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In search of the 'like-minded' people: pregnant women's sense-making of their physical activity-related social experiences

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ABSTRACT

Aims/Background: Social factors are increasingly recognised as influential on antenatal physical activity. While pregnant women describe the people and support they require to remain physically active, little is known about how pregnant women select and make sense of their social experiences throughout pregnancy. This study followed pregnant women's sense-making of their physical activity-related social experiences as pregnancy progressed, and physical activity declined.

Design/Methods: This study used a qualitative design. Four pregnant women were recruited in their second trimester, participated in three individual semi-structured interviews and submitted diary entries throughout trimesters two and three. Data were analysed using longitudinal interpretative phenomenological analysis.

Results: To facilitate physical activity, pregnant women were 'searching for the "like-minded" people who motivate, share and understand', namely pregnant women and prenatally trained exercise professionals. When making sense of social experiences, pregnant women were 'grading and critiquing the quality and paucity of "active pregnancy" information', and 'cherry-picking social experiences necessary for "nesting", obtaining support and protecting self-esteem as physical activity declined'. This involved disengaging from social experiences, and consequently, some pregnant women found themselves 'lamenting interactions with the "like-minded" people, contending with grief and inner conflict'.

Conclusion: Pregnant women proactively seek and make sense of social experiences to facilitate physical activity. In an increasingly digitalised society, interventions should support pregnant women to utilise social media constructively and safely to access 'like-minded' people, provide in-person and virtual networks to meet individual support needs throughout pregnancy and encourage health professionals to demonstrate interest in the 'active pregnancy' to maximise influence.

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Introduction

Physical activity (PA) confers numerous health benefits on mother and baby during pregnancy (Guinhouya et al., 2022; Perales et al., 2016), yet throughout pregnancy PA levels usually decline (Merx et al., 2017). While pregnant women commonly cite intra-personal barriers (Harrison et al., 2018), including sickness (Currie et al., 2016), fatigue, pain/discomfort (Whitaker et al., 2016) and lack of knowledge concerning the safety of PA (Connolly et al., 2015; Flannery et al., 2018), social factors are increasingly recognised as influential (Coll et al., 2017; Harrison et al., 2018; McKeough et al., 2022). Pregnant women not only report a greater need for social support to enable PA (D. Smith et al., 2014), but they describe and consider the opinions of others in their PA decision-making (Findley et al., 2020; Wagnild & Pollard, 2020). Social enablers include information and encouragement from partners, family, friends, health and exercise professionals, exercising peers and other pregnant women (Cioffi et al., 2010; Evenson et al., 2009; Fieril et al., 2014; Flannery et al., 2018; Leiferman et al., 2011; Thornton et al., 2006; Whitaker et al., 2016). Pregnant women also require childcare support to engage in PA (Thornton et al., 2006) and consider accompaniment to exercise classes or group exercise as motivational, such as exercising with other pregnant women (Cioffi et al., 2010; Fieril et al., 2014, 2017; Wagnild & Pollard, 2020; Watson et al., 2016), family (Krans & Chang, 2011, 2012; Leiferman et al., 2011), friends (Fieril et al., 2014, 2017; Harrison et al., 2019) and partners (Fieril et al., 2017; Krans & Chang, 2011). Interestingly, pregnant women's partners are frequently described as a PA enabler (Cioffi et al., 2010; Fieril et al., 2017; Flannery et al., 2018; Thornton et al., 2006; Whitaker et al., 2016), with pregnant women reportedly being more likely to be physically active at 18- and 32 weeks' gestation if their partners are physically active too (Liu et al., 2011).

Social factors, however, can also pose barriers to PA, particularly where there is inadequate social support or where social norms advocating reduced PA in pregnancy are experienced (Leiferman et al., 2011; McKeough et al., 2022; Wagnild & Pollard, 2020). For example, partners may relieve pregnant women of routine PA, like housework, to prioritise rest and avoid undue physical risk (Ogle et al., 2011). Family, friends and partners can also influence pregnant women's PA-related risk perceptions (Hanghoj, 2013) by proliferating myths concerning the risks of PA to foetal safety (Evenson et al., 2009; Hanghoj, 2013; Krans & Chang, 2012; Van Mulken et al., 2016), such as avoiding exercises that involve overhead movements (Krans & Chang, 2012).

