'Nesting networks'

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DOI:
10.1016/j.midw.2023.103622

Document Version
Peer reviewed version

Citation for published version (Harvard):
Hinton, L, Dumelow, C, Hodgkinson, J, Montgomery, C, Martin, A, Allen, C, Tucker , K, Green, ME, Wilson , H, McManus, R, Chappell, L & Band , R 2023, "Nesting networks': Women's experiences of social network support in high-risk pregnancy', *Midwifery*, vol. 120, 103622. https://doi.org/10.1016/j.midw.2023.103622

‘Nesting networks’: Women’s experiences of social network support in high-risk pregnancy.

Abstract

Objective

Social support, an individual’s social relationships (both online and offline), may provide protection against adverse mental health outcomes, such as anxiety and depression, which are high in women who have been hospitalised with high-risk pregnancy. This study explored the social support available to women at higher risk of preeclampsia during pregnancy by examining personal social networks.

Design

Semi-structured interviews were accompanied by social network mapping using the web-based social networking tool GENIE.

Setting England

Participants 21 women were recruited, of whom 18 were interviewed both during pregnancy and postnatally between April 2019 and April 2020. 19 women completed maps pre-natally, 17 women completed maps pre-natally and post-natally. Women were taking part in the BUMP study, a randomised clinical trial that included 2441 pregnant individuals at higher risk of preeclampsia and recruited at a mean of 20 weeks’ gestation from 15 hospital maternity units in England between November 2018 and October 2019.

Results

Women’s social networks tightened during pregnancy. The inner network changed most dramatically postnatally with women reporting fewer network members. Interviews revealed networks were primarily ‘real-life’ rather than online social networks, with members providing emotional, informational, and practical support. Women with a high-risk pregnancy valued the relationships they developed with health professionals during pregnancy, and would like their midwife to have a more central role in their networks by providing informational and, where needed, emotional support. The social network mapping data supported the qualitative accounts of changing networks across high-risk pregnancy.

Conclusion

Women with a high-risk pregnancy seek to build “nesting networks” to support them through pregnancy into motherhood. Different types of support are sought from trusted sources. Midwives can play a key role.

Practice Implications.

As well as highlighting other potential needs during pregnancy and the ways in which they can be met, support from midwives has a key role. Through talking to women early in their pregnancy, signposting information and explaining ways to contact health professionals regarding informational or emotional support would fill a gap that currently is met by other aspects of their network.

Keywords

High-risk pregnancy, social support, networks, midwives, qualitative, network mapping

1. Introduction

Social support

Social support, an individual's social relationships (both online and offline), is good for health across the life course, and has been studied extensively in men and women[1-4]. It plays a crucial role during pregnancy; the presence of social support is important for mental health and pregnancy outcomes [5-9] including preterm birth, negative birth experiences and adverse outcomes [10, 11]. Social support is particularly important for women's pregnancy experience, recovery and psychological wellbeing following a high-risk pregnancy. [12]. Hypertensive disorders of pregnancy or high blood pressure, affect 10% of women worldwide, and preeclampsia complicates 2% to 8% of pregnancies [13]. In addition to serious adverse health outcomes for both woman and baby, preeclampsia can be associated with negative psychological consequences such as guilt, disappointment, loss of control, stigma, and fear of harm (or death) for the woman and baby [12, 14, 15].

High risk pregnancies more generally are associated with higher levels of anxiety and women are in need of psychosocial support. This support may be emotional (displays of caring, trust, and empathy), instrumental (concrete help and service) and informational (advice, suggestions, and information) [16-18]. Social support may provide a buffer against adverse mental health outcomes, such as anxiety and depression, which are especially high in women who have been hospitalised with preeclampsia [19-21].

