INTRODUCTION

Antenatal care (ANC) services have historically been established to care for, manage, and prevent health problems arising in the mother and her unborn child. Over the years, the definition of health has expanded to include the psychosocial health of mothers and their foetuses. An emerging body of research demonstrates that paternal involvement in the antenatal period is related to improved maternal and child health outcomes. These findings dovetail with contemporary discourse that positions fathers as involved, attached and nurturing. Models of ANC that view the

Abstract

Issue addressed: Paternal involvement during the antenatal period is recognised as a positive contributor to a child’s health and developmental outcomes. Little is known about Aboriginal Australian men’s experiences and perceptions during their partner’s antenatal period.

Methods: A qualitative yarning methodology was used to explore the experiences of ten Aboriginal Australian fathers during their partner’s antenatal period, in a remote Northern Australian town.

Results: The study found the participants valued supporting their partners through pregnancy, making positive changes to their lifestyles, and having access to information on pregnancy. Participants described experiencing multiple stressors during the antenatal period that impacted on their social and emotional wellbeing. This is despite the range of protective factors identified by them. Participants had diverse experiences with health care providers during the antenatal period.

Conclusions: This study demonstrated that these Aboriginal men valued engagement with antenatal care (ANC) services and highlighted strategies to improve Aboriginal paternal involvement with ANC services.

So what?: Enhancing ANC to be inclusive of fathers, through a local co-design process, could strengthen and support Aboriginal families to achieve improved health and wellbeing outcomes across the family system.

KEYWORDS
Aboriginal and Torres Strait Islander, maternal health, men’s health, parenting, qualitative research
family as a system and engage fathers have been slow to emerge in Australia.11

Involving fathers in ANC is viewed by health care providers as a means to paternal education about the pregnancy, birth, changes in the family with the arrival of the child, mental health during the perinatal period, and the positive impacts of paternal involvement in infant care.12,13 Early paternal involvement is highly correlated with continued paternal involvement throughout childhood,14 and positively affects children’s outcomes in the long-term as measured through reduced behavioural and psychological problems, criminality and socioeconomic disadvantage.15,16

The perinatal period is a time when fathers (like mothers) are at increased risk of depression.17–19 Factors associated with paternal perinatal depression include a personal history of depression, poor social support, receiving insufficient information about pregnancy and having negative perceptions about fatherhood.20,21 Compared with mothers, fathers are less likely to actively seek professional help when perinatal depression occurs.22 Paternal perinatal depression is an independent predictor of maternal perinatal depression and negatively impacts the early father-child relationship formation.18,23 Couples who attend perinatal care services with a family systems approach are reported to have better mental health outcomes than traditional maternal only services.24–26 In addition, attendance at ANC services by fathers could provide opportunities for their mental health concerns to be detected and treated.27

A number of barriers may exist to fathers attending ANC services. These may include full time or inflexible working conditions, maternal preferences, and/or personal, cultural or religious values governing paternal ANC involvement. In addition, services often promote and provide ANC through a maternal lens.28,29 These factors may result in men feeling marginalised and peripheral in accessing or engaging with ANC services.1,8

For Aboriginal people in Australia, their role as parents and caregivers has experienced significant and sustained disruption through colonisation, forced removal from cultural homelands, government policies of removing children and enduring policies of displacement and discrimination.30,31 While Aboriginal people have demonstrated resilience in adapting and maintaining their culture and intergenerational transmission of parenting skills, the legacy of trauma has impacted on family breakdown.29,32 It also appears likely that the western shift from the father as the “moral teacher” and “disciplinarian” to the involved and nurturing “dad” has altered expectations for Aboriginal men about their role as contemporary and cultural fathers.30 Recent qualitative research findings have demonstrated that Aboriginal men aspire to assume responsibility for fatherhood early, embody the notion of complementary caregiver and promote cultural pride in their children.29–31,33

Amongst the studies exploring contemporary expressions and experiences of Aboriginal fatherhood,29–31,32–35 Aboriginal men’s journey through the ANC period remains underexplored. This study aimed to explore some Aboriginal men’s perceptions of self and their interaction with ANC service providers during the ANC period. The findings of this study will be used to raise awareness and to assist health services to co-design family-centred ANC service innovations across the Kimberley region of north Western Australia.

2 | METHODS

2.1 | Background

This study was undertaken in the Broome shire in the Kimberley region. The Kimberley is a remote and expansive region of Western Australia, approximately 2000 km north from the state capital city of Perth. Broome is a cosmopolitan town that is both a national and international tourist destination. The Broome Shire has a total population of approximately 16 000 with 28% of residents identifying as Aboriginal.36 At a population level Aboriginal people in Broome experience poorer health outcomes and increased disadvantage associated with social determinants of health than non-Aboriginal residents.36

Within the Broome shire, Aboriginal people can receive ANC through an Aboriginal Community Controlled Health Service (ACCHS), private General Practitioner (GP), or the Western Australian Country Health Service (WACHS). If ANC has been provided by an ACCHS or private GP, the woman is referred to WACHS at 20 weeks or earlier in preparation for birthing at Broome Health Campus. The local ACCHS (or private GP) and WACHS then provide shared care for the remainder of the antenatal period.

