengthening children’s identity from good role modelling – especially when dealing with discrimination and racism. Related to this were participants’ concerns about children experiencing shame about their identity because of the internalisation of negative stereotypes and both direct and indirect racism” (Scrine et al., 2020 p.43)

Child health services are not currently addressing the mental health needs of individuals, in particular Aboriginal mothers, as well as they could be, in part because screening tools have not been validated for this context. Specific use of the EPDS, DASS 21 and K5 tools have limited validation for use with Aboriginal perinatal women in Western Australia (Carlin et al., 2019b; Kotz et al., 2021).

There is limited published research into specific community needs relating to assessing mental health wellbeing, some of which was highlighted in PhD study, Kalyakool Moort by Jayne Kotz, which found that “Aboriginal parents frequently feel marginalised and disempowered by perinatal assessments and care, yet no evidence supports the validity of using existing screening tools with this population – a new framework is needed.” (Kotz, 2021, p, viii)

2. Literature review

2.1 Literature Search

I consulted with the senior librarian Debra Smith from Murdoch University who assisted me in identifying search strings for my scoping review and searching the following data bases: Scopus, Google Scholar, PubMed, Pro Quest, and Informit. The search strings were as follows: “Aboriginal or Indigenous or First Nations women” AND “perinatal or postnatal” AND “child health or community health” AND “health worker or health care professional AND “relationship or therapeutic relationship” AND “health or mental health and/ or physical health and wellbeing”.

I initially targeted literature in peer reviewed journals in English language from 2013-2023. A total of 1100 articles were found, however, when I refined this using keywords, titles and abstracts, results filtered down to around 80 articles. I then manually filtered through considering my research question keywords that were based on postnatal Aboriginal women in Australia, to result in around 30 publications that more closely identified with the importance of strong relationships required between community/child health nurses and postnatal women resulting in effective cultural security. I initially reviewed around 30 publications using a systematic approach including policy documents, grey literature and identified relevant literature in reference lists of the articles found. This considerably expanded the results. Abstracts and full texts were reviewed and critiqued. Initially the review was focused on Aboriginal women in Australia, however international articles that supported the qualitative data were later included in the review.

My study is premised on the belief that supporting community health clinicians to strengthen the therapeutic relationships between Aboriginal mothers and clinicians by applying and refining the Baby Coming You Ready (BCYR) digital platform will improve physical and mental health outcomes for Aboriginal women and children in the postnatal period (up to the first 2000 days). I was interested in literature which identified the critical elements of care required for women and their babies to ensure their best outcomes. These aspects are important to be able to determine the effectiveness of BCYR to strengthen existing, or establish new, clinician-client relationships; including how the BCYR process benefits first time

mothers, supports breast feeding, enhances care taking, and identifies and addresses women's and infants' health needs or problems.

2.2 Background and identified gaps in existing health systems

Support is crucial in the antenatal and postnatal care of Aboriginal women (Kotz et al., 2018; Kotz, 2021). With a specific focus on studies with Aboriginal women I reviewed the literature to establish how care provided by community and/or child health nurses impacts Aboriginal women's mental health and social and emotional wellbeing after she has given birth. There is an evidence gap in Aboriginal perinatal mental health (Chan et al., 2021).

There is a large safety net gap for women transitioning between the antenatal and postnatal care. This leaves Aboriginal women particularly vulnerable. An enquiry in the UK and Ireland exploring the concept of safety netting in healthcare and its relevance to midwifery practice outlined the lessons learnt following an enquiry into maternal deaths. It revealed the need to provide 'safety net advice' to women to prevent maternal deaths (Knight et al, 2021). The report highlighted the critical importance for midwifery practice to be aware of red-flag symptoms or determinants through screening and to ensure that women and their families are informed of what they should look out for and what factors need to be addressed and reported (Menage, Hogarth & Batting 2022).

A study completed with a focus on Australian clinicians by Fraser et. al (2014) using the term "child and family health nurses (CaFHNs)" found in specialised roles such as CaFHNs, it is a priority for nurses to develop trust with women, however, in their study they were not able to locate any publications that clearly identified what this role entails. This is important to consider as a role that cannot be easily described suggests the boundaries are not clear in how clinicians in those roles are required to support users of the service.

CAHS states that their service delivery is "*culturally secure, ensuring cultural diversity, rights, views, values and expectations of Aboriginal people and those of other cultures are recognised and respected within Australian legislation*" (CAHS, Clinical Nursing Manual, 2023, p. 2). Importantly, the manual does not mention the importance of strong or trusting relationships in the six guiding principles for improving the health and wellbeing of children using services. These are the recommended guiding principles for improving the health and wellbeing of children:

- 1. Prevention and early intervention through universal and targeted services*
 - 2. Clients benefit from services that are age appropriate and focus on reducing health risks and inequalities, at the point at which they are most likely to occur*
 - 3. Strengths based approaches to child development*
 - 4. Children should grow up in healthy and safe families, environments, and communities*
 - 5. Health equity to ensure all children can be healthy, safe, and thriving*
 - 6. Services must be universal, but with services provided at a level proportionate to need*
- (CAHS, Clinical Nursing Manual, 2023, p. 2)

2.3 Relevance of Aboriginal women's wellbeing and impact on infancy

Aboriginal peoples experience persistent health and wellbeing inequities across the lifespan resulting directly from the impacts and enduring legacies of colonisation and systemic racism. These inequities begin in-utero and continue in the first 2000 days of life (conception to 5-years) and have lifelong consequences for Aboriginal health and wellbeing (Doyle, 2020). There is a direct link between maternal mental health and wellbeing and maternal and infant outcomes (Doyle, 2020). The perinatal mental health of Aboriginal women is now an urgent public health concern as evidence shows the disparity between Aboriginal and non-Aboriginal maternal and infant outcomes is unacceptably poor across most measures (Jones et al., 2023; McAullay et al., 2016). These inequitable maternal and infant outcomes are due in large part to inadequate health systems which often fail to provide culturally safe health care (Marriott et al., 2021; Reibel and Walker, 2010, Reibel, 2019).

The AIHW report on Australian mothers and babies 2018, states that 49% of Indigenous mothers give birth spontaneously with 1 in 7 births being pre-term and between 2008-2018 (AIHW, 2020a, p. 46). The rates of low birthweight babies have been steady but remain higher than for non-Aboriginal women Aboriginal and Torres Strait Islander Health Performance Framework (AIHW, 2020b, p. 26). Babies are more likely to be born with a low birthweight in remote areas compared to major cities (AIHW, 2020, p. 47). Further, in 2018, 13,754 Aboriginal women, aged under 30 years old gave birth to 13,962 babies with 36% of women living in a major city, while 44% live in the lowest socioeconomic status, with only 3.8% of women living in the highest socioeconomic status (AIHW, 2020a, p. 4). The recent WA

Department of Health, Mothers and Babies summary report outcomes (2022) reported that 83.1% Aboriginal babies were born 37->41 weeks and 16.9% were preterm infants (20-36 weeks gestation) compared with 91% of non-Aboriginal babies born 37->41 weeks and 9% preterm infants.

An examination of Australian population-based studies found that almost half of birthing mothers (47%) reported experiencing back pain in the first three months postpartum, a third (29%) experience urinary incontinence, and greater than one in eight experience depressive symptoms (12%) and anxiety (17%) (Yelland et. al., 2016). An Aboriginal mother's physical and mental wellbeing, including birth impacts and mental health concerns may be a barrier to her accessing child health services. Further, their high rates of depression and anxiety are likely to remain unsupported, even exacerbated, by using routine mental health screen tools that are culturally unsafe and unvalidated for use with Aboriginal women. These include the EPDS, DASS21 and Perinatal Anxiety Screening Scale (PASS), considered ineffective for use with Aboriginal women (Chan et al., 2021).

When cultural needs are met, Bertilone & McEvoy (2015) found that Aboriginal women in Western Australia had lower rates of preterm births compared to other sites where cultural needs weren't met as much. "Our study identified more favourable health outcomes for the babies of AMGPP [Aboriginal Maternity Group Practice Program] participants than for babies of mothers in matched control groups, including significant reductions in the likelihood of pre-term birth." (Bertilone & McEvoy, 2015)

2.4 Importance of therapeutic relationships with nurses

A significant commitment to and investment in developing relationships of trust is necessary to enable genuine and respectful partnerships. This is especially important for non-Indigenous service providers who need to re-establish trust with Aboriginal people, trust that has been damaged by the history of mistreatment (Secretariat of National Aboriginal and Islander Child Care (SNAICC), 2019, p. 13). Early studies looking at the importance of trust between clinicians and clients identified positive outcomes in mental health settings in the US (Duncan et al., 2010; Wampold, 2001). These confirmed the importance of establishing therapeutic relationships, between clinicians and those receiving care to promote good outcomes, regardless of the intervention model or approach being used. Similarly, a recent study by the

American Psychology Association (APA) Task Force on Evidence-Based Relationships and Responsiveness reviewed 16 meta-analyses on aspects of the therapy relationship and concludes that positive relationships are as crucial to positive health and wellbeing outcomes. Similarly, Professor Norcross, Chair of the APA Task Force states

“Anyone who dispassionately looks at effect sizes can now say that the therapeutic relationship is as powerful, if not more powerful, than the particular treatment method a therapist is using,” (cited in DeAngelis, 2019, p.38)

Recent international literature from Isangula and colleagues (2023) exploring nurse-led relationships in rural Tanzania support the perspective that trusted, supportive therapeutic relationships could and should prevent harmful, or worse, fatal consequences for newborns. Using semi-structured interviews with midwives, nurses and clients concluded that “identifying and implementing feasible and acceptable interventions for nurses and clients could pave the way for good nurse-client relationships, leading to improved maternal and child healthcare (MCH) outcomes and performance indicators.” (Isangula et al. 2023, p. 1) The authors identified the following benefits:

“Perceived benefits of good nurse client relationships included: (i) benefits to clients (increased healthcare-seeking behaviours, disclosure, adherence, return to care, positive health outcomes, and referral tendencies); (ii) benefits to nurses (increased confidence, efficiency, productivity, job satisfaction, trust, and community reputation and support); and (iii) benefits to healthcare facilities/systems (increased client load and consequently income, fewer complaints and legal disputes, increased trust and facility delivery, and reduced maternal and child deaths). The disadvantages of poor nurse-client relationships were basically the opposite of their benefits.” (Isangula et al. 2023, p. 4).

With neonatal death for babies in the first 28 days of life being twice as likely for Indigenous mothers (AIHW, 2018) than non-Indigenous mothers a good practitioner-client relationship is essential to improve maternal and child health outcomes, especially for Aboriginal women transiting from antenatal to postnatal care. For example, a qualitative evaluation of family-centred child health care in remote Australian Aboriginal communities by Campbell and colleagues found that “the key to effective implementation of family-centred care appeared

to be the relationships formed between health practitioners, especially Indigenous Health workers, and families” (Campbell et al., 2018, p. 5).

Another study examined the role of an authentic partnership approach to facilitate optimal health of Aboriginal children (Sprigg de Santos, Kendall and Munns, 2022). This identified that the majority community health nurses employed by the WA Country Health Service (WACHS) are not Aboriginal, which may “limit their capacity to work effectively with the primary caregivers of Aboriginal children” (Sprigg de Santos, Kendall and Munns, 2022, p. 1). In response, Aboriginal stakeholders participated in creating a partnership approach to “improve the lives of Aboriginal people if it is implemented with appropriate cultural sensitivity, shared responsibility, dignity and respect” (Sprigg de Santos, Kendall and Munns, 2022, p.1). However, the authors noted that not all approaches are genuine, or strengths based, which negatively impacts on health outcomes for Aboriginal people. The authors noted that a genuine strength-based approach to services that privileges Aboriginal values and promotes self-determination improves Aboriginal family wellbeing, they conclude:

“When non-Aboriginal CHN understand and respect the perspective and context of Aboriginal people, an authentic working partnership can develop. It is with this authentic partnership approach to care that the health and well-being of Aboriginal children can be optimised.” (Sprigg de Santos, Kendall and Munns, 2022, p.5)

2.5 Home visiting as culturally responsive care

The CAHS Community Health Clinical Nursing Manual states the first universal visit should be within 0-14 days (CAHS, 2023, p.3). However, in my experience there are a range of contributing factors that lead to Aboriginal infants not being seen at home or at a suitable location within this period. Many non-Aboriginal nurses have a limited understanding of the importance and nature of cultural needs and complex circumstances within Aboriginal families’ lives. A study examining the effectiveness of an Aboriginal parent support program using a partnership approach in an urban WA location found that:

“Structural and psychosocial barriers to home visiting impacted on the PSW’s [peer support workers] ability to effectively engage with parents.”
(Munns et al., 2018, p. 440)

Several other programs established in partnership with Aboriginal people, proved effective in addressing Aboriginal cultural needs and improving infant outcomes. The nurse led *Bulundidi*

Gudaga program, resulted in measurable child health and development improvements in children up to 4 years old (Kemp et al., 2018). Another family-centred, home-visiting model-of-care research project, reported the successes of the Aboriginal Health Worker led *Baby One Program*, designed to promote family health in the first 1000 days (Campbell et al., 2018).

In 2016 a study protocol for a randomised control trial to improve access to primary care for Aboriginal babies in Western Australia, was commenced by McAullay et. al (2016). The aim of the study was to create a model of care allowing Aboriginal infants better access to primary health care as it was clear at that time there was no clear pathway of referral from birthing hospitals to community child health services. Despite the trial's intentions over the last seven years, evidence suggests that Aboriginal babies in Western Australia are still not receiving adequate primary health care in their first three months of life (Jones et al., 2023). Addressing these shortfalls requires a deeper understanding regarding the barriers and enablers surrounding existing practices regarding the transition from antenatal to postnatal care and health education for Aboriginal mothers and their newborn babies. This is clearly outlined in the review by Dossetor et al. (2019, p.1) of health care services in Fitzroy Valley, which found a lack of comprehensive documents to support child health services and "some services lack cultural safety and there is a critical shortage of Aboriginal Health Workers". This publication demonstrates poor child health outcomes where positive nurse/client relationships are unattainable due to high staff turnover and culturally insecure environments.

2.6 Mental health and wellbeing Screening and Assessment tools

There are a range of mental health and wellbeing screening tools that are used throughout WA health services, in both antenatal and postnatal period. These are often considered to be the gold standard of care screening for maternal mental health; however, each have limitations in cultural responsiveness. Some of these screening tools are the Depression, Anxiety Stress Scale (DASS21), Perinatal Anxiety Screening Scale (PASS) and Kimberley Mums Mood Scale (KMMS).

A study by Le Grande et al. (2017) highlights the need to have mental health and wellbeing screening tools validated with Aboriginal populations in diverse settings. Le Grande et al.

(2017) completed a systematic review on the use of standard instruments being used for Aboriginal people and concluded that:

“It is advised that standard instruments only be used if they have been subject to a formal cross-cultural adaptation process, and Indigenous developed measures continue to be developed, refined, and validated within a diverse range of research and clinical settings” (Le Grande et al., 2017, p. 164)

2.6.1 Limitations of the Edinburgh Postnatal Depression Scale (EPDS)

Le Grande’s findings are particularly relevant in maternal and child health settings. For instance, the EPDS, was validated in 1987 with the general population, and is the routine tool used to identify mental health issues recommended by the Australian national clinical guidelines (Carlin et al., 2019b). However, a thesis drawing on the lived experience of Aboriginal mothers and the perspectives of midwives to examine the cultural suitability of the EPDS reported mixed views (Chan, 2019). The study found inconsistencies in midwives offering the EPDS to all women with some stating that they did not offer it to Aboriginal women as they felt it was inappropriate. Other midwives reportedly offered it routinely, as part of their job. However, this may be that the midwives did not feel it was appropriate but were concerned about professional repercussions if they did not offer the EPDS whether it was effective or not (Chan, 2019).