Social networks

Individual social networks may include partners, family, friends, colleagues, health professionals, neighbours, and online sources [22-24]. Mapping social networks in other contexts using the concentric circles method [25] has identified the importance of size, diversity of members and presence of weak ties in social networks [26]. Weak ties are a salient feature of contemporary society that is less centralised and has a broader diffusion of support networks and distributed knowledge that has grown alongside the primary set of relationships an individual sustains. [26] In pregnancy, social network density has been associated with lower rates of loneliness and network size with lower rates of depression [27]. Different social network members may provide varying types of support depending on women's changing

support needs. Online sources, such as social networking sites, have been used to bolster knowledge and improve support when women perceive gaps in their physical network during pregnancy [28-31]. The changing nature of social networks has also been identified in pregnancy, including a strong 'social nesting' movement towards family [32]. Despite this small body of knowledge on social networks in pregnancy, little is known about the context and use of social networks amongst women with a high-risk pregnancy during their transition to parenthood.

The aim of this study was to explore the social support available to women who are at higher risk of developing preeclampsia during pregnancy by examining personal social networks, and to better understand how online and offline social networks interact during the transition to parenthood for this group of women.

2. Methods

This sub-study was embedded within the BUMP 1 (Blood pressure monitoring in high-risk pregnancy to improve the detection of hypertension) Randomised Controlled Trial (RCT) [33, 34]. Women were included in the BUMP trials if they were aged 18 years or above, between 16 and 24 weeks' gestation and were at higher risk for preeclampsia defined as having one or more of the following risk factors: age 40 years or older, nulliparity, pregnancy interval of more than 10 years, family history of preeclampsia, previous history of preeclampsia or gestational hypertension, body mass index 30 kg/m^2 or above at booking, chronic kidney disease, twin pregnancy, diabetes or autoimmune disease [35]. The BUMP trial included 2441 pregnant individuals recruited at a mean of 20 weeks' gestation from 15 hospital maternity units in England between November 2018 and October 2019. For this sub-study, a sample of 21 women were purposively recruited from the BUMP 1 RCT to ensure diversity in age, parity, risk factors and ethnic background and education level [Table 1]. They were provided a description of the sub-study at the point of enrolment to the trial. If they consented to contact, a researcher contacted them regarding participation in the sub-study. A social network perspective was taken which offers the opportunity to explore how social relationships are important for wellbeing, but also how the quality and quantity of these relationships may change over time.

Interviews were conducted between April 2019 and April 2020. Ethical approval was gained from the West Midlands - South Birmingham NHS Research Ethics Committee: ref 17/WM/0241. The trial was prospectively registered with the clinicaltrials.gov registry, NCT03334149.

2.1 Data Collection

Women were contacted for interview during pregnancy and invited to take part in up to three interviews, two to take place during pregnancy (the first upon entry to the study, at approximately 20 weeks, and the second at approximately 36 weeks) and one postnatally (approximately 12 weeks after birth). Written informed consent was obtained from eligible women after they had been given an information pack to read. At each data collection point, women were invited to generate their current social network map and then completed the qualitative interview. Interviews were conducted by CM, JH, LH and CA and took place in women's own homes or by telephone (according to the woman's preference).

2.1.1 Network mapping

The web-based social networking tool GENIE (Generating Engagement in Networks Involvement) was used with participants to produce an individual, time-specific visual image of their existing support network. Concentric circle network map production, facilitated by the researcher, allows for discussion and reflection on who and what is currently important in providing support, how this is accessed, and any recent changes [36]. This process conceptualises the participant as the centre of their network of support, with three concentric circles surrounding this. The innermost circle represents who or what they view as important in their daily lives, the mapping process starts here and works outwards. The researcher guides the participant to reflect on a variety of relationships and support, allowing for participants to change the map as the map is generated. The first mapping experience was conducted face to face. If subsequent interviews were conducted by telephone the researcher completed the network map on behalf of the participant. The circles were used as a heuristic device to help participants visualise their own social network, and to elaborate on the different forms of support provided by different network members, at different times, and in response to different needs as their pregnancy progressed and postnatally.

