Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Being in the shadow of the unknown — Swedish women's lived experiences of pregnancy during the COVID-19 pandemic, a phenomenological study

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ABSTRACT

Background: The COVID-19 pandemic has had a profound effect on the emotional well-being of expecting mothers. Sweden's unique strategy for managing COVID-19 involved no national lockdown. Emphasis was instead placed on limiting crowding and asking citizens to practice social distancing measures.
Aim: To gain a deeper understanding of how women not infected by SARS-CoV-2 experienced pregnancy during the COVID-19 pandemic in Sweden.
Methods: This was a qualitative study with a reflective lifeworld approach. Fourteen women that had not contracted COVID-19 and who were pregnant during the first and second wave of the pandemic were interviewed. Data were analysed with a phenomenological reflective lifeworld approach.
Findings: The essence of the women's experiences of being pregnant during the COVID-19 pandemic was best described as being in the shadow of the unknown, where the COVID-19 pandemic could at times totally overshadow the experience of being pregnant, while at other times, rays of sunlight pierced through the clouds. The experience was characterised by having to deal with the uncertainties caused by the pandemic and feelings of being in an information echo. Women felt socially isolated and had to face maternal check-ups without the support of their partners. There was, however, a strong trust in maternal health-care services despite the lack of information available.
Conclusion: Being in the shadow of the unknown represents the uncertainties posed by the COVID-19 pandemic on the experience of pregnancy. Sufficient information, a companion of choice and screening for emotional well-being are important factors in maternity care during pandemics.

1. Introduction

Pregnancy is one of life's great transition periods [1], a time where most pregnant women undergo an internal self-reorganisation in preparation for welcoming the new baby [2]. While pregnant women often experience positive feelings and look forward to parenthood, pregnancy can also be a time where concerns for the woman's own health and the health of the unborn child may arise. Together with new experiences, great changes and personal development, pregnant women benefit from the support of their partners, family and friends [3].

In 2020, a novel coronavirus disease (COVID-19) started to spread from China throughout the entire world and was declared a global pandemic by the World Health Organization (WHO) on March 11th, 2020. With high mortality rates and no cure available, the onset of the COVID-19 pandemic drastically reshaped society and every-day life completely since measures, such as quarantine and other social restrictions, were implemented in order to minimise the spread of the virus.

Initial reviews reporting the impact of COVID-19 in pregnancy confirmed that pregnant women were at higher risk for severe COVID-19 and COVID-19 related mortality as well as preterm birth [4,5]. Guidelines with regard to monitoring of pregnancies in COVID-19 infected

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mothers, testing strategies, health care visits, the use of personal protective equipment (PPE), newborn monitoring and care were also under constant change in the beginning of the pandemic.

With no formal national lockdowns, Sweden had a high incidence of COVID-19 [6]. Strict recommendations urging social distancing, staying at home in case of COVID-19 symptoms, working from home as far as possible along with compensation allowing individuals at risk for severe COVID-19 to be able to stay at home from work were in place. No official recommendation of mask wearing outside of healthcare settings was issued by the authorities [7]. Pregnant women were only recognized as a risk-group with the right to compensation from February 2021 — nearly one year after the presence of the virus in Sweden [8].

It should be noted that maternal care in Sweden is standardized and free of charge, therefore the overwhelming majority of pregnant women participate and attend their antenatal check-ups. However, in order to minimize the spread of COVID-19, most Swedish maternity units prohibited partners from all antenatal care visits and ultrasound examinations. Whilst healthy partners were allowed inside the birthing suit to witness the birth of their baby, the majority of all hospitals barred them from maternal and post-partum wards [9].

Previous research has indicated that worries about the pandemic together with societal measures, such as lockdowns, have had negative effects on the emotional well-being of expecting mothers, with increased maternal stress and anxiety levels during the pandemic [10,11]. Sweden's strategy for managing COVID-19 was drastically different from other Nordic countries, with the Public Health Authorities in Sweden opting not to enforce national lockdowns. The society in general was kept open with focus on trying to limit crowding and asking citizens to practice social distancing measures [6].

The effect of this unique COVID-19 strategy on pregnant women is unknown, but Swedish research early in the pandemic showed increased stress levels in expecting mothers [12]. Therefore, the aim of this study was to gain a deeper understanding of how women not infected by SARS-CoV-2 experienced pregnancy during the COVID-19 pandemic in Sweden.

2. Methods

2.1. Study design

This was a qualitative study which was designed with a phenomenological reflective lifeworld approach, as described by Dahlberg et al. [13], in order to illuminate lived experiences of being pregnant during the COVID-19 pandemic. Phenomenology is particularly valuable to understand phenomena from the woman's point of view as this research method is grounded in the lifeworld theory based on the work of Husserl, Gadamer and Giorgi [13]. In lifeworld research, in order for the researcher to be truly open to the phenomena they must bridle their own pre-understandings and therefore set aside their own personal experiences and knowledge [13]. The use of phenomenology with a lifeworld approach was deemed suitable as it provides an opportunity to gain a deeper understanding of the phenomena of being pregnant during the COVID-19 pandemic and to highlight nuances and differences in the women's experiences. In order to gain variations, women with different backgrounds were interviewed. The Ethics Review Board, Lund, Sweden (diary number 2020-02189), granted national ethical approval for the study on the 13th of May 2020. This study is part of the COPE study researching COVID-19 in pregnancy and early childhood [14].