2.2 | Study design/methodology

This study was designed and undertaken by a team of Aboriginal and non-Aboriginal researchers as part of a larger research project addressing ways to improve antenatal services across the Kimberley (NHMRC project grant 1085832). Aboriginal stakeholders involved in the larger project raised the question of involving fathers in the study. Aboriginal researcher ZC then had a series of structured conversations with several older Aboriginal men about fatherhood and our intention to develop a small qualitative study exploring the intersection between ANC and Aboriginal men. These men recognised the changing landscape of fatherhood for Aboriginal men in the Kimberley and were supportive of the study.

The study was framed by the qualitative methodology of yarning, which is an established culturally secure approach to exploring a select research topic with Aboriginal people.33,37–39 This methodology promotes sharing of stories between the researcher and the participant, respecting Aboriginal approaches to knowledge exchange.38 Yarning utilises open ended questions, and respects a participant’s silences and nonlinear recounting of events.37,40 Yarning is also a way to help ensure Aboriginal people are engaged, informed and active participants in the research.33,38,39

Inclusion criteria for participants included: identifying as Aboriginal, having a partner who was more than six months pregnant or a child less than 18 months old, and having spent the majority of the antenatal period in the Broome shire. We used a purposive approach to sampling and note that the successful recruitment of participants relied on the knowledge and connections of the Aboriginal researchers (ZC and ES) to the Broome Aboriginal community.
A total of 10 yarns were conducted during May-October 2019. The yarns were semi structured with the interviewers introducing the following enquiries during the yarn: the role of the father in the antenatal period; attendance and experience with the health service; stress, challenges and social and emotional wellbeing (SEWB) during the antenatal period; sources of information and support during the antenatal period. On average the yarns were 45-60 minutes in duration. Researcher ZC worked with RCSWA-UWA student CM to undertake the majority of the yarns. Where kinship relations permitted, ES also conducted the yarns. Participants were given the choice of where they would like their research yarn conducted, the majority chose their place of work (six) with the remainder of the men choosing their home (four). All participants were given a participant information form and provided informed consent prior to commencing the research yarn, this included consent to audio record the yarns. As part of the consenting process the researcher talked to the participants about the sensitive nature of the research questions and that if at any stage the man felt distressed or upset the yarn would be stopped. The participant and the researcher talked about relevant support options in the event of the man becoming upset, noting that formal support may not be desired.

All audio recordings were transcribed verbatim by a professional transcription service. As the participants are members of our community, many with deep connections to the research team, we adopted an expanded definition of consent. This involved providing participants with a copy of their written transcript within two weeks of the research yarn taking place and informing participants that changes could be made unreservedly and without question. The participants were given two weeks to make any changes to their transcriptions before the data was coded and analysed. No participants chose to alter their transcripts.

The team used NVivo 12 to assist in coding the data categorically. Once coding was complete, the team gathered over a series of workshops to review the codes and look for patterns and themes in the data. The inclusion of the whole team in the coding and thematic analysis of the data was adopted as a strategy to ensure any potential bias in interviewer-interviewee relationships was minimised. After the data were analysed participants were given the opportunity to view and comment on the results section of the manuscript in draft form prior to finalisation and submission for publication. This process was managed by ZC and ES who visited, phoned or emailed participants with the draft manuscript and a plain language summary of the results. Participants did not request changes to the draft manuscript. Several participants provided unprompted positive feedback about this process being empowering and reflective.

The study was supported by the Kimberley Aboriginal Health Planning Forum Research Subcommittee and approved by the Western Australian Aboriginal Health Ethics Committee (Number 631, amendment 28/02/2018). The study was conducted in accordance with the National Health and Medical Research Council’s “Ethical conduct in research with Aboriginal and Torres Strait Islander Peoples and communities: Guidelines for researchers and stakeholders 2018”.

### Results

#### 3.1 Characteristics of the study sample

The 10 participants were all Aboriginal men residing in the township of Broome, two men were aged in their twenties and the other eight were in their thirties. Nine of the men reported being in a relationship with the mother of the baby during the antenatal period. Eight men had babies aged under 18 months or under and two had partners in their third trimester. Four men were speaking as first time fathers or fathers to be. The other six men had between one and three other children.

All men had completed Year 10 of high school, with seven of the 10 men having completed Year 12. Half of the men completed high school locally in the Broome shire and half attended private schools in the southern part of the state. All of the men had completed additional training, mostly a skills based certificate III or IV in areas such as Information Technology, Construction, Aboriginal Health Work; one participant had a diploma qualification. Eight of the 10 men identified being in full time employment for most or all of the antenatal period reflected on in the research yarn.