2.1.2 Qualitative interviews

Interviews were semi-structured and included questions on the type of support each social network member provided, how women used online sources of support in conjunction with their physical network, and reflections on how women felt about their social network over the course of their pregnancy and postnatally. The topic guide is included in supplemental file 1.

2.2 Analysis

Interviews were audio-recorded and transcribed verbatim. CD read the transcripts and listened to the audio recordings for data familiarisation. Initial codes were identified which were discussed with LH, RB and CA. These codes were applied to all transcripts using NVivo 11 qualitative data analysis software. Using constant comparison, a technique derived from grounded theory, codes were compared within and between each other aiding the iterative search for themes, which were reviewed, defined and named [37]. Recurrent themes were identified in discussion with LH, CD, RB, CA and JH. Network map data was extracted to provide descriptive accounts of the network. For each network map the total number of network members (count) was recorded; the types of relationship (i.e., parent, friend, healthcare professional) were recorded during the mapping process and consequently, a summary count for each relationship type was collated. The frequency of contact (in days per year) was coded for each network member and a summary score generated. A numerical value was assigned to each frequency of contact coding per network member within each map. For example, a network member they saw daily was coded as 365 support days while network members they saw weekly was assigned 52 support days. The support days were then summarised for each network map and time point. Network changes over time were explored in relation to overall network size, the number of network members within each relationship type and contact frequency, and are presented alongside the qualitative data. Data are reported in line with journal standards for qualitative research [38].

3. Results

Twenty-one women were recruited, of whom 18 were interviewed both during pregnancy and postnatally. Three women were lost to follow-up after being interviewed once during pregnancy. Not all interviews were accompanied by a network map. 19 women completed maps pre-natally, only 17 women completed maps pre-natally and post-natally. Fourteen women lived in Oxfordshire, 5 in Greater London and 2 in the West Midlands. Fourteen were in their first pregnancy. Interviews took place between April 2019 and April 2020. Not all participants were interviewed twice during pregnancy, due to availability, and two were not interviewed postnatally due to loss to follow up caused by lockdown during the pandemic. Three postnatal interviews took place after the UK lockdown began in March 2020.

Those we interviewed were highly educated and broadly representative of the UK population in terms of ethnicity, including White British (15), White mixed (1), White European (1), Asian or Asian British (2), Black or Black British (1) and Black African (1) (see Table 1).

3.1 Network mapping

Review of network maps generated by women in this study explored the number of network members (total and within each concentric circle) and the frequency of support coded during

mapping. As all three maps were not available for all women, their first pre-natal and post-natal maps are presented in this analysis. During high-risk pregnancy, women described gathering a wide range of support from various sources including family, friends, work colleagues, pregnancy groups, websites and smartphone applications, neighbours, pets, and health professionals. The amount of perceived support varied from woman-to-woman and for women over the course of pregnancy. During their pregnancy, women identified an average of 17 network members in the mapping process (range = 8-28), but this reduced after birth to (on average) 15 network members (range=10-18) (Table 4). At the core of the network was the "inner circle" which reflected the perceived most significant support during and after their pregnancy. In some cases, this included just a partner or parents, but also often included other close friends and relatives, with an average of six network members included before birth (range 1-11). It was this inner circle that changed most markedly postnatally with women reporting fewer members (average n=4, range 2-8). For many, their inner circle reduced from a broad range of people to close family and friends.

Frequency of contact between the women and each network member was recorded in the mapping process; this was used to provide an estimate of "support days" available to women, using a method previously described elsewhere [39]. Comparing antenatal and postnatal maps, the amount of support available from partners and friends remained constant across time (see Table 2 and 3). However, women reported increased contact from parents and formal parent groups in the postnatal period, with decreased contact from healthcare professionals, online sources, colleagues, and relatives other than parents. See Figures 1 and 2 for sample anonymised maps.