2.2. Participants

Participants were recruited from three hospitals in two different regions located in the western and southern parts of Sweden. Women who had been pregnant during the COVID-19 pandemic, had not contracted SARS-CoV-2 during their pregnancy (to the best of their knowledge), aged 18 or older, who understood Swedish or English, received care or gave birth at one of the participating sites were eligible for inclusion. Fifteen women agreed to participate in the study, however, one woman was excluded at the time of data collection as she had contracted SARS-CoV-2 in pregnancy and therefore did no longer meet the inclusion criteria. Prior to data collection, the participating women were reminded about the aim of the study, that their participation was voluntary, data were handled confidentially and that they could withdraw from the study at any time without offering an explanation. Data collection was carried out during March to April 2021; however, the women had all given birth during August to November in 2020 and had thus been pregnant during the first wave (approximately mid-March until mid-July 2020) and second wave (approximately mid-October 2020 until mid-February 2021) of the COVID-19 pandemic [15]. All interviews were conducted in Swedish, except for one, which was done in English. The interviews were carried out at the participant's preferred time through digital video (or audio) meetings organized by the interviewer. The interview was conducted with an open-ended question "Please tell me about your experience of being pregnant during the COVID-19 pandemic?". Follow- up questions 'Can you elaborate on that?' 'How did that make you feel?' 'How do you mean?' were asked to deepen understanding. The interviews lasted between 30–70 min. All interviews were audiotaped and transcribed verbatim.

2.3. Data analysis

Data were analyzed based on phenomenological reflective lifeworld approach, as described by Dahlberg et al. [13] by three of the authors (KL, ND, AW). The first step was to become familiar with the data; the transcript text was therefore read through several times in order to gain an initial sense and a general understanding of the interviews. The second step involved identifying meaning units corresponding to the aim of the study. These meaning units were then grouped into clusters. NVivo 12 software (http://www.qsrinternational.com/) was used for extracting meaning units and grouping clusters. The final step involved describing the essence (of the phenomena) by constantly moving between the clusters and the transcribed interview text.

Identification and understanding the essence as a new whole, meant moving between the different parts and the text as a whole. When the essence had emerged, it was described in depth by its constituents and their variations and nuances. Data analyses was a long, ongoing process where the researchers constantly checked if they could detect any inconsistencies between the whole and the data collected. The analysis was first conducted individually and later discussed between the authors to confirm the essence, it's constituents and ensure that the variations in the data were visible in the text. All quotations were carefully translated from Swedish to English with input from a bi-lingual speaker in order to not lose any meaning. The researchers involved in the analysis had continuous discussions in order to identify the essential structure and its constituents [13].

3. Findings

Fourteen women (n = 14) participated in the study; all women were born in Sweden except two (n = 2) who were born within the European Union. One (n = 1) woman was single and all other (n = 13) either married or co-habiting with their partner. The majority of women were primiparas (n = 9), four women (n = 4) were diagnosed with a pregnancy complication (growth enhanced fetus, pre-eclampsia, choledocholithiasis and hydronephrosis), but all women gave birth to healthy infants. Background characteristics are described in Table 1.

The essence of the phenomenon of women's experiences of being pregnant during the COVID-19 pandemic was best described as being in the shadow of the unknown, where the COVID-19 pandemic could at times totally overshadow the experience of being pregnant, while at other times rays of sunlight peeked through the clouds.

For the women, pregnancy is one of the biggest transitions of life, a

Table 1
Personal characteristics of the informants (n = 14).

Interview no.	Age (Years)	Highest level of education	Parity during pregnancy	Able to work from home	Chronic condition	Diagnosed with a pregnancy complication
1	29	High school	0	Yes	No	No
2	28	University	0	Yes	No	No
3	37	University	1	Yes	No	No
4	27	High school	1	Yes	No	Yes
5	29	University	0	Yes	No	No
6	34	High school	1	Yes	Yes	Yes
7	36	University	1	No	No	Yes
8	37	High school	0	No	No	Yes
9	30	University	0	Yes	No	No
10	32	University	0	Yes	No	No
11	28	High school	0	No	No	No
12	32	University	0	Yes	No	Yes
13	34	University	1	Yes	No	Yes
14	32	University	1	Yes	No	Yes

major event that is normally shared with family and loved ones. The spread of COVID-19 and the possible consequences of being infected during pregnancy together with societal recommendations of social distancing represent the unknown in the shadows. Strict restrictions on who could accompany women to antenatal check-ups were implemented. The pandemic therefore overshadowed their experience of pregnancy. The effects of the pandemic were more or less visible for different women, but the shadow was present for all of them. The shadow followed them throughout their pregnancies, as it was hard to escape COVID-19 related news on the radio, television and on social media. Pregnant women were constantly being reminded of COVID-19 by new cases, deaths and developments in their communities. Society was drastically re-shaped with limited physical contact between people, recommendations to socially distance from extended family members, colleagues and friends, which sometimes led to feelings of loneliness in pregnant women.