#### 3.2 Perceptions of fatherhood

Men talked about the role of a father starting when their partner became pregnant. This was closely related with men feeling an increased sense of responsibility to “be there” for their partner and provide emotional, practical, and financial support. The men consistently identified “excitement” and “pride” at the prospect or reality of fatherhood.

When I got the news, well, that’s the biggest role that I had to do, or got to do and want to do. To be the best father. And best partner as well, for the other half. Straight away I was like what have I got to do for this kid to be comfortable, to be in the right place, and also financially stable. All the questions just running around my head and thinking that how it’s going to work. We were so used to ten years in a relationship together and to have another one is going to be a challenge. Challenge or maybe not a challenge. Everything was unknown but definitely looking after the baby was straight away top priority from when I got the news. I would do whatever it takes.

( Participant 10).

For several men, providing the type and quality of support they wanted for their partner required modifications to their own behaviours, most commonly changes in socialising and alcohol intake. Men discussed the changes in their life as achievable and an important part of their role during the antenatal period.
So it was more or less cutting down on drinking. Maybe not, I would say quitting, but cutting down, less going out and less having fun [laughs], and spending more time with the missus and just helping her through the pregnancy

(Participant 7).

I guess just sort of just having to make sacrifices, that kind of thing. Things like, I needed to be around a lot more than usual. Be here to help her out when she wasn’t feeling [well], when she’s got aches and pains and stuff. Especially towards the final stages of the pregnancy. But that’s all part of the job

(Participant 9).

More than half of the men spoke about the transition to fatherhood as a time for reflecting on their absent fathers and their desire to establish new family dynamics:

I come from a single mum that’s probably another thing why I’m involved and so loving with my kids. I never had a dad who was part of my upbringing, so I try to do the things that I feel resentment or hurt from. I try and take all of those life experiences and make them positive, so it breaks the cycle

(Participant 4).

For one man who had older children from a previous relationship this pregnancy marked a chance to be a more involved father and to actively and positively contribute to his new family.

I've been in previous relationships and I’ve got two older kids. My marriage with their mum didn’t work out, so I didn’t really have a bond, that father with their kids bonding was missed. So this time around, I tried to do things differently, be more involved as a dad

(Participant 5).

Overwhelmingly the men discussed their partner’s pregnancy as intentional, borne from the desire to start “their” family. Many reflected on long relationships with their partner and the joy of children, including those within their extended family network.

3.3 | The ANC journey

All men identified attending at least one ANC appointment with their partner most commonly this was the ultrasound where the sex of the baby was identified. Most men stated that they attended appointments when they could, and cited work as the main reason they were not able to attend more appointments.

I think it was once every two months or something like that [that I attended appointments]. I got to see all the ultrasounds and see how the heart is going and things like that. My job requires me to go away. So, sometimes I’m away here and there. If I am in town I’d definitely try and make it, but if not, my wife understands

(Participant 8).

Attending ANC appointments was described primarily as a demonstration of support for their partner. Men also spoke about attendance as a way to receive education and advice on pregnancy and birth, and a means to feel involved and experience the process first hand.

So I go because I want to make sure that she's healthy and my baby's healthy and that everything's going to be okay

(Participant 5).

There was no pressure or that sort of thing. But yeah, she appreciated it when I did come. And probably preferred that I tried to make it, but she understood that if I couldn’t

(Participant 9).

One participant who separated from his partner during the pregnancy reflected on still attending appointments with her for a while then slowly being “squeezed out.” He talked about experiencing sadness with the decisions made by his ex-partner to exclude him from the process of pregnancy and birth.

The other nine men, who were with their partners during the pregnancy, had diverse experiences of attending ANC appointments. Three men suggested there were elements in interactions with the health care providers where they did not feel “supported.” They described feeling like they were “tagging along” or “perched.” These men stated the focus was on their partner and baby, and little effort was made to acknowledge them or include them in the appointments. Another two men stated they felt supported by the health care providers to attend appointments and felt they were treated appropriately. A further four men felt very positive about interactions with the health care providers. These men spoke positively about the health care provider’s communication style and being included in the appointments. Home visits were also highly valued by these men.

The staff were awesome, and they explained everything. The men don’t really know sometimes. But they explained everything pretty good. They were actually glad to see that I was there as well. Maybe they weren’t used to seeing the father there

(Participant 1).
It helped actually when the midwife was coming, coming to our home for a coffee too, the environment, it’s pretty relaxing. It’s a lot more comfortable environment I guess to ask the questions and be included

(Participant 10).

Men who expressed satisfaction with the ANC providers spoke about receiving sufficient information about what is needed for a healthy pregnancy. These men talked about information such as pamphlets and booklets being given to them, conversations with health care providers, “googling,” and the “common sense” of much of the information. Three men specifically spoke about attending antenatal classes with their partner and the benefits of doing so.

I attended the breastfeeding [class] and then we did a tour of the maternity ward. The breastfeeding class was pretty interesting to me, to see how the breastfeeding works and sort of, for us, because it’s our first kid, the right way to do it. The dos and don’ts and understanding when baby’s feeding properly, or not. I thought I sort of knew a bit from my sisters and seeing other people, but yeah, it was all pretty new, and then the maternity tour was good, just to see where we’d be when we go into labour

(Participant 6).