Naturally, pregnant women often request advice on how to perform PA safely (Cioffi et al., 2010; Heslehurst et al., 2017); particularly from a 'credible source', such as health professionals (Harrison et al., 2019). Indeed, pregnant women consider health professionals to be a source of PA advice (Findley et al., 2020; Harrison et al., 2019; Whitaker et al., 2016) and encouragement for PA (Fieril et al., 2014, 2017; Lindqvist et al., 2018). Owing perhaps to their health promoting role and accessibility in routine antenatal care, pregnant women may expect health professionals to be both knowledgeable and responsible for providing PA advice. Yet, pregnant women report deficits in health professionals PA knowledge, such as being unable to explain the benefits of PA (Evenson et al., 2009) or providing advice that is vague, unclear and confusing (Clarke & Gross, 2004; Findley et al., 2020; Lindqvist et al., 2018; Ogle et al., 2011). These knowledge deficits, however, betray insufficient training in antenatal PA, coupled perhaps, with a pressure to provide PA

advice, as health professionals (particularly midwives) feel obligated to provide PA advice despite experiencing a lack of confidence on the topic (De Vivo & Mills, 2019). Alternatively, pre- and post-natally trained exercise professionals possess the knowledge and expertise to provide PA advice (Cioffi et al., 2010; Gross & Bee, 2004; Kinser & Masho, 2015). Yet, compared with health professionals, they are arguably less accessible or routinely encountered (as in antenatal care) without a degree of proactivity on pregnant women's part.

The literature illustrates how pregnant women may encounter a variety of social experiences that they accordingly must make sense of to inform and support their PA; as throughout pregnancy, PA experiences are continuously 'formed, supported and/or opposed by pregnant women's social environment' (Van Mulken et al., 2016). The influence of others on pregnant women's PA, however, may fluctuate throughout pregnancy. Clarke and Gross (2004) describe how pregnant women consult a variety of individuals when seeking information about exercise, and that the prominence of these individuals as an information source may change throughout pregnancy, depending on pregnant women's age, education status and pre-pregnancy PA level. In early trimester two, pregnant women tended to seek the expertise of health professionals and objective information sources, yet between weeks 25 to 38 pregnant women sought advice from family and friends. Equally, engaging and then disengaging from social experiences at different stages of pregnancy could also be influenced by the progressing pregnancy itself, warranting different social experiences where a preparedness for birth and the transition to motherhood are felt. In J. A. Smith's (1999) qualitative longitudinal study into four pregnant women's experiences of preparation for birth and motherhood, findings revealed that: '[a]s pregnancy progresses, women gradually withdraw from the public world, becoming more closely involved in their familial world, but then turn outwards again expressing ambivalence towards the birth as the time approaches' (Farr & Nizza, 2019, pp. 205–6).

Given the increasingly recognised influence of others on antenatal PA, there is scope to explore social factors experientially as a phenomenon pregnant women make sense of throughout pregnancy. While research is clear that pregnant women experience various interactions that may challenge or enable their PA, understanding how pregnant women select and make sense of these social experiences throughout pregnancy attends to questions about pregnant women's agency as a social being, their preferred social experiences to facilitate PA, and how this may change throughout pregnancy as PA levels inevitably decline. Understanding how pregnant women make sense of their PA-related social experiences makes a valuable contribution to the existing knowledge base available to both health and exercise professionals. Specifically, it conveys an understanding of how social experiences may be received, interpreted and utilised by pregnant women who wish to remain physically active. Furthermore, exploring the sense-making of social experience temporally highlights the complexities and challenges involved in supporting PA throughout pregnancy, and the adaptive strategies pregnant women deploy to manage a decline in their PA levels and abilities. Using longitudinal interpretative phenomenological analysis (IPA), this study aimed to explore pregnant women's sense-making of their PA-related social experiences throughout pregnancy, to consider: what are pregnant women's PA-related social experiences and how do they make sense of them? To interpret

pregnant women's sense-making, this study assumes that pregnant women are autonomous agents who seek out social experiences and make sense of them to facilitate their PA, which may change throughout pregnancy. In accordance with IPA, each participant is thus considered a 'sense-making agent who is interpreting his or her engagement with the world' (Smith, 2019, p. 167).

This study was conducted over 5 months (August 2020–January 2021) during the COVID-19 pandemic. Although participants reflected on brief moments of face-to-face social experiences during the summer of 2020, due to intermittent restrictions that limited access to people and places, social media was commonly used to source PA-related social experiences, and thus became a key feature of pregnant women's sense-making. Social media is a widely used interactive digital resource that can facilitate social interactions and access to information. Research shows that new mothers consider social media a 'source of both information and social support throughout the perinatal period in transitioning to the role of mother' (Baker & Yang, 2018, p. 33). Nevertheless, social media is fraught with reported downsides. Image-driven social media content can spark social comparisons that negatively impact user self-esteem and body image satisfaction, including amongst pregnant and postpartum women (Becker et al., 2022; Zeeni et al., 2021; Nagl et al., 2021). This study uniquely captures pregnant women's sense-making of social media as a forum for PA-related social experiences, offering recommendations relevant to health and exercise professionals in an increasingly digitalised society.

Methods

Design

This study aimed to capture and interpret participants' sense-making of their PA-related social experiences throughout pregnancy. A qualitative longitudinal design was selected to collect and analyse experiential data from participant interviews and written diarised accounts throughout their pregnancies. To capture and interpret participants' sense-making of their social experiences, IPA was selected as an analytical approach. IPA (Smith, 1996; Smith et al., 2009) draws upon idiographic and hermeneutic phenomenology to capture, reflect and make sense of participants' experiences by 'offering an interpretation' (Larkin et al., 2012). Introducing a longitudinal dimension to IPA enables the analysis of sense-making and phenomena temporally by structuring analyses across time, focusing upon change and presenting data in an iterative manner (McCoy, 2017).