The shadow from the COVID-19 pandemic was not equally prominent for all women. Pregnant women handled this "new" way of life in different ways. Some became more worried and others acknowledged the presence of the shadow but did not dwell too much upon its existence. It is not uncommon that a woman worries for her unborn child during pregnancy. The additional unknowns and uncertainties of the COVID-19 pandemic together with the constant reporting in the news increased the women's worries. Other women acknowledged the pandemic but took the new situation in their stride and did not worry too much.

Due to the lack of scientific knowledge in the beginning of the COVID-19 pandemic, maternal health-care workers did not have much information to give the women about the virus or its effect on pregnancy. This lack of information affected pregnant women, as some felt that they had not received adequate information or guidance. The absence of pregnancy related information led to some women searching news outlets and internet sites for the latest developments.

The unknowns related to the pandemic constantly overshadowed maternal health-care services but despite the lack of official information, women still had great trust in their health-care providers. Maternal health-care services were full functional, and women felt that they were adequately supported by their primary midwife even though they wished for more emotional support during the pandemic.

The essence can be further described in five constituents: "dealing with uncertainties", "being in an information echo", "feeling socially isolated", "facing maternity care without support" and "trusting maternal health-care services".

3.1. Dealing with uncertainties

The many unknowns due to not knowing how contracting COVID-19 would affect them and their unborn child caused the women major concerns. Women expressed that there was already a lot to worry about during pregnancy to begin with, and that adding the unknown risks of contracting COVID-19 on top of that caused feelings of worry and unease. Even if they tried to focus on other things and tried to ignore thinking about COVID-19, the effects of the pandemic were always present in everyday life and were therefore hard to overlook.

> I just think it was more this general concern, the uncertainty, is this dangerous? […] what would happen if I got infected, is it dangerous for me? Is it dangerous for the child? […] what would happen if you ended up in intensive care and so on… (Interview no. 14, I-para)

Different women handled uncertainties in different ways. Some women carried on with their everyday life and took the approach that COVID-19 could take a back seat to everything else that they had going on. These women kept busy with work, some had children from before, which allowed them to shift focus. In other cases, there were other concerns that were greater than the fear of contracting COVID-19.

> Having diabetes [type 1] and being pregnant has been tougher than handling [the worry about] corona for me, because (…) it is a full-time job in itself, for the blood sugar to be right … So that made it more like I did not have time to think about much else (…) That quota is filled… and was filled even before corona came… (Interview no. 4, I-para)

Some women felt the need to minimise contact with people outside their own household in a way to protect themselves and the baby, thereby alleviating their worries of being infected with COVID-19. Some worried to the point that their overall wellbeing was severely affected. One woman skipped midwifery appointments in fear of being infected at the maternity care clinic. She later had to seek care from a psychologist because of these intense fears of being infected, a fear that affected her everyday life and all aspects of her pregnancy.

> I think it was quite a lot [due to] that the uncertainty made me withdraw even more, like then I ignore everything so I do not have to feel that I have done something risky or stupid (Interview no. 2, 0-para).

Overall, the women expressed that they often found themselves in emotional limbo, on one hand they were worried and concerned about the risks of contracting COVID-19 during pregnancy whilst on the other hand, they were looking forward to seeing their babies and tried to enjoy their pregnancy despite the unknowns.

3.2. Being in an information echo

The experience of being pregnant during the COVID-19 pandemic was characterised by being in an information echo where information

about the virus seemed to be everywhere and nowhere at the same time. A common experience described by all the women was a general lack of information from health-care providers. Women expressed that even if knowledge about COVID-19 at the time was limited, that existing information was not communicated adequately from health care providers to them. This lack of dialogue and the fact that women had to actively ask their midwife about the latest development and guidelines was experienced as stressful for some women resulting in feelings of uncertainty.

> I think there should have been a little more from the midwives when you were pregnant… a little more information… that you did not constantly needed to, you know, chase them and ask -How is the situation now? (Interview no. 1, 0-para).

Women read new newspaper articles almost daily about how COVID-19 could possibly affect the fetus. Some women disregarded these articles since they believed that maternal health care providers would communicate any relevant information. For these women, constant information about COVID-19 did not affect their pregnancy experience substantially. Other women felt the need to find out more information on their own about COVID-19 in pregnancy and therefore read newspaper articles, government information and other sources that they deemed trustworthy. This caused a lot of stress in these women and had a big impact on their experience of pregnancy. Yet, finding out information on their own was not solely negative to most of them as it also acted as a strategy to regain control in a difficult situation.

> But it's also because we followed the news… And I told my husband all the time too and he also checked… but we discussed the slightest development together. Which was maybe not the best, but at the same time it was necessary for us (Interview no. 10, 0-para).