All men reflected on the role of family in sharing knowledge and first hand experiences.

We would ask our parents, and there’s all this researching, googling and doing all those things to I guess make sure she’s doing the right thing and not anything that’s going to harm the baby. And family, seeing how kids are getting grown up, we’ve got big families, so it’s also good to see that

(Participant 10).

There’s a lot of family talks. We’ve got a lot of support from family, giving us ideas of what we should be doing and what we should be staying away from. But also, the missus went to a few groups and classes, stuff like that where they give out information on what they should be expecting and how they should handle stuff and things like that

(Participant 8).

One man spoke about a pregnancy app that his partner downloaded and how this was a very useful way for him to understand the reality of “growing a baby.”

So we sit down with the app every now and then—once a week and we go through the stage she’s going through. So if she’s at 22 weeks, we’ve got an app that says 22 weeks, this is what’s being developed. You know, this is what the baby’s going through. This is the milestones it’s having in there, like organs and stuff like that. I think that seeing that really triggered something in me about how babies are made. It is very special

(Participant 4).

The three men who did not feel supported in their interactions with health care providers spoke of receiving information about a healthy pregnancy primarily from their partner and broader family. They reflected on the need for health services to better engage Aboriginal fathers.

Involving both parents equally is important. The mother plays a big part in the pregnancy, but it would be good if the father would be involved in events as well. Coming to the clinic and finding out that information, we are trying to be involved

(Participant 5).

It’s all on mum and bub [at the health services] but what about you as a dad? I think that that should actually change, it would have a big impact because the father is supposed to be a supportive structure and he is there, they could make space for us

(Participant 3).

3.4 | Stress and psychosocial wellbeing

All participants experienced multiple stressors during their partner’s pregnancy. Grief and loss relating to the death of close family members was the most common stressor. Other stressors described by the men included multiple changes in their accommodation, financial hardship, being physically away from their partner due to remote work and experiencing insecure work.

Definitely experienced the big life events, funerals, people passing in the family, even family conflict. Second trimester I think it was really stressful for her. There was some financial stuff too. I guess, I was the only person that she could lean on closely. It was a lot of stress for me too at the time, emotional stress

(Participant 9).

We fell pregnant and we were staying at my partner’s dad’s house which was an overcrowded house. That was really stressful... people coming in and out of that
house in the early hours, drinking, smoking. All of that sort of stuff, we needed to get out of there as soon as we could. We stayed at other people's houses as well, just moved around until we got our own place. Then came more financial stress.

(Participant 2).

Moving to [name of town]. Trying to find accommodation, trying to find work to support us, yeah that would probably be the main [stressful] ones. They probably affected my lifestyle, probably got a bit unhealthy during that period. You know, eating, exercise, alcohol intake.

(Participant 6).

Other personal stressors were alluded to by several men but not spoken about in depth.

I got to take a bit of ownership and responsibility that I wasn't in a very stable sort of lifestyle. So I had to change a lot of things. Yeah, I caused a bit of stress. That was my doing and I went to go and fix it, which I have now.

(Participant 4).

There were quite a few stresses on us, but they were all my fault.

(Participant 7).

For the man whose relationship that broke down in the antenatal period, he described this event as "very stressful" and "hard." This man spoke about the medical risks associated with his ex-partner's pregnancy and his own struggles with mental health contributing to his sense of being overwhelmed.

Three of the men remembered health care providers making general enquiries around mood and wellbeing but stated the exchange was not in-depth. Men had mixed views about the usefulness of health care providers talking to men about their psychosocial wellbeing:

Participant 6: Oh, actually the recent one did ask how I was coping...

The question was, sort of, how are you feeling about having a baby, and I said, as good as I can be. She didn't elaborate.

Interviewer: And that was the end of her conversation?

Participant 6: Yeah.

Interviewer: Do you reckon it would have been useful for her to, sort of, look into it a bit more about how you were feeling?

Participant 6: Nah.

Other men felt that clinics asking about how a father is feeling and questions around his mental health and wellbeing could be beneficial.

These men stressed it should not be at the expense of their partner's ANC.

Even have, like, a little side process that they do for dads would be a good idea.

(Participant 2).

Probably a separate [appointment] and maybe have a pamphlet or maybe a follow up call from someone to say, look if you, you know, want anything, maybe come in for a yarn or something like that. I don't know, that could be a good thing and do the test what they do, whatever that test is, the check for that depression or whatever.

(Participant 1).

I guess, you know, if they [healthcare providers] are able to recognise that there is stress, going on in your life. If they observed that things were a bit off, it would definitely be helpful for us. Or even just to see how things are going. Where I might get assistance from, that sort of thing.

(Participant 9).