INSERT TABLES

3.2 Interviews

The analysis of interviews provided explanation for the reduction observed in the support network and focussed on the *types* of support women sought out. Women described how, during pregnancy, there were people in the outer circles of their social network they hoped would have a bigger support role postnatally, such as pregnant friends, neighbours, or new friends from their shared experience of pregnancy. In contrast, there were also network members who dropped away after birth, such as work colleagues, or through other life events like moving house or relocating.

Types of support

Analysis of the interviews revealed how social network members provided emotional, informational, and practical support. Some network members would provide several types of support, others only emotional support or practical support. Emotional support was where women shared worries and sought reassurance from members of their network. Informational support was where women sought information from their network to support their pregnancy. Practical support was where women sought practical help from members of their network. A final source of support was health professionals who women turned to if they were seeking clinical advice.

3.2.1 Emotional support

Emotional support took the form of talking about the pregnancy and childbirth including sensitive aspects, seeking reassurance, offloading worries and concerns. Women reported going to different members of their network for different types of emotional support, but two principal groups emerged: “close confidantes” and those with “shared experiences”.

“Close confidantes” were trusted family members or long-term friends where women felt they could safely express and offload their worries and concerns without judgment. Women turned to different people depending on the response they needed. Technology meant these members did not have to be physically proximate. Women used technology, such as WhatsApp, to contact friends and family living further away, or in another country. There were clear timepoints when women turned to a social network member for emotional support, such as when they experienced the onset of a new symptom in pregnancy and when first told they were at potential risk for preeclampsia.

> *when I just have, just need to like talk to someone about the pregnancy or something [um] or just like text her like a question or a call]…… Like for instance when I found out that it was breeched yesterday, ….but she was so like helpful and she will be helpful obviously if I have to have a caesarean because she has gone through it. (Participant 3)*

People with “shared experiences” were another group who women turned to, with the shared experiences meaning people in this group were able to show empathy and understanding which provided emotional support.

"It's one of those relationships where you can just definitely ask anything without any sort of embarrassment or shame. It's really useful in pregnancy it turns out." (Participant 10)

A few women sought emotional support from their health professionals, primarily their midwives [see 3.2.4]. Two other types of emotional support were provided by network members. One was "fun friendships" which consisted of people who they did not talk to in detail about their pregnancy, but who provided a connection to other interests outside pregnancy and childbirth. The second, for some women, were networks that included pets and children. Dogs provided companionship and offered an opportunity to exercise which had emotional benefits. Although most participants were in their first pregnancy, those with children indicated they could provide emotional support by usually being a source of joy.

3.2.2 Informational support

Women sought informational support for various reasons. Women described generic information needs, such as seeking information about their baby's development week-by-week and planning for birth, as well as seeking informational support for specific events, such as, learning their pregnancy was high risk or the development of new symptoms. The women in our sample described needing information to support their high-risk pregnancy and this information came from diverse sources.

It's like my hands and feet started swelling and I looked, I looked it up [on baby App] , 'oh yeah that's perfectly normal, I've been on my feet all day.' (Participant 2)

A broad range of diverse social ties were used for informational support including other pregnant women and recent mothers, older relatives/friends with experiences of pregnancy, childbirth and parenting, online sources (websites including NHS Choices, smartphone applications , social networking sites, YouTube videos), health professionals and antenatal classes, pregnancy yoga and baby classes.

"She's just become kind of close, particularly since the pregnancy, because she just had a baby as well. She's given me tons of info; she sends me stuff all the time […] we were friends beforehand, but it's become much closer because of the pregnancy because she's someone who's been very supportive and helpful throughout it all." (Participant 3)

Women did use online sources for informational support, but any online information was usually verified or triangulated with other people in their physical social network. Trusted sources, such the NHS website, were preferred to social networking sites, particularly to find out more medical pregnancy-related information and more factual information about pregnancy and baby care.