Women were therefore surrounded by reports of the latest development and findings regarding COVID-19 and pregnancy. Their families and friends also had expectations about the amount of information the women would receive from their health care providers. When family and friends judged that maternal health-care services were not providing adequate information, they took it upon themselves to send relevant information to the pregnant women. One woman described how her father took on the task of reporting the latest developments, giving her daily updates. This was an added source of stress for the woman, as she then had to navigate the findings and evaluate how she should react to the new information. In some cases, this caused major concern for the women who experienced that they could not escape hearing about the pandemic to a point where they almost felt haunted by it. Yet, for most of the women, added information from family and friends was perceived as an act of love and a sign that their friends and family cared for and were invested in their pregnancies. This added positive feelings to their pregnancy experience.

3.3. Feeling socially isolated

A major strategy to decrease the spread of COVID-19 was to practice social distancing. Women described how their social circles shrank drastically in a matter of a few days and how social distancing amplified feelings of loneliness in their pregnancies. Women missed the companionship of loved ones during this life-altering event and battled feelings of disappointment as they struggled with coming to terms with the fact that their pregnancies would not be experienced by their extended family in the way that they had hoped. Social isolation was extra hard on women with parents belonging to a risk group or for those with family abroad as national borders were closed eliminating the chance of any physical meetings.

> But then of course I could not travel during the pregnancy anymore and my mother lives in Germany … I was locked up during my pregnancy… so the social part, that you do not get support from the family either [makes] you feel isolated and you feel like 'I have no friends, we have nothing, how are we going to cope with this'… (Interview no. 3, I-para).

In addition, some women felt that they lost all of their social support overnight making them feel exposed not just to the virus but also more prone to negative emotions and sadness. One woman expressed that most of the things that she had looked forward to in her pregnancy disappeared one by one, not making her depressed per se, but taking away parts of her joy one bit at a time. Another woman was concerned that the people around her did not take the pandemic seriously, which impacted her wellbeing as she felt that she could not share her feelings and concerns about feeling lonely.

> People like… could not really understand it, why I kind of got completely crazy [and socially distanced myself] … friends who were not pregnant went everywhere, just like normal… (Interview no. 2, 0-para).

Feelings of sorrow and tiredness due to the pandemic changed on a daily basis, which was difficult to manage for some women as they did not know in which mood they would wake up in the mornings. This was especially hard for women who worked from home as they expressed that the isolation of only being in the same space, seeing only very few people could affect them differently from day to day. However, the women who could work from home also expressed gratefulness toward their employers as they felt that the social distancing protected their unborn child. These feelings were somewhat paradox as the women sometimes felt that they needed to change their scenery and get out of their bubble so as to not to feel trapped and at the same time they knew that their bubble protected them and kept their baby safe.

At the other end of the spectrum, women who already had children struggled with maintaining social distancing. They could not practice total social distancing as their children needed to leave the home. In these cases, women described that they sometimes suppressed feelings regarding the risk of being infected and the potential harm for their unborn child, as they needed to look after their older child and pick them up from school and other activities.

Many women expressed missing out on the friendship and companionship of other pregnant women. All group activities such as parent education classes that would normally take place during pregnancy were cancelled due to the pandemic and expectant couples were referred to official healthcare information webpages instead. Despite this, some women found alternative ways of getting in touch with other pregnant women, for example on social media.

> It's sad that parent groups didn't take place, during pregnancy, to meet people that way. But, now there is a lot on the internet… so I have gotten in touch with a mother via the internet, so that you get the social interaction… (Interview no. 8, 0-para)

After the first wave of the pandemic some regions started to offer digital parent education classes but they were not easily accessible for everyone as they were primarily given in Swedish excluding most expectant parents who did not understand the language.

Some women expressed that contact with other expecting parents was even more important during the pandemic as it acted as a kind of stress relief since the other women understood the extraordinary situation of being pregnant during a pandemic. This was not something the women expressed that their other friends, regardless if they were parents or not, understood and therefore something unique that could only be shared with peers who were in the same situation as themselves. On the other hand, for women who had not experienced pregnancy before, being pregnant during a pandemic was all they knew. This was their "normal" and they could not compare it to pregnancy outside the pandemic.

> It was difficult to get support somewhere … probably because… my parent's generation they have after all … experienced childbirth and pregnancy in a different way (interview no. 9, 0-para)

All women were worried about their partner getting sick with COVID-19 or another infection close to the birth of the baby, and thus not being allowed to enter the hospital during the birth. Therefore, some families decided not to take any risk of being exposed to the virus and decided to isolate themselves during the last few weeks of pregnancy. Some women took this in their stride and thought of it as a way to relax before the birth, whilst other women expressed that the last few weeks of the pregnancy were very stressful stripping away the peace and quiet that they would have needed to prepare for the arrival of their baby. Being isolated at home was especially stressful for families with small children who did not understand why they could not attend day-care or see their friends.

