Introduction

COVID-19 and the South African nursing profession

South Africa's health system was greatly impacted by the COVID-19 pandemic. However, like many health systems globally, there was immense stress burdening the country's health care services prior to 2019 (Naidoo, 2020). Shortages in human resources were, as they still are, a central concern (Engelbrecht, 2021). Several factors have led to problems in human resources within South Africa such as unfilled positions in the public health system (it is estimated that in 2021 there was a nursing vacancy of 28%), large numbers of health care professionals (HCPs) immigrating to other countries where personal opportunity is greater, and a lack of funding dedicated to the public health sector (Kukani 2021, Mnyani 2023). Insufficient training and a high patient/provider ratio rate has also impacted the quality of care HCPs can offer to their patients (Saving Mothers Report).

It has been well documented that nurses are the backbone of South African health care and as frontline workers the COVID-19 pandemic carried devastating consequences for those in working in this profession (Kukani, 2021). When compared to other HCPs, such as doctors and hospital managers, nurses contracted COVID-19 in higher numbers. It is estimated that half of all COVID-19 deaths of HCPs were nurses (Frontline Talk, 2020). Nurses across South Africa contracted COVID-19 in high numbers and experienced the loss of fellow co-workers (cite) Reasons given for this is the frequent and direct contact nurses have with their patients and a shortage of personal protective equipment (PPE) experienced in health facilities in many parts of the country (Idah 2022, Mnyani 2023).

Several studies have been conducted since the height of the COVID-19 pandemic focusing on the well-being of South African nurses over this time (SAMJ 2020, Engelbrecht 2021, Kukani 2021, Idah, 2022, Mnyani 2023). Although these studies did not include midwives or maternal health nurses, they do offer an overall picture of the experience of nurses during an incredibly difficult period of time. Focusing on the experience of nurses working in antenatal care (ANC) during the height of the COVID-19 pandemic, this research adds to the diversity of knowledge on nurse's experience. Research has shown that ANC attendance did not decrease over 2020-21, which means that ANC nurses were encountering the same about of patients as they were prior to COVID-19 (Fawcus, 2021). Although precautions were taken and policy changes were quickly put in place in the attempts to lessen the spread of COVID-19 within ANC clinics, nurses working in these clinics faced many of the same challenges reported by nurses working in emergency care and COVID wards. This study offers insight into the challenges ANC nurses faced, how they made sense of their realities and raises questions around the overall state of working in maternal health in an under-resourced health system.

Changes to ANC during COVID-19

In 2020, orders to implement new protocol came from both the Western Cape and national government, effecting all areas of health care and were to come into effect immediately.
The policy changes that were specific to ANC are outlined in the following table:

PPE, screening and social distancing	Safe working conditions for all staff, including appropriate personal protective equipment (PPE) for all staff according to PPE guidelines

	Screening of all outpatients on arrival (brief history and temperature check). This is to be done before entering the clinic. Limited pregnant women can be in the waiting room at one time and they must distance from each other.
Training and education	Staff should receive regular (e.g. weekly) updates on the COVID-19 statistics, any new protocols and training on how to manage COVID-19 at their level of care. Simulation training (fire drills) is encouraged.
COVID positive patients	Isolation cubicle for thorough assessment of those who screen positive, and for making initial management plan. Pregnant and recently pregnant women with suspected or confirmed COVID-19 should be managed with supportive care, taking into account the immunologic and physiologic adaptations during and after pregnancy.
Referral system	Testing for COVID-19, or clear referral route to testing site. Clear referral criteria to higher levels of care for obstetric risk factors and complications. Clear protocols on managing COVID-19 or suspected COVID-19, including referral criteria to higher levels of care or to isolation/quarantine facility. Direct access to consultation with Obstetrics and gynaecology doctor at referral hospital (via Vula App/cell phone/WhatsApp). .
Communication via cell phone/ WhatsApp	Direct access for ANC/PNC patients to a senior staff member in the maternity department of the facility (via cell phone/ WhatsApp) for COVID related queries (especially regarding scheduling of appointments). For COVID cases, PUIs and contacts of confirmed cases, who are to be managed through self- isolation at home, the clinic must ensure contact details are obtained and that a system of routine follow-up via phone/WhatsApp is in place.
Transportation	Access to EMS transport able to transfer COVID-19 patients.