> *I look on the NHS website regarding pregnancy quite a lot. I've had a few health scares. I don't mean to be paranoid about things but you do end up being a little bit paranoid and rather than going instantly with both feet thinking there's something wrong I'll have a look at the online website for my symptoms. And then match it up to anything and then just keep an eye on it. Like with this gestational diabetes I was on the cusp of that when I was 25 weeks and I think I haven't had another test for it but I think I've probably got it because I'm very thirsty all the time and I've looked at the symptoms and that's from the website. (Participant 10)*

> *Sometimes you read too much on the internet and I have been warned many times, that sometimes information can actually not contribute to a good cause but to more stress. […….] If I'm concerned, I double check with the midwife or with my friend or the doctors or with people like more experience. (Participant 19)*

> *I'm very careful about all the other websites. There's a lot of anecdotal stories. (Participant 12)*

Few women described using online social networks to connect with other pregnant women, unless it was a specialised group such as an online fertility network, or specialist Facebook groups.

3.2.3 Practical support

Women turned to three groups within their network for practical support; those in their inner circle who either lived locally or were able to provide support for continuous periods at a time if they lived further away, neighbours, and people in their outer circle who were available for emergency situations. Two types of practical support were provided by social network members; day-to-day support, for example, with household and childcare tasks, attending medical appointments, providing/shopping for baby-related equipment; and emergency situation support whereby social network members had a support role if other members were unavailable.

"She's, like, you know, she helped me put the buggy together, for example. And she's already offered to come like before the birth and clean my house. She's very, she's very practical in the type of support that she will offer." (Participant 20)

People who provided practical support were people who women felt they can ask for support unconditionally, this primarily consisted of family members and close friends. For some women, neighbours also offered practical support, especially if they had children or were also pregnant. Neighbours were available in emergency situations and new connections were built during their pregnancy with neighbours who were pregnant or recent mothers.

"I feel like sort of inner circle people you can definitely, I don't know, ask to do stuff for you and, I don't know, without sort of worry. Whereas, perhaps as you get further out there's you, yeah you'd probably call on inner circle people first." (Participant 10)

There's a couple of old colleagues who still work with [my partner] who we're leaving a key with in case there's any emergencies while he's away. So I don't speak to them for months at a time and don't keep up with them about much but they're local and they'd be happy to get me to and from the hospital, for example. (Participant 14)

Sources of practical support

- The inner circle – people who either lived locally or were able to provide support if they lived further away
- Neighbours
- The outer circle who were available for emergency situations.

Types of practical support

- day-to-day support, for example, with household and childcare tasks, attending medical appointments, providing/shopping for baby-related equipment
- emergency situation support

Box 1 – Sources and types of practical support

3.2.4 Healthcare professionals

When women were experiencing worrisome symptoms in their high-risk pregnancy, they would turn to their clinical network for advice, such as calling the triage/ maternity assessment unit (MAU).

> *I'm at the hospital quite a bit. I just ask questions, like, as and when I go to the midwife or the doctors because I've been going quite regularly, I think I've had to, I went to MAU once. I had to ring up and go in but apart from that I've been in hospital once or twice a week anyway, so I've been asking stuff as and when I'm there. (Participant 1)*

Women saw their midwife as the health professional who would be most easy to access during pregnancy, and their first point of contact. Women who knew they could contact their midwife between appointments, and how to do so, said they felt supported.

> *The midwives I'm kind of happy with, I know that I can always phone up with any queries" (Participant 17)*

> *I just had such a great relationship with [my midwife] that if I had any questions sometimes, I'd message her." (Participant 6)*

> *I'm sure if there was something I needed, I could go to the midwife or the doctor and they would be able to put me in the right direction, yeah. (Participant 2)*

However, others would have liked health professionals to be more central in their social network. Ease of access was key. Not all women knew how to access timely informational support from their community midwife and so sought out other sources, such as the internet or friends in their social network who were easy to access and could provide a quick answer. Some women wanted their midwife to have a more central role in their informational support network.