> We are not going to meet anyone […] we felt pretty quickly on our daughter that she did not like the situation of just being at home, at home, at home […] It is not so easy to explain to a barely three-year-old (Interview no. 7, I-para)

3.4. Facing maternity care without support

Not having their partner with them during maternity care appointments was a major concern for many women and this caused some anxiety. Women described feelings of being left alone in vital pregnancy related decision-making. Not being able to fully share pregnancy-related experiences with their partner, like ultrasound check-ups, affected them negatively. Most women were able to handle this however, many worried that they would be alone if they had to receive any bad news. Especially, the anatomy scan was perceived as a critical moment in the pregnancy that they feared having to face by themselves.

> It was probably the first difficult experience of the pandemic. That you had to come to the hospital and if there was anything negative or in any way any deviation, then they would call my partner. So, he sat […] at the cafe and waited and held his breath… and I was up there by myself (Interview no. 12, 0-para).

Feelings of being alone and missing out on the support of their partner was particularly strong in women who experienced pregnancy complications and who had to attend extra antenatal check-ups such as growth scans. These women expressed feelings of unfairness since they were two in becoming parents, yet the pregnant woman had to face the consequences of being pregnant all alone. One participant described a situation where she felt a decrease of fetal movements and rushed to the hospital. She was not allowed to have her partner with her when entering the hospital making an already difficult situation worse as she had to text updates to her partner whilst she was being examined. This increased her fear and she expressed worry that she had missed important information from the obstetrician, as she could not fully focus during their conversation.

Some women who experienced pregnancy-related complications stated that they had to carry their partner's worries on top of their own. They expressed feeling burdened by the added responsibility of remembering information and memorising details from their maternity care appointments to pass on to their partner. The responsibility could leave them feeling emotionally drained after each appointment. However, in some cases, attending appointments by themselves was not an entirely negative experience as they expressed that the entire focus of the midwife was on themselves and their baby, which was perceived as positive.

3.5. Trusting maternal health-care services

Even though women experienced a lack of information from health-care services regarding COVID-19, they expressed great trust in the maternity care provided. Even if the midwife did not approach the topic of COVID-19 often, they trusted that they could turn to them for support if needed. This evoked feelings of safety and security and women expressed that they felt relieved that the fundamentals of pregnancy care did not change due to the pandemic. On the contrary, one of the things that the women found positive from the COVID-19 pandemic was that communication with the midwife through digital meetings was made possible. For some women digital appointments increased accessibility and flexibility.

> There have been many improvements with… digital meetings, which meant that you didn't have to take time off work…. So, I think it has been a much more positive experience, easy accessibility… (Interview no. 6, 1-para).

The majority of the women expressed that they found their midwife to be compassionate and caring but there was room for improvement with regards to asking about mental health and inquiring about the women's wellbeing and how they were affected by the pandemic. One woman expressed that she trusted her midwife but lacked personal touch in the care provided. She felt that questions about mental health were a little generic and there was need for more direct questions about her emotional state due to the extraordinary situation of the pandemic.

Further, some women experienced that certain maternal health-care service providers had a laidback approach to contracting COVID-19 while pregnant, possibly down-playing the risk for pregnant women.

> I actually had two friends who got corona when they were pregnant and they had … no problems, and the health-care providers had been… like more 'ok…' I thought maybe you would go for an extra check-up in the start, check stuff, and take blood samples, but they did not do that, so then I thought, 'then it is not so dangerous may be' (Interview no. 6, 1-para).

In addition, since the health authorities in different countries took different approaches to the pandemic, this only added to the confusion. Despite strong contrasts from neighbouring countries such as Denmark, the trust in the Swedish maternal health-care system remained strong.

4. Discussion

The main findings of this study were that Swedish women experienced pregnancy as being in the shadow of the unknown, where the COVID-19 pandemic sometimes totally overshadowed the experience of being pregnant whilst at other times rays of sunlight pierced through the clouds, yet the shadow was always present.

Decreased perinatal mental health during the COVID-19 pandemic has been reported by several studies [16–21]. Of special concern is the fact that women who are already in a socially vulnerable environment appear to be disproportionately affected [18,22]. An increase in health-related worry has been shown even in Swedish pregnant women from early on in the pandemic [12]. This made concerns about mental ill-health transferable to the Swedish setting even though Sweden had a very different Public Health strategy in managing the pandemic as compared to many of the previously studied countries. Poor mental health due to pandemic-related worries stemming from uncertainties of the situation were present also in our findings. These findings appear to be part of the pregnancy experience during the pandemic for some women. Even women who were not as affected by decreased mental health during their pregnancies, experienced that their midwives did not ask them directly about how they were fairing mentally during the pandemic. By acknowledging that due to the pandemic, the experience of pregnancy is not what the woman had dreamed and hoped for, and thereby normalizing feelings of sadness, grief and loss; maternity care workers can provide much needed social support during this difficult time [23].