Aside from one participant, who was currently linked in with a counselling service, men were not receiving any formal support regarding their psychosocial wellbeing. Five of the men mentioned talking to a family member and/or their partner about stressors or their general sense of wellbeing.

In the past, I've kept things in and it makes you feel down, and I've just learned over the years to always talk to somebody. Whether it's the wife, or dad, just friends. Yeah, that always helps my lyian [spirit/inner being] anyway. Just talking.

(Participant 8).

Eight of the men identified feeling "connected" and generally supported; they spoke about receiving support from a wide range of family members including their in-laws. Support was described as practical ("putting a roof over our head"), emotional, and educational through the sharing of experiences. Two men stated they had minimal support networks but identified their mum as providing what support they did have. Men identified some self-care practices, which they described as caring for their "lyian." Self-care practices included spending time with family and friends, looking after themselves by staying active and eating well, not drinking too much, and enjoying pastimes that connected them to country (eg hunting and fishing).

Every time when I go fishing with the boys, have a beer, have a yarn, just talk shit, that's good. Mentally I needed that for sure, fishing with the boys and I use that as a stress thing and just doing it and just talking about what...
I’m going through and even listening to them as well. That was a big thing, massive thing actually  
(Participant 10).

3.5 | Reflections and recommendations for involving men in ANC

As noted in the previous sections, men described a need for ANC services to engage with Aboriginal men and the benefit of ANC appointments that were offered as home visits. Men described the need for their own health care appointments within the ANC period to ensure they were healthy and ready for parenting. There was a recognition from many of the men who participated in this research that other Aboriginal men might face more barriers in receiving ANC information than they had. These barriers were associated with lower levels of education and English language proficiency, homelessness, alcoholism, unplanned pregnancies, unstable or violent relationships and more geographic isolation. Having dedicated Aboriginal male health workers working alongside the maternal and child health teams was frequently raised as a future service improvement that could help involve men. Programs and resources specifically for Aboriginal fathers to support them in learning about having a healthy baby were seen as beneficial for all Aboriginal men. This would include how to best support partners; the impact of stress, diet, alcohol and smoking on the foetus; and support for changing behaviours in preparation for fatherhood.

I think Aboriginal men should get more involved with their partner's [antenatal] care, taking them to their appointments instead of just staying home. I mean, if there is work involved it is, I guess, understandable, but I reckon more Aboriginal men should be able to be more involved with their partners during pregnancy. Clinics can help too, bringing them in when they are finding out they are pregnant, just going through it with them every step of the way and educating them on that one to one level. I reckon that's where the health checks come in, so they can start the conversation before the partner is pregnant. Have the focus on education. And then when they are pregnant making sure that the parents do understand what the doctors and the midwives are actually telling them. That could be done by local [Aboriginal] health workers in the clinic who understand what the tests are for, and they can explain in a way that countrymen [other Aboriginal people] can understand  
(Participant 5).

Clinics could maybe train some local boys up that have been seen around the town for a long time to help out with education. That way that it just brings that shame factor out of it and they feel a bit more confident to go along to sessions like that and listen to people that actually live here and understand. And they might have respect for someone like that. I reckon from coming from a local bloke down to a young local man, I reckon that’s the way to go  
(Participant 9).

Each man was asked what advice he had for other Aboriginal fathers. Key themes in the responses included: being involved, supporting partners, looking after yourself mentally and physically, changing behaviours around drinking and going out, and embracing the opportunity to learn about pregnancy and parenting from clinic staff and family.

Just to be there for your partner every step of the way during pregnancy and after pregnancy. Changing your lifestyle as well, probably one of the key [things] too, you know being healthy, cutting down on the drinking and the parties. Pretty much just being there  
(Participant 5).

You look after your partner, really, and make sure she’s under as little stress as possible, because if she’s stressed, obviously, the baby is going to be stressed inside. Just those little things and if your partner’s got to completely quit something that she did in the past, or you both did in the past, you doing that as well is going to make her life a lot easier  
(Participant 5).

Make sure your lyian is okay, ‘cause you’re no good to anyone if you’re not fine. Making sure you’re good, in the right head space and mindset to support your family, and don’t be afraid to reach out for help. There’s always people to talk to, people to assist you, you’ve just got to make the phone call or go see someone about it  
(Participant 10).

4 | DISCUSSION

To the best of our knowledge this is the first study that has been published addressing how Australian Aboriginal men engage with ANC services and their broader aspirations around ANC services. Consistent with other contemporary Australian research this study shows the high value Aboriginal men place on becoming a father and how fatherhood is associated with being an attached and involved caregiver. Findings from our study show fatherhood was considered to commence when men found out their partners were pregnant. For these men supporting their partners through the pregnancy, making positive changes to their lifestyles, and having access to information on pregnancy were identified as meaningful and
demonstrative steps in their transition to fatherhood. Furthermore, all participants valued engagement with ANC services.