The consolidated criteria for reporting qualitative research (COREQ) checklist was used to ensure this study complies with the necessary requirements of a qualitative design.

Ethical considerations

Ethical approval was obtained from ethics committee of Aston University (Ref. #1645). Participants provided informed written consent after reading the participant information sheet and consulting with the researcher. At each interview, informed consent was verbally reviewed, and participants were reminded of their right to withdraw from the study.

Eligibility criteria

The eligibility criteria comprised pregnant women in their second trimester (between 13 ≥ 26 weeks' gestation), who were English-speaking and who considered themselves to be physically active during pregnancy (i.e. performing PA for fitness/leisure).

Recruitment

A study advert describing the aim, nature and requirements of the study was posted on social media platforms. A snowball sampling strategy was used whereby interested/potential participants were encouraged to 'share' or 'repost' the study advert in the form of a social media 'post' or 'story'. After viewing the study advert, interested participants contacted the researcher and made expressions of interest. The researcher provided written information (participant information sheet and consent form), answered questions and assessed potential participants for eligibility.

Four participants were recruited from social media platform 'Instagram' and were awarded shopping vouchers for their full participation in the study (i.e. three interviews and submitted diary data). A sufficient wealth of rich, experiential data was collected for analysis from the sample of four participants. A larger sample size would have produced an unwieldy volume of data unsuitable for the research aim, which was to conduct an in-depth analysis of individual experience and sense-making across time. This view and sample size are consistent with other research deploying a qualitative longitudinal design (e.g. Shaw et al., 2016; Smith, 1999).

Participants

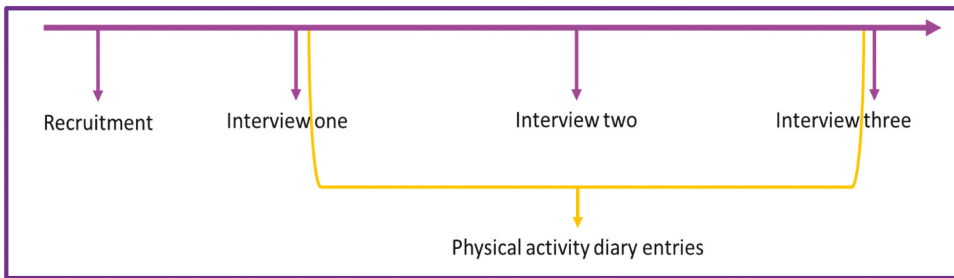
Participants were recruited in their second trimester and ranged from weeks 16 to 26 at interview one. Participants completed their final interview in their third trimester, ranging from weeks 33 to 36. All interviews and interactions between researcher and participants were conducted remotely via social media platform Instagram, email, WhatsApp messenger and telephone calls. Three participants were multiparas, and one participant was primiparous. All participants were physically active before and during pregnancy, performing various forms of physical activity for exercise/leisure (see Table 1) and utilised Instagram to both access and share PA content throughout pregnancy.

Data collection/storage

Data were collected using a pluralist approach that comprised interviews and diary entries (see Figure 1). Participants completed three one-to-one interviews remotely, which lasted approximately 1 hour. A semi-structured interview guide comprising a description and reflection format was used (see Table 2). The interview guide was reviewed and developed with a pregnant woman participant (separate from the participants in the current study) in a pilot study. Participants described their PA-related social experiences before reflecting on how they felt about them. Interviews two and three included questions that explored responses to previous interviews and diary data. This recursive interviewing

Table 1. Participant characteristics.

Participant pseudonym	Pregnancy stage (weeks)				Pregnancy status	Pre-pregnancy physical activity (PA)	Pregnancy PA
	Recruitment	Interview one	Interview two	Interview three			
Scarlett	26 weeks	27 weeks	31 weeks	36 weeks	Primiparas	Gym classes (HIT)	Prenatal exercise classes, Prenatal Yoga, Walking
Kelly	15 weeks	16 weeks	25 weeks	33 weeks	Multiparas (second pregnancy)	Yoga, Pilates	Yoga, Pilates, walking/hiking
Melanie	26 weeks	26 weeks	32 weeks	36 weeks	Multiparas (second pregnancy)	Swimming	Exercise with personal trainer, Swimming
Ruby	16 weeks	16 weeks	24 weeks	34 weeks	Multiparas (second pregnancy)	Running, cycling	Running, cycling, prenatal exercises, walking/hiking

**Figure 1.** Timeline of data collection points.

technique enabled the exploration of the phenomenon (social experience) and change across time, in-keeping with a longitudinal design (Neale, 2021).