In 2019, a qualitative study conducted by Carlin et al., (2019a) *‘Having a Quiet Word’: Yarning with Aboriginal Women in the Pilbara Region of Western Australia about Mental Health and Mental Health Screening during the Perinatal Period*, investigated the effectiveness and cultural acceptability of the Kimberley Mums Mood Scale (KMMS), with 15 Aboriginal women that had accessed child or maternal health care within the previous three years, in the Pilbara region of WA. Carlin et al. and colleagues reported through thematic analysis that women in the Pilbara liked using the KMMS due to its narrative approach in screening. The KMMS is a culturally adapted version of the EPDS for Aboriginal and Torres Strait Islander women, was developed with more than 91 women and was validated in 2014. (Kimberley Aboriginal Health Planning Forum, 2024). The authors state the importance of:

“Identifying barriers and enablers in the process of real-world validation and implementation studies [so these] contribute to our understanding of the complexity

of improving routine clinical practice. Addressing those barriers and enablers enhances the sustainability of the clinical improvement” (Carlin et al., 2019b, p. 8).

Further, the study by Carlin et al. shows how significant it can be for clinical practice to be inclusive of culture as opposed to culture being an afterthought. The findings also emphasise that it is important to offer appropriate alternatives to address barriers identified, for example, using the KMMS with its focus on a narrative approach to antenatal screening (Carlin et al 2019a).

Finally, in the seminal text, *Working Together: Aboriginal and Torres Strait Islander Mental Health and Wellbeing: Principles and Practice* (Dudgeon, Milroy & Walker 2014, p. 346), Marriott and Ferguson-Hill (2014) stated that “an assessment of perinatal mental health screening trends and management practices among Kimberley maternal and child health nurses and midwives, reported that 100% of respondents reported poor perinatal depression screening practices with Aboriginal women. The chapter goes on to describe there were reported language barriers leading to women not understanding what the EPDS was assessing, and this led to action from Aboriginal Community Controlled Health Organisation’s (ACCHO) to collaborate and explore more suitable methods of screening maternal mental health which is now commonly known as the Kimberley Mums Mood Scale (KMMS). These studies focused on perinatal mental health screening confirms that the use of the EPDS with Aboriginal women provides ineffective results as it has not been adapted to consider cultural differences in standard practices.

2.7 Culturally Responsive Social and Emotional Perinatal Assessment

In the Kalyakool Moort – Always Family PhD study by Kotz (2021), significant community consultation was undertaken to ensure Aboriginal community voices lead the investigation into barriers and enablers to successful perinatal screening and strong Aboriginal parenting practice. To address known barriers and enablers, the consultation outcomes informed development of a digitised perinatal mental health and wellbeing program, Baby Coming You Ready (BCYR). Co-designed by Aboriginal Community members, Aboriginal and non-Aboriginal professionals, and researchers, BCYR was to replace a range of existing mental health and wellbeing screens used with pregnant Aboriginal women, providing a holistic assessment of physical, social, emotional, and mental well-being and supports. BCYR considers how to

address a range of barriers and worries impacting wellbeing when enquiring into an women's mental health. This is required for meaningful assessments that are receptive to cultural needs. The literature confirms the use of BCYR in Aboriginal community settings as being valuable as it captures protective and risk factors identified by Aboriginal women and health professionals for clinicians' consideration in care planning in a culturally supportive manner (Kotz et al., 2023).

The BCYR program uses a digitised framework that supports clinicians to provide a culturally and clinically safe social, emotional, and mental wellbeing assessment of women in antenatal settings. Using touch screen images and Aboriginal voiceovers on iPads or mobile phones (IOS and android), women select images which most closely match the issues being addressed. Engagement in this process supports women to develop their own self-directed care plans based on individually identified and prioritised needs. The BCYR program embeds four key elements: good engagement, a sense of safety, a trusting relationship, and the capacity to embrace the strengths in the Aboriginal and Torres Strait people's cultural viewpoint which is central to family/community centred care (Kotz & Robinson, 2018).

The arrival of a baby into a woman's life is a window of opportunity to make lifestyle changes inspired by her desire for the health of the infant (Marriot & Ferguson-Hill 2014). Prior to implementing BCYR in clinical settings, clinicians are trained in clinical yarning (Lin et al., 2016) to: a) build a relationship together; b) promote a culturally secure environment; and c) support the woman to make informed choices about addressing her worries through the strengths the woman self-identifies. Clinicians are also trained in Motivational Interviewing (MI) and in determining where women are in relation to their risk behaviour and at which 'stage of change' (Prochaska, DiClemente& Norcross 1992).

With the clinician and woman working through the BCYR program, the following aspects of a woman's circumstances are addressed: general wellbeing; existing supports; material and emotional needs; assessment of mental health wellbeing; past and existing traumas, including adverse childhood experiences; and family and domestic violence. The BCYR assessment platform considers most factors in individual circumstances including gender, race, age, relationships, living conditions, financial needs, mental health, previous pregnancies, existing or required support networks and ensuring the woman is generally safe.

Aboriginal culture is central across the digital platform to ensure that women feel culturally safe throughout their perinatal mental health assessment experience with a service. This includes the use of culturally relevant images and Aboriginal voiceovers across the platform. When completed, information collated from the platform makes a full assessment of the woman's mind, body, and soul to ensure that clinicians work closely with women and their families to birth healthy babies, including addressing any issues that may require immediate solutions.

2.8 Barriers and enablers to maternal primary care

A recent study by Jones and colleagues (2023) involved the experiences of 58 health care providers who provide care to Aboriginal women and their babies in hospitals and primary health sites in Perth and WA regional and remote areas to find out what they perceived as the barriers to culturally safe and equitable primary care.

At an organisational level key enablers included continuity of care throughout pregnancy, birth and postnatally, effective interservice communication around discharge planning, birth notifications, and training in culturally respectful care (Jones et. al., 2023). Organisational barriers included poor communication between health and social services and Aboriginal primary health services, inadequate staffing levels and lack of cultural training, and delayed birth notifications and discharge summaries. All health service providers identified elements of best practice such as comprehensive observations on mother and baby, communicating respectfully and clearly with mothers to instil their confidence and trust, promoting the importance self-care and family support and using the 'purple book' for follow-up appointments, immunisations, and key contact details of services in case of need. These elements were seen as essential for empowering the mother to be able to look after her baby when going home.

2.9 Social and Emotional Wellbeing Principles and Policy Frameworks

The foundational book, *Working Together: Aboriginal and Torres Strait Islander Mental Health and Wellbeing Principles and Practice* (Dudgeon, Milroy & Walker, 2014) and *The National Strategic Framework for Aboriginal and Torres Strait Islander Peoples' Mental Health and Social and Emotional Wellbeing 2017–2023* (Commonwealth of Australia, 2017) outline nine guiding principles that underpin social and emotional wellbeing. These are as follows:

1. Health as holistic
2. The right to self-determination
3. The need for cultural understanding
4. The impact of history in trauma and loss
5. Recognition of human rights
6. The impact of racism and stigma
7. Recognition of the centrality of kinship
8. Recognition of cultural diversity
9. Recognition of Aboriginal strengths.

These nine principles are foundational to promote Social and Emotional Wellbeing in Culturally Safe and Responsive Work. As Dudgeon and colleagues state in *Wellbeing and Healing Through Connection and Culture* state:

“These principles continue to be relevant to all health professionals working with Aboriginal and Torres Strait Islander people and can be understood as the foundation of culturally safe or culturally responsive work with Indigenous Australians. These principles...articulate a holistic, whole-of-life view of SEWB which asserts Indigenous self-determination as an inalienable human right.”
(Dudgeon, Bray, Small, Walker & Dalton., 2020b p.16)

In line with these nine guiding principles, the ‘Cultural Responsiveness in Action’ framework published by Indigenous Allied Health Australia (2019) includes services to ensure they are holistic, and the following practices are upheld:

- **Respect for the Centrality of Cultures** – identifies and values cultures, both group and individual, as central to Aboriginal and Torres Strait Islander Health, wellbeing, and prosperity
- **Self-Awareness** – the continuous development of self-knowledge, including understanding personal beliefs, assumptions, values, perceptions, attitudes and expectations, and how they impact relationships with Aboriginal and Torres Strait Islander peoples.

- **Proactivity** – the ability to anticipate issues and initiate change that creates the best possible outcomes. This involves acting in advance of a possible situation, rather than reacting or adjusting to it.
- **Inclusive Engagement** – provides Aboriginal and Torres Strait Islander people with opportunities to participate by reducing barriers and engaging in meaningful and supportive ways.
- **Leadership** – inspiring others and influencing change to contribute to the transformation of the health and well-being of Aboriginal and Torres Strait Islander individuals, families and communities.
- **Responsibility and Accountability** – owning our role, and monitoring progress in addressing inequities between Aboriginal and Torres Strait Islander peoples and other Australians.

In conclusion, BCYR predominantly addresses the changes, identified in many studies, as required by maternal health services to effectively assess Aboriginal women's general health, and social and emotional mental wellbeing across the perinatal period. BCYR offers an opportunity for women to explore their strengths and any barriers to their wellbeing, whilst considering all aspects of holistic care. Health practitioners are required to undertake extensive face to face training and an online eLearning to facilitate BCYR prior to completing the digital platform with women, to ensure integrity is maintained and perinatal mental health assessment remains a culturally safe experience. BCYR can be used by clinicians who do not identify as Aboriginal and has been targeted and designed to better assess and support women who are Aboriginal or are pregnant with an Aboriginal baby. The BCYR program pilot was completed in June 2023 and pilot results are currently being analysed and evaluated, in preparation for publication.

The preliminary findings of the evaluation of the BCYR Pilot (Kotz et al., 2023) confirms the use of BCYR in Aboriginal community settings as being valuable as it captures protective and risk factors identified by Aboriginal women and health professionals for clinicians' consideration in care planning in a culturally supportive manner.

3. Research methodologies

This study was conducted using both a qualitative and quantitative research methods. Drawing on the seminal work of Linda Tuwiha Smith (1999), Dudgeon et al. (2020a) and Marriott et al., (2019; 2020) I adopted a decolonising Indigenous research methodology to ensure culturally safe research methods were used in both the collection and analysis of data. “For Indigenous peoples/researchers/community experts, decolonising research necessitates an explicit rejection of colonial epistemologies and truth claims because these carry with them the unspoken yet somehow tangible effect of epistemological and cultural hierarchy.” (Dudgeon & Walker 2015)

I also drew on the work of Bessarab and Ng’andu (2010) which uses various forms of yarning as a culturally safe and legitimate research method. I conducted individual yarns (using social and research topic yarning) and a workshop (using collaborative yarning) with Aboriginal women and clinicians working in child health services.

I consulted with community health staff, community health services stakeholders, the BCYR team and my supervisors who have extensive experience in Aboriginal maternal and child health and qualitative research. I also sought cultural guidance from Professor Rhonda Marriott, AM, the Pro Vice Chancellor of the Murdoch University Ngangk Yira Institute for Change, throughout all phases of the research to ensure Indigenous data sovereignty and to provide rigorous data analysis.

In addition, I observed and recorded the changes that individual women experienced, as well as asking women how they felt about the assessment and screening process. Both the information from observations and yarning interviews regarding the changes, screening methods and impacts on women’s mental health and social and emotional wellbeing. These yarns also encompassed women’s perspectives regarding their own sense of parenting and willingness to access Child Health Services.

I held culturally safe yarning sessions with Aboriginal Elders and community members including health and community professionals who were child health nurses, Aboriginal health workers and liaison officers. I conducted one to one yarns with parents of Aboriginal children, to identify women’s perspective regarding the use of both the EPDS or BCYR as a preferred

screening tool; this information was reviewed along with clinician perspectives and quantitative data to determine which reflects better health and mental outcomes and return engagement from consumers.

Research Questions: The research question for this thesis is twofold:

1. What contributes to strong trusting relationships between child health nurses, Aboriginal clients and their families?
2. Does the digitised *Baby Coming You Ready* program impact this relationship, and if so, which features of the program do and how?

Hypothesis: The *Baby Coming You Ready* program will promote stronger relationships between Aboriginal women and community health nurses whilst offering more culturally safe appointments and enhanced engagement.

3.1 Ethics Approvals

This study was conducted as part of the existing BCYR pilot ethics approvals. All research phases, including this project, were approved by the Murdoch University Human Research Ethics Committee (Approval: 2013/202); the Western Australian Aboriginal Health Ethics Committee (WAAHEC) (Approval: 553/20170519); the Women and Newborn Health Service/KEMH Human Research Ethics Committee (Approval: WNHS-2014062E- RGS2649); the St John of God Human research Ethics Committee (Approval: E1162) and the Western Australian Country Health Service Human Research Ethics Committee (Approval: RGS-2649). Site specific agreements were obtained from Child and Adolescent Health Services (CAHS) and East Metropolitan Health Service (Armadale Hospital).

3.2 Ethical Considerations

This study was conducted according to the National Health and Medical Research Council (NHMRC) guidelines (Indigenous Ethical Guidelines, 2018) designed to assist researchers in ensuring they are ethical and culturally appropriate in conducting and using research for and with Aboriginal and Torres Strait Islander people. The NHMRC outlines six core values to consider when researching with Aboriginal communities. Five of these values are interrelated to the centre value of Spirit and Integrity surrounded by 1) responsibility, 2) reciprocity, 3) respect, 4) equity, and 5) cultural continuity. I adhered to these values throughout all phases of the research. Each woman received a \$50 gift voucher in recognition of reciprocity, their commitment and generosity of sharing their experience and time.

To overcome any biases, I worked closely with my academic supervisors and my senior Aboriginal advisor to ensure that all aspects of the research including data collection, analysis and interpretation have remained accurate and ethical. I have been mindful throughout the research process to ensure that no direct or inadvertent harm is caused to participants whilst involved in the research and that all information collected will not be misused for any reason.

3.3 Data Management

Rigorous data management processes, and Aboriginal governance and reporting structures were established as part of the BCYR Pilot and a strong research framework including Elders Cultural Safety Group; Men's and Women's Aboriginal Advisory Group; Lead Research Group; Research Working Party and Organisational Partnerships. (Kotz et. al. 2023). This study adhered to these processes throughout all phases of the research including the analysis, sharing and storage of both qualitative (recording and transcriptions) and quantitative data. These processes complied with Murdoch University ethics protocols and NHMRC ethical guidelines (NHMRC, 2018) including data being maintained on a password protected computer and drive and maintained in a secure facility on the grounds of Murdoch University. Access to all BCYR data is restricted to authorised researchers who have ethics approval.

3.4 Qualitative Data Collection

As part of the postnatal component of the BCYR Pilot, two CAHS sites, Kwinana and Midale, were selected based on clinician capacity and willingness to engage in BCYR at the time.

Using the APAR approach (Dudgeon et al., 2020a) I conducted focus groups with both healthcare professionals (n=11) and yarns with clinicians (n=6) and Aboriginal mothers (n=5). Throughout the data collection process, I adapted my interview prompts to obtain a deeper understanding of the scope of work required to make adaptations to implement BCYR in postnatal settings.

Individual yarns were conducted with five (n=5) Aboriginal women to explore their experiences as mothers using child health services. Each woman voluntarily completed an anonymous survey (Appendix 3) outlining basic demographic information prior to participating in a yarn. Interviews were guided by question prompts (appendix 9) using a yarning approach.

Individual interviews were recorded and transcribed with clinicians (n=6) who had participated in the BCYR pilot program.

A workshop was also facilitated with those involved in the BCYR pilot in child health settings, comprising of clinical (registered nurses, child health nurses, medical officers and Aboriginal Health Workers) who had completed the digital assessments with Aboriginal mothers, a clinical manager, a senior project officer reviewing a model of care project, and others involved in the co-design process (n=11). The outcomes of this workshop are included as supplementary data in the Comprehensive Findings section of this report.

After the health professional workshop was held, it became apparent there were still a few questions that required exploration to contribute to this research. A survey was created, and all attendees were shared a link to contribute their additional feedback in response to five additional questions (appendix 1) about their service and practice.

Participants were recruited to the study via convenience sampling:

1. **Women:** through my previous work, I used my networks to invite Aboriginal women to yarn about their child health experiences (n=5).
2. **Clinicians:** were all involved within the BCYR pilot and responded to invitation to participate in an interview (n=6)

All participants attended a yarning session at a location of their choice. After providing participants with a Participant Information of the project, each participant completed a consent form. All yarning sessions were recorded and then transcribed verbatim.

3.5 Qualitative Data Analysis

The qualitative interviews transcripts were individually hand coded then imported to NVivo (QSR International 2021). Secondary coding was conducted by supervisors. In team analysis meetings, coding was refined to agreed key themes list. Data saturation was reached with no further themes elicited, after eleven yarning interviews (clinicians and women). Furthermore, the themes that emerged were congruent with the themes identified in the pilot which comprised a total of 45 interviews with clinicians and women.