> *"I'd like to bring the midwives right into the middle [of the network]. I just think, well they've got all the knowledge there, but I don't, they're not really imparting that knowledge. I'm finding out from Google and NHS website rather than from them directly…. So, it would be good to have somebody who's a professional." (Participant 7)*

> *"I think I've learnt more from friends than I've learnt from anybody else which doesn't really seem the right way round […] I don't feel like disappointed I have to Google things, but it's just a shame I haven't already got the information" (Participant 5).*

There's loads of different phone numbers but I don't know what, because they haven't really, she never said specifically "oh if there's any issues just call her." I feel like it's hard to get hold of them. I don't know who I'm meant to call when and I have to ask things rather than be told things. (Participant 7)

Lack of continuity left women feeling it was difficult to build rapport. Women with high-risk pregnancies were also under the care of obstetricians, but here lack of continuity also prevented them feeling supported.

But I've never seen the same person when I've been. So and I've been to two midwife appointments and they've both been with different midwives. So again, like last time I had the same midwife and go more often. But I haven't got a relationship with anybody that I can really sort of, got a rapport with yet. [….]

But, I guess, if you see the same consultant they know your background from my previous health problems with my previous pregnancy and kind of, kind of understand it a bit more. […….] I was at the hospital on Tuesday and two weeks before at the high-risk clinic and the people I speak to say, they're just, like, "Well nothing can be decided until later on," and they just give what their opinion on it but it's always different to the person I've seen before. (Participant 1)

Although National Institute for Health and Care Excellence (NICE) guidance recommends that mental health should be regularly discussed before, during and after pregnancy, our data suggest in practice women were finding support elsewhere. [40] Most women we interviewed said they would prefer to talk to other people in their social network for emotional support first rather than their midwife, general practitioner (GP) or health visitor, although a few women did speak to a health professional first for emotional support. Knowing the health visitor or midwife were available to support them had been form of emotional support for some women, although women in our sample described generally poor experience of health visitor support.

4. Discussion and Conclusion

4.1 Discussion

This study found that participating women with high-risk pregnancies created a 'nesting network' that supported them during their pregnancy and the post-partum period. These

‘nesting networks’ were made up of network members who could provide ‘nesting resources’ in the form of emotional, informational, and practical support which formed a strong framework of support for their baby and for themselves. This ‘nesting’ in preparation for their newborn happened in different ways, bringing different ties from their network into proximity to meet their current and perceived future needs. The network maps provide a visual representation of how these networks narrow to the inner circle as the pregnancy progresses. (Figures 1 and 2)

Women’s networks go through a process of change during pregnancy linked to a changing social self as well as health needs, brought on by temporarily exiting the workforce, and distancing from friends and activities not aligned with pregnancy [2]. When a pregnancy is classed as high risk, the value of building a strong network of support becomes perhaps even more important, where preparation for parenthood is characterised by disrupted pathways, time spent in hospital and premature birth and higher levels of anxiety and depression [18, 41]. Urgent support requests were frequently triggered by changes in symptoms, or threats to health. Where gaps in their network existed, women in our study sought ways to fill them from different means; for example, when timely informational support was not available from health professionals, other sources within their network were used, such as friends or the Internet. Technology, such as telephone and social media platforms, enabled women to seek informational and emotional support across a wide geographical spread, and beyond the confines of close physical proximity. Three interviews were conducted during the COVID-19 pandemic. The rapid change to the provision of remote antenatal care, compelled women to adjust to new ways of accessing and receiving antenatal care and information [42, 43].

Previous studies in pregnancy have identified different types of social support used by women [44, 45]; our findings extend this work by exploring how women with a high-risk pregnancy use the different members of their network for support, and how those networks change. Our findings indicate that woman navigate their network to identify those best able to provide the support required; this can depend on several factors including the nature and urgency of the support needed and how accessible network members are. In other contexts, this navigation and negotiation are hypothesized mechanisms through which an individual can generate collective efficacy [46]. We found that when seeking support, sometimes there was overlap in the types of support provided by a social network member, such as practical and emotional support. These different forms of support intersect, much like a nest, to provide a framework in preparation for birth of their baby. Both online sources and physical networks are used to build this framework of support.