Between interviews, participants used WhatsApp to diarise PA-related social experiences. The researcher prompted participants fortnightly (via WhatsApp) to make diary entries and would respond instantaneously, sparking a brief discussion about experiences. Collecting and sharing data via instant messaging created a live, editable transcript between participant and researcher, who were together implicated in a sense-making exercise as close as possible to the point in which the phenomenon was experienced (Crozier & Cassell, 2016).

Interview audio recordings were typed-up verbatim into transcripts. PA diary data were extracted from WhatsApp, organised chronologically and added to participant transcripts. All participant data were anonymised via the removal of personal identifiable information and through the assignment of pseudonyms. All data including consent forms, researcher notes, interview and diary data transcripts were stored electronically and securely on the university server. All digital correspondence between researcher and participants (emails and WhatsApp messages) and audio recordings of interviews were deleted from electronic devices (i.e. digital audio recorder, email and WhatsApp accounts). All stored personal identifiable data (i.e. participants' consent forms) were destroyed on completion of study analysis and write-up.

Table 2. Interview guide.

Topic	Question	Prompt
Opening question	Can you tell me a bit about your pregnancy so far?	How are you? How far along are you in your pregnancy? (eg., week/trimester)
Physical activity	Can you tell me a bit about your physical activities at the moment?	What physical activities do you do? What physical activities are you doing now? How do you feel about them? Are they important to you? How have you come to that view? What does physical activity mean to you?
Social experiences	Can you tell me about any talks, chats or interactions you have had about your physical activity during your pregnancy?	e.g. at work, home, the gym etc., What did you think about that? How did you feel about that? Has anything about your physical activity changed since then? How so? How do you feel about that?
	Have you come across any materials (e.g. posters, adverts, stories) about physical activity during your pregnancy?	What did you think about that? How did you feel about that? Has anything about your physical activity changed since then? How so? How do you feel about that?
	Have you come across anything on the internet about physical activity during your pregnancy?	This can include social media What did you think about that? How did you feel about that? Has anything about your physical activity changed since then? How so? How do you feel about that?
Previous interviews	In our last interview, if you recall we talked about ... has anything changed since then?	What do you think about this now? How do you feel about this now?
Physical activity diary	Is there anything from your physical activity diary/journal that you would like to talk about?	What did you think about it at the time? How did you feel about it at the time? What do you think about this now? How do you feel about this now?

Data analysis

In accordance with Larkin et al. (2012), the data were inductively coded to identify themes capturing pregnant women’s sense-making of their PA-related social experiences. At the initial stages, this involved the main researcher organising the data chronologically and reading the data repeatedly until the researcher felt familiar with the participants and their social experiences. Preliminary coding of the data was undertaken to inductively describe participants’ experiences into initial units of meaning and sense-making. These units were later combined and contextualised with researcher interpretations, which were documented in a reflexive journal that was shared with the research team to aid transparency. This involved developing a ‘dialogue’ between initial themes and the main researcher’s knowledge of the phenomenon. This dialogue formed the sense-making process integral to the IPA approach, which implicates the researcher’s

interpretation of participants' sense-making in the analysis. Next, a structure for each transcript was canvassed to identify relationships between themes before an overarching 'structure of themes' was developed that synthesised the data across cases. In accordance with longitudinal IPA (Neale, 2021), the data were structured to reflect 'change' throughout sense-making and social experiences. This involved iteratively re-applying themes to ensure their robustness and accuracy in time states across cases. The research team then reviewed and agreed upon a 'final structure of themes' that captured the similarities and contrasts in pregnant women's sense-making of their PA-related social experiences throughout pregnancy.

Reflexivity

This study was conducted as part of a full-time fully funded PhD studentship of the main researcher R.L. The main researcher conducted participant interviews and led the analysis of data under the supervision and collaboration with the supervisory team. The main researcher has a keen interest in the phenomenon physical activity and a passion to support participants to tell their stories. Reflexive practice was conducted throughout by the main researcher through detailed note-taking, the content of which was shared with the supervisory team to facilitate data interpretation.

Results

To facilitate PA, pregnant women autonomously and proactively deliberated a sense-making cycle of 'searching', 'grading', 'cherry-picking' and 'lamenting' social experiences as their PA declined throughout pregnancy.

Searching for the 'like-minded' people who motivate, share and understand

Owing to the restrictions of the COVID-19 pandemic, pregnant women utilised social media to locate and select social experiences that supported their changing PA throughout pregnancy. Pregnant women described searching for '*like-minded*' people, who share, understand and reinforce their PA.

