NEW MOTHERS AND APPS DURING COVID-19

"All the support fell out": South Asian-Australian migrant perspectives

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A note about language in this report: The South Asian "women" in our study identified as cisgender. However, we have used a gender-additive approach to language to be respectful and inclusive of trans, genderqueer and intersex people by using gender-neutral language alongside the language of womanhood. For example, both 'maternal' and 'parental', 'breast-feeding' and 'chest-feeding', and so on (Green & Riddington, 2020).

CONTENTS

EXECUTIVE SUMMARY

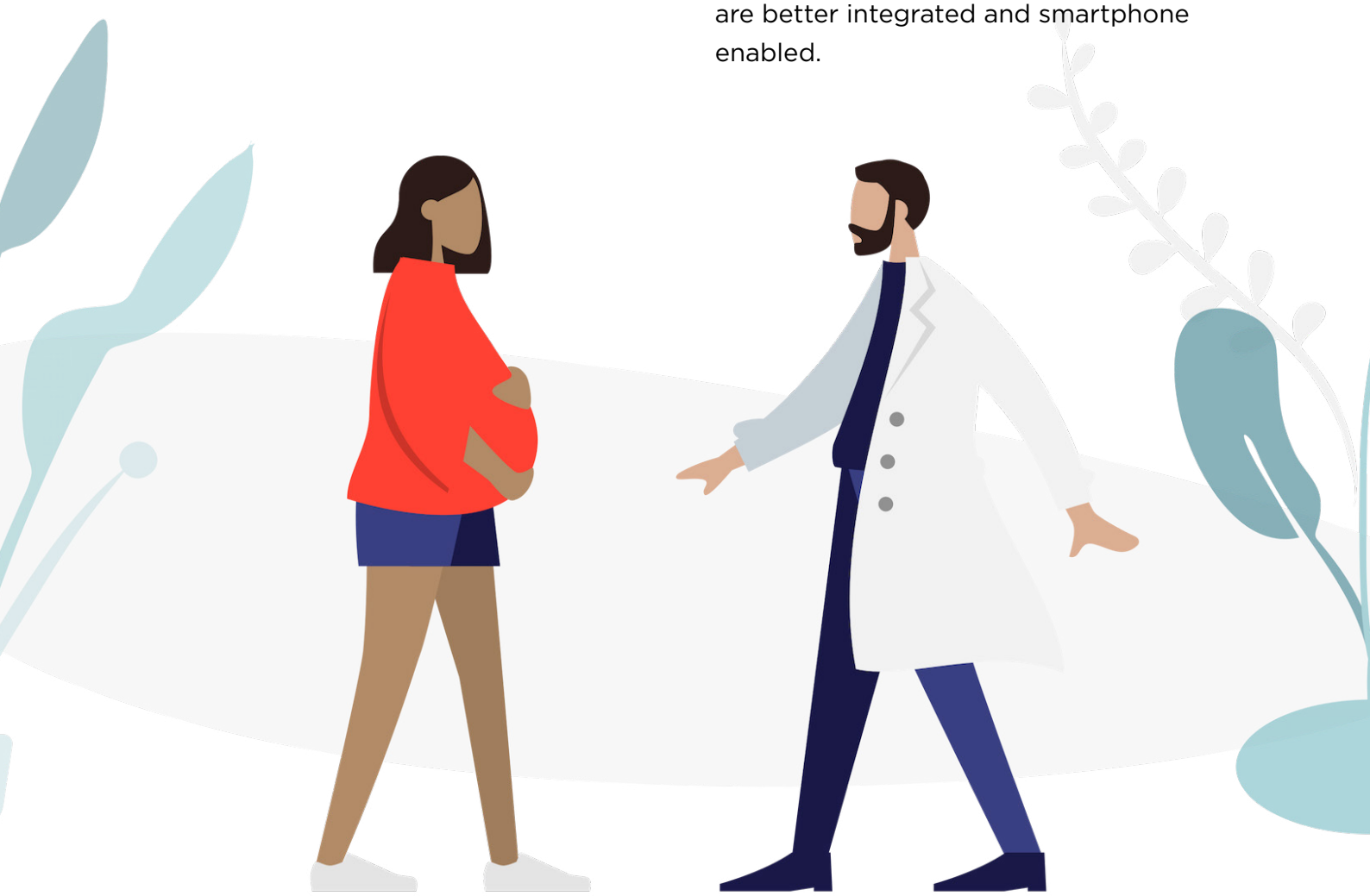
New Mothers and Apps during COVID-19 is a situated and in-depth look at the experiences of six cisgender South Asian-Australian women/people who gave birth during the COVID-19 pandemic. Prior to the pandemic negatively racialised women experienced barriers to healthcare and a lack of social support, which were further exacerbated during the COVID-19 pandemic. International border closures in Australia combined with local mitigation strategies inhibited social and cultural support from families, impacting many migrant mothers/birthing people who gave birth for the first time in Australia. Many hospitals in New South Wales and Victoria instituted restrictions to birthing services as a way of reducing exposure to the coronavirus during the pandemic. These restrictions varied, but included not allowing partner attendance for antenatal appointments, reducing support people to one person that could be present during the labor and birth, and sometimes not permitting partners on postnatal wards.

South Asian women were recruited via social media, and qualitative semi-structured interviews were conducted between May and October 2021 via video, following ethical approval from the RMIT University Ethics Committee. Findings from our in-depth interviews indicate that perinatal experiences were adversely impacted by:

- **Limited face-to-face support from healthcare providers;**
- **Limited access to partner support during appointments and in childbirth;**
- **Isolation and mental health impacts of not having access to family networks, particularly to those who could provide culturally specific perinatal knowledge and postpartum support;**
- **Increased reliance on an ecosystem of online support including apps, social media groups and credible websites, which had mixed results in terms of being culturally appropriate.**

Our research suggests that pre-existing limitations of healthcare providers, services and apps with regard to culturally and linguistically diverse (CALD) women in Australia have been amplified during the pandemic. Disruptions in the physical and social presence of family, friends and healthcare workers, caused by international travel restrictions and changing healthcare practices during the pandemic, add significantly to the everyday stress, anxiety and challenges faced by new parents. That responsibilisation – the shifting back of responsibility from health services to mothers and their families – has led to mothers shouldering many of the burdens of a new transition by themselves, rather than in a system of collective care by wider family or partners as they might have expected.

These health system reconfigurations combined with the absence of support from family could have longitudinal adverse consequences for new parents and their children. Online Facebook groups from the mothers' countries of origin or cultural backgrounds, or for mothers who had babies due in the same month, represented a significant source of information and support for the participants. This was particularly important at a time when women's capacities to engage in traditional cultural practices, which provide practical, emotional and informational support, were compromised by the inability to garner familial support. In the context of a long-term pandemic, we suggest that health services: use flexible harm reduction approaches to facilitate parental support (rather than institute blanket bans), engage in active outreach, and that services are better integrated and smartphone enabled.