While previous research has indicated widespread use of online social networks in pregnancy [47, 48], women in this study rarely used online social networks to meet other pregnant women. Where these online social networks were used for information, they were perceived as opinion rather than being empirically grounded. Women preferred to seek information from their physical network, health professionals, in particular their midwives, or trusted online sources, such as the NHS website. While the relatively high educational level of the women in our study may explain this, the high-risk nature of their pregnancy, and that they were making decisions affecting their baby's life rather than just their own, may make women more cautious about who they seek information from, and require higher levels of trust [49]. In line with this, in building their "nesting network" women with a high-risk pregnancy wanted greater and easier ways to access information from their maternity healthcare professionals, although, as reported, some in our study felt well supported by health professionals, especially their midwife. Given the known impact of high-risk pregnancy on mental health, previous research suggests healthcare professionals should support women with a high-risk pregnancy to manage their emotional needs [17]. However, a lack of continuity of care left some women reporting they had not developed a relationship with their midwife. These individuals did not automatically seek emotional support from their midwife or health visitor, nor feel it was something they were able to do. However, support from their midwife was highly valued in cases where a trusting relationship was established.

Analysis of the pregnancy experiences of women with social risk factors, who are at significantly greater risk of poor outcomes, has highlighted the value and importance of relationships and the provision of practical and emotional support [50]. These are vital in some pregnancies as there is, for example, widespread lack of knowledge and understanding about the signs and symptoms of preeclampsia or other high risk complications in pregnancy, and the ways of speaking up and effectively seeking urgent medical assessment and care [51]. Research on new models of group antenatal care have highlighted its potential as an instrument of empowerment and reaffirmed importance of social support for women with high risk pregnancies and/or from socio-economically disadvantaged and minority ethnic groups [52, 53]. While these models of antenatal care offer promise, this study adds insights into the multiple layers of support that women can draw on throughout their pregnancies and transitions to motherhood.

There are strengths and limitations to the study findings. This study uses an innovative approach, using a social network perspective to explore the importance of social relationships during and after a high-risk pregnancy. But it has several limitations. Firstly, the sample was small, had generally high education levels and those included were predominantly in their first

pregnancy rather than for other high-risk pregnancy factors. Interviews were conducted by several different researchers, with some in participants' homes and others over the telephone which might create bias in the data. Not all participants were interviewed twice during pregnancy and two were not interviewed postnatally due to loss to follow up caused by lockdown during the pandemic. Three postnatal interviews took place after the pandemic lockdown began in March 2020 which would have created an enforced change to their social networks that may not have existed otherwise, but this study does not address changes in social networks that resulted from the national lockdowns of 2020-21 [54].

4.2 Conclusion

Women with a high-risk pregnancy build "nesting networks" to support them through pregnancy into motherhood, and these networks change significantly in the postnatal period. Different types of social support are gathered from trusted sources, mostly people they know who have experience of pregnancy, childbirth, and parenting. These different strands intersect and mesh together to provide a framework of support. Although the internet is used for informational support during pregnancy, women value information gathered from their physical social network more than from an online social network. Women value the role their midwives can play in their "nesting network" by being central to providing timely accessible informational support during pregnancy.

4.3 Practice Implications

The African proverb "it takes a village to raise a child" has relevance [55]. This study demonstrates women gain support from a diverse range of sources, and among these midwives are a trusted voice. Women with a high-risk pregnancy highlighted the value that a midwife can play in supporting them through their pregnancies, by providing accessible and timely informational support and, where needed, emotional support. Recommendations include talking to women early on in their pregnancy about their support and information needs, highlighting the social changes ahead and exploring existing and potential social support networks. Signposting information and explaining ways to contact midwives regarding informational or emotional support would provide guidance about other aspects of their network which may not be providing accurate and up to date information on management of high-risk pregnancies.

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Appendices

Questionnaire

Qualitative interview topic guide

Network maps