For Scarlett, '*like-minded*' people were pregnant women who share and '*really understand*' her stage of pregnancy and how this affected her ability to remain physically active. Scarlett found '*like-minded*' people who shared a '*similar situation*' in online groups, including a prenatal fitness class called '*Insta Live*'. Amongst such online groups, Scarlett sought to establish a sense of belonging and connection:

I'm looking for those like-minded – or those people that are in similar situations to me to kind of help reassure me that one: I'm not alone, and two: I am doing my best . . . I've been seeking out people that are in the third trimester or that might be in similar stages of pregnancy and wanting to get their feedback, because I feel like they'll understand more so than anyone else.
(Scarlett)

While Scarlett appreciated support from partner, family and friends, their support lacked the comparative value of those '*like-minded*' pregnant women, who

displayed an unrivalled understanding of her pregnancy and how this impacted her PA:

I'm not necessarily looking for someone to make me feel better about it ... As much as it's all coming from love and a good place, I just wanted someone to say: "Oh, I totally understand that would be frustrating". But only somebody that's going through it or gone through it can really do that. (*Scarlett*)

While other participants also appreciated support from family, friends and especially partner (namely Kelly and Ruby), they too sought 'like-minded' people to facilitate PA. For Kelly, who instructed online pilates classes, 'like-minded' people were pregnant women who were 'similar' as they shared her enthusiasm for prenatal yoga: *'It's just nice to share that experience and just to knock ideas off each other ... nice way to meet people – like-minded. I guess if you're doing a similar type of activity, you're going to be similar'*. Kelly also sought advice from health and exercise professionals and 'reputable' social media platforms that provided up-to-date information on the 'active pregnancy'.

Ruby also sought information from exercise and health professionals online to inform her PA choices, particularly in early pregnancy where she wished to understand whether 'high-impact exercise' posed a risk to 'recurrent miscarriages':

I kind of made the decision to not run ... I was listening to an Instagram Live ... a women's health physio and an endurance athlete. And I think somewhere in there they mentioned ... reducing high-impact exercise if you'd had recurrent [miscarriages]. (Kelly)

Notably though, Ruby expressed a draw towards the pregnant women she instructed in her online exercise classes. This social experience fostered rich reciprocity, as the pregnant women shared Ruby's 'enthusiasm' for PA and motivated Ruby to be their PA role model:

... the women in the group that I've got going ... They're always like: "Ruby, you're so good at motivating us and your enthusiasm" – I was like: "Yeah, but you guys keep me going too" – If I wasn't doing it for them, then I'd be a bit like: "You know what? I'll just sit down some days". (Ruby)

Both Kelly and Ruby, however, made clear that the support (and in some cases approval) of their husbands to continue exercising was crucial: *'The support from my husband is the most important just because he's the person that I'm around all the time'* (Ruby). Participants described going on joint walks with their husbands and seeking their advice on continuing or discontinuing exercise throughout pregnancy.

For Melanie, 'like-minded' people were those who shared her PA form or pursuit rather than her experience of pregnancy. Melanie tentatively expressed a likeness to other 'sea swimmers' who shared her PA form: *'... you almost feel like you're a part of this kind of swimming – not like a club, but there are people who swim all year round, and there are people like me who swim not all year round'*. Yet above all social experiences, Melanie esteemed the 'one-to-one relationship' with her personal trainer, who provided motivation through a 'training programme' tailored to her PA pursuit (or goal), stage of pregnancy and even sense of self:

...she's giving really tailored advice and structures that are completely based on the symptoms that I'm having at that time ... it's also really great to have that kind of one-to-one

relationship with somebody who's designed a program that's perfect for what I want and who I am. (Melanie)

Grading and critiquing the quality and paucity of 'active pregnancy' information

When selecting social experiences, multipara participants appraised the information available to them in a sense-making exercise of grading and critiquing.

Unlike Scarlett, who avidly used social media to connect with *'like-minded'* people, Melanie veered away from social media and the internet as information sources after experiencing *'mixed messages'* and *'contradictory'* information. Melanie warned of the toxic algorithms and surveillance properties of social media, which make it difficult for users to avoid content: *'I'm still getting served the same adverts, getting more adverts now for new-born stuff, like a million products ... obviously, the internet knows that I'm nearing my due date, which is scary.'*

Despite seeking information from professionals, Ruby and Kelly were vociferous about the questionable knowledge and expertise of health and exercise professionals concerning the *'active pregnancy'*, especially online. They also described the paucity of information and positive reinforcement from health professionals during appointments, leading one participant to conclude disinterest on their part:

I haven't found that obstetricians or the midwives to be that knowledgeable ... I think it's quite funny that they don't mention it when you go to the doctors. They don't really ask: "Oh, are you active?" – it's not really in their vocabulary ... they're not that bothered about what you do ... when I've mentioned it as well, it hasn't been something that's been praised. (Kelly)

These social experiences led participants to pose searching questions about the *'responsibility'* of health and exercise professionals and social media influencers to inform and guide pregnant women about PA:

... it's just that where do women get their advice from? And more than just an infographic, an explanation of the infographic ... whose responsibility it is to give the information out? Is it your GP? Is it your midwife? Is it somebody that you follow on Instagram who doesn't actually know who you are?. (Ruby)

Although participants generally stopped grading and critiquing these social experiences as PA declined, their search for a professional who assumes *'responsibility'* represented a need for prenatal PA expertise amongst exercise professionals and missed opportunities amongst health professionals to positively reinforce PA throughout pregnancy. Indeed, for Kelly, grading and critiquing health professionals discontinued when she found her own private midwife who was supportive of her physical activities in utero.