INTRODUCTION & AIMS

The purpose of the project was to understand the perspectives and experiences of migrant South Asian-Australian mothers who gave birth during COVID-19 and were using digital apps and online platforms in the perinatal period. This included first- and second-generation migrant women from South Asia as well as South Asians from the global diaspora (e.g. countries such as Singapore) who had migrated to Australia. Data were collected in interviews with women who met the above criteria, were resident in Sydney or Melbourne, and who gave birth during the COVID-19 pandemic.

Our research aims included:

- Understanding how COVID-19 impacted on the women's pregnancy and early parenthood experiences.
- Exploring women's access to social networks (family or friends) in Australia during COVID.
- Mapping how information sources are used to inform, which pregnancy/ parenting apps are used, and how these compare with information from healthcare providers;
- Investigating tensions between information from the apps, parenting philosophies and practices from culture of origin, other support networks and posts on social media.

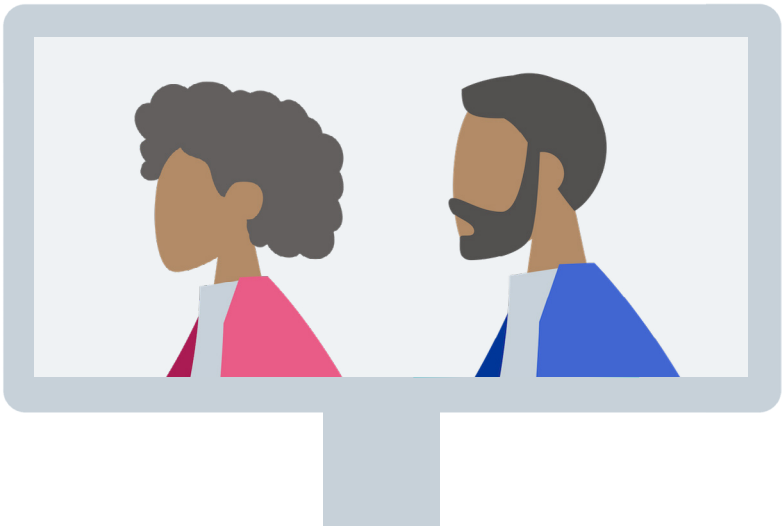
In this report we first provide some background to the study, an outline of our research methods, followed by thematic summaries and key findings from our remote interviews with participants.

Nalini arrived in Australia from Singapore in 2007, and moved to Adelaide to study social work. She now lives in Melbourne and works in the family violence field. She lives with her husband, but her family are mainly in Sri Lanka and Singapore, and she has a sister who lives in Norway. She uses WhatsApp video calling daily to talk to family. Nalini received health care from her GP and had her baby at the Royal Melbourne hospital. Most of the support Nalini received came from her husband's family, as all of her friends are in Adelaide. Nalini found it difficult having a baby in Melbourne during the lockdowns. She had planned for her mother to visit and help with the baby and various confinement rituals, but had to do these herself. Her sister in Norway was very helpful as she had a baby around the same time, and she created a Google drive to document and save recipes for' special food that had to be cooked. She also found lurking on Facebook groups really helpful for gaining information because her antenatal classes were cancelled. Nalini didn't post in these groups because she didn't want to be judged, as she had experienced judging when accessing parental and child health services. Nalini used an app for pregnancy planning and another to help decipher her baby's sleep changes. She has felt very isolated during the lockdowns.

BACKGROUND & RATIONALE

The perinatal period is both exciting and stressful for new parents. Social and cultural rituals play a key part in navigating the transition to parenthood. Birthing in the context of a global pandemic, with limited access to social support and health services which are under unprecedented pressure, means that the cultural, informational and support needs of particular groups of birthing people are disrupted, affecting the wellbeing of the family. Therefore, attention to both formal and informal social support systems is critical (see Shidaye, 2020; Alhomaizi et al., 2021). Social support is a critical enabler of perinatal wellbeing and the transition to parenthood for women. It can reduce parental anxiety and stress and reduce the need for interventions (see Jago et al., 2021). In the process of labour and delivery, it can enhance the birthing experience. Health services have viewed technological support as a substitute for face-to-face services during the pandemic; however, the pivot to offering health care remotely has happened rapidly and unevenly.

Migrant mothers comprise a group with unique needs, which are exacerbated during the pandemic. These include being unfamiliar with available health and social services, and being separated from sources of support. Many COVID-19 mitigation strategies have transformed routines and reduced mobility, socialising and service utilisation, complicating the experiences and expectations of the perinatal period for women. Even though the perinatal period is a time when health support is generally more available compared to other times in a lifespan, there is evidence that digital technologies including apps and platforms providing access to online parental communities are necessary assemblages of support (De Souza et al., 2021). As Veazey (2020) observes, the emergence of a personalised media landscape represents dynamic assemblages of support and identification rather than being 'virtual ghettoes' (Komito & Bates, 2009).



The project outlined here shares the complex nature of negotiations between the cultural politics of technologies such as apps and online platforms, and their users from migrant South Asian backgrounds, a sub-group within the category of CALD. These users also likely have to navigate the different terrains of pregnancy- and parenting-related information from their cultures of origin, and knowledge received in the form of 'medical expertise' from healthcare providers in Australia. The project contributes to a growing body of scholarly work about the use of pregnancy apps among women from CALD backgrounds in Australia (De Souza et al., 2021), and evidencing of a heightened level of anxiety amongst first-time mothers who gave birth during COVID-19 (Rhodes et al., 2020). It also contributes to emerging research about the value of apps in the perinatal period (Rhodes et al., 2020), particularly for CALD women who did not have access to family support due to international border closures during 2020 and 2021.

This small study contributes to an understanding of the experiences of maternity for migrant mothers during the COVID-19 pandemic. It considers the online spaces of various kinds, including apps, websites and parental communities, to be dynamic assemblages that are sites of social practice. Therefore, there are multi-pronged benefits to a project such as this, which sheds light on the usefulness of pregnancy and parenting apps as well as other forms of online parental support during the pandemic. It also provides an indicative glimpse of the resourcefulness and specific needs of women from South Asian and CALD backgrounds who faced (and are still facing) additional challenges if they are pregnant and/or giving birth during the COVID-19 pandemic.

Neeta has been in Australia for five years. She migrated from Pakistan to join her husband; they first lived in Sydney, then moved to Tasmania. She trained as an Advanced Gestalt Therapist, but found it hard to get a job in Tasmania. She worked in the security field for 10 months before the pandemic and was made redundant during the pandemic. Ten days later she found out she was pregnant, at a time when she and her husband were both unemployed. Sadly, she lost her father to COVID-19-related complications one month before she was due to give birth. She has two close friends and has made other Pakistani friends. She has found Baby Centre very useful, especially the forums and the weekly alerts/updates. She also used a few Facebook groups for information, including one where all the babies were due in November. Her cultural traditions have been important to her, and she has noticed the different cultural values in the apps and Facebook groups.

METHODS & PARTICIPANTS

In this qualitative study, semi-structured interviews were used to understand the experiences of South Asian women who were pregnant and gave birth for the first time in Australia during the COVID-19 pandemic. Individual in-depth interviews allowed for engaged discussion on the topic of birth. Online interviews were conducted because of changing COVID-19 guidelines, which included physical distancing and other restrictions that necessitated the use of remote methods, primarily via a secure online 'face-to-face' platform (e.g. Zoom or Microsoft Teams).