The majority of the men involved in this study had few difficulties accessing ANC services and were satisfied with services provided. The socio demographic status of these men included higher levels of high school completion and full time employment status may have contributed to accessing and engaging with ANC services. It is however noted that other men in the sample felt marginalised in their interactions with ANC services. All participants, even the men who did have a good experience with ANC services, identified areas for ANC enhancement to better engage and support men. Many of these suggestions related to improving access and engagement between ANC services and Kimberley Aboriginal men who had lower English language proficiency, lower education levels and lived more remotely. Other suggestions however were focused on better supporting fathers who were currently attending ANC appointments alongside their partner. Suggestions for enhancing Kimberley ANC services involved gender specific education and resources, embedding male Aboriginal Health Worker’s (AHW) into ANC teams and targeted clinical conversations around SEWB and mental health.

Consistent with high rates of adverse life experiences in the general Aboriginal Australian population, this sample of men described experiencing multiple stressors during the antenatal period that impacted on their SEWB. This is despite the relative social advantage of many of these men, who demonstrated the protective factors of stable relationships; full time employment status; high school completion status; and family connectedness. Multiple, chronic, intergenerational stressors are recognised contributors to mood disorders, which may be amplified in the perinatal period. The potential role of ANC services in exploring men’s stressors and related SEWB and mental health was largely missing from men’s interactions with ANC services. This is unsurprising as Australia does not have clinical guidelines governing paternal perinatal mental health screening and local Kimberley guidelines promote a maternal perinatal mental health screening programme only.

As identified by our study participants, supporting Aboriginal fathers to be engaged in ANC should not be at the expense of a woman and baby’s care or safety. A recent systemic review has cautioned that involving men in ANC may reduce female autonomy and empowerment, particularly where there are power differentials or violence within the family structure. Supporting male involvement can, however, be the first step in providing families with the support and referrals they need to individually and collectively address issues that affect their wellbeing and thus promote the conditions for optimal child health outcomes. This approach is consistent with the Baby One Program (BOP), which was developed and implemented by Apunipima Cape York Health Council. The BOP is an AHW-led model of care that provides male and female AHWs, home visiting, and targeted education and resources on pregnancy, SEWB, and parenting. BOP was the only example of a family systems model of care we could find within Australian ANC settings but is yet to publish an impact and outcomes evaluation of the program. For the Kimberley, a family systems model of ANC would need to be designed by Aboriginal women, men and health care providers from across the region to ensure the model was culturally safe and acceptable for both men and women. Further engagement with Apunipima Cape York Health Council to explore potential gendered impacts in their transition to a family systems approach would also be important.

The composition of the research team and the use of a culturally secure methodology contributes to the depth of the findings. Both primary interviewers were local Aboriginal researchers who live in Broome and who were connected to the participants through kinship or friendship ties. This allowed for a rich candour of participant response within the yarns as rapport was already established and cultural safety was embedded. The use of local research staff may have created a selection bias in which men who were more comfortable or connected to the interviewers, and who were (or had been) engaged in ANC services chose to participate in the research. We note that the participants were all from the Broome Shire and all had engaged with ANC services. While we recognise this sample frame of participants limits the generalisability of the study, we believe that the relative homogeneity of the sample allowed us to gain an in depth perspective of Aboriginal men who already value participation in ANC. Their lived experience has provided insight into enhancing ANC engagement for fathers who are involved or attempting to become involved, and they provided an Aboriginal lens on strategies that may help to engage other Aboriginal fathers who are not yet connecting with ANC services. We will continue to work with Kimberley health services and Aboriginal men across the Kimberley to look for opportunities to fund the co-design and implementation of a family systems approach to ANC.

5 | CONCLUSION

This study demonstrated that these Aboriginal men value engagement with ANC services and highlighted strategies to improve Aboriginal paternal involvement with these services. Enhancing Aboriginal men’s engagement with ANC services requires the Aboriginal-led development and implementation of a family systems approach to ANC delivery. A family systems model of care, while supporting the inclusion of Aboriginal fathers, must respect the needs and safety of Aboriginal mothers and children. Enhancing Kimberley ANC service delivery to include paternal engagement has the potential to optimise child and family health outcomes, including outcomes associated with social and emotional wellbeing.

ACKNOWLEDGEMENTS

We thank the men who chose to participate in this study, we value your honesty and commitment to the research. We hope this research lays a foundational stone in which to improve men’s involvement in antenatal care across the Kimberley. We also thank Dr
Kimberley updated Seear, for her counsel and editing skills throughout the drafting process.

CONFLICT OF INTEREST
The authors declare that they have no competing interests.

ETHICS APPROVAL
The study was supported by the Kimberley Aboriginal Health Planning Forum Research Subcommittee and approved by the Western Australian Aboriginal Health Ethics Committee (Number 631, amendment 28/02/2018).