Responses received from the survey distributed to health professionals were anonymous and identifying information was not requested to ensure safety and support honest and transparent responses. The survey was left open for a period of one week to ensure busy clinicians had an opportunity to participate should they wish to. Paraphrased responses were as follows:

Question 1: Families use child health services for these main reasons postnatal checks to assess growth, development and immunisations; they receive non- judgemental and culturally appropriate care, the fact that nurses offer services to them; and, women's health with mental health being specifically mentioned.

Question 2: Families find it hard to engage due to the following reasons: several life stressors and competing priorities; culturally inappropriate environment with the inclusion of tools being used; Clinical practice does not align to cultural ways of seeing, being and doing; transport issues; trauma from previous medical appointments; and, consideration of what the service isn't offering.

Question 3: Information that clinicians consider important to screen include: maternal Social & Emotional Wellbeing (SEWB) including mental health; family attachment; access for postpartum stress conditions; social substance issues such as FDV and substance use; childhood screening such as ear health, development and iron checks.

Question 4: The abovementioned responses in question 3 are important because: Assessing mental health concerns will inform how to best support the mother; Aboriginal children have more issues with ear health and low iron; Women are under screened with their SEWB; negative impacts on the child's growth and/or development and wellbeing; and, trust & a relationship can be built with mothers.

Question 5: good outcomes for clients come from: Letting clients 'feel heard'; Accessing services; experiences of good energy; their needs are met or addressed; feelings of trust, reassurance, safety support and at ease with staff; non- judgemental care; and connection with culturally appropriate timely services; and the offer of outreach services is extremely important.

Question 6: Poor outcomes for clients lead to: feelings of being unsafe, not wanting to return to service, disempowerment, judgement; poor connection; a lack of flexibility, understanding, space to provide a safe environment; staff who are not culturally competent to work with Aboriginal families.

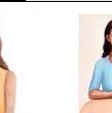
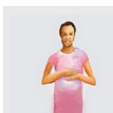
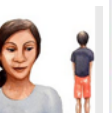
Question 7: most brainstorming suggestions received for a postnatal version of BCYR were ones that had “Baby here” at the start with the end half being several different suggestions.

3.6 Quantitative Data Collection

The quantitative data that contributed to this research was restricted to the CAHS sites from the BCYR de-identified pilot data (n=45). Of the 45 women, 32 were Aboriginal who completed the BCYR digital platform within the CAHS-AHT during the BCYR pilot (June 2021- June 2023) with the support of the BCYR team and NYIC staff who hold senior research roles and were included in the subsequent analyses.

Components from the data export such as certain images (factors) and a record of responses were selected based on a priori knowledge and literature review to consider their importance and impact in relation to the research questions and hypothesis. A sample of relevant images (factors) of interest included in table 6 below. These were grouped into categories. For example, ‘women’s worries over the past few months’ included money, family, food, partner, transport, and other types of worries.

Table 6: Relevant images selected through BCYR

‘Your Wellbeing: Worries over the past few months’.	 Food worries  Money Worries  Transport  Partner worries  Family worries
‘Support for you as a mum: Help for you’	 Hands on help from Partner/ husband  Aunty or Cousins  My mum could help  Help getting rest & sleep
‘Support for you as a mum: More help for’	 Health workers  Keep in touch: Text or talk  Yarning/Talking  Mums groups
‘Sharing your pregnancy news: Is Baby’s dad around?’	 With my partner/ husband (baby’s Dad)  Baby’s Dad is not around  Baby’s Dad is around but he is my EX  Baby’s Dad is my partner, but we don’t live together
‘Support for you as a mum: Caring for you’	 Walking  Iron rich foods

3.7 Quantitative Data Analysis

For this component of the study quantitative data were extracted from the comprehensive BCYR Program data base. While the total data collection included (n=353) women, the focus of this component of the study included only the Aboriginal women (n=32) who completed the BCYR digital platform in their CAHS-AHT appointment. However, quantitative data from 353 women who completed the BCYR rubric across all the project sites were used to compare selected characteristics of Aboriginal women included in the main analyses. Descriptive statistics such frequencies and percentages and graphs were used to summarise the quantitative data for which R (RStudio) and Microsoft Excel were employed.

3.8 Additional datasets

Supplementary data sets that contributed to this research aside from the de- identified data included:

1. Workshop with healthcare professionals from the BCYR pilot- reflection report (Appendix 2)
2. Interviews with consumers (Aboriginal mothers) of community health (n=5)
3. Voluntary anonymous survey for interviews (Appendix 3)

4. Comprehensive results

4.1 Qualitative Findings

This section of my study describes the results of the qualitative data analysis that address the research questions:

- 1) What contributes to strong trusting relationships between child health nurses, Aboriginal clients and their families?
- 2) Which features of the BCYR program impact this relationship and how?

It outlines the main themes identified through the thematic analysis of the qualitative data (n=6 health practitioners, and n=5 women).

4.1.1 Study Participants

Throughout the BCYR pilot with CAHS a total of 45 women completed the BCYR digital assessment; 2021 (n=6); 2022 (n=19) and 2023 (n=20). The sites were Kwinana (n=18 completed), Midvale (n=12 completed) with the remaining two being completed by transient clinicians within the team across both sites. However, at times transient clinicians accessed the site iPad rather than their own so there were more than two completed but are accounted for in the site numbers. Only one woman had a repeat BCYR done out of the 45 rubrics BCYR assessments completed.

In this study, the within the Kwinana and Midvale sites, six health professionals (including community health nurses, Aboriginal health workers (AHW's) and medical officers) completed the BCYR digital platform with 45 women in total; 32 of these being Aboriginal women. Child health clinicians (n=6) and Aboriginal mothers (n=5) were included in the qualitative component of the study. Additionally, 11 key stakeholders and clinicians participated in a workshop. While the five women who participated in the study had not completed BCYR, they expressed willingness to yarn about their relationships with their child health nurses and the impacts it had on their access to support and services in community health which was a key focus of the study. This was not considered a limitation due to the inclusion in the analysis of the de-identified quantitative and qualitative BCYR pilot data which provided a rich lens from women who had completed BCYR.

4.1.2 Clinicians

Throughout the BCYR pilot, 38 health professionals participated in the qualitative research to provide feedback about their experience with seven CAHS clinicians contributing to 11 interviews.

The group of participants across the BCYR pilot ranged from the health professionals comprised of nurses, Aboriginal health workers, medical officers and management. There was no uptake of AHW's participating in interviews, however, four were present at the health professional workshop held on 18th July 2023 and they actively contributed to discussion. Most of the Aboriginal staff that participated in this research have been working in child health for over five years and this is similar for the non- Aboriginal nurses and medical officers. There were three Aboriginal and Torres Strait Islander child health nurses that participated across this research and the pilot. Five clinicians that contributed to qualitative research were non-Aboriginal and one was Aboriginal. CAHS staffing during the pilot is reflected below:

Kwinana	Midvale	Medical Officer
• CN x1 (0.8FTE) • AHW x1 • RN x1 (2023)	• CN x1-2 (0.6FTE each) • AHW x1 • RN x1-2	• MO x1 • 1-2 days a month each site

Figure 1: Staffing during the BCYR- CAHS pilot

4.1.3 Mothers

A total of five Aboriginal women aged between 21-29 years of age were involved in yarning sessions specifically for this research.

Within the CAHS pilot data, a total of 32 women identified as Aboriginal/Torres Strait Islander (with the majority, 30/32 Aboriginal) and four women identified as non-Aboriginal/ Torres Strait Islander. There were nine incomplete responses where women completed BCYR without identifying their descent as the question was not mandatory to complete at that stage of the BCYR pilot.

Of the 32 women who completed BCYR, 12 women identified their language group when responding to the question "where are we from?" reflecting a connection with their culture, as opposed to 20 women writing in "Perth" or the suburb/state they are from or leaving the text box blank; five women identified as being from Noongar Country; two women identified

as being from Yamatji Country; two women identified as being from the Kimberley; and, three identified as being from the Pilbara region.

4.2 Clinicians Results

The following results report on the findings with clinicians (n=6) from the thematic analysis, with the primary and sub-themes identified (Table 1).

Table 1: Qualitative themes from clinicians

Primary Theme 1	Therapeutic Friendship
Sub-themes	Easier conversations
	Honesty
	Trust
	Introduction of BCYR
	Enhancing women's self-determination
	Reported women's experiences
	Women having control of the iPad
Primary Theme 2	Digital Platform Elements
Sub-themes	Integration of BCYR with clinical practice
	BCYR rating scale
	Sea of words
Primary Theme 3	Training
Sub-themes	General use of BCYR
	Deeper training required
	Training Outcomes of BCYR
Primary Theme 4	Features of BCYR
Sub-themes	Images
	Voiceovers
	Interactive map
	Pen and paper function
	Feedback Trees
	Goal Setting

4.2.1 Therapeutic Friendship

In this first primary theme, there are seven sub-themes: easier conversations, honesty, trust, introduction of BCYR, enhancing woman's self-determination; reported women's experiences; and women having control of the iPad. This theme highlights the importance of a strong relationship, as identified by clinicians, which facilitates a better understanding of the mother's story and needs. Given clinicians ask very personal questions a good rapport is required for clinicians to feel comfortable and to sensitively approach appointments.

Clinicians identified that using BCYR built *trust* and brought out more *honest* answers from women than expected, leading to *easier conversations* between clinicians and women. Clinicians reported that using BCYR they were better able to enquire about a woman's wellbeing, and through the features of BCYR, clinicians observed women feeling safer to disclose their worries, whilst offering them a supportive visual that highlighted the strength the woman identified herself earlier in the same appointment.

"I think it's a good tool to start a discussion with parents and opening up a little bit, yeah...I think it worked pretty well...the parent that I spoke to was just kind of a little bit closed off and not wanting to expand on the answers...towards the end, she started opening up a bit more and having a bit more of a conversation about her answers." CLINICIAN 5

One clinician even highlighted that she was able to support a partner of her client through the use of BCYR, as he was involved in care planning and opened up about his own worries.

"It definitely provided more conversation. I think it helped with the difficult things to chat about. It helped make it easier and I guess less intrusive... he's definitely a massive support for mum. She gets to sleep overnight, and he attends to all the feeds overnight and they both have the similar challenges and stresses being finances and [client's] mental health...He opened up a lot...it was nice that they both were very open and wanted to engage in conversation." CLINICIAN 6

There was a lot of discussion around the way that BCYR was introduced to women and each clinician had their own method of doing this, however, in a combined review of clinicians reporting, it was clear the following factors contributed to more successful uptake of BCYR.

For example, explaining that BCYR was designed by and for Aboriginal and Torres Strait Islander people.

"I said, you know, like how you are doing, what's going on for you...we do have this program that we're piloting...It's called, baby coming you ready. It's made by Aboriginal people for Aboriginal people, and it helps us really get to know you a bit more and you can give me as little or as much as you want." CLINICIAN 4

Or, explaining BCYR as a program and offering the women to have a go on the day or her next appointment. Most clinicians spoke about what the BCYR was briefly and then offered to do it at that time, or next time. Both ways seemed to be accepted by women depending on their circumstances on the day, indicating that opportunistic offering of BCYR is most suitable.

"We kinda just talked to her about it and said it's like this new program that we're trying. And if she was interested in seeing what it was like and just trying to make it as comfortable as possible. If you don't want to do it, you don't have to. But it's a good way of getting to know each other and, like, have some conversations. I've only done one, but from other people that I've seen as well, quite a few people are quite responsive to it and happy. I did have a discussion with another mum about potentially doing it in the future and she's happy to, when I explained to her, she was quite happy to." CLINICIAN 5

"I just really took an opportunity when she started saying she has got some worries...and I said this is a nice way to do it because we can get to know each other." CLINICIAN 3

Additionally, not completing BCYR on the first appointment, but instead, offering it as close to their first appointment as possible was a good way of having a follow up appointment and clinicians recognised the need to introduce BCYR on a case-by-case basis.

"I realised that definitely the idea of [using BCYR] case by case was important...for some people going straight into it was really fine, but others needed more trust building and relationship building. It couldn't be the first thing that you did." CLINICIAN 2

Finally, the timing of offering BCYR seemed relevant, as below:

"Yeah, I had one mum decline...the only mum I've ever had decline...But she had a lot going on and she really needed to get going...she was like...not now...She was quite a closed off person and I feel it's gonna take time to build that rapport with her...we'll try again next time." CLINICIAN 4

Some clinicians found using BCYR helped them understand their clients' needs better and built a stronger relationship such as CLINICIAN 6 excited to share that *"they even offered to make me lunch. They're like, would you like some wraps? It was so sweet!"*. Another clinician noted that:

"[BCYR] allows people to say things that they wouldn't say normally... It helps me understand other things about that mum...And now knowing that she didn't have any strong person in her life that she could rely on...and doing [BCYR] has given me a much deeper understanding about her." CLINICIAN 3

And went on to say:

"Just building that relationship...I really think just deepening that relationship and trust. It makes a big difference. It made a stronger relationship for the mum I've known a long time. And with the first-time mum, it really eased our relationship....it made it easier for both of us." CLINICIAN 3

There were several examples of BCYR *enhancing women's self-determination*, for example:

"And when she identified financial distress and she's just starting a job part time at the hospital...she did identify [referring to the Tree of Strengths and Worries] family concerns, because she has never been able to have a relationship with her mum. And the second [worry] was financial. Third one was cannabis. But she didn't identify the cannabis as a concern...then, when I say that, there's things that we can do...she said 'I know about that stuff'. So, then it goes into your goals...if this is a concern for you, what do you think a goal will be then? What would you like to do? She said 'Oh, I just need to talk to my partner about it.'"
CLINICIAN 3

"Mum spoke a lot about vaping, and she had lots of questions about it and even alcohol- they drink, have a few drinks on the weekends. And I don't think we would

have been able to have that discussion in a very non-judgmental safe way without [BCYR].” CLINICIAN 6

Clinicians also noted that women often actively sought control of the iPad to complete BCYR. *Women having control of the iPad* removed the power dynamic that clinicians often hold in appointments. The following quotes reflect this:

“It went pretty good...at the beginning she was...quite closed off a little bit...kind of like leaning away a bit...I was trying to lean over to see what she was looking at...But then as I started talking to her, she kind of sat up a little bit more. And we were able...to see and discuss...what she was clicking on. So, there was a few [images] that she'd like click through and I missed a few...but not too much to make a massive impact on our conversation.” CLINICIAN 5

“Yes, it was like cool, I said that these beautiful voice overs and they're particularly helpful for some of the slides she took over for the first part, but then when she started having questions, I'm like, let's listen to the voice over. So, it went well. And I think she liked the autonomy, but I wanted to be more engaged with her during it.” CLINICIAN 6

4.2.2 Digital Platform Elements

This second primary theme incorporates three sub-themes: 1) *Integration of BCYR with clinical practice*, 2) *BCYR rating scales* and 3) *BCYR sea of words* which are further explored below.

Integration of Practice

A clear point of discussion with clinicians regarding the integration of BCYR into practice was the comparison around BCYR and the EPDS, including that BCYR generates a story while the EPDS does not. Further, as noted previously by a participant when introducing BCYR, using the EPDS as a point of comparison was helpful - *“actually, I'd talk about EPDS a bit...and our social emotional wellbeing”* (CLINICIAN 2). However, as CAHS does not currently implement the K5 tool (validated mental health screening assessment to measure distress levels), which is embedded in BCYR, meant some clinicians experienced concerns about integrating aspects of BCYR into their clinical practice.

"It was the K5+2 that had me a bit concerned. Because of her score being 19 and not really understanding properly how it compares to the EPDS. Then I guess what actions...So, I spoke with [another clinician] and she was really helpful...and said there's a policy where it basically gives you a bit clearer direction." CLINICIAN 6

"The mum has always declined the EPDS, but she used that tool [BCYR] beautifully. And the [other] mum, being in the antenatal period, it was really useful. So, it will be interesting to use it postnatally too and compare it." CLINICIAN 3

Clinicians reported that BCYR was able to provide safer and more open, honest discussions that facilitated clinicians to offer brief interventions as reflected below:

"I found out a lot of things about her...I knew that she had anxiety, and I knew that she was seeing her GP for her mental health and emotional wellbeing. But things came out...she told me about how she uses cannabis almost every day...that surprised me...when you do your initial assessments, you always ask the questions 'any drug or alcohol worries or use', and it's 'NO'. But [with] an iPad in front of you, I think...it was a lot easier for her to tell me that she's using cannabis every day...so I thought well, this is a really good opportunity now to project the... [cannabis brief intervention] and talk about and introduce that." CLINICIAN 3

However, another clinician expressed a different approach based on her experience of using the EPDS.