Members of the research team interviewed six South Asian women for approximately 60 minutes each. Participants were recruited through social media platforms and networks. Selected participants met all four of the following inclusion criteria:

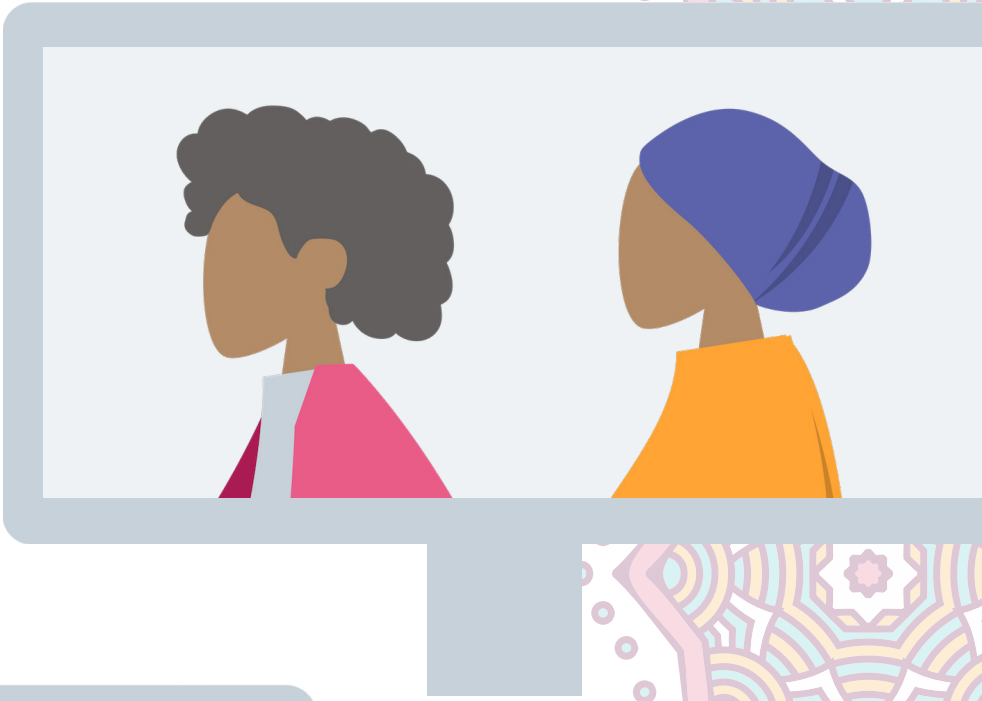
- Adult migrants from a South Asian background;
- Resident in Sydney or Melbourne;
- Have given birth during the COVID-19 pandemic in Australia (that is, from March 2020), which includes women who may have fallen pregnant before or after the pandemic began as well as those who may not have progressed to full-term but had a live birth;
- Have used, or continue to use a smartphone app for pregnancy and/or parenting.

Ethics approval was granted by the RMIT University Ethics Committee. Pseudonyms are used throughout this report.

Interviews were digitally recorded and transcribed by Bhavya (research assistant). The conversations explored the reproductive experiences of participants through the lens of culture and technology, with a particular focus on how COVID-19 impacted on their expectations of health care and support from family, and whether technology helped them with the challenging aspects of pregnancy. Thematic analysis was used to analyse the interview data (Braun & Clark, 2006), whereby codes were generated and collated into themes that were refined through an iterative process by the authors.

The research team was particularly suited to conduct the interviews and collect the data that contributed to the study as they have culturally relevant expertise as researchers with South Asian backgrounds. Ruth De Souza is resident in Victoria, has a Goan background and has 30 years' experience in perinatal health, perinatal mental health and research. Sukhmani Khorana migrated to Australia from India nearly 20 years ago, and is a new mother who gave birth during the pandemic. She has an extensive research and engagement track record with South Asian diasporic cultures.

Muskaan moved to Australia from Pakistan with her husband in 2015 and is a policy advisor. She gave birth to her first child in July 2020 and returned to full-time work while her partner was on parental leave. She had hoped that her mother would be able to join her from Pakistan, but the pandemic made that impossible. Muskaan found it difficult to connect with other new parents due to the pandemic. She used Baby Centre during her pregnancy, enjoying its tracking features and later the discussion forums after her baby was born. She tried Peanut, but it wasn't for her. She uses other technologies to chat daily to her mother and share photos of her child. She enjoys looking up information and reading, but did not adhere to many culturally specific practices for birthing and post-partum care.



THEMATIC FINDINGS

Cultural aspects: it takes a village

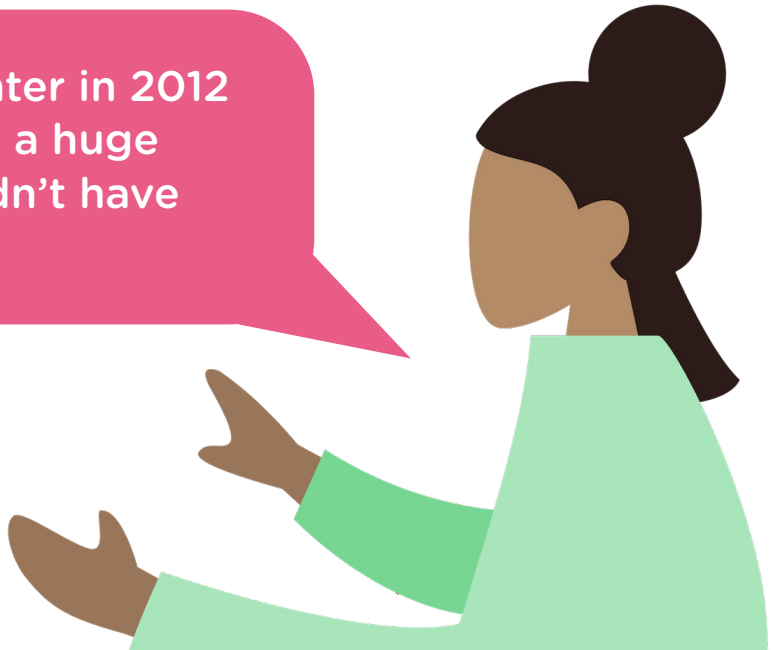
In addition to the disruption to formal health services by COVID-19, various restrictions and physical distancing, reduced in person support including the provision of meals, childcare and information sharing. Furthermore, the capacity of participants in our research to engage in traditional cultural practices, which can provide practical, emotional and informational support for mothers, was curtailed. Examples include Seemantham (Tamil Nadu and Kerala by Hindus) and Garbha sanskar (Ayurveda). These rituals designed to enable postpartum recovery depend on access to female relatives or caregivers. However, this was limited by the inability for families to travel to Australia, or even between households in Victoria and New South Wales.