Cherry-picking social experiences necessary for 'nesting', obtaining support and protecting self-esteem as physical activity declined

Throughout pregnancy, participants deliberated a cherry-picking sense-making exercise that involved intermittently engaging and disengaging from social experiences. As PA levels declined, cherry-picking social experiences became necessary to select those conducive to preparing for birth, obtaining support and protecting self-esteem, particularly from comparisons with others.

Throughout trimester two, Scarlett engaged with an online network of pregnant women on *'Insta Live'*, led by prenatal exercise professionals. While Scarlett felt able to engage in these exercise classes, she highlighted the cruciality of this network for providing guidance and reassurance on how to perform PA safely:

... if I didn't have that network of pregnant women, a pregnancy specialist doing the instructing, I would've just been worrying all the time that, what if I've done something I shouldn't have done, or have done it too much... I know if that was taken away from me now then I would be lost. (Scarlett)

Yet as vigorous exercise became challenging by late trimester three, Scarlett disengaged from the *'Insta Live'* network and engaged with a new online pregnant women group, who were geographically local to her and were *'going through similar changes'*. They too being in the progressed stages of pregnancy and less inclined to exercise, meant they could viscerally share and understand Scarlett's *'situation'* and offer emotional support appropriate to her stage of pregnancy:

I could see in their face and I could hear it in their voice, that they could really understand it. And they said it without me saying anything. They were saying it. It wasn't prompted by me sort of saying: "Well, I'm feeling really frustrated by this". They kind of said it first as well, and then I was kind of like: "Yeah, that's exactly how I'm feeling". (Scarlett)

This support group also showed promise of long-lasting friendships, offering the prospect of transitioning from the virtual social world of prenatal exercise to a real-world social connection in postpartum: *'... it's nice to almost start making friends with these people... this has given me access to a more local community where at some point we'll meet face to face'* (Scarlett).

Like Scarlett, as PA levels declined, Kelly disengaged from previously preferred social experiences, such as delivering pilates classes online and obtaining PA-related information from social media. Notably, Kelly voiced a conscious disengagement from social media towards the end of her pregnancy to harness her *'nesting'* instincts in preparation for birth:

I have been a bit more disconnected from a lot of it actually... I think this is a normal phase to go through in this pregnancy that towards the end of pregnancy, I find it a little bit insular. And I think the need to follow as much information does not seem like what's right for me... they call it nesting, I guess when you start to not feel like you need to be connected with the outside world as much. (Kelly)

As pregnancy progressed and PA reduced, Ruby also described disengaging from social media to focus on *'trying to slow down and prepare'* for birth. This disengagement was also required for protecting her self-esteem from social media content, as Ruby described unfollowing the Instagram account of another pregnant woman/mum exerciser that sparked comparison: *'I think there was one person who I vaguely know. And I started comparing myself to her. And as soon as I started, I just unfollowed her on Instagram. I was like: "I don't need to see that"'*. This social experience depicts a downside of social media use, where curated realities can negatively impact user's self-esteem.

Throughout pregnancy, Melanie consistently esteemed the interaction with her personal trainer. Melanie described her as a *'little angel'*; a watchful guardian to whom she is willingly *'accountable'* throughout pregnancy:

If I hadn't gotten the personal trainer, I would've had to be way more proactive and way more kind of self-motivated. Because just having her like a little angel on my shoulder, checking in on me ... being accountable to someone has kind of meant I've kept it up. (Melanie)

This social experience provided an individualised, supportive interaction that was essentially more reassuring of her physical abilities and more protective of her self-esteem than group exercise, where she could be comparatively judged by others as *'the worst person [exerciser] in the room'*.

Lamenting interactions with the 'like-minded' people, contending with grief and inner conflict

Kelly and Ruby experienced grief and inner conflict when disengaging from the social experiences that were crucial to their PA. By contrast, Scarlett only briefly lamented disengaging from the *'Insta Live'* network, as she found replacement in another pregnant women group, and Melanie's interaction with her personal trainer was pre-arranged to gradually decline throughout pregnancy in a *'countdown'* to birth.

While Kelly felt it was safer to stop teaching altogether, she nevertheless experienced inner conflict and guilt for disengaging from her pilates students earlier than she planned: *'I felt a bit like I'm letting people down, letting my class down and stuff by stopping early'*. Kelly expressed a sense of grief when unwillingly disengaging from a face-to-face prenatal yoga group; lamenting the emotional support and connection she experienced: *'I've really missed the interaction of going to yoga as I haven't felt great these last few weeks and really missed a female support network'*. This lamentation was exacerbated by the value Kelly attributed to face-to-face interactions, describing them as more conducive to establishing meaningful bonds and connection than online settings.