Table I: South African Department of Health ANC guidelines during COVID-19 (cite)

This study explores from the perspective of nurses working in ANC clinics in the Cape Metro area, of the Western Cape, South Africa during the height of the COVID-19 pandemic. The finding of this study include: outcomes of COVID-19 policy and protocol in ANC, changes to patient's behaviour and emotional state and changes to patient's behaviour and emotional state. This article discusses these finding in the context of an already struggling health system and the increased hardship caused by COVID-19 on HCPs cannot be understood as a past event but rather as a continuum and further justification that HCPs in South Africa, as they do globally, require greater more comprehensive support.

Methods

Study design

This study is part of a larger study conducted (get information)

This study applied qualitative, exploratory research methodology. This method was selected for its ability to produce in-depth knowledge about a particular subject or experience. (McGrath et al., 2019). Exploratory research methodology can vary slightly with regards to what it attempts to achieve. One category of exploratory study is designed to make a tentative first analysis of a new topic (Swedberg 2020). Given the novel nature of COVID-19, this approach befits the goals of this study and although research have been conducted on the experience of HCPs during COVID-19, nurses working in maternal health in Africa throughout the pandemic have been largely left out of these studies (Engelbrecht 2021, Schnitt 2023).

Study setting, sampling and recruitment

The SARA project identified midwifery obstetric units (MOUs) and one secondary antenatal care facility in the Cape Metro area. These sites are all managed by the Western Cape Department of Health and support City of Cape Town run ANC services. Participants from each facility were recruited through their department head using purposive sampling to identify suitable candidates. Initial contact was made through the facility manager at each location who would then identify the department head or operations manager of the MOU. Suitability for participation in this study was initially determined by the HCP having worked in ANC during the initial 21-day lockdown in March and April of 2020 at their current facility or in a similar role providing ANC elsewhere. Most facilities only had one or two qualifying participants who were available at the time of each site visit. Two participants per facility was the aim initially and some facilities required a degree of adaptation to suit available practitioners.

Research procedures and data collection methods

Primary data collection was be done by the researcher in the form of semi-structured in-depth interviews. All interviews were conducted in English, which is the language of nursing education in South Africa. The interviews sought to understand the lived experience of the practitioner during the initial lockdown and gain insight into how they made sense of adaptations to policy and procedure. It also looked to gain insight into their observations of women's responses to these changes in various ways. There is a comprehensive interview guide that was used to in all the interviews (see Appendix 1). The use of the guide helped ensure that key questions were not omitted and that interviews between participants are more comparable. This guide was

developed by the international SARA project research team involved and adapted to be relevant to the South African context by the research team at the University of Cape Town.

All interviews were audio-recorded and subsequently transcribed for analysis. Interviews were conducted in the consultation rooms within the facilities as this was the most convenient and easily accessible space in which to conduct them. While these were not entirely private, however given the limited space available in Cape Town MOUs, this space did not infringe on the services provided within the ANC clinic.

Qualitative Data Analysis

An inductive, thematic analysis was applied to the data (Clarke & Braun, 2014).

Ethical Considerations

Permissions were obtained for the SARA study from the Department of Health as well as the City of Cape Town for relevant facilities A separate application was also submitted to University of Cape Town's Human Research Ethics Committee (HREC) and ethical approval gained before the outset of the study.

Before starting the interview, participants were guided through an information sheet and informed consent process in which they were thoroughly informed of the purpose of the study. Inform consent sheets were digitised for easier storage and hard copies were filed secure in a locked office for record. Participants were made aware of their rights to opt out of the study at any time and may withdraw some or all of their data should they choose to do so. Any identifying information was kept strictly confidential within the local research team. Transcripts were anonymised in ensure the identity of the participants was safeguarded. While there are no overt risks associated with participating in this study, all measures were taken to ensure the comfort and wellbeing of participants during the study.

Results

Interviews with nurses working in ANC revealed several changes and challenges within the clinic in which the staff had to quickly adapt. These changes include new COVID-19 policy and protocol, affects to patient behavioural and emotional state, and nurse's personal and professional challenges.