When family cannot help with traditional practices

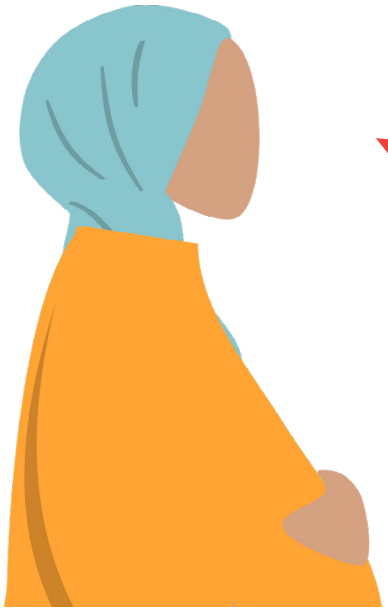
Participants in the study who spoke about their expectations of South Asian cultures indicated that care work and support is typically provided during pregnancy by mothers, mothers-in-law, sisters and sisters-in-law. They contribute not only in terms of their experience as mothers, but also by being physically involved in taking care of the pregnant woman/person or the new mother/parent and the newborn. They provide care (including that of older children), managing household work, cooking and preparing specific food items for the new mother/parent and the newborn, and regular massages for the pregnant women/person and new mothers/parents. These physical forms of family care and support became impossible with COVID-19 travel restrictions.

Neetar and Pakhi talked about feeling anxious and nervous in the absence of family support. Neetar described how she felt extremely lonely being here in Australia all by herself. She said she might have downloaded an app if she was in Pakistan with her sisters and mother, “but might not have used the app so much because I would have had that ‘cushion’ around me”.

“When I had my first daughter in 2012 I had my family here. It was a huge difference. This time I couldn’t have anyone” - Pakhi.



"This is my first child so I think I had all these plans around what that was going to be like – how that was going to go, you know? Like, mum would be here, we would do the whole confinement, I would get rest, someone just caring for the mother as equally as caring for the newborn, that whole concept, that whole cultural concept. So all of that, that was really hard to miss out on so I really struggled with the last few months of my pregnancy" – Nalini.



"My mom was ready to come. She had gotten her clothes made like it's very hot in Pakistan in July, but she had like, special winter clothes made. So she could come, you know. Up until April or May we were thinking things would open up. But they obviously didn't" – Muskaan.

In the absence of in-person family support, apps and online platforms for new mothers/parents became spaces of care and support during COVID-19. Many women relied on online support groups and apps for tips on pregnancy and parenting, as well as forms of online socialising. In addition to regular video and phone calls to family members far away, most participants experienced a sense of online/virtual community and support with mothers in Australia who could be going through similar circumstances and experiences. However, in relation to cultural practices and negotiations, women's experiences remained particular to their own cultural and familial traditions, and families were mostly consulted on cultural aspects of pregnancy and childbirth. This, in many ways, determined the nature of reliance and use of pregnancy apps and online platforms by new mothers during COVID-19.

Varsha is an IT professional (cloud engineer) who arrived in Sydney with her husband in 2018. They really like living in Sydney and are from Jammu (India), though they also lived in Delhi for a long time. They were not expecting parenthood without family support, and that has been the most challenging part of giving birth during COVID-19. Varsha downloaded a number of apps for pregnancy and parenting, but uses Baby Centre most frequently because it has discussion forums. She has also joined various kinds of mums' groups on Facebook. She finds them most useful for posting questions and also learning from others (sometimes an issue arising ahead of time, and that comes in handy). Varsha used the app 'Peanut' to connect with other mums in the area with similar-aged babies and now they are close friends. She uses WhatsApp video daily so that both her and her husband's families can see the baby. She did not follow any traditional advice during pregnancy and early parenthood, as she and her husband prefer to look things up themselves and follow it only if it makes sense to them. She did talk to her sister a lot when she was pregnant, as her sister is a doctor in India whose advice was useful when comparing Indian and Australian foetal measurements.

Maintaining cultural practices

Women undertook traditional perinatal cultural rituals to varying degrees, depending on their own values and beliefs. A common tradition was to eat special food reflecting the unique status of the postpartum body. Nalini missed foods from Singapore, which also made her miss her family. However, her sister had compiled a confinement recipe book from family and friends and made it available in a Google drive folder. Her cousins in Singapore made a schedule that Nalini could adapt. Pakhi prepared and ate Panjiri, a North Indian dish eaten by women postpartum, and made from whole-wheat flour fried in sugar and ghee (clarified butter), with dried fruits and herbal gums added. It is thought to promote healing and lactation. Varsha missed her family in the first six weeks as she had no practical help other than meals, and she and her husband were fumbling along.

However, enacting these rituals depended heavily on family members being around to assist. Nalini felt guilty and like she was disappointing her family overseas by not preparing the appropriate foods she was supposed to eat postpartum. She had also hoped to have a six-week confinement period postpartum (that is part of many cultures in South Asia), but the pandemic prevented her mother and other extended family from travelling to help her with that. The extensive involvement of grandparents, aunts, uncles and cousins on a regular basis, especially with the newborns, is also a significant part of the cultural milieu in most of South Asia. Hence, reliance on regular video calls and online interactions between new mothers, newborns, and the immediate and extended family was a recurring coping mechanism shared by many participants. Some people were able to continue traditional practices using digital technologies; for example, Muskaan's father-in-law gave the call to prayer (Azaan) to her baby through FaceTime.