Ruby also expressed inner conflict when reducing her PA and disengaging from instructing pregnant women exercisers to prepare for birth and maternity leave: *'I was like: "I want to stop work and have maternity leave" – I think I'm really going to miss having that, up and doing something on a Monday morning'*. Pregnant women exercisers were a crucial social experience; providing *'that little bit of motivation'* she needed to *'be in the right mindset'* to remain physically active throughout pregnancy as a role model to others.

Discussion

This study followed four pregnant women's sense-making of their PA-related social experiences throughout pregnancy during the COVID-19 pandemic. Pregnant women described searching for the *'like-minded'* people, which involved a sense-making exercise of grading and cherry-picking preferred social experiences. As PA levels declined and pregnancy progressed, without an alternative group of *'like-minded'* people, participants lamented those social experiences facilitatory of their PA.

Participants selected social experiences that helped them access *'like-minded'* people. These were pregnant women and exercise professionals who provided motivation, shared an enthusiasm for PA and understood how physical ability for exercise changes throughout pregnancy. Amongst the literature, pregnant women are described as key motivators for PA (Cioffi et al., 2010; Fieril et al., 2014; Krans & Chang, 2011; Watson et al., 2016).

Exercise groups are conducive to establishing bonds and connections amongst a 'support network' of pregnant women (Flannery et al., 2018; Marquez et al., 2009), including pregnant women who understand and share 'the same situation' (e.g. overweight or obesity) while trying to remain active (Fieril et al., 2017). However, group exercise can become problematic throughout pregnancy for various reasons, such as changes in ability to perform exercise or personal preferences. Participant Melanie disliked the comparative dynamic of group exercise and preferred (or rather tolerated) exercisers that shared a particular PA rather than stage of pregnancy. Interestingly, non-exercising pregnant women have described how group exercise with other pregnant women would be 'uncomfortable' if they considered themselves to be 'untrained' by comparison (Ekelin et al., 2018), and some pregnant women have expressed a need for exercise companions without requiring these exercisers to be pregnant themselves (Ekelin et al., 2018; Evenson et al., 2009). To meet participants varying support needs, prenatally trained exercise professionals were considered important. Exercise professionals provided motivation, expertise and offered a tailored understanding of antenatal PA throughout pregnancy. Amongst the literature, pregnant women describe these enabling qualities, including one-to-one coaching (Cioffi et al., 2010), tailoring exercise to pregnancy (Kinser & Masho, 2015) and possessing expertise/knowledge (Gross & Bee, 2004). Altogether, this suggests that improved access to prenatally trained exercise professionals throughout pregnancy is valued.

While participants valued the support of family, friends and partner, these social experiences were seemingly less consistently preferential (in most cases) to the 'like-minded' people for facilitating PA, perhaps due to their comparatively weaker understanding of the 'active pregnancy'. However, both Ruby and Kelly vocalised the cruciality of having a supportive partner, and research recognises family, friends and partners as social enablers for antenatal PA (Chang et al., 2015; Choi & Fukuoka, 2018; Cioffi et al., 2010; Fieril et al., 2017; Flannery et al., 2018; Krans & Chang, 2012; Leiferman et al., 2011; Liu et al., 2011; Thornton et al., 2006). The need for 'like-minded' people, alongside familial and partner support, may be consequential of the autonomous and proactive nature of the pregnant women participants, who prioritised PA, and thus sought various social experiences for their changing, individualised, PA-related support needs. It might also convey the influencing power of shared experience or shared understanding, both of which were important for all participants.

Although health professionals are perceived as key information sources for antenatal PA (Findley et al., 2020; Whitaker et al., 2016), participants in the current study criticised health professionals for failing to provide adequate information and to show interest in their 'active pregnancy'. Research mirrors these experiences (Evenson et al., 2009; Ferrari et al., 2013; Findley et al., 2020; Krans & Chang, 2011; Leiferman et al., 2011; Lindqvist et al., 2018; Watson et al., 2016), and, consistent with Clarke and Gross (2004), while participants showed a draw to health professionals to inform their PA initially, they disengaged from health professionals in later pregnancy, seeking advice and support from 'like-minded' people elsewhere. However, while providing antenatal PA knowledge/expertise may be better sourced from prenatally trained exercise professionals, pregnant women look to health professionals for encouragement and to demonstrate interest in their 'active pregnancy', which reveals an important influential role for health professionals

throughout pregnancy. This finding is consistent with the research of Fieril et al. (2014, 2017) and Lindqvist et al. (2018), which captured the value pregnant women attribute to the encouragement of PA and health behaviours from health professionals, including midwives.

While participants also criticised the quality of information from non-prenatally trained exercise professionals and social media, they continued to source these social experiences to a notable extent. Social media can be highly useful for accessing and selecting preferred social experiences. It provides a forum for *'like-minded'* communities to convene and exist (Dungay et al., 2015) and has been shown to facilitate the establishment of bonds and social support amongst pregnant (Baker & Yang, 2018; Peterson-Besse et al., 2019) and postpartum women (Johnson, 2015). However, seeking *'like-minded'* people online must be exercised with caution. Failing to be cautious/critical may leave social media users exposed to misinformation and prolonged social media use due to sophisticated algorithms.