ORCID
Emma Carlin https://orcid.org/0000-0002-1003-1981

REFERENCES
1. Plantin L, Olykoya A, Ny P. Positive health outcomes of fathers’ involvement in pregnancy and childbirth paternal support: a scope study literature review. Fathering. 2011;9:87–102.
2. Fraser MR. Bringing it all together: effective maternal and child health practice as a means to improve public health. Maternal child health. 2013;17(5):767–75.
3. Howard LM, Piot P, Stein A. No health without perinatal mental health. Lancet. 2014;384:1723–4.
4. Tunçalp Ö, Pena-Rosas JP, Lawrie T, Bucagu M, Oladapo OT, Portela A, et al. WHO recommendations on antenatal care for a positive pregnancy experience-going beyond survival. BJOG. 2017;124(6):860–2.
5. Shorey S, Ang L. Experiences, needs, and perceptions of paternal involvement and support and risk of preterm birth: findings from the Boston birth cohort. J Psychosom Obstet Gynaecol. 2019;40(1):48–56.
6. Xue WL, Shorey S, Wang W, He H-G. Fathers’ involvement during pregnancy and childbirth: an integrative literature review. Midwifery. 2018;62:135–45.
7. Cheng ER, Rifas-Shiman SL, Perkins ME, Rich-Edwards JW, Gillman MW, Wright R, et al. The influence of antenatal partner support on pregnancy outcomes. J Womens Health. 2016;25(7):672–9.
8. Shorey S, Ang L. Experiences, needs, and perceptions of paternal involvement during the first year after their infants’ birth: a meta-synthesis. PLoS One. 2019;14(1):e0210388.
9. Condon J, Corkindale C, Boyce P, Gamble E. A longitudinal study of father-to-infant attachment: antecedents and correlates. J Reprod Infant Psychol. 2013;31(1):15–30.
10. Baxter J, Smart D. Fathering in Australia among couple families with young children. Canberra. Australia: Department of Families H, Community Services, DHFCS; 2011.
11. Campbell S, McCalman J, Redman-Maclaren M, Canuto K, Vine K, Sewter J, et al. Implementing the Baby One Program: a qualitative evaluation of family-centred child health promotion in remote Australian Aboriginal communities. BMC Pregnancy Childbirth. 2018;18(1):73.
12. Boskabadi H. The comparative study of the impact of antenatal training care infants to fathers and couple on the fathers’ participation after birth. Int J Pediatr. 2013;11(1):31–8.
13. Shorey S, Ang L, Tam W. Informational interventions on paternal outcomes during the perinatal period: a systematic review. Women Birth. 2019;32(2):145–58.
14. Flouri E, Buchanan A. What predicts fathers’ involvement with their children? A prospective study of intact families. Br J Dev Psychol. 2003;21(1):81–97.
15. Sarkadi A, Kristiansson R, Oberklaied F, Bremborg S. Fathers’ involvement and children’s developmental outcomes: a systematic review of longitudinal studies. Acta Paediatr. 2008;97(2):153–8.
16. Cui C, Li M, Yang Y, Liu C, Cao P, Wang L. The effects of paternal perinatal depression on socioemotional and behavioral development of children: a meta-analysis of prospective studies. Psychiatry Res. 2020;284:112775.
17. Giallo R, D’Esposito F, Christensen D, Mensah F, Cooklin A, Wade C, et al. Father mental health during the early parenting period: results of an Australian population based longitudinal study. Soc Psychiatry Psychiatr Epidemiol. 2012;47(12):1907–16.
18. Paulson JF, Bazemore SD. Prenatal and postpartum depression in fathers and its association with maternal depression: a meta-analysis. JAMA. 2010;303(19):1961–9.
19. Bruno A, Celebre L, Mento C, Rizzo A, Silvestri MC, De Stefano R, et al. When fathers begin to falter: a comprehensive review on paternal perinatal depression. Int J Environ Res Public Health. 2020;17(4):1139.
20. Boyce P, Condon J, Barton J, Corkindale C. First-time fathers’ study: psychological distress in expectant fathers during pregnancy. Aust NZ J Psychiatry. 2007;41(9):718–25.
21. Goldstein Z, Rosen B, Howlett A, Anderson M, Herman D. Interventions for paternal perinatal depression: a systematic review. J Affect Disord. 2019;505–10.
22. Bradley R, Slade P. A review of mental health problems in fathers following the birth of a child. J Reprod Infant Psychol. 2011;29(1):19–42.
23. Davis RN, Davis MM, Freed GL, Clark SJ. Fathers’ depression related to positive and negative parenting behaviors with 1-year-old children. Pediatrics. 2011;127(4):612–18.
24. Burgess A. Fathers’ roles in perinatal mental health: causes, interactions and effects. New Digest. 2011;53:24–9.
25. Midmer D, Wilson L, Cummings S. A randomized, controlled trial of the influence of prenatal parenting education on postpartum anxiety and marital adjustment. Fam Med. 1995;27(3):200–5.
26. Fisher JR, Wynter KH, Rowe HJ. Innovative psycho-educational program to prevent common postpartum mental disorders in primiparous women: a before and after controlled study. BMC Public Health. 2010;10(1):432.