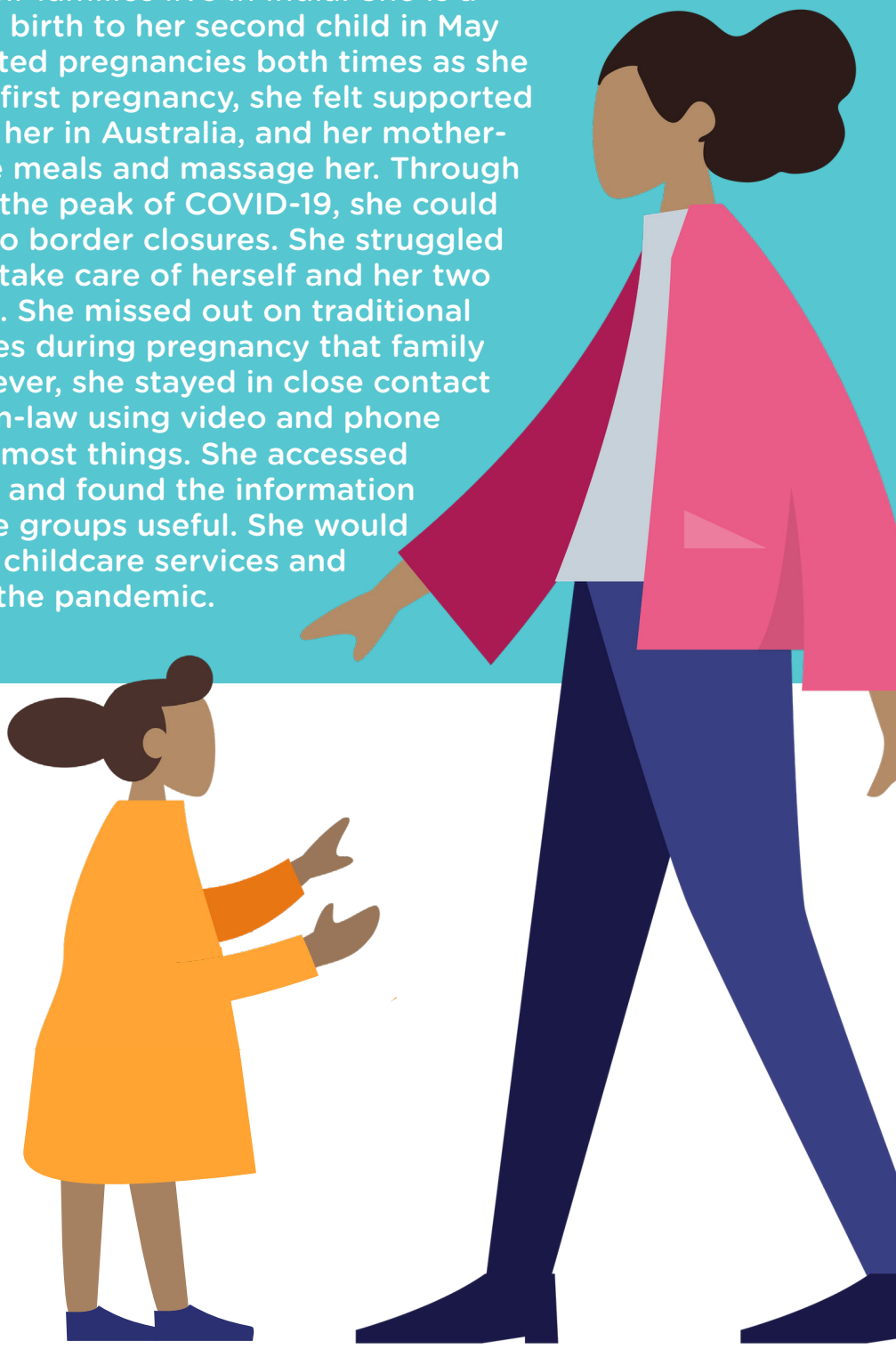
Working around cultural practices

Some parents evaluated cultural practices by undertaking their own research. For instance, Varsha and Muskaan researched baby-led weaning because they wanted to avoid anxious parenting like they'd seen in their extended families. Muskaan resisted traditions like shaving her baby's head. Others found ways to work around traditions and appease family or compromise. Janvi and her partner bought furniture (which you aren't supposed to do before the child is born) but they kept it locked in a separate room until childbirth. For some, practices were enabled through adherence to pandemic social practices. Neeta was happy to not have to go out in lieu of the lockdown, as she could now protect herself and her baby from the evil eye, a concern during the early days after childbirth. She also found that her mother was more relaxed about tradition after raising four girls before her.

Adapting Eurocentric practices from apps, books and health professionals

Many participants in this study adapted the resources circulating in their social worlds and made them work in their own contexts. Nalini adapted the advice she was given using a 'copy-and-paste' strategy, by considering the advice she had been given and evaluating whether it fitted into her life or belief systems. She thought her child health nurse did not understand her cultural expectations when she tried to confide in her about what she was missing culturally. She also found parenting books were geared to a white woman's experience. These feelings were echoed by Neeta, who felt that apps didn't take into account different cultural beliefs, such as the importance of rest in the first 14 days after birth; instead, they advocated exercise rather than rest. Nalini found it useful to search Indian mothers' Facebook groups for the information she wanted.

Pakhi came to Australia from India in 2008. She lives with her husband in Melbourne and their families live in India. She is a second-time mother and gave birth to her second child in May 2020. Pakhi has had complicated pregnancies both times as she had preeclampsia. During her first pregnancy, she felt supported because her family could visit her in Australia, and her mother-in-law was able to cook all the meals and massage her. Through her second pregnancy during the peak of COVID-19, she could not have her family over due to border closures. She struggled physically and emotionally to take care of herself and her two babies without family support. She missed out on traditional cultural food and care practices during pregnancy that family would have helped with. However, she stayed in close contact with her mother and mother-in-law using video and phone calls and took their advice on most things. She accessed mothers' groups on Facebook and found the information and social interaction on these groups useful. She would have liked more support from childcare services and the healthcare system during the pandemic.



Responding to rapid health service redesign

The disruption of in-person family support and care, and complex negotiations around cultural aspects during the perinatal period, were compounded by the redesign of the Australia healthcare system in response to the pandemic. Care that might have been patient and family centred became focused on protecting the health system (Melov, Elhindi et al. 2022). These measures ranged from screening patients, staff and visitors, to the use of telehealth antenatally, to restrictions on support people in waiting rooms and ultrasound appointments, and restrictions on the number of people who could be in the birthing suite. These rules changed frequently and were often confusing.

"All the support fell out": Abandoned by health professionals and care interrupted

The replacement of face-to-face contact and support from health professionals with care provided through telemedicine during the pandemic made care feel inadequate. When people did get to see health professionals in person it was seen as useful, even if visits were brief, as Muskaan found. For Janvi, who experienced a health emergency, physical contact was vital. She disliked the pivot to phone appointments and having to take COVID-19 tests three days before ultrasounds. She missed being assessed in person. Similarly, Muskaan didn't feel like she was being checked on "properly" both during telehealth consultations and across the spectrum of care. Describing her experience, she said, "All the support fell out." She felt abandoned after the baby was born. Restrictions on length of visit were placed on midwives and family health nurses, which meant that routine postnatal visits and examinations were compromised. For Muskaan, who was diagnosed with gestational diabetes, care was experienced as fragmented and lacking in continuity. She didn't feel like anyone was coordinating her care or able to answer her questions until the very end of her pregnancy. Janvi also struggled with the lack of continuity, as she saw a different midwife every time and felt like she had to repeat herself. She also felt as if she had to be proactive, as no one gave her options around pain management. She felt as if it was an expectation that she should endure pain. Health professionals emphasised bonding (with the newborn) but did not seem as interested in her physical health. She had to find things out on the internet. Thus, care was experienced as inadequate and partial, with mothers feeling like they had to take much more responsibility than they had expected.

Going through it alone: the exclusion of partners and other support people

Many women felt isolated not only because of physical distancing restrictions that precluded support from friends and family, but also because of new and rapidly changing hospital restrictions. These restrictions on partner support had profound effects on participants' experiences of birth and the postpartum period. During the antenatal period, Janvi was able to have her husband join her for checkups and other appointments, but once COVID-19 began, she had to access services by herself. She felt bad because her husband was being excluded from this important time in their lives. Only when she had an emergency bleed that needed to be investigated was her husband allowed to come in. But again, he couldn't stay overnight. This exclusion of fathers meant being alone which Muskaan found "horrible". It was difficult for Pakhi only being able to have one person there, as she had another child at home. This meant that her husband had to stay behind with her daughter as there was no family or friend who could provide childcare. Pakhi felt like health services should assist with childcare or make the rules more flexible. Varsha felt that if her family had been around, she might have had a different birth and breastfeeding experience. She felt she had no guidance as a first-time mother from health professionals or family.