A prominent part of the pregnancy experience of Swedish women during the pandemic was the constant echo of information. The women experienced that they could not escape from hearing about COVID-19 in general, and in relation to pregnancy specifically, as it was constantly talked about in the news, by family members and in their circle of friends. Yet, official information from maternity care providers appeared to be lacking which led to an increase in the feeling of uncertainty about the situation in some women. The lack of information from health professionals, regarding COVID-19 in relation to pregnancy, have been described in Australia and the United Kingdom too [24,25]. However, a Chinese study found that pregnant women received the majority of their information related to the pandemic from maternity care workers [26] suggesting that there are contextual differences between countries in how well maternity services met the information demand from pregnant women.

Support from one's partner, family and friends is normally a key component in the transition to motherhood that occurs during pregnancy [1]. Women who undergo pregnancy during a time with societal recommendations of social distancing must therefore navigate the disruption this entails. The Swedish strategy of keeping society open and imposing strict social distancing recommendations rather than lockdown [6], led to a difference in opinion on how to behave socially. In some cases, the voluntariness of the recommendations meant that women had to justify not being willing to meet up with their friends who did not practice social distancing, increasing their anxiety.

Facing the unknown, in the sense of going to maternity care appointments alone and the uncertainty of the pandemic itself, evoked feelings of concern, stress and anxiety. Not knowing what to expect nor what would be in store for them during maternity care appointments, especially during the anatomy scan or at extra check-ups due to pregnancy complications, reinforced feelings of ill-ease in some women. Thus, factors related to the pandemic had a negative impact on maternal well-being as did the experience of loneliness due to missing family and friends. This disruption in the "normal" pregnancy experience has also been found in an Australian qualitative study where women expressed concern on the lack of support during maternity care appointments and missing out on sharing the joys of pregnancy with their loved ones [24].

Despite the lack of official information about COVID-19 in relation to pregnancy, the women in our study expressed great trust in health care providers. Maternity services were described as fundamentally unchanged during the pandemic and the women appreciated the availability of care. According to the Swedish pregnancy register, the percentage of women being very satisfied with their birth experience (VAS 8–10 on a 10-point VAS scale) was similar to levels before the pandemic (2019: 75% versus 2020 72%) [27,28]. Consistency in the quality of services provided has not been reported from other countries, where women have had to travel to different locations to receive care [25] and digital visits have been implemented [24,25,29]. In our study, receiving initial pregnancy information in a digital meeting with the midwife was considered as a positive experience as it increased accessibility of services. Yet, Swedish maternity care remained open to physical visits and widespread implementation of telehealth was not implemented during the pandemic. While telehealth virtual visits do not fully replace in-person encounters during maternity care, they do offer a means of reducing potential patient and provider exposure to COVID-19 without compromising medical results [30]. However, not all reports about the introduction of telehealth have been positive [29] and in some contexts digital maternity care meetings have been described as compromising optimal care [24,25], making further stakeholder investigations in to maternity telehealth perspectives essential [31].

In this study, the lack of partner support during maternity care visits was perceived as having the largest impact on the experience of pregnancy during the COVID-19 pandemic in Swedish women. Having support from one's partner during pregnancy is essential for reducing anxiety and promoting a smooth transition to motherhood for pregnant women, and lack of such support has been identified as a risk factor for antenatal depression [32–34]. We found that the lack of partner support when receiving bad news or undergoing examinations because of pregnancy complications was associated with considerable distress in women and this is supported by findings in other studies [25,29] highlighting the importance of this experience in women. Maternity services should therefore carefully consider the importance of a companion of choice to pregnant women and future plans must contain how to safely uphold this possibility even in epidemics. It is important to note that the experience of being pregnant during the COVID-19 pandemic was different between women. For some women, the majority of the pregnancy experience was overshadowed by the pandemic. For others the pregnancy experience was clattered with smaller clouds but they remained resilient and optimistic despite the difficulties imposed by the COVID-19 pandemic.

4.1. *Strengths and limitations of the study*

Using the phenomenological life world approach [13] was a major strength of the study as it was suitable for gaining a deeper understanding of the experience of pregnancy during the COVID-19 pandemic. The importance of using qualitative research approaches during the COVID-19 pandemic has been previously discussed [35] as such inquiries are necessary to fully grasp the experiences of pregnant women. Qualitative data is always contextual and the phenomena is relevant to a specific context rather than universal [13]. In this context, the findings are relevant to Swedish women in a Swedish maternity care setting during the COVID-19 pandemic. Yet, the fact that the findings are contextual does not mean that they lack relevance in other contexts. On the contrary, if the contextually is taken into consideration, the findings are highly likely to be transferable to other settings. When conducting this study, great care was taken to display the steps in the analysis process, so that the reader could follow the work with the text and its meaning in order to achieve trustworthiness. To ensure variation in the findings, women with different experiences of pregnancy complications, ages and educational backgrounds were interviewed. However, only two women were born outside of Sweden and none of the participating women were born outside of Europe, limiting the sample somewhat. Further, no young or teenage subjects were interviewed. Another limitation was that all women had given birth and the experiences are recalled rather than experienced at the time of data collection. For example, even though one woman had a chronic condition and several women were diagnosed with pregnancy complications, at the time of data collection, they had all given birth to healthy infants. Therefore, further research is needed investigating the experiences of women in socially vulnerable situations as well as those who did contract COVID-19 during pregnancy.