"I can't say that I use [BCYR] in the same kind of capacity that I would an EPDS... We talked about what can we do for you...the normal spiel that I would do with an EPDS. Then I'd be like...do you feel like you want to talk to somebody else a bit more about this...I haven't been using it in the same kind of conversation way I would an EPDS if that makes sense? I've been treating it more as a research tool and a get to know you tool." CLINICIAN 4

Most clinicians were positive about offering women BCYR, despite some barriers such as staff buy in, with one participant saying, *"I do think that you need that buy in by the staff so that they feel like this is something good"* (CLINICIAN 2). Comments on the benefits of BCYR included:

"I'm a huge endorser of the program and I think it's wonderful...Yeah, it was nice. Definitely a nice first experience." CLINICIAN 6

"I know the more we do it as well...and I do really believe in it...If we hopefully get that moment where it's a good moment to do it and that way she can be heard."
CLINICIAN 4

Several interviews highlight the importance that BCYR was a culturally safe tool and that women were willing to open up more with clinicians when they feel safe. For example, one clinician noted that she doesn't think usual practice brings out women's strengths or stories about strengths and that using BCYR has given her *"food for thought"* in how to approach clients and *"how important it is to be able to build on those [stories] and I would never normally uncover that in a normal health consultation"* (CLINICIAN 2). The excerpts below reflect thoughts shared by clinicians.

"To me, I feel like everybody who does do it, feels like they've been heard. And I feel that that is significant...I feel like it would lead to self-reflection...I feel like you wouldn't do something like that and not think about it afterwards."
CLINICIAN 4

"So baby was about three months old...she'd just been referred into [our] team, so it was an initial like introduction to the team and like just showing mum our services and things like that." CLINICIAN 5

The ease of using BCYR was seen as an enabler for clinicians to complete with women. There are several features of BCYR that facilitated good outcomes explored in the fourth primary theme (Features of BCYR). In this digital platform sub-theme, aspects of BCYR that made it easy for clinicians to use include the layout of the clinical events summary (CES), the platform facilitates non-judgemental conversation, was interactive opening up of more conversation earlier and most clinicians found logging into the system fairly easily. The following quotes support these aspects:

"The thing I found...most effective about BCYR is the drugs and alcohol questions. I've never felt comfortable to ask...a mum yet and...[BCYR] makes that effortless..."

And I don't think we would have been able to have that discussion in a very non-judgmental safe way without [BCYR].” CLINICIAN 6

“It definitely brings up like her anxieties...and that was the bit in the conversation where she started open up a little bit more...And then we had a conversation...and that's kind of what led to the planning as well. Her explaining why she's anxious.”

CLINICIAN 5

Key aspects about BCYR that clinicians shared were that they liked the way the tool allowed them to get to know the woman better and how getting to know her makes a big difference with CLINICIAN 3 stating *“It made a stronger relationship for the mum I've known a long time. And with the first-time mum, it made it easier for both of us”*. Another clinician liked that BCYR was able to bring out discussion earlier than the existing child health universal schedule stating,

“It wouldn't have been until...the 8week check and then really only discussing if it was a concern...whereas BCYR, you still discuss those even if it's not a concern, you really see the strengths as well...So, I think it's a really good tool to use, regardless of if someone comes in troubled or not.” CLINICIAN 5

CLINICIAN 3 also went onto explain that it was identified through the use of BCYR, the woman identified her needs and was able to be linked in with services by stating:

“Well, I would like to see the doctor too because I want to talk to the things that have been going on during pregnancy because she hasn't had an appointment at that stage. So, then she got her appointment and everything's going well. And then I think that's why she was able to talk to us because we sorted out the antenatal appointments and food worries.”

Sometimes there are systemic issues like poor client engagement that affect the service delivery outcomes. In a discussion around the high needs of the Aboriginal families utilising their service, a participant said *“So I think why we're not getting so many is because a lot of our clients that are hard to engage, and you can see them once and then like never see them”* (CLINICIAN 1), in relation to why there was a smaller number of BCYR completions with clients; while another participant gave an example of the poor clinical handover between services that can affect women and their newborns, and which negatively impacts the woman's experience in health services, stating:

“She presented at ED over three weeks earlier to get an appointment. She was reassured by the RMO that an appointment will be coming to the house. And three weeks later there's no appointment.” CLINICIAN 3

Further, most clinicians identified a lack of interface with CDIS (an administrative program used by CAHS) had affected their use of the clinical events summary that BCYR generates, citing difficulties with printing the CES and/or not being sure how to attach a saved CES to CDIS. Additionally, a lack of referral pathways for clinicians remains a systemic barrier as this participant reflects:

“I think I like the fact that it [BCYR] really...does give an idea of where the support is, where their strengths are and...what's just going on for women...I think where that then leads to still remains as a bit of a worry. Because now we have a whole lot more information, but then where do we refer people to in terms of follow up? But [it] identifies even more clearly that people are in more need of supports, and often cultural support.” CLINICIAN 2

This same participant also identified that the resource tab on the website hasn't been as helpful for addressing these referral issues as hoped, explaining:

“I really like the idea of that resource map, but it hasn't necessarily translated to me finding what I needed at the time...like their housing issues or their food security issues, and mental health issues...it's a system wide problem” CLINICIAN 2

One participant said that staffing shortages across CAHS have negatively affected the use of BCYR, saying “well, to be honest, because we're short staffed for one” (CLINICIAN 1). Staffing shortages across the AHT was also discussed at length with another participant and the following was explained:

“It's not rocket science, it's just that they [clinicians] simply haven't had the time they've had other priorities and they're very short staffed and it seems to have felt like a really chronic problem this year. I guess there's been a lot of COVID around, there's just staffing shortages, we've [organisation] had quite a bit of high turnover. We've had a whole new management, like lots of new things that people are trying to wrap their minds around, and then you know, trying to put this [BCYR] on top of it. I mean the timing hasn't been great, but it doesn't mean that it's not good, and

it doesn't mean that we don't want it. There's just some logistical things to get sorted." CLINICIAN 2

The child health environment was explained by most clinicians as being quite different to antenatal clinics, which are generally more ordered, and which has affected the way that BCYR was offered and completed with woman in child health.

"I think where when a midwife is doing an antenatal appointment. It's a set up appointment you're in a space where mostly it's just you and mum. And it's very different setting than the clinic here because there's lots of noises, lots of kids, there's sometimes there's no space we actually go...what we have appears so chaotic...but it still shows you that even though you are surrounded by chaos, you can still make it happen. It's all about timing. And getting better at it." CLINICIAN 3

Child health clinics offer postnatal services to families and although while similar, there are clear differences in the realities of working in child health including the woman not attending the clinic alone. Women typically arrive for their child's appointment with at least the child booked, sometime other children, partners or extended family. The following highlights circumstances where these have been a reality and affected the way a woman was offered or completed BCYR when the woman had more than one child with her.

"And so, you really just introducing the idea [of BCYR]. And then it's a matter of having a follow-up appointment and then 'How did that sound, would you like to try these? [For one mum] it is about the sixth time that we could possibly do it [BCYR] because each time that we've made arrangements to do just wasn't suitable." CLINICIAN 3

Another participant explained her situation in the clinic as *"usually I try to get people to hold the iPad and instead of me holding it, unless they've got a baby, there's been times when they've needed to hold their baby. So, I've just kind of put it in the middle of us and then they've done that with her"* (CLINICIAN 4). She explained that she had a great experience with a woman using BCYR. However, later on in the interview, when we reviewed the woman's CES, she said:

"I didn't see that bit about 'has panic attacks. I didn't know she has panic attacks. She never said that. Is that what that means up there? Wow. Yeah. We didn't discuss that." CLINICIAN 4

The above examples highlight that clinicians in child health environments aren't always able to sit side by side with the woman as they can be assisting with other needs such as children in the clinic. Further, there needs to be another way that clinicians can summarise the outcomes with the woman present to ensure there was nothing of importance missed with the woman before she goes home. One participant explicitly asked about going back through BCYR to find specific answers, *"for example, with the K 5 + 2, if I wanted to check in more detail and make sure...is there a way to do that?"*, while another clinician identified a concern about not seeing all the woman's responses.

"So, we had somewhere to put bub to sleep, and then she had a little three-year-old who was doing some drawings and that. But then he got his water and tipped it all over the floor...[participant went] to get something to clean it up, [while the woman] just kept doing [BCYR]. So, I didn't see that part...And I said to her afterwards, 'how did you find that?' and she said 'yeah, it's good, it's good'. So, she was happy using it." CLINICIAN 3

Two clinicians reported that they completed BCYR with women while their partners were present. Here are some key points they felt impacted their opportunity to build therapeutic relationships with the woman through using BCYR due to a partner being present:

"I've done an assessment on the baby. And her partner was there with us in the room. I explained it to her, and she said, Yes, let's do it. But he was like, leaning over her shoulder and kinda like wanting to do this stuff. If you did something, he'd go no, no, no." CLINICIAN 1

When the researcher asked how that made her feel, CLINICIAN 1 responded with:

"Uncomfortable. And then I thought, well, I shouldn't have done it. At that time, I should have organised a different time. Because then he was keen too... I think maybe she probably wasn't a good candidate. Looking back. I didn't know her very well. And now we're better now. And she has got learning difficulties. So, I'm not sure about what she understood of it, as well. Maybe that's why he was so interfering. Because every time we see them, they're always together. She's never ever by herself." CLINICIAN 1

The second clinician, CLINICIAN 6, went further in explaining how the partner present impacted the BCYR experience by stating:

“And her partner even talked about his moods as well. So, this is what I mean. It was very great that they could talk about those things openly together, but it could have gone really badly.” CLINICIAN 6

All clinicians mentioned that they experienced issues with time related issues and completing BCYR in some manner. Key points mentioned were that BCYR had to be offered at the right time (determined by the clinician’s judgement); BCYR takes anywhere between 20-50 minutes to complete with a woman on top of the associated screening required of the child/children in attendance and that BCYR sometimes took too long. Examples, such as using the appointment in ways that match system requirements (a clinician recommended as a universal plus visit), or assessing if the timing is right all need to be considered. This included observations that if BCYR took too long with the woman in their service it may be considered a barrier before service implementation could proceed.

“Even if it’s a set appointment, it’s still for mum to decide how much for the appointment she can manage or what she can you know what she can do? It’s not just about you.” CLINICIAN 3

There were some technology issues that were identified pertaining to poor/unstable internet connections that interfered with online training at times. Also, occasional technical glitches in the BCYR software when an update may have occurred, difficulties in staff remembering to charge iPads and login and password issues.

“it’s just like making sure that having the iPad charged to be honest, has been an issue, like that you know sometimes I’ve thought oh I should do it but the iPad’s not charged so I just don’t do it, so yeah, it’s just practicalities of people being organised.” CLINICIAN 2

2) BCYR Rating Scale

Participants were asked a series of questions using a Leichardt scale (appendix 4) with response options being not at all; a little bit; somewhat; a fair bit; and a lot. The questions used are in Table 2 and the outcomes shown in Figure 3.

1. I enjoyed using BCYR
2. Using BCYR was worthwhile / valuable / useful
3. Since using BCYR, I feel more able to ask the difficult questions
4. Since using BCYR I believe that the women were more able to give me honest responses
5. I am confident developing goals and strategies with women
6. I am likely to look at the BCYR website in my own time
7. Since using BCYR I feel that my rapport with women has improved
8. Was the clinician Information Tab useful for you as a BCYR facilitator?

Table 2: BCYR rating scale questions

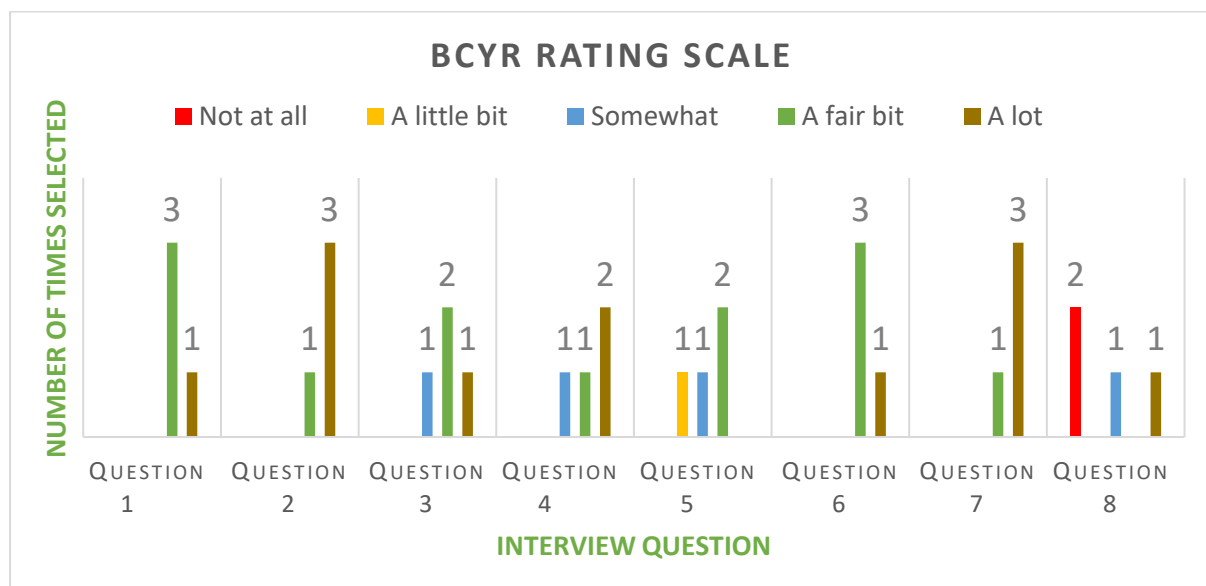


Figure 3: BCYR rating scale results

3) Sea of Words

The following graph reflects the words clinicians selected from a word cloud of descriptive words. (see Appendix 5) Almost all the descriptive words are of a positive a nature with, only few negatively charged words chosen.

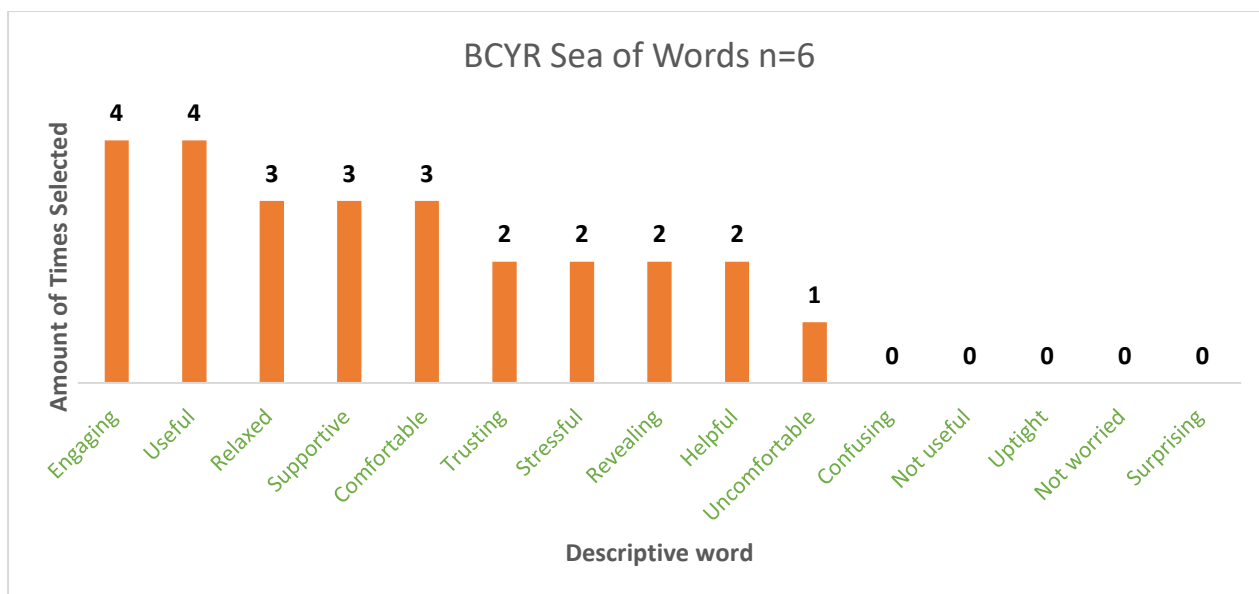


Figure 4: Sea of words results

4.2.3 Training

This primary theme included three sub-themes: general use of BCYR; deeper training required; and training outcomes of BCYR. The primary theme comprises the following aspects of BCYR where clinician participants identified important aspects of the training received and further training required.