In this rapidly changing and stressful context, virtual connections and proximities in the form of digital technologies, pregnancy apps and online communities surfaced as significant forms of support networks and coping mechanisms for many new mothers undergoing pregnancy and early parenthood during COVID-19.

Janvi is a software engineer who came to Australia from India on a temporary visa in October 2014, and got married in 2015. She and her husband did not plan on having a baby before the pandemic hit. But after losing her mother-in-law during the pandemic and not being able to visit India for her funeral, she and her husband decided to have a baby and create their own family. Janvi became pregnant in February 2021 and was relieved that COVID-19 impacted her pregnancy less. She felt safer being in Australia as pandemic measures were more efficient compared to other countries, especially India. However, she would have liked to have had her family members come to Australia to provide support during the last trimester of her pregnancy, but she could not. She largely used the Baby Centre app, which she found convenient and informative. She also finds Peanut, Instagram and online mothers' groups useful. Her family's cultural practices and rituals were important for her during her pregnancy, especially around food, but she also adapted and rejected some cultural aspects such as preparing and shopping for items before the baby was born.

Apps and Platforms

The in-depth interviews provide an indicative picture of an ecosystem of support found through pregnancy and parenting apps, Facebook groups for mothers (ethnicity-specific as well as place-based), virtual hospital classes, video-based digital platforms for communicating with family overseas, and the websites of approved healthcare service providers. The findings detailed below raise questions about whether this new online village has replaced the conventional 'village' assumed to help raise a child during COVID-19. They also address the advantages as well as drawbacks of predominantly relying on online support.

Apps for tracking

Most participants used pregnancy apps for tracking the progress of their foetus. Early parenting apps assisted with counting nappies and feeds, seeking information on forums, watching informative videos and sometimes finding other local new mothers to connect with. All participants reported greater reliance on these apps due to pandemic or lockdown conditions during the perinatal period.

All the participants in this study had downloaded Baby Centre, which they used for weekly updates during their pregnancies. Some also liked this app because its member forums were more conversational than articles and videos. Specific apps were used during the early parenting stage. For example, Pakhi mentioned that she used the free version of an app called 'Little Ones', as it contains videos on what to expect around sleep and other facets of the baby's life at various stages of development.

Two participants used an app called 'Peanut' specifically designed to help meet other new mothers in one's local area. While Muskaan struggled with Peanut as she wanted to meet like-minded mothers rather than make small talk, Varsha succeeded in finding a new mother friend through this app. She was still connected to her at the time of the interview and they were both part of a group undertaking baby-led weaning.

Online groups for information and support

The women interviewed for the project (all barring one) also used online mothers' groups hosted on social media platforms such as Facebook. Their membership of these groups entailed that they could pursue posts about seeking general baby-related information, information on culturally specific perinatal practices, finding information when friends and healthcare providers were not available, and feeling a sense of community in certain groups.

The information gathered from these groups in particular was perceived as coming in handy when advice from one's own family couldn't be accessed, or as pre-knowledge for baby milestones and concerns. For instance, when Varsha's baby fell from the bed, she did panic but managed to recover because she had already read in one of her online mothers' groups that she was meant to monitor him for 24 hours and take him to the GP if needed. Pakhi cited an example of when a mother in an online group had a particular issue late at night, posted on the group seeking help, and Pakhi suggested they download the My Emergency Doctor app, which had come in very handy for her in a prior situation of this kind. Nalini said that while she joined breastfeeding groups, one for Melbourne mothers and several others, she rarely posted on them as she was worried her questions or posts might err from the 'Australian way' of doing things. Nonetheless, she stayed in them for the informational benefits. This also enabled her to pick and choose information that was culturally appropriate for her context.

Video chats for family

Video-based digital platforms were used by all the participants for daily chats with family since the birth of their babies. The platforms cited as ideal for these were WhatsApp and FaceTime. Some also reported sharing pictures regularly with family using a social media platform or digital service like iCloud. These online services were widely reported as helping with 'survival', being a 'saviour', and changing their views on screen time for babies. Only one woman mentioned explicitly seeking baby-related cultural advice from her mother and mother-in-law. According to Muskaan: "My mom still calls every day. I think in the 365 days of Sahara's life, she has probably called 360 times at least. She still calls her every day. Sahara recognises her voice from the other room, like she'll come running to look at her on FaceTime. So I think that like absolutely helps to survive." At the same time, Varsha acknowledged the pressure of daily WhatsApp video chats with family when her days were very busy with a new baby. Pakhi felt that although it is advisable to not allow any screen time to kids under two, she couldn't not let her bub see the faces of her grandparents on the phone during video calls, as that was her only connection to them.

There were some mentions of other platforms like Instagram reels for pregnancy and childbirth-related information, and the use of websites of approved healthcare services such as the Australian Breastfeeding Association (ABA) and Raising Children Network, as the latter were considered more trustworthy.

Limitations of online support

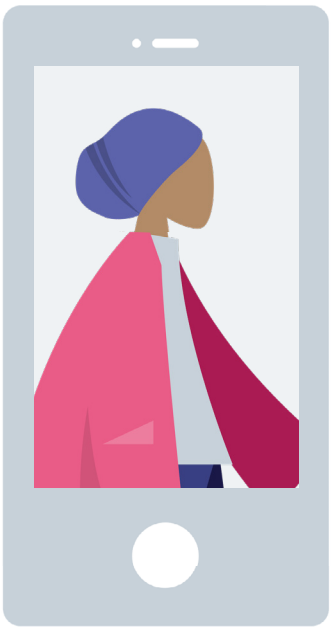
As outlined above, the women that were interviewed spent time on the apps and online platforms learning about pregnancy and parenting. These engagements helped them deal with emotional and psychological distress and anxiety. However, they also shared how the apps cannot replace family care and support. In Muskaan's words: "I don't think anything can take the place of your mom or your sister or your friend going over to stay and cooking for you or just holding the baby while you shower. You know, I don't think any app can do that." Some women also discussed how it was not just the non-physical/virtual limitation of the apps, but also the absence of cultural references or experiences that contributed to limitations. Hence, a lot of women relied on long video chats and WhatsApp calls back home to their mothers and sisters, in addition to connecting virtually with women in Australia – both from Australia and those belonging to culturally diverse groups.

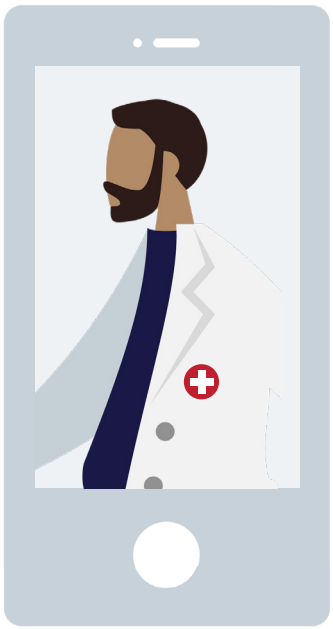
DISCUSSION

The public health restrictions and rapid changes to healthcare delivery associated with reducing the spread of the virus raise ethical challenges (Stirling Cameron et al., 2021), as they caused unintentional harm to the women who took part in our research. In what is typically a high-touch field, the usual methods of assessment, education, health promotion and clinical care were provided remotely or via video. Face-to-face appointments were moved to later in pregnancy, shortened or cancelled (Bradfield et al., 2021). As reflected in our study, a survey of 3,364 Australian women found that they felt distressed and isolated because they had to take more responsibility for coordinating their own care and had limited in-person time with health professionals (Wilson et al., 2022).