To bridle the preunderstandings of the researchers conducting the analysis of the study, the essence of the phenomena and the constituents were continuously discussed in the study's analytical team. Although three of the researchers conducting the analysis (KL, ND, AW) are midwives with long experience of caring for pregnant women, none of them were directly involved in maternity care during the COVID-19 pandemic. Of the three researchers conducting the interviews (ND, MA, MZ) two were experienced midwives (ND, MA) and one (MZ) a resident in Obstetrics and Gynecology.

5. Conclusion

Women's experiences of being pregnant during the COVID-19 pandemic can be described as being in the shadow of the unknown, where the COVID-19 pandemic sometimes totally overshadowed the experience of pregnancy, while at other times, rays of sunlight pierced through the clouds, yet the shadow was always present. Dealing with new uncertainties meant that the pregnant women had to deal with the unknown; the new situation with the COVID-19 pandemic, on top of all the new thoughts and worries that normally occur during a pregnancy.

The women were constantly surrounded by COVID-19 news that they could not avoid, and felt that maternal health-care services did not provide much guidance. Societal voluntary recommendations regarding social distancing together with the mandatory restrictions of attending maternity care appointments alone, contributed to social isolation. Women had to face maternity check-ups by themselves but despite all this, the women still had trust for the maternal health-care services. The women would have liked more questions from their primary care provider about their mental well-being during the pandemic.

Conflict of interest

None declared.

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Ethical statement

Name of the ethics committee: The Ethics Review Board, Lund, Sweden.

Diary number: 2020-02189.

Date of approval: 13 May 2020.

CRediT authorship contribution statement

Karolina Linden: Conceptualization, Methodology, Formal analysis, Project administration, Writing - original draft, Writing - review & editing, Supervision. **Nimmi Domgren:** Formal analysis, Investigation, Data curation, Writing - review & editing. **Mehreen Zaigham:** Project administration, Investigation, Data curation, Writing - review & editing. **Verena Sengpiel:** Conceptualization, Project administration, Writing - review & editing. **Maria E. Andersson:** Investigation, Data curation, Writing - review & editing. **Anna Wessberg:** Conceptualization, Methodology, Formal analysis, Writing - original draft, Writing - review & editing, Supervision.