Some of the discussion from interviews suggested that clinicians felt more at ease offering and doing BCYR when they themselves were more familiar with the content with one saying, *“that will get easier in time when I’ve done a few more of them”* (CLINICIAN 5). Another clinician explained her approach to the goal planning stage was that she was concerned for her first few that she didn’t know what to put in the prompts but the more she has completed, the less she gets worried about what to put in and reassures the client to remove any pressure the client might experience: *“It’s been pretty straightforward now. Yeah, yeah, especially more that I use it. And the more I know, just like anything really, isn’t it?”* (CLINICIAN 4)

Clinician 5 shared that the visual prompt of the size of the circles in the K5 assisted her to follow the woman’s lead and let her keep the control of the conversation, despite being worried herself that she couldn’t see exactly what was being selected.

There are some gaps in the CES data where clinicians may not have been prompted into deeper conversations with a woman, such as their partner’s name to be included in the CES, and CLINICIAN 3 suggested this may be an oversight during some appointments *“I think that*

was overlooked; and I think that this one has not disclosed the name because I think she's still deciding whether they will get together."

It was also suggested that although her training was recent and she was comfortable using BCYR, it would be helpful for her to have ongoing reminders of BCYR features to facilitate better outcomes with women *"Yeah, repetition. Repetition. Keep telling me eventually I'll get it."* CLINICIAN 4

Most of the clinicians reported that they were either unaware of website features such as the resources tab, didn't know how to use it or had issues logging in to access their clinical records to complete documentation. This highlights a need for more extensive training with the use of the website and associated features.

Two participants identified there was a need to be clearer about the iPad being used exclusively for completion of BCYR with no capacity to access administration areas or the BCYR website. A participant explained that the use of the BCYR website hasn't been as successful in introducing BCYR as intended and that this should be included in the formal training.

Five of the six clinician participants discussed their difficulties and issues with the K5 assessment tool embedded in BCYR. As this was new, and is not currently used in CAHS, they were required to learn to use K5 on top of a new approach to appointments using BCYR. They identified several aspects of the K5 that will need to be explored prior to BCYR in the child health environment.

There were several questions from clinicians seeking reassurance and clarification during interviews around the correct use of the K5 conversion scores. This was a clear point of difficulty for most clinicians as CDIS does not allow for K5 scores to be input as data. Therefore, clinicians are required to additionally use a provided conversion chart (explained in training) however, the chart does not separate depression from anxiety which is a mandatory question in the data entry required within CDIS if there is an EPDS completed. This is a BCYR development issue that will need to be addressed in the future.

Most participants identified that their confidence increased in asking difficult questions to women. They explained the training received was in depth and necessary to understand the components of BCYR and the journey they are required to support each woman on. Most

clinicians completed a rating scale which asked ‘Since using BCYR, I feel more able to ask the difficult questions’ with responses below:

	Not at all	A little bit	Somewhat	A fair bit	A lot
Since using BCYR, I feel more able to ask the difficult questions	0	0	1	2	1

Figure 5: Reports of confidence

Two clinicians specifically stated in interviews they found the training to be beneficial and supportive.

4.2.4 Features of BCYR

Clinicians were asked to comment on the seven main features of the BCYR platform, six of which are directly on the iPad 1) images, 2) voiceovers, 3) Interactive Map, 4) Pen & Paper function, 5) Feedback Trees and 6) Goal Setting. The use of culturally appropriate images and visual cues was a strong point from all participants.

“I didn’t get any negative feedback about them. Sometimes they weren’t sure what it was trying to say. Like so, they’d so oh does that mean that? ... but yeah, I think overall they were well received.” CLINICIAN 2

Based on feedback from women, clinicians reported positive aspects of the images in BCYR, such as, *“I think they are all useful. I like the images of cannabis, it’s not judgemental”* and *“she found the images helpful”*. This same participant went on to note:

“There was one particular slide that talked about childhood difficulties or challenges, and it had foster care in the background. She’s like, I would consider myself to have had challenges in my childhood, but I didn’t go to foster care. Do I still click on that one? And I said, yeah, I said it’s just a visual to prompt some thoughts and conversations.”
CLINICIAN 6

In relation to the voiceovers, one participant, CLINICIAN 2, said *“I think they want to make that cultural connection...to really feel that”* while another captured the essence and importance of the voiceovers, saying *“the voices and way how it’s explained, I love the flow of the of the talking. It’s just very gentle...some of them were so beautiful”* (CLINICIAN 3).

A lot of clinicians explained that the voiceovers were used in the first couple of slides when they explained it, and then left it up to the woman to press but the use of voiceovers dropped after the first few slides.

Whilst all clinicians found the map to be a good way to start a gentle conversation and an icebreaker, it was very difficult to actually use, zoom in and out and show where each other was from. The use of the text box to type in their hometown was used almost all the time to document discussion. An unexpected finding reflected was that in some cases, the use of the map highlighted that there are some women that reported poor connections to their culture or their child's culture, but using the map helped bring them a sense of belonging early in the BCYR yarn.

"She wasn't confident so didn't know a lot about her mum. And she knew that she came from a certain place, maybe. So, dad, really brought her up more. I think just going into that might have made it a little bit hard for her." CLINICIAN 3

There was some unexpected findings also around the function of the 'pen and paper' function in BCYR in that most clinicians liked the ability to be able to type in small details to assist them with finalising their CES concluding notes, but also the fact that women were taking it upon themselves to use the function to be more specific in their responses if they felt an image didn't fit them the way they wanted.

"She liked the notes application because on a few of the slides she didn't resonate with any of the pictures. So, she added in some of her own notes and even with the care plan she initiated a lot of that and just needed help with spelling along the way. And she was really comfortable to ask for help with spelling." CLINICIAN 5

There was overwhelmingly positive feedback about the Feedback Trees in BCYR. All clinicians loved this feature and reported their clients did too. It was abundantly clear that in all cases, the woman's tree was accurate for what she identified and felt was a reality in her life, as reported by clinicians.

"She was like, you know what?... It gave me a good indicator of where I'm at now. What's going on for me now? And I was like, wow, that's awesome. Thank you for sharing that... that's kind of what it's hoping to do and it's making her think about things that she wouldn't have thought about if we didn't do it." CLINICIAN 4

4.3 Aboriginal Mothers Results

The next set of results report the findings from the Aboriginal women (n=5). These are presented as four primary themes for this data group, as set out in table 5. The five women that voluntarily participated in a yarning interview have not experienced the use of BCYR in their child health clinics. All participants have more than one child and utilised child health services for each child more than once. Their views are based on their personal experiences, as Aboriginal mothers, within child health clinics in the Perth metropolitan area and their views are relevant in understanding what and how women respond to therapeutic relationships.

Primary Theme 1	Importance of respectful relationship
Primary Theme 2	Benefits of Child Health Visits
Primary Theme 3	Motivations to seeing a child health nurse
Primary Theme 4	BCYR postnatal version exploration

Table 5: Qualitative themes from mothers of Aboriginal children

4.3.1 Importance of respectful relationship

Each woman was asked ‘What do you think makes strong relationships between you and the healthcare staff that look after you?’ and some of the women responded using words such as comfort, for example, *“them making you comfortable enough to open up is one of them. And just feeling like they are actually caring”* (Participant1); or relationship, for example, *“Like just having a relationship where it's not just a nurse and like, just as if you're just talking with friends. Making it comfortable...”* (Participant2). Responses are best summed up by this comment:

“it's when they actually understand...like, everyone's different, everyone's babies are different, everyone's parents different, everyone's different...I think just having that open mind and just knowing before you go somewhere, like knowing a bit about what you're stepping into.” (Participant5)

Several women highlighted the importance of being treated with respect and being recognised as person as well as reassured that they are a good mum. Good, clear and respectful communication was brought up by almost every woman interviewed, with one woman saying *“When they remember who you are and they know who your kids are. They*

don't have to look at the file or go oh, well, how old are they again... They just know you."
(Participant4)

Some women commented on the aspects they found supportive from their child health nurse, including building their confidence as a good mum, maintaining confidentiality and knowing and relating to them, such as Participant5 sharing *"Someone that knows me well enough to be like wait, no you're not okay."* Another participant said that:

"Being able to talk with somebody and not feel like you're being judged...Being able to speak, being able to talk openly because I don't know...like if I was doing drugs, I'd want to be able to tell my child health nurse without fear of repercussion because...Like, you know, like I want to be open, but I wouldn't want my children to be taken." (Participant4)

4.3.2 Benefits of Child Health Visits

When asked what the main benefits of seeing a child health nurse are, all women emphasised the importance of reassurance such as Participant2 saying, *"If they said everything was fine...It was really comforting, and it made me feel like I was doing something really good."* Other aspects included receiving basic parenting information from child health nurses, especially for first time mums, such as *"how do you know how often you change that nappy? or if they haven't pooped. Like, how do you know?"* or *"I mean as a new mum...the wake times and all of that"* (Participant2 and Participant3). Women want to feel valued, heard and listened to when they see child health nurses. This was described as clinicians actively listening, even if their worries weren't seen as concerns from a clinical perspective, they sought reassurance as a way of reaffirming their parenting. *"She'd listen. She'd actually care and say, "It's okay". That was her listening to my concerns."* (Participant5)

4.3.3 Motivations to seeing a Child Health Nurse

Most women accepted child health services on the universal offer with some participants sharing they also accessed additional support for their children. All women shared they engaged fairly early, within the first month or so, of giving birth and that first check was important to them. Reassurance was the most common reason given by participants when sharing their views on what took them to visit child health nurses. Additional aspects that saw

women accessing services included ear health and iron checks, immunisations, speech delay, family and domestic violence and general wellbeing of their child.

"Making sure they're doing all the right things they should be at their ages and development." (Participant2)

"Domestic violence and my child didn't talk. My oldest. Yep, because he wasn't talking much. He wasn't meeting any of his milestones like he was walking, but he wasn't toileting. He wasn't talking. And then I just kept coming back 'cause it was comfortable." (Participant4)

"Reassurance. And being complemented, you don't get that anywhere else. Just to know that you're doing good, and your kids are good." (Participant5)

The environment that a clinic has, or where an appointment is held, can make a difference to the service provided. Women identified supportive environments for them included spaces that were child-friendly, toys or things to do for the children and to be a comfortable space. Availability of services and professionals available on the day, as well as assistance with transport, was also identified as helpful for mothers as detailed below.

"One time I was in the clinic with a concern about [child] and the nurse said well the OT is here today if you just wanna see her for a quick review? Like they have 2 minutes to play a few games and it was reassuring... I think having access, not having to come back another time, another day, like I was just seen while I was there. Not everyone has transport to get back to appointments. Just because someone is dressing nicely doesn't mean they earn a lot of money or, you know, the shoes that they wear might of saved a lot for or got second hand." (Participant3)

Some of the negative child health experiences that women described were they felt judged or not listened to and that clinicians were not prepared to see their child, which often increased the woman's stress levels. At times, this stress leads to not getting the outcome they hoped would be addressed during that appointment because the environment was not supportive. Participant3 detailed that the judgements she faced was that her support network was currently okay, but it wasn't always that way. She went on to explain that the presence of family doesn't always equal support for mothers, even though this is often assumed.

Poor cultural awareness seeing child health nurses was mentioned by all five women. Participant2 shared *"I don't know if she [child health nurse] was culturally aware of things. Being an older lady, I don't think she was very well trained to be working with other cultures"*. This feeling was also identified by another participant who stated *"When you go through guddia [non- Aboriginal] services, there's no support. There's none. There's no understanding of cultural needs and wants."* (Participant5)

There was some brief exploration around whether women would use a child health nurse after business hours as this was voiced as a barrier for some women.

"There are sometimes when it'd be cool to just see the child health nurse for that instead of [GP or ED] ... I think about it sometimes, maybe on weekends could sometimes be beneficial." (Participant1)

"If there was something wrong and you need to speak to a child health nurse, it could be more convenient. Otherwise, you're finding yourself coming to the local GP that sometimes are not even open that time, or at the emergency. For something that's not an emergency... And not all [GP's] bulk bill." (Participant2)

All women were asked during their interview what makes them a strong mum and their responses included that their children being independent and when their child responds to situations in a positive way their parenting skills are reinforced and contributes to them feeling like they are parenting the way they would like to. Seeing their kids be happy, healthy and that as mothers, they are able to do everything themselves makes them feel strong and gives them purpose to be strong for their children.

"I'm boss! I dunno, I just get through it. I find ways to deal with different situations... I love them more than anything. I love them, they are my purpose. So, like what would make me more of a stronger mum than them? Everything I do is for them. I want to set them up for future for them." (Participant5)

4.3.4 BCYR- Postnatal version exploration

These five women have not utilised the BCYR digital platform so did not have any experience to feedback, however, a project overview was provided, and exploratory research was undertaken in considering maternal feedback on components of a postnatal version of BCYR.

There was genuine excitement from most women around this concept and disappointment they had not been exposed to this level of culturally safe antenatal care.

One woman suggested that it would be good to offer a postnatal version more regularly than current child health schedule.

“Things change quite quickly and a lot and Aboriginal communities and in families. So yeah, I think it would be a lot better to stay kind of relevant. Let's keep up with what's happening here in your life” (Participant1)

Another woman suggested timing it with the current immunisations schedule.

“I think so, yeah. Just having extra support and information would be awesome, especially for any new parents out there or one to the collect children. Just having an option of it.” (Participant2)

One woman went on to explain that the role of who offers BCYR should be relationship based and this could differ between doctors, nurses and Aboriginal Health Workers. Although both felt that it was important to have an Aboriginal person present.

“I probably say the child health nurse. I think there's different aspects to it, so I think the doctors cover like the health part? And I think the health workers and child health nurses help more the relationship based... I feel like they are a bit more understanding, like a bit more... because they probably already know a fair bit about what you're going through at that point. I think once there is more of an understanding... then you can kind of like go from there onwards.” (Participant1)

“I think it would be a little bit more comforting having someone in the room that gets your culture. That's just from my experience. It'd be more comforting having an Aboriginal worker or whatever in the room. Yeah, definitely be more comfortable, even if [they're] sitting in with like, the child health nurse.” (Participant2)

All women suggested that the name needed to change from “Baby Coming” to something more along the lines of “Baby is here now” however given their limited understanding of what BCYR entails, this was difficult for them to consider.

These are the key findings from the interviews with Aboriginal mothers that participated in this research.

4.4 Quantitative Results

Quantitative data from 353 women who completed the BCYR rubric across all the project sites were used to compare selected characteristics of Aboriginal women included in the main analyses. It also describes the results of the quantitative (descriptive) analyses for all Aboriginal women (n=32) who attended CAHS child health centres and participated in the BCYR pilot.

Figure 2 shows three-quarters (75%) of Aboriginal women who participated in the CAHS pilot sites were under 30 years old, with approximately 19% of them being 20 years or below.