Women in our study lost partner and broader familial cultural support due to hospital policies that restricted visitors. Partner support is central to maternal/parental wellbeing, as partners provide emotional, practical and childcare support (Alhomaizi et al., 2021). The assumption underlying these policies was that asymptomatic support people were vectors of contagion, rather than hospitals, which are more likely to be sites of contagion and viral shedding (Davis-Floyd et al., 2020). The policies restricting visitor numbers to one also unfairly disadvantaged parents with small children, especially if no extended family members or resources were available for childcare during the pandemic. While another Australian study reported that visitor restrictions enabled some women/parents to rest, establish breastfeeding/chestfeeding and have time with their baby to bond (Wilson et al., 2022), mothers in our study identified that their access to support had decreased and breastfeeding/chestfeeding support was unavailable in the pandemic environment despite global recommendations suggesting that breastfeeding/chestfeeding would improve infant health and immunity during the pandemic (Sakalidis et al., 2021).

Similar to a study by Silverio, De Backer et al. (2021), the women in our study became 'under-reliant' on health professionals and replaced in-person information and support they would have obtained with virtual alternatives, thereby shifting the burden from professionals to informal support networks.





In order to deliver high-quality infant and maternal/parental healthcare to South Asian diasporic families in an era of COVID-19 safety, we propose that harm-reduction (Alhomaizi et al. 2021) and flexible policies (Stirling Cameron et al., 2021) are implemented instead of blanket bans or abstinence approaches in health services. These could include:

- Resourcing support people with COVID-19 testing and personal protective equipment to safeguard the family and health staff (Alhomaizi et al., 2021);
- Developing flexible systems for when childcare is unavailable, for example a partner could come in with a child and use testing equipment to ensure safety;
- Birthing services engaging in active outreach to provide access to perinatal mental health services and other social support (Das, 2020);
- Developing better systems integration between services and smartphone-enabled services relating to pregnancy/parenting support (like the NHS in the UK; see Rhodes et al., 2020);
- Providing in-language information services via telephone helpline (Valeriani, Sarajlic Vukovic et al., 2020);
- Developing digital ecosystems that are non-commercial and which can be responsive to the range of lived experiences of culturally diverse families (Das, 2020).

Although not identified in our study, other research into culturally diverse parents using perinatal services suggests:

- Counting interpreters as part of the healthcare team rather than as a support person – that is, in addition to a partner or family member (see Stirling Cameron et al., 2021);
- Assisting mothers with differential access and digital literacies to have family present through digitally enabled virtual support at consultations (Stirling Cameron et al., 2021).

CONCLUSION

There is evidence that even before the advent of COVID-19, negatively racialised women experienced barriers to healthcare, and these barriers have been exacerbated during the COVID-19 pandemic. The scaling back and reconfiguration of perinatal health services and the switch in emphasis from patient-centred care to the protection of healthcare systems, combined with the inability of family and cultural support to be provided during the pandemic, is likely to have set up a difficult transition to parenthood for many new migrant parents. Despite the participants in our study being adept with using WhatsApp groups, Facebook, instant messaging and video calling to connect with family and friends, in-person family support was missed. Many participants found culturally appropriate or birth-congruent peer support, validation and information from other mothers through Instagram and Facebook groups to complement information from apps. However, despite their digital literacies, many found that the substitution of virtual care for face-to-face services during the pandemic left them with a less than satisfactory perinatal experience. Consequently, there remains a need for patient- and family-centred culturally responsive engagement by health services to provide equitable, high-quality birth care. This report provides unique insights to understanding the experiences of cisgender South Asian women during the pandemic, which may be relevant to other racialised groups. We suggest that policymakers ensure that the already weary healthcare workforce and system depleted by COVID-19 and its variants are supported to provide equitable care to migrant women separated from typical sources of information and support, even while services grapple with competing COVID-19 priorities.

REFERENCES

Alhomaizi, A., Alhomaizi, D., Willis, S., & Verdeli, H. (2021). Social distancing in the era of COVID-19: A call for maintaining social support for the maternal population. Global Health, Science and Practice, 9(2), 229–237. https://doi.org/10.9745/GHSP-D-20-00398

Bates, J., & Komito, L. (2012). Migration, community and social media. Transnationalism in the Global City, 6, 97–112.

Bradfield, Z., Wynter, K., Hauck, Y., Vasilevski, V., Kuliukas, L., Wilson, A. N., Szabo, R. A., Homer, C. S. E., & Sweet, L. (2021). Experiences of receiving and providing maternity care during the COVID-19 pandemic in Australia: A five-cohort cross-sectional comparison. PloS One, 16(3), e0248488. https://doi.org/10.1371/journal.pone.0248488

Carroll, L. (2022). Stillbirths and caesareans rise in NSW during first pandemic year. The Sydney Morning Herald. https://www.smh.com.au/national/nsw/stillbirths-and-caesareans-rise-in-nsw-during-first-pandemic-year-20220209-p59v7j.html.

Das, R. (2020, May 6). A turn to digital for maternal wellbeing: potentials and pitfalls. Parenting for a Digital Future. https://blogs.lse.ac.uk/parenting4digitalfuture/2020/05/06/wellbeing/.

Davis-Floyd, R., & Gutschow, K. (2021). Editorial: The Global Impacts of COVID-19 on Maternity Care Practices and Childbearing Experiences. Frontiers in Sociology, 6, 721782. https://doi.org/10.3389/fsoc.2021.721782

Green, H., & Riddington, A. (2020). Gender inclusive language in perinatal services: Mission statement and rationale. Brighton and Sussex University Hospitals NHS Trust.