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References

[1] A.M. Nelson, Transition to motherhood, J. Obstet. Gynecol. Neonatal. Nurs. 32 (4) (2003) 465–477.
[2] L.J. Cohen, A. Slade, The Psychology and Psychopathology of Pregnancy: Reorganization and Transformation, 2000.
[3] G. Gebuza, et al., Adequacy of social support and satisfaction with life during childbirth, Pol. Ann. Med. 23 (2) (2016) 135–140.
[4] M. Zaigham, O. Andersson, Maternal and perinatal outcomes with COVID-19: a systematic review of 108 pregnancies, Acta Obstet. Gynecol. Scand. 99 (7) (2020) 823–829.
[5] J. Allotey, et al., Clinical manifestations, risk factors, and maternal and perinatal outcomes of coronavirus disease 2019 in pregnancy: living systematic review and meta-analysis, BMJ 370 (2020) m3320.
[6] M. Claeson, S. Hanson, COVID-19 and the Swedish enigma, Lancet 397 (10271) (2021) 259–261.
[7] J.F. Ludvigsson, The first eight months of Sweden’s COVID-19 strategy and the key actions and actors that were involved, Acta Paediatr. 109 (12) (2020) 2459–2471.
[8] Socialstyrelsen, in: Avdelningen för kunskapsstyrning för hälso-och sjukvård (Ed.), Bedömning av om pågående graviditet ökar risken att drabbas av ett särskilt allvarligt sjukdomsförlopp vid covid-19, 2021.
[9] Svensk förening för Gynekologi och Obstetrik (SFOG), Årsrapport Kvinnoklinikernas resultat 2020, Available from:, 2021 https://www.sfog.se/media/337504/kvinnoklinikernas-aarsrapport-2020.pdf.
[10] J. Pope, E.K. Olander, S. Leitao, S. Meaney, K. Matvienko-Sikar, Prenatal stress, health, and health behaviours during the COVID-19 pandemic: an international survey, Women Birth (2021), https://doi.org/10.1016/j.wombi.2021.03.007. S1871-5192(21)00043-3. Epub ahead of print. PMID: 33757750.
[11] C. Lebel, et al., Elevated depression and anxiety symptoms among pregnant individuals during the COVID-19 pandemic, J. Affect. Disord. 277 (2020) 5–13.
[12] E. Naurin, E. Markstedt, D. Stolle, D. Enström, A. Wallin, I. Andreasson, B. Attebo, O. Eriksson, K. Martinsson, H. Elden, K. Linden, V. Sengpiel, Pregnant under the pressure of a pandemic: a large-scale longitudinal survey before and during the COVID-19 outbreak, Eur J Public Health 31 (1) (2021) 7–13, https://doi.org/10.1093/eurpub/ckaa223. PMID: 33231625; PMCID: PMC7717243.
[13] K. Dahlberg, M. Nyström, H. Dahlberg, Reflective Lifeworld Research, Studentlitteratur, Lund, 2007.
[14] Y. Carlsson, et al., COVID-19 in Pregnancy and Early childhood (COPE) — study protocol for a prospective multicentre biobank, survey and database cohort study, BMJ Open 11 (9) (2021).
[15] Swedish National Board of Health and Welfare, Statistics on COVID-19, 2021 (Cited 11 September 2021). Available from: https://www.socialstyrelsen.se/statistik-och-data/statistik/statistik-om-covid-19/.
[16] M. Ceulemans, T. Hompes, V. Foulon, Mental health status of pregnant and breastfeeding women during the COVID-19 pandemic: A call for action, Int J Gynaecol Obstet. 151 (1) (2020) 146–147, https://doi.org/10.1002/ijgo.13295. Epub 2020 Jul 23. PMID: 32620037.
[17] C.A. Moyer, et al., Pregnancy-related anxiety during COVID-19: a nationwide survey of 2740 pregnant women, Arch. Womens Ment. Health 23 (6) (2020) 757–765.
[18] H. Preis, et al., Vulnerability and resilience to pandemic-related stress among US women pregnant at the start of the COVID-19 pandemic, Soc. Sci. Med. 266 (2020) 113348.
[19] H. Mei, N. Li, J. Li, et al., Impact of the COVID-19 pandemic on mental health in pregnancy women: results from two cohort studies in China, PREPRINT (2021) (Version 1) available at Research Square [https://doi.org/10.21203/rs.3.rs-42153/v1].
[20] M.H. Davenport, et al., Moms are not OK: COVID-19 and maternal mental health, Front. Glob. Womens Health 1 (1) (2020).
[21] B. Kotlar, et al., The impact of the COVID-19 pandemic on maternal and perinatal health: a scoping review, Reprod. Health 18 (1) (2021) 1–39.
[22] C. Ravaldi, A. Wilson, V. Ricca, C. Homer, A. Vannacci, Pregnant women voice their concerns and birth expectations during the COVID-19 pandemic in Italy, Women Birth 34 (4) (2021) 335–343, https://doi.org/10.1016/j.wombi.2020.07.002. Epub 2020 Jul 13. PMID: 32684343; PMCID: PMC7357495.
[23] K.R. Choi, et al., Promotion of maternal–Infant mental health and trauma-informed care during the COVID-19 pandemic, J. Obstet. Gynecol. Neonatal. Nurs. 49 (5) (2020) 409–415.
[24] K. Atmuri, M. Sarkar, E. Obudu, A. Kumar, Perspectives of pregnant women during the COVID-19 pandemic: a qualitative study, Women Birth 15 (2021), https://doi.org/10.1016/j.wombi.2021.03.008. S1871-5192(21)00044-5. Epub ahead of print. PMID: 33766506.
[25] B. Karavadra, et al., Women’s perceptions of COVID-19 and their healthcare experiences: a qualitative thematic analysis of a national survey of pregnant women in the United Kingdom, BMC Pregnancy Childbirth 20 (1) (2020) 600.
[26] T.-Y. Lee, et al., The outbreak of coronavirus disease in China: risk perceptions, knowledge, and information sources among prenatal and postnatal women, Women Birth 34 (3) (2021) 212–218.
[27] O. Stephansson, et al., The Swedish Pregnancy Register — for quality of care improvement and research, Acta Obstet. Gynecol. Scand. 97 (4) (2018) 466–476.
[28] Graviditetsregistret, Graviditetsregistrets Årsrapport 2020, 2021.
[29] J. Sanders, R. Blaylock, “Anxious and traumatised”: users’ experiences of maternity care in the UK during the COVID-19 pandemic, Midwifery (2021) 103069.
[30] K.R. Palmer, et al., Widespread implementation of a low-cost telehealth service in the delivery of antenatal care during the COVID-19 pandemic: an interrupted time-series analysis, Lancet 398 (10294) (2021) 41–52.
[31] K. Linden, Expanding the concept of safety in antenatal care provision, Lancet 398 (10294) (2021) 4–5.
[32] C. Rini, et al., Effective social support: antecedents and consequences of partner support during pregnancy, Pers. Relatsh. 13 (2) (2006) 207–229.
[33] S. Walsh, F. Simmons-Jones, R. Best, Care during covid-19: partner attendance at maternity services, BMJ 371 (2020) m3973.
[34] M. Tokhi, et al., Involving men to improve maternal and newborn health: a systematic review of the effectiveness of interventions, PLoS One 13 (1) (2018) e0191620.
[35] M. Teti, E. Schatz, L. Liebenberg, Methods in the Time of COVID-19: the Vital Role of Qualitative Inquiries, SAGE Publications Sage CA, Los Angeles, CA, 2020.