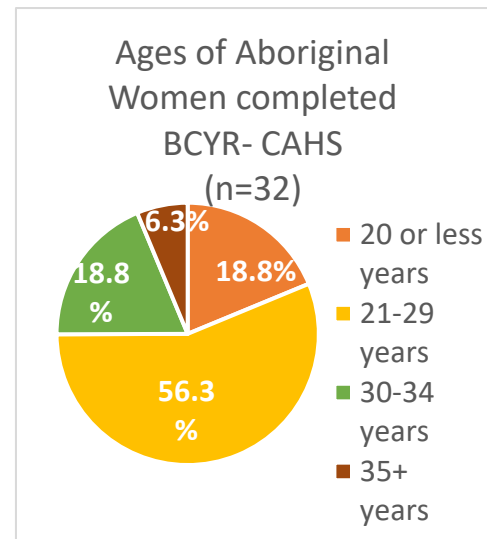


Figure 2: Ages of women completed BCYR in CAHS

4.4.1 Top five worries identified by women

The CAHS pilot data reflects that the top five worries (figure 6) that women self-identified using BCYR were related to finances, relationships with their family and partner, food insecurity and transport. Over half (56%) the women had financial worries, just half (50%) family worries and over one third (41%) of them reported having food worries. A considerable proportion of women also indicated partner (31%) and transport (28%) worries. About 12% of women shared they had worries about DCP involvement and only a very small number of 2% of women have reported they have no worries. Remarkably, over 84% of women (n=32) made follow up plans at the end of their appointment to support care planning around some of these worries. The total BCYR pilot data (n=353) also reflected high percentages of women booking a follow up appointment, with 84% of women who planned to return to the clinic. Graphs show outcomes from the use of BCYR in CAHS-AHT (Figures 6-11).

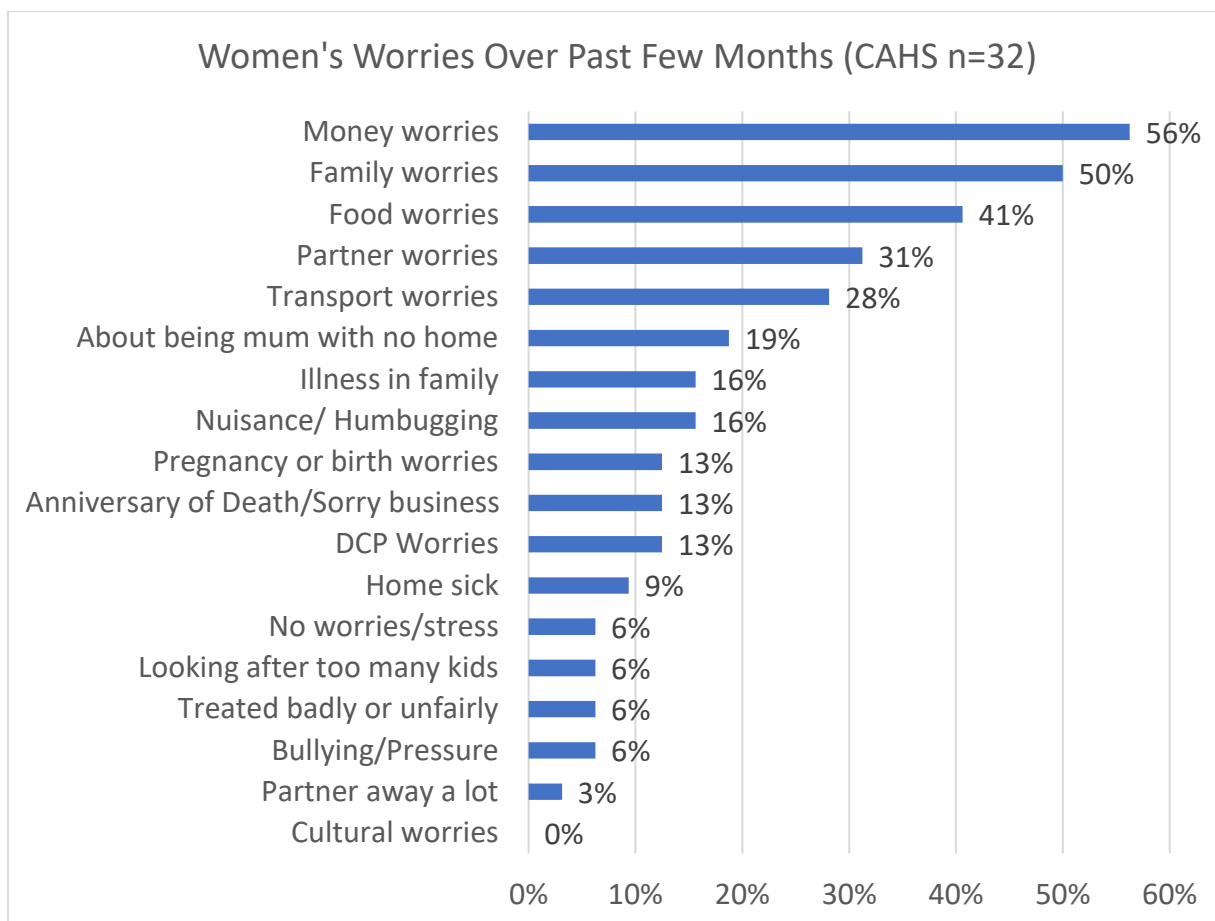


Figure 6: Identified worries

4.4.2 Women's identified supports

As shown in Figure 7, the supports women identified as their biggest were partner (50%), their own mothers (41%), aunty or cousins (34%) and friends (28%). This is similar in comparison to the wider BCYR pilot results.

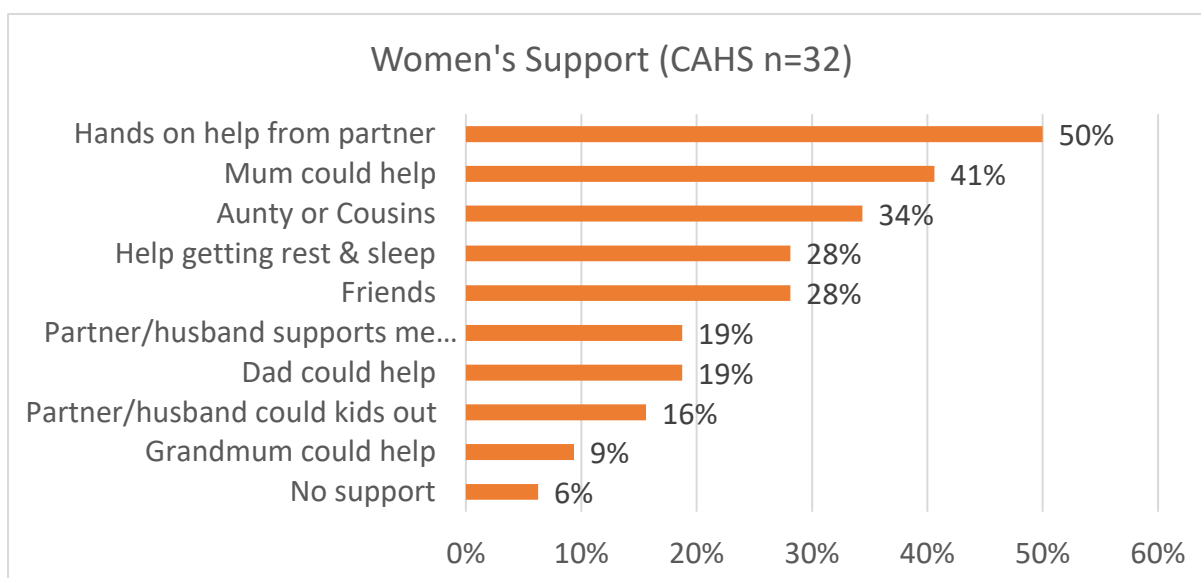


Figure 7: Identified supports

Partner Support

Figure 8, below, reflects that most women have their partner who supports them well. This is represented by the bar titled “unknown” as the skip logic feature from BCYR has been utilised by the remaining women who have identified earlier in BCYR that their partner is not living with them. This slide has been identified as requiring adaptations for postnatal settings to consider inclusion of more community-based supports.

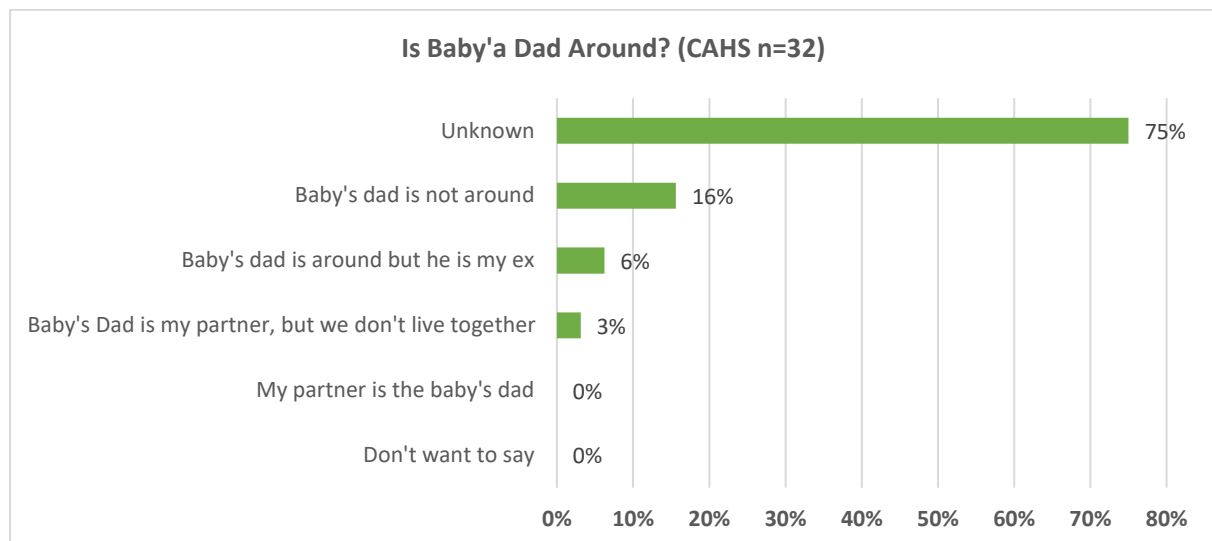


Figure 8: Partner support

Two-thirds (66%) of women that have utilised BCYR in child health services reported a health worker as their biggest support (figure 9). However, this image selected (figure 10) does not differentiate whether this is a nurse or Aboriginal Health Worker.



Figure 10: Health worker support

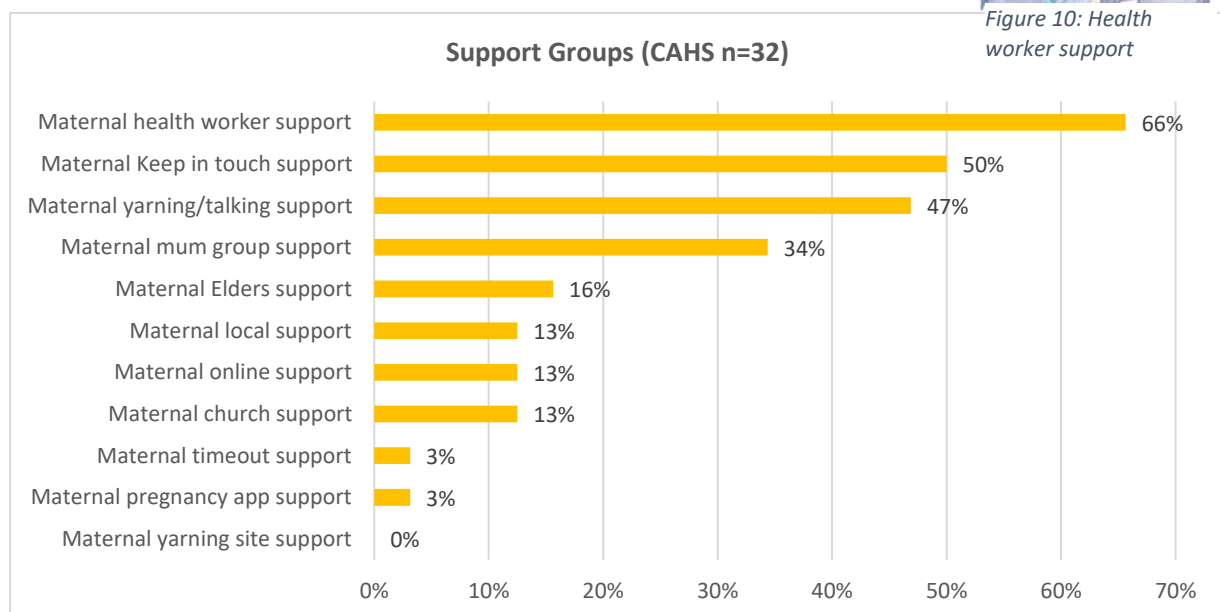


Figure 9: Identified supports

Whoever the woman resonates with at the time of her selection, and it is not required to explore this deeper in documenting who this is. A considerable proportion of women also identified other support networks including maternal keep in touch (50%) and yarning/talking (47%) groups.

Most women identified that they enjoy walking and did this as their brief intervention discussed with clinicians on a slide titled “Support for you as a mum-Caring for you”. These results (figure 11) are interesting as it reflects that the topics discussed within postnatal child health settings are quite like those of antenatal settings. However, clinicians at the workshop identified that several of the images on this slide caused confusion with their clients as the images depict pregnancy. It was reported that discussion often led back to when the woman was pregnant and what she did for self-care rather than what or how is she managing self-care postnatally. This slide has been identified as requiring adaptations for postnatal settings.

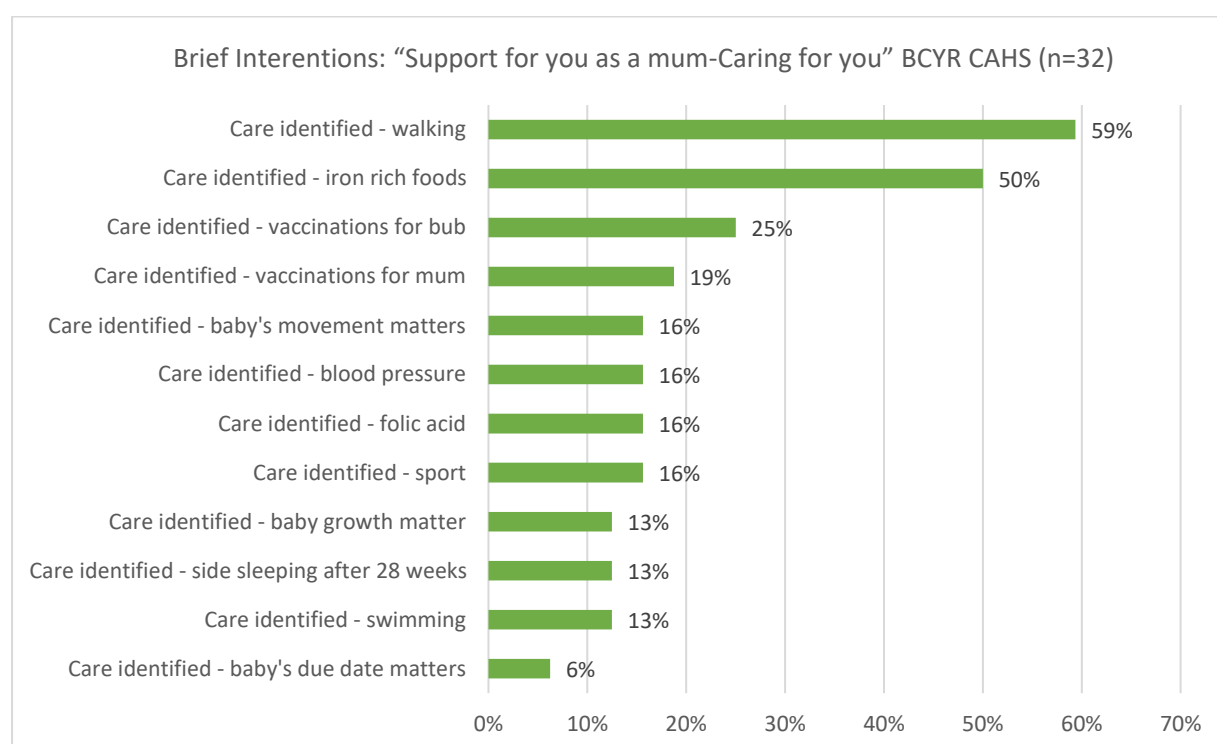


Figure 11: Brief interventions selected

4.4.3 Women's safety plans

Of the 32 women who completed BCYR in CAHS, five of them triggered a safety plan due to the nature of the images they selected. Images that trigger safety plans include depictions of family and domestic violence behaviours that a woman identifies. Of the five triggered plans, three consented to a SAFER plan and opened up deeper with clinicians to discuss who their

supports are and how they can keep themselves and their child/children safe if they become worried at any time. Two women did not agree to SAFER plans and it was not clear why this was the case, due to a lack of text input.