27. Berg AR, Ahmed AH. Paternal perinatal depression: making a case for routine screening. Nurse Pract. 2016;41(10):1–5.
28. May C, Fletcher R. Preparing fathers for the transition to parent-hood: recommendations for the content of antenatal education. Midwifery. 2013;29(5):474–8.
29. Reilly L, Rees S. Fatherhood in Australian Aboriginal and Torres Strait islander communities: an examination of barriers and opportunities to strengthen the male parenting role. Am J Men Health. 2018;12(2):420–30.
30. Faulkner D, Hammond C, Nisbet L, Fletcher R. How do young original fathers in Australia ‘stay on track’?–perspectives on the support networks of Aboriginal fathers. J Fam Studies. 2018;1:1–14.
31. Maslen P. Aboriginal Fathers/Fathers’ Roles: Are They Recognised in Australia’s Contemporary Society? Sydney, Australia: University of Sydney; 2005. [PhD thesis].
32. Dudgeon P. Close the gap: psychology. Med J Aust. 2009;190(10):546.
33. Canuto K, Towers K, Riessen J, Perry J, Bond S, Chee DA, et al. “Anybody can make kids; it takes a real man to look after your kids”: Aboriginal men’s discourse on parenting. PLoS One. 2019;14(11):e0225395.
34. McCoy BF. Kanyirningpa: health, masculinity and wellbeing of desert Aboriginal men. Melbourne, Australia: University of Melbourne; 2004. [PhD thesis].
35. Canuto K, Harfield SG, Canuto KJ, Brown A. Aboriginal and Torres Strait Islander men and parenting: a scoping review. Aust J Primary Health. 2019;26(1):1–9.
36. Australian Bureau of Statistics. Census Data Broome Community Profile. Canberra, Australia: ABS; 2016.
37. Bessarab D, Ng’andu B. Yarning about yarning as a legitimate method in Indigenous research. Int J Crit Indig Stud. 2010;3(1):13.
38. Gelia LK, Hayes B, Usher K. Yarning/Aboriginal storytelling: towards an understanding of an Indigenous perspective and its implications for research practice. Contemp Nurse. 2013;46(1):13–7.
39. Carlin E, Atkinson D, Marley JV. ‘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. Int J Environ Res Public Health. 2019;16(21):4253.
40. Walker M, Fredericks B, Mills K, Anderson D. “Yarning” as a method for community-based health research with indigenous women: the indigenous women’s wellness research program. Health Care Women Int. 2014;35(10):1216–26.
41. National Health and Medical Research Council. Values and ethics - guidelines for ethical conduct in Aboriginal and Torres Strait Islander Health Research. Canberra, Australia: Commonwealth of Australia; 2018.
42. Australian Institute of Health and Welfare. The health and welfare of Australia’s Aboriginal and Torres Strait Islander peoples. Canberra, Australia: AIHW; 2019.
43. Zubrick SR, Dudgeon P, Gee G, Glaskin B, Kelly K, Paradies Y, et al. Social determinants of Aboriginal and Torres Strait Islander social and emotional wellbeing. In: Dudgeon P, Milroy H, Walker R, editors. Working together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice. Canberra, Australia: Australian Government Department of the Prime Minister and Cabinet; 2004.
44. Babenko O, Kovalchuk I, Metz GAS. Stress-induced perinatal and transgenerational epigenetic programming of brain development and mental health. Neurosci Biobehav Rev. 2015;48:70–91.
45. Kammerer M, Taylor A, Glover V. The HPA axis and perinatal depression: a hypothesis. Arch Womens Ment Health. 2006;9(4):187–96.
46. Austin MP, Highet N. Mental health care in the perinatal period: Australian Clinical Practice Guideline Melbourne: Centre of Perinatal Excellence; 2017. https://www.cope.org.au/health-professionals/health-professionals-3/review-of-new-perinatal-mental-health-guidelines/. Accessed July 3, 2019.
47. Kimberley Aboriginal Health Planning Forum. Perinatal Depression and Anxiety Protocol. https://kahpf.org.au/s/Perinatal-Depression-and-Anxiety.pdf; 2019. Accessed March 1, 2019.
48. Weetra D, Glover K, Buckskin M, Kit JA, Leane C, Mitchell A, et al. Stressful events, social health issues and psychological distress in Aboriginal women having a baby in South Australia: implications for antenatal care. BMC Pregnancy Childbirth. 2016;16(1):1–12.
49. Orr C, Preen D, Fisher C, Sims S, O’Donnell M. Trends in hospital admissions for intimate partner violence in Australian mothers with children born from 1990 to 2009. J Interpersonal Violence. 2019;1:1–20.
50. Tokhi M, Comrie-Thomson L, Davis J, Portela A, Chersich M, Luchters S. Involving men to improve maternal and newborn health: a systematic review of the effectiveness of interventions. PLoS One. 2018;13(1):e0191620.
51. McEwen E, Boulton T, Smith R. Can the gap in Aboriginal outcomes be explained by DOHaD. J Dev Orig Health Dis. 2019;10(1):5–16.