Changes in pregnant women's ability to perform certain physical activities appeared to direct their selection or preference for social experiences throughout pregnancy. Stronger PA abilities in early pregnancy directed engagement with social experiences that mirrored these PA forms and levels, such as pregnant women exercisers and exercise professionals. Whereas a decline in energy or ability to perform certain physical activities called for a shift in previously utilised social experiences. Both Ruby and Kelly disengaged from teaching pregnant and non-pregnant exercisers, Scarlett migrated towards an online pregnant women support group and disengaged from *'Insta Live'*, while Melanie willingly reduced her exercise sessions with her personal trainer in a *'countdown'* to birth. Changes in physical abilities seemed related to advanced pregnancy stage, such as no longer needing *'active pregnancy'* information from the internet or health professionals, or to engage with a different group/individual to meet support needs. This engagement with medical/objective information sources (e.g. health professionals) in earlier pregnancy, and then migration to others for bonding and sourcing experiential *'ideas'* in later pregnancy is consistent with Clarke and Gross (2004). However, in the current study, *'like-minded'* people were more often sought than family/friends.

To make sense of their disengagement from previously utilised social experiences, participants either sought new support from *'like-minded'* people or offered explanations. Kelly described the phenomenon of *'nesting'* to make sense of her disengagement from social media in late trimester three. This description of retreating-to-family-life in later trimesters is consistent with J. A. Smith's (1999) exploration of transition to motherhood. Other reasons for disengaging from social media included pernicious algorithms, misinformation and experiencing negative upward comparison. This is consistent with research showing that *'idealised images'* of maternal bodies on social media and subsequent comparisons may be harmful to pregnant and postpartum women's mood, self-esteem and self-perception of their own body image (Becker et al., 2022; Nagl et al., 2021; Zeeni et al., 2021). These experiences represent common downsides to social media use that require education and support. When *'cherry-picking'* and disengaging from social experiences, some participants expressed grief or inner conflict; lamenting interactions with the *'like-minded'* people that previously facilitated their PA. Supporting pregnant women to remain active throughout pregnancy requires social experiences with *'like-minded'* people, tailored to their individual preferences, stage of pregnancy and PA ability.

Limitations

A limitation of this study is the study setting, which was conducted exclusively social media. This limitation was unforeseen and due to the pandemic, which limited social experiences for pregnant women. Future research should endeavour to capture social experiences in real-world settings outside of social media, as it is anticipated that a richer array of social experiences and sense-making will be captured. However, while most social experiences were sought online via social media, an increasing use of online platforms for working and socialising means this study provides findings pertinent to a changing social world.

Another limitation includes the specificity of the study population. While this study revealed the sense-making and social experiences of a specific population of physically active pregnant women, who autonomously sourced social experiences and were conversant with social media, this omits alternative populations of pregnant women. For example, pregnant women who not proactively PA, who do not use/have access to social media or who contend with challenges and barriers unexplored in this study, such as deficits in social support or social/cultural norms that do not favour an active pregnancy. Future research could explore the social experiences and sense-making of pregnant women who are less/not physically active or digitally adept or autonomous or proactive in seeking out social connections, or who are likely to experience social barriers/challenges to engaging in PA throughout pregnancy.

Conclusions

This study describes how, throughout pregnancy, pregnant women seek social experiences amongst *'like-minded'* people who share, understand and motivate pregnant women relative to their changing physical abilities and support needs. Namely, pregnant women and prenatally trained exercise professionals. To make sense of their social experiences and select those that facilitate their *'active pregnancy'*, pregnant women graded, critiqued and revealed those of disappointingly poor quality. As such, health professionals should express interest in pregnant women's PA throughout pregnancy to maximise their opportunities for influence.

As PA levels decline and pregnancy progresses, pregnant women cherry-pick social experiences, disengaging from previously *'like-minded'* people and migrating to others who meet their changing support needs. While disengaging from social experiences may be necessary to prepare for birth and protect self-esteem; grief and inner conflict can be experienced. Alternative groups of *'like-minded'* people tailored to stage of pregnancy should be accessible to support pregnant women to remain active and share experiences.

Social media can facilitate access to *'like-minded'* people, who can support PA throughout pregnancy, especially when changes in physical abilities occur. Establishing bonds between pregnant women, however, may require a face-to-face setting, and caution should be exercised when obtaining information online, which can be contradictory and unrelenting. In an increasingly digitalised society, interventions should consider how pregnant women can be supported to utilise social media positively to source the

social experiences that support their PA. Interventions should also provide local/in-person social networks for pregnant women to access the 'like-minded' people appropriate for their preferred social experiences, changing physical abilities and individual support needs relative to stage of pregnancy.

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Data availability statement

The data that supports the findings of this study are available on request from the corresponding author [R.L]. The data are not publicly available due to [restrictions, e.g. their containing information that could compromise the privacy of research participants].

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