5. Discussion

A key objective of this study was to identify what makes relationships strong between nurses and Aboriginal women and their families. Better relationships between services and clients could lead to easier access of culturally responsive mental health assessments and treatment within child health settings. I also sought to explore how BCYR can be implemented into community health practice; to be offered to Aboriginal and Torres Strait Islander women instead of the EPDS; and, to improve health outcomes of Aboriginal children and their families. In addition to child health screening and development, BCYR offers maternal mental health assessments to be completed using a holistic culturally secure approach within child health environments.

This research was conducted through workshops with clinicians from child health and mothers of Aboriginal children to highlight areas that require changes to policy and practice. Findings showed substantial evidence that strong relationships are important to both clinicians and women, and that BCYR does facilitate stronger therapeutic relationships and engagement. Remarkably, there were 84% of women that made follow up plans at the end of their appointment to support care planning around some of these worries. BCYR pilot data also reflects high percentages of women booking a follow up appointment, with 84% of women in to return to the clinic highlighting the effectiveness of the therapeutic relationship.

Women are identifying their biggest supports are their partner, maternal figure (mother and/or aunty) and friends. Interestingly, the types of support that women identified through the use of BCYR are very similar to those in comparison to the wider BCYR pilot results. Extra supports identified included their nurse and family. Participant3 shared her thoughts around the assumptions that are often made by clinicians concluding that all Aboriginal families are big and supportive, therefore this equals supportive family stating, *“Just coz someone is family doesn't mean they're all good family... and that a lot of family doesn't automatically equal support...”*. Her thoughts are also backed up by the CAHS BCYR pilot data that shows about a quarter of Aboriginal women that completed BCYR in child health reported that their partner was not involved. Relationships with child health nurses in cases where women have limited family support is important to ensuring that mothers have wrap- around support and care which may be lacking elsewhere.

Some of the responses that women reported regarding safety planning were around keeping their child safe, fear of not having money for food, being homeless or a fear of being homeless and their future. These are incredibly vulnerable aspects to be opening up to someone about and raises why it is important to have a relationship with nurses to support continuity of care and avoid women being asked to repeat their story over again to new staff they have not met. Allowing women to have a yarn with clinicians about all or any of their worries helps clinicians to offer appropriate care plans that support the woman better. Appropriate care planning can better address the woman's worries rather than the concerns of the clinician who may have personal bias. The aspect of mother's not wanting to repeat their story and clinicians remembering their children and circumstances is also identified throughout the qualitative findings.

Additionally, the descriptive words from clinicians' sea of words (such as engaging, useful and comfortable) is indicative of the power that BCYR could have in building long lasting, therapeutic relationships with women and their families. It is clear the features embedded within BCYR appear to contribute towards more successful therapeutic relationships between clinicians and women that have completed BCYR during the pilot. The attitudes of clinicians towards completing BCYR impacted the outcomes identified within the BCYR assessment and this would be an important aspect to consider for future steps in a potential child health pilot.

The lack of interface between BCYR and the administrative system CDIS, was a major challenge that contributed to lower numbers of completion in CAHS sites and led to some clinicians not offering BCYR to women. While all of the clinicians in the pilot found the layout and detail of the BCYR Clinical Event Summary (CES) helpful and clear, there were several issues noted about the practicalities of uploading and interpreting the report. Further, CDIS has specific requirements when inputting client data/integrated progress notes which don't currently align with the report of the BCYR CES. Some clinicians were not able to upload the CES to CDIS, and if they were able to upload it was a convoluted process with some finding it easier than others. However, most clinicians found this chore to be difficult and time consuming. In this study, clinicians also struggled with issues associated with the CES.

Currently, the training provided in the BCYR pilot recommended that BCYR antenatal settings should be routinely initiated as an additional stand-alone appointment (as an alternative to

current screens (FDV-950 and EPDS); jointly facilitated with the clinician actively present and sitting side-by-side the woman; and, that partners should not be present. However, of particular interest in the CAHS context, was the feasibility of the platform's use according to nurses and clients. Further, the practicalities in the child health environment where other children are often present, meant that nurses were at times distracted with assisting in minding the children and found it difficult to fully engage with women completing BCYR. Engaging women in CAHS clinical settings need further exploration to determine appropriate times to offer and complete BCYR, whilst keeping in mind all services in AHT are often opportunistic to ensure family needs and priorities are met. Based on literature and discussions with clinicians, it would likely be beneficial to have the support from AHW's to ensure client needs are culturally and holistically are maintained. Within the scope of AHW's, they could support the gap between clinicians and clients in assistance with supervising children, completing child- focused screening and clarifying family preferences with home visiting. Despite the evidence that Aboriginal specific home visiting programs provide culturally responsive care, the CAHS policy states that to ensure safe assessment visits, these should be completed in the child health clinic (Munns et al., 2018). Rather than specifying that home visit supports are available for Aboriginal children, the policy implies it is the responsibility of the client to request support instead of services reaching out. This policy position does not reflect a mother's mental wellbeing or cultural needs being a priority. Moreover, this policy oversight is contradictory to the study findings above (Campbell et al., 2018; Kemp et al., 2018; Munns et al., 2018).

Ensuring that the BCYR assessment be initiated a) with two professionals present, so one can complete child focused screening, and b) that home visiting be the preferred venue where it is favoured by the client and deemed safe and appropriate, would have been ideal within child health services.

As BCYR is not embedded into child health services, systematic changes will be required before BCYR can be implemented into business as usual in clinical practice. Importantly, BCYR aligns well with CAHS Aboriginal child health policy which states "provision of high quality culturally secure healthcare that is accessible and appropriate to the needs of Aboriginal children and their families." (CACH, 2021, p.4). As the finding throughout this research have demonstrated, BCYR meets this criterion of providing high quality culturally secure

healthcare, and with planned child health specific adaptations made, would offer highly suitable care to Aboriginal children and their families. Moreover, the policy states “Staff will use the most culturally appropriate screening tool available when working with Aboriginal families” in relation to the ASQ-TRAK, a culturally adapted version of the Ages and Stages Questionnaire (ASQ) for Aboriginal children (CACH, 2021, p.4). This statement reinforces the need to replace the EPDS, which has been informally reported by women and clinicians in my experience as a child health nurse.

In consideration of statewide and national policies, BCYR directly addresses four of the 18 Closing The Gap national targets, with all four relating to children and their families. The Aboriginal child health policy (CACH, 2021, p.3) states:

“The development, implementation and evaluation of health policies that affect Aboriginal people must take these indicators into account. They must also acknowledge and respond to the history of difficult relationships between governments and Aboriginal people. Efforts to build mutual understanding and greater trust must be continued.”

There is urgent need to embed culturally responsive practices into services supporting Aboriginal children and families. Exploration of a postnatal child health pilot could provide better health outcome for children and their families through the use of a postnatal version on BCYR.

The CAHS strategy report from 2018- 2023 in strategic objective one states four points, all of which are met by the holistic assessment of BCYR.

Care for children, young people and their families

- 1. Support children with their family to be a partner in their care plan.*
- 2. Ensure the needs of kids and families remain our central concern.*
- 3. Make every family’s journey simpler with local, connected, and easily accessible health services.*
- 4. Help keep kids healthy with prevention and early intervention.*

(CAHS, Our Strategic Plan 2018-2023)

The current strategic plan for in place for CAHS advises that CAHS will partner with organisations to understand their clients' needs and advocate for the removal of barriers and will address the determinants that impact of their client's health. (CAHS, Strategic Plan 2023-2025, p. 22).

Implementation of BCYR into the Aboriginal Health Team in CAHS could assist in facilitating all of the AHT aims:

- *provide a culturally sensitive approach to service delivery, with AHW and community health nurses working together*
- *strengthen parenting skills and confidence within Aboriginal families*
- *concentrate on building partnerships between the community health staff and the family*
- *identify the family needs in order to tailor the appropriate service response*
- *facilitate family access to relevant community resources and agencies when appropriate.*

(CACH, Aboriginal child health policy, 2021, p. 6)

The BCYR pilot has a developed version available for men to utilise with clinicians, however it's use has been limited within antenatal settings. Given there were at least two fathers that showed a keen interest in utilising BCYR with their partners at child health visits, it would be worth considering a pilot of the men's digital platform in the child health setting where fathers are showing interest in engagement. A recent a study in the Kimberley focused in the antenatal period reported that a father stated that he felt involving both parents was equally important and that it would be good if fathers were more involved, as they are sometimes come to the clinic seeking more information (Carlin et al., 2020, p. 517). In the same study, Carlin and colleagues, found there is a large gap in the interactions and exploration of men's stressors and SEWB supports (2020, p. 520), which was similar in child health services in the Perth metropolitan region. Another recent study by Canuto et al. stated, "There is a real need for early years services to improve their understanding of the needs and desires of Aboriginal male parents and provide culturally appropriate services to these men" (Canuto et al., 2019, p.12). Reilly & Rees (2017) completed a study with Aboriginal fathers that was published and

found that colonisation has led to gender roles changing within parenting, and fathers actively contributing to parenting children rather than only when disciplining children was required.

“In the modern context, it was viewed that the changed times had to be acknowledged and that young men now require support to take on the important role of parenting their young children and helping their partners more equally in the shared parental role.”

(Reilly & Rees, 2017, p. 426)

This is supportive evidence to consider a deeper exploration of the development required to enhance the existing BCYR men’s digital platform with the aim to potentially build fathers’ capacity and confidence in their role as a father.

As one of the leading metropolitan services providing child health care to Aboriginal families, the CAHS Aboriginal Health Team will likely be the most suited team to implement a child health pilot of BCYR postnatal version given their experience and objectives as a team. Along with other Aboriginal Controlled Community Organisations, that offer metropolitan wide services, the team provide child health services to Aboriginal children from birth to five years old, whilst offering services that are specifically targeted at Aboriginal children and families (Government of Western Australia, Aboriginal Health Team, 2023).

5.1 Limitations

While the conclusion may be limited by the small numbers several qualitative researcher argue that “the number of interviews can range between five and 50 depending on the topic and scope of the study and the quality and depth of information obtained from each participant, and the qualitative method and study designed used” (Morse, 2000, p. 1) In addition, the limitations of these small numbers of participants are addressed through the triangulation of findings of clinician’s and women’s experiences and perspectives and a comparison of the broader BCYR findings involving 353 women. The conclusions and recommendations are also confirmed by the findings of a study examining the extent to which BCYR contributes to women’s self-efficacy and resilience (Ratajczak, 2024, under review) and the results of the evaluation of the BCYR Pilot (Kotz et al., 2023) and is corroborated by the quantitative data analysis. The findings by health care providers in this study confirm the findings of a study in WA community health services by Jones et al. (2023) regarding the barriers and solutions to improve maternal and child health outcomes.

5.2 Conclusions

Drawing from the findings of Isangula et al. (2023) where they found that there was increased trust and facility delivery with clients that had good relationships with maternal and child healthcare providers, provides good standing to consider across CAHS services. BCYR has identified there are various benefits for both clients and clinicians who have strong relationships, including clients feeling safer to be honest and open up more about their strengths and worries which can allow clinicians to support them with brief interventions of their choice.

The various themes discussed in the literature review (Adane et al., 2022; Aktar et al. 2019; Campbell et al. 2018; Carlin et al. 2019b) confirms that the care provided by community nurses directly impacts a woman's mental health wellbeing after she has given birth. Moreover, several of the study findings (Carlin et al 2019a; Chan et al., 2021; Le Grande et al 2019), highlight the importance of using validated mental health and wellbeing screening tools with Aboriginal people. In particular, the literature focusing on screening in the perinatal period supports the use of BCYR being offered to Aboriginal women as a wrap- around service instead of simply using the EPDS to determine women's current mental health and wellbeing.

Based on the literature review findings and qualitative interview and quantitative data, the establishment of a good bond and initial connection with community health nurses is an essential component to establishing and maintaining strong links with women during their antenatal and postnatal journey. The literature review has demonstrated that studies in which women reported strong relationships with maternal and child health care providers as well as considering their needs leads to mothers feeling more respected and culturally safe.

The literature also confirms that a mothers physical and emotional wellbeing can be directly linked to their infant's wellbeing. Evidence shows that when a mother is experiencing poor mental health (i.e. anxiety, depression or complex trauma) it can lead to negative life events for their children in the future (Adane et al., 2022). These findings reflect the importance for mothers be able to connect with their babies as soon as possible after giving birth, through a range of bonding strategies being encouraged by both their midwives and community health nurses. Finding time to develop relationships can be a challenge and is often also a challenge in service delivery. Trust can take significant time to be gained with organisations and

community groups. The need to meet targets can overshadow the need for time to develop trusting relationships which are just as important.’ (SNAICC, 2019, p. 15)

The role of a community health nurse is currently quite broad and differs across Australia and potentially, within Western Australia. The need for community nurses to have the skills and resources to support women with complex needs has been documented (Munns et al., 2018). This is an area worthy of further research to consider whether and how the widespread implementation of tools like BCYR can improve the health and wellbeing outcomes for Aboriginal mothers and their children in the postnatal period.

My research process was rigorous in obtaining outside perspectives aside from my own conclusions based on my experience and observations. These conclusions were drawn from the feedback provided from group coding sessions of interview transcripts and the direct feedback given from participant workshop/s. Feedback obtained through this research is imperative to consider in health organisations policies and system changes in the future as I believe it accurately depicts the needs of Aboriginal community members across Perth. Findings highlight the importance of examining current policies and practices to promote best practice in postnatal care to improve health outcomes for mothers and their Aboriginal babies.

It is evident there are contributing factors to poor relationships between Child Health Services and mothers requiring community support as it is simply not available in some cases. Harding et al. (2021) concluded that it is essential to holistically address the needs of Aboriginal children, in order to do this the numbers of children accessing community health services needs to be increased and there needs to be development of integrated service models in collaboration with Aboriginal stakeholders.

It would be beneficial for community health services to complete regular and accurate assessments of mothers already accessing their services to be able to assess, monitor and provide appropriate health care and social needs using a program that considers all their needs. Whilst BCYR has been co- designed by and for Aboriginal and Torres Strait Islander women and families in the perinatal period, its focus has been largely on the antenatal period. The BCYR pilot involved over 300 midwives working in the antenatal setting, and just 48 postnatal health service providers. However, based on the findings and extensive discussions

with key stakeholders in CAHS and WACHS and the Aboriginal team in the Health Department there is widespread agreement that an adapted BCYR for postnatal settings has merit. Based on these discussions it is evident that with appropriate resources and training BCYR could be implemented easily into the Aboriginal Health Team in community health services to better support and address the general and mental health needs of Aboriginal mothers and the infants and families. Importantly, towards the end of the BCYR pilot and its evident success, health services management became more supportive and high-level discussions have commenced around considerations to make the necessary adaptations of BCYR for use in child health services.

My research has identified the importance of developing and piloting new methods of mental health screening, such as the Aboriginal-led, culturally responsive BCYR digital platform in community health settings to improve Aboriginal maternal and child health care outcomes. The BCYR pilot completed in June 2023 has demonstrated the ability to address Closing the Gap (CTG) targets One and Two, as reported in the WA Government report to the National Government (Government of Western Australia, 2023, p. 34).

“Importantly, the pilot demonstrated enhanced two-way communication facilitating women’s honesty, sharing, problem-solving and sense of self-efficacy and empowerment not before experienced. BCYR has demonstrated the ability to provide a culturally responsive therapeutic approach to supporting the perinatal mental health and wellbeing of Aboriginal mothers.” (Government of Western Australia, 2023, p. 34)

On this basis it expected that the implementation of an adapted BCYR program in the postnatal period will likely achieve the following CTG Targets by addressing the needs of Aboriginal women, children and families in the first five years of life:

Target 2: Aboriginal and Torres Strait Islander children are born healthy and strong.

Target 12: Aboriginal and Torres Strait Islander children are not overrepresented in the child protection system.

Target 13: Aboriginal and Torres Strait Islander families and households are safe.

Target 17: Aboriginal and Torres Strait Islander people have access to information and services enabling participation in informed decision-making regarding their own lives.