Jago, C. A., Singh, S. S., & Moretti, F. (2020). Coronavirus disease 2019 (COVID-19) and pregnancy: Combating isolation to improve outcomes. Obstetrics and Gynecology, 136(1), 33–36. https://doi.org/10.1097/AOG.0000000000003946

Melov, S. J., Elhindi, J., McGee, T. M., Lee, V. W., Cheung, N. W., Chua, S. C., McNab, J., Alahakoon, T. I., & Pasupathy, D. (2022). Investigating service delivery and perinatal outcomes during the low prevalence first year of COVID-19 in a multiethnic Australian population: a cohort study. BMJ Open, 12(7), e062409. https://doi.org/10.1136/bmjopen-2022-062409

Rhodes, A., Kheireddine, S., & Smith, A. D. (2020). Experiences, attitudes, and needs of users of a pregnancy and parenting app (Baby Buddy) during the COVID-19 pandemic: Mixed methods study. JMIR mHealth and uHealth, 8(12), e23157. https://doi.org/10.2196/23157

Sakalidis, V. S., Rea, A., Perrella, S. L., McEachran, J., Collis, G., Miraudo, J., Prosser, S. A., Gibson, L. Y., Silva, D., & Geddes, D. T. (2021). Wellbeing of breastfeeding women in Australia and New Zealand during the COVID-19 pandemic: A cross-sectional study. Nutrients, 13(6). https://doi.org/10.3390/nu13061831

Silverio, S. A., De Backer, K., Easter, A., von Dadelszen, P., Magee, L. A., & Sandall, J. (2021). Women's experiences of maternity service reconfiguration during the COVID-19 pandemic: A qualitative investigation. Midwifery, 102, 103116. https://doi.org/10.1016/j.midw.2021.103116

Stirling Cameron, E., Ramos, H., Aston, M., Kuri, M., & Jackson, L. (2021). "COVID affected us all": The birth and postnatal health experiences of resettled Syrian refugee women during COVID-19 in Canada. Reproductive Health, 18(1), 256. https://doi.org/10.1186/s12978-021-01309-2

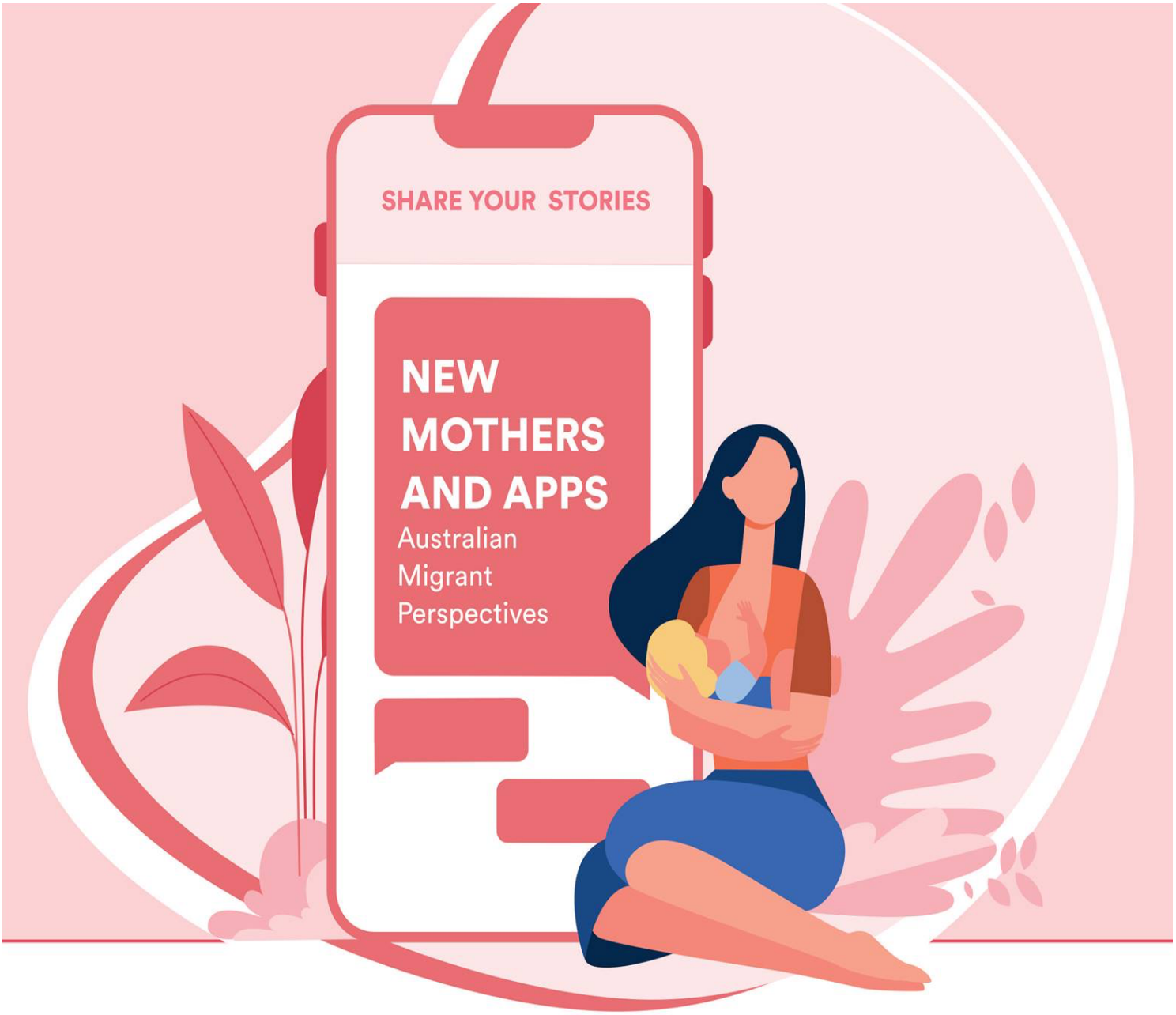
Valeriani, G., Sarajlic Vukovic, I., Lindegaard, T., Felizia, R., Mollica, R., & Andersson, G. (2020). Addressing healthcare gaps in Sweden during the COVID-19 outbreak: On community outreach and empowering ethnic minority groups in a digitalized context. Healthcare (Basel, Switzerland), 8(4). https://doi.org/10.3390/healthcare8040445

Williams Veazey, L. (2020). Migrant mothers and the ambivalence of co-ethnicity in online communities. Journal of Ethnic and Migration Studies, 1–17. https://doi.org/10.1080/1369183X.2020.1782180

Wilson, A. N., Sweet, L., Vasilevski, V., Hauck, Y., Wynter, K., Kuliukas, L., Szabo, R. A., Homer, C. S. E., & Bradfield, Z. (2022). Australian women's experiences of receiving maternity care during the COVID-19 pandemic: A cross-sectional national survey. Birth, 49(1), 30–39. https://doi.org/10.1111/birt.12569

Demographic Table

Name	Year of Arrival	Country of Migration	Reason for Migration	No. of Children	Location of Family	Occupation
Neeta	2016	Pakistan	To join husband	1	Pakistan	Advanced Gestalt Therapist
Janvi	2014	India	Temporary visa, married year after	1	India	Software Engineer
Muskaan	2015	Pakistan	Migrated with husband	1	Pakistan	Policy Advisor
Nalini	2007	Singapore	Met partner in Melbourne	1	Sri Lanka and Singapore	Social Worker
Pakhi	2008	India	Not known	2	India	Retail
Varsha	2018	India	Migrated with husband	1	India	IT Professional



Are you
a first generation South Asian Migrant woman, residing in Sydney/Melbourne?

Are you
a new mother having given birth during the pandemic?

Did you
use digital apps and online platforms during parenting and perinatal period?

If your answer is YES to all of these questions and if you are willing to share your story via online interview, please connect with us on Facebook:

https://www.facebook.com/Migrantmothersandapps

For more information and inquiries, please get in touch with:

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