(Australian Government Productivity Commission, 2023)

6. Future directions and Recommendations

Based on the literature review evidence and the findings of my qualitative and quantitative research, I have made three key recommendations. It is clear from the research findings and stakeholder consultations that a range of strategies and partnerships are needed to bring about policy changes at a system level. In addition, further work identified by women, community health clinicians and stakeholders through the research is needed to adapt changes to the existing BCYR program to be implemented in the postnatal period. Discussions have commenced with Community Health Service executives to explore a three-way partnership between the Ngangk Yira Institute for Change, CAHS and WACHS to embed BCYR into Child Health Services.

As BCYR has recently been embedded into the antenatal handheld record, it should be considered to embed BCYR into the child health handheld record referred to as the “purple book” to ensure continuity of care and alignment across maternity and child health care services.

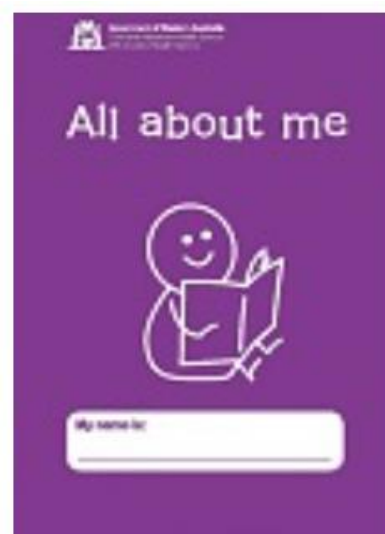


Figure 12: “All about me” purple book

6.1 Next Steps

Introducing BCYR into community health clinics to assess the wellbeing of mothers and their children could lead to significant positive changes in the way Aboriginal people are assessed for mental health and social and emotional wellbeing and increase culture safety within services which could further be directly linked to better health outcome within community health. Integrating BCYR into Child Health Services could also reflect positive benefits on mother and baby’s attachment, development, breastfeeding, and family structures. Community Health Services are required to abide by specific Maternal and Child Health policies, the WA Aboriginal Health and Wellbeing Framework 2015 – 2030 (Department of Health WA 2015), and the National CTG Partnership Agreement (The Department of Premier and Cabinet, 2023, p. 39). Clinicians must work within these guidelines to address Aboriginal client needs so it is imperative for Community Health Services to ensure that they use culturally responsive screening methods to ensure they are able to provide Aboriginal women with the necessary support and resources to improve maternal and child health outcomes.

With the anticipated outcome of implementing BCYR into community health services, it could drastically improve the health and social and emotional wellbeing of Aboriginal families.

This research shows that women feel safer to report their worries earlier through using BCYR. Child health clinicians have identified BCYR to be more culturally safe than the EPDS; women prefer the use of technology (iPad); relationships are built faster and easier with clients; their cultural awareness has increased; and they have maintained holistic assessments for child & maternal health aspects. Both mothers and clinicians enjoyed the interactive components of using BCYR to facilitate appointments and stronger relationships were built.

As a first step, it will be imperative to get Aboriginal Elders engaged to provide feedback to ensure the integrity and co-design process of postnatal version remains strong. It is also anticipated that the implementation of BCYR into community health services that already focus on Aboriginal health, will need to reconsider existing policy. Changes may need to be implemented, to better reflect that community health services support, value and practice the importance of clinicians providing culturally safe spaces and services.

6.2 Timeline

Figure 13 below depicts the various phases of my Study, and the projected timeframe for the implementation of the pilot to adapt the BCYR for postnatal settings.

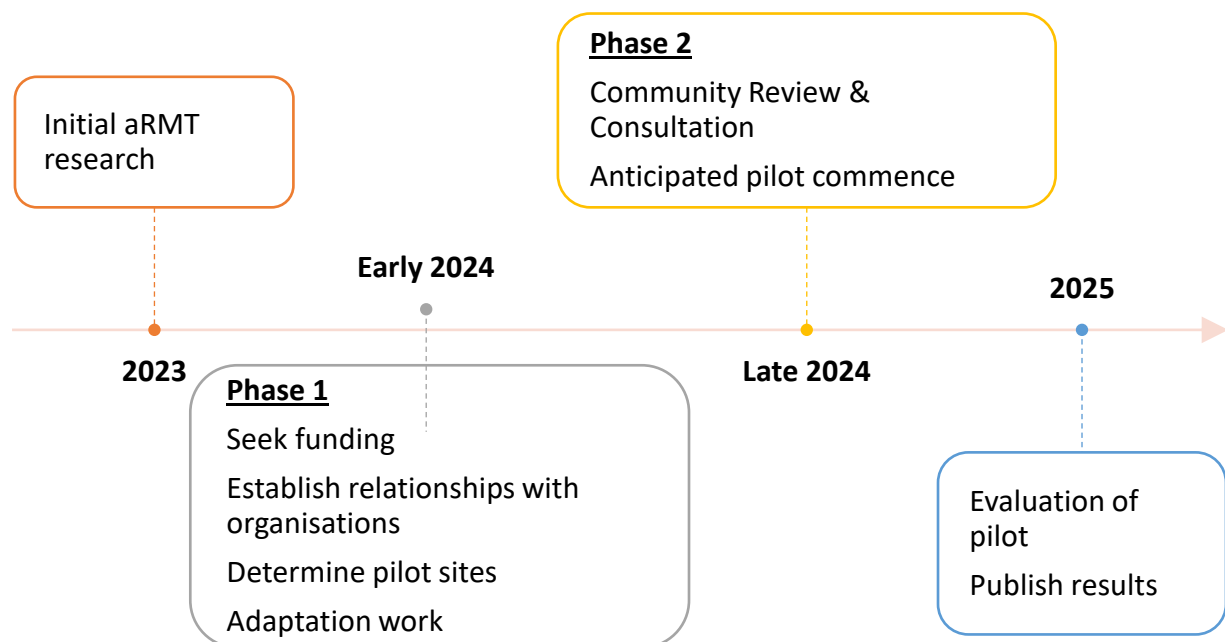


Figure 13: Timeframe depicting research phases

6.3 Recommendations

Recommendation One: Undertake some immediate adaptations (appendix 6) prior to or as part of a child health pilot including:

- 1) A name change, the favourite so far being something aligning with '*Bubba's Here What Now*';
- 2) Carry out minor image and language changes to reflect babies/children and not pregnancy;
- 3) Develop additional slides within the digital platform that reflect childhood needs and milestones; and
- 4) Enhance interface connectivity to have the clinical event summary directly linked to the Child Development Information System (CDIS) for easier data input from clinicians and service reporting needs.

Recommendation Two: Obtain research funding to develop child health adaptations required and after community consultation, conduct a pilot rollout across CAHS and WACHS child health settings in previous pilot sites in late 2024. There is a need to have statewide policies consistent between metropolitan and country with respect to the closure of children from community health services.

Recommendation Three: Consider enhancements required for further development of the BCYR men's digital program to reinforce the role fathers play in early childhood and parenting within child health.

7. Appendices

Appendix 1: Survey Monkey questions to health professionals post workshop

1. Why do you think families come to you?
2. Why do you think it can be hard for some families to engage?
3. What information do you think is important to screen and why?
4. In a typical day for you, what leads to good outcomes? What about poor outcomes?
5. What leads to poor outcomes?

Appendix 2: Clinician Workshop Outcomes

Participants:

Participants were invited due to their direct existing involvement in the BCYR pilot or health services management of clinicians piloting BCYR. Five participants who attended were identified as strong Aboriginal allies working with the Department of Health that had valuable knowledge of existing systems and policies.

In total 14 women attended the workshop along with two additional BCYR staff. Of the 14 participants, 11 women were Aboriginal and/or Torres Strait Islander women and three women were non-Aboriginal. The research project was explained, and consent forms signed were signed by 10 participants, four women gave verbal consent.

Location:

The main workshop was hosted at NYIC. It is a culturally safe environment and most clinicians had been there before and were comfortable and familiar with the environment. The workshop was held between 10am- 2pm with the aim of reducing pressure on participants with dependants and accommodate school drop off and pick up times, reduced hours/ part time workers and to allow time before and after the workshop to attend to work or client related matters.

Workshop Content:

The interactive workshop covered seven mini workshops which were explored by the group throughout the day. The questions were designed to examine the current practice and policies that participants must adhere to and consider in their daily roles. Most participants contributed to open discussion. For those who were not as active or comfortable speaking up, a handout of each question was provided to participants for individual feedback to be brainstormed/ written. Overall, the written feedback received was very much aligned with the open discussion of the day. Prior to moving on in sessions, the group was asked if there were additional feedback to provide and at times, questions were asked and answered as required. All feedback has been collated and is now saved on to the BCYR shared drive. There were two nominated scribes that assisted with documenting feedback. The seven mini workshops discussed were:

1. What do you think makes a strong, therapeutic relationship?
2. What are some of the barriers that stop you from accessing a service?
3. Potential names to reflect child health environment.

4. What would be the top 3 concern/ referrals made?
5. Adaptations required for child health environments with a focus on selected slides (Support for you as mum & Caring for you)
6. Exploration of where a postnatal version of BCYR could be implemented within CAHS (workforce & model of care considerations)
7. Cultural healing workshop

Reflection of cultural activity:

Post workshop, catering was provided for participants and an optional cultural activity was facilitated by local Noongar woman, Chelsey Thomson. Chelsey provided expert knowledge on Noongar bush medicine and the importance of this knowledge in maintaining culture. This topic was chosen as being culturally appropriate for all clinicians to be able to safely share this knowledge with



their clients to assist in embedding culture and cultural safety into clinical practice. Each participant was invited to create their own gift bag from the large array of bush medicine materials provided by Chelsey. Materials included mostly different types of leaves, rocks, oils and nuts from the bush with permission from Chelsey to take home.

Personal reflection: The feeling in the room during this session was powerful and exciting from the strong positive vibes of the group. There was lots of chatter amongst participants sharing their experiences and thoughts of the day, which was a lovely, therapeutic way to end the workshop. I received feedback from many participants that they enjoyed the workshop and the content and felt that with the changes suggested that BCYR should be embedded into standard clinical practice of Child and Adolescent Community Health (CAHS). There were also several comments along the lines of “All women deserve to have access to safe, culturally appropriate care” - this is what I feel drives my motivation to continue this research journey.

Appendix 3: Optional survey for mothers of Aboriginal children prior to interview

This is an anonymous survey used for my master's research.

My master's research is exploring the use of the ***Baby Coming You Ready*** digital platform in community health services. I am working with women who have Aboriginal babies to explore if and how this program can be used for women when visiting the child health clinic. Your input will help me be accurate when I am going through the data. You do not have to fill this out and I appreciate your contributions to this very important research. I want to do this research to see how we can make child health appointments more culturally safe for Aboriginal families.

Please feel free to write anything additional if you want!

1. Are you a: **PARENT** or **GRANDPARENT**?
2. How many kids do you have in your care? **0 1 2 3 4 or more**
3. Did you give birth to all those kids? **YES** or **NO** (circle which applies to you)
4. Please write the ages of your kids:

5. Do you live with someone who supports you? (Please circle which fits you best)

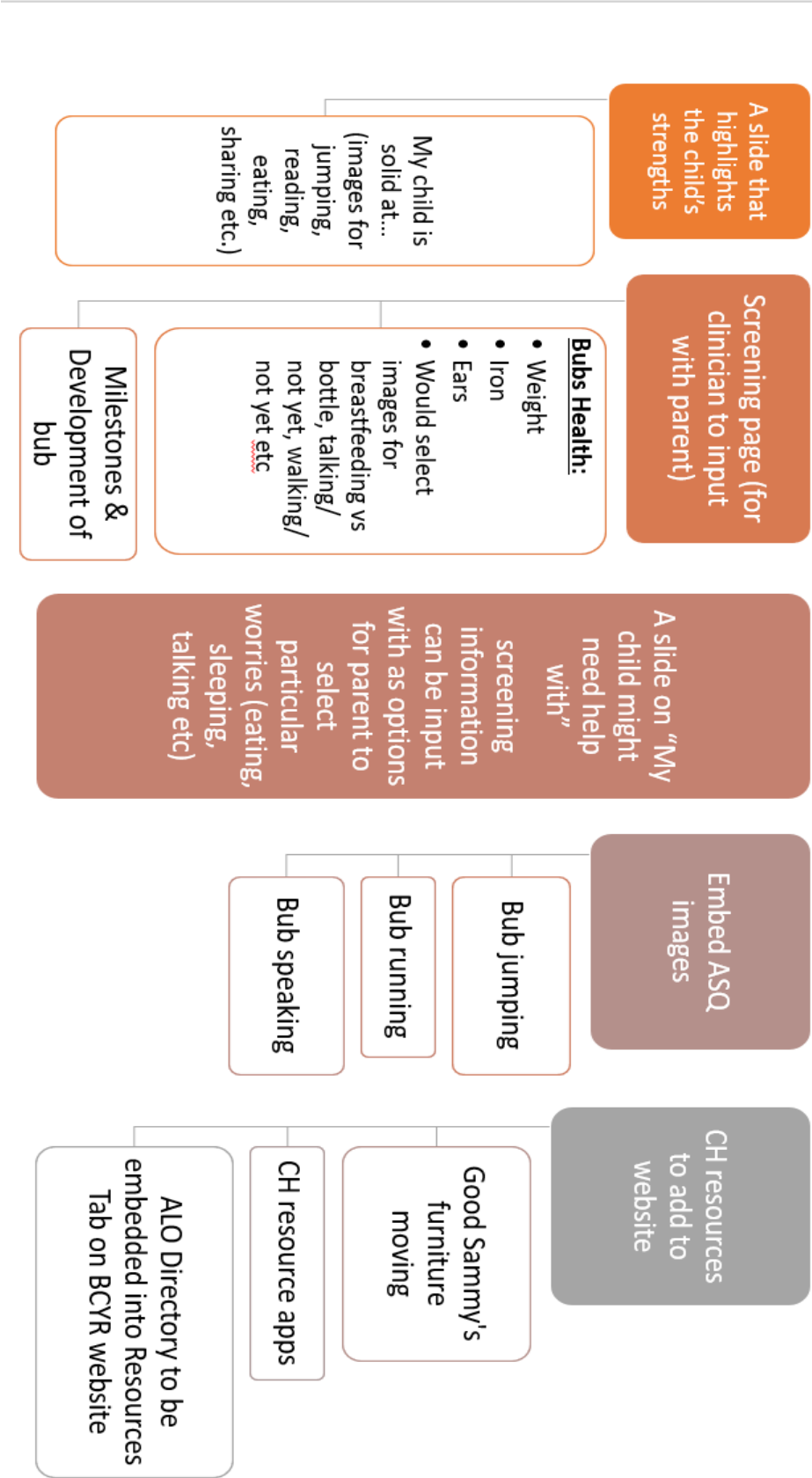
Emotionally	Physically	Both	Not at all
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Appendix 4: BCYR Rating Scale used in interviews

BCYR		Not at all	A little bit	Somewhat	A fair bit	A lot
Thinking about using BCYR:						
1	I enjoyed using BCYR					
2	Using BCYR was worthwhile / valuable / useful					
3	Since using BCYR, I feel more able to ask the difficult questions					
4	Since using BCYR I believe that the women were more able to give me honest responses					
5	I am confident developing goals and strategies with women					
6	I am likely to look at the BCYR website in my own time					
10	Since using BCYR I feel that my rapport with women has improved					
11	Was the clinician Information Tab useful for you as a BCYR facilitator					

Appendix 5: Sea of Words used in interviews





Appendix 7: Interviews questions to ask mothers of Aboriginal children

- 1) What are your worries or why you see a CHN? (compare this with responses from staff focus group about 3 referrals/ concerns from clinicians)
- 2) What was your childbirth experience/s?
- 3) Have you been to a CHN? (Tell me about that. Was it meaningful for you? Was this your first time?)
- 4) Why do/ don't you see a CHN?
- 5) What have you got out of seeing a CHN?
- 6) What did you not get seen? What would of made you feel like a strong mum?
- 7) What makes you feel valued when you visit CHN? & what make you feel less valued?
- 8) How far do you travel to see your CHN/ get vaccinations done?
- 9) How do you get to the clinic? Is there anything that makes it hard for you to get out of the house?
- 10) What do you think about the opening hours of CHCs? Tell me more about why that does/ doesn't work for you.

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