Even with nurses reporting that some changes were welcomed, most came with great challenges, affecting both staff and women seeking care.

1.) *Outcomes of COVID-19 policy and protocol in ANC*

The implementation of new policy and protocol in which nurses expressed most notably shaped their experience of working in ANC through the heights of the pandemic were new rules around hygiene, enforced PPE, and other clinic amendments such as implementing

appointment times for women seeking care. Although these new rules did affect daily operations they were not spoken about as carrying a great burden to staff or pregnant women. Rules around social distancing and testing patients for COVID-19 before they could enter the clinic were also discussed and seem to come with greater challenges that disrupted how care was given and received.

Increased hygiene, enforced PPE, and the implementation of clinic appointments.

The South African Department of Health was responsible for providing instructions for improved hygiene as well as the equipment that was needed for staff to protect themselves, such as masks, visors, gloves and gowns. Shortages in equipment did occur, but from the nurses that were interviewed in this study, they felt for the most part the DOH provided the ANC with the PPE they needed. As one ANC nurse states,

> And the department did actually make an effort because all of a sudden, we got masks, we had gloves, we had what we needed. Yes, they get shortages now and then but, you know, the emphasis was put on protective care… So we had our admission room that we turn into an isolation room because there's a bathroom and a shower in that room. So the patient could stay there. We had our red box by the door, you would clothe yourself when you went in, you would de-clothe when you came out, sanitize, wash your hands, you would wear a mask with the visor, and you would double glove (participant A).

Some of the new protocol were adopted without much difficulties and understood as necessary to keep the health care workers safe from contracting COVID-19. The new policy on increased hygiene continued after lockdown and the height of the pandemic and these practices appear to have become part of routine practice. One nurse, commenting on the lasting effect of new policy states,

> Now it's like a norm, it's a robotic movement. I'm done here. Just quickly, press, "Good day Ma'am". So I think the hygiene, the hand washing, the social etiquette has stuck (participant A).

Another nurse discusses how the workload increased but not due to an increase in patients but the time it took to prepare the work space and themselves, however this is said with a sense of acceptance and a needed precaution given the context of the pandemic.

> There was no change in the number of visits. Just that we have to prepare ourselves. We have to clean the area. To wear the protective clothing. Make sure that every person is screened for COVID before coming in (participant E).

Typically, ANC clinics open at 7am in the Western Cape and women are to arrive at this time. They are seen on a first come first serve basis. This means that waiting rooms are often busy with women awaiting care. Pregnant women and women attending postnatal care often share a waiting space making for a crowded wait room. Social distancing policy stated that only a few women could be in a wait room at one time, to accommodate this, women were not only given a day to which they must attend their ANC appointment but also a time to come to the clinic to avoid too many women waiting for their appointment at one time. As one ANC nurse states,

> Now with COVID, you need to phone in, you need to make an appointment (participant E).

Elaborating on this process, another nurse states,

> So, before COVID, it doesn't matter when you want to come in doesn't matter if you're not booked if you don't have a date. Anything. So, in essence you overworked yourself. And you couldn't give that quality care because everything was just bombarded on you. After COVID there was sort of a system in place, order. If I can say that. Even though labor and delivery doesn't work with order (participant I).

ANC clinic were able to implement appointment times during the height of COVID-19, this allowed for nurses to feel less pressure as there were not many in the wait-room at one time. Nurses welcomes a more structured system. However, the clinic was still receiving more women then were allowed inside and this meant that pregnant women had to wait outside for their appointment.

Social distancing and COVID-19 screening before entry into the clinic
New government regulations instructed that there be enough space in the clinic wait room that women could be one to two meters apart from each other while sitting on benches or chairs. All patients had to be screened for COVID-19 before entering the facility. This lead to long lines of patients awaiting to enter and often pregnant women would wait outside until being called in for their appointment. The following quotes from nurses offer insight into how they implemented these regulations and the ways in which it affected ANC.

> And the screening process in the morning to screen like, over, probably, over a 100 people, it takes time. So, they have learned, they should go, let's just work with them, whatever, that's all they can do. (participant C)

> It's still the same only with the patient for a few minutes for a mask. And even when we would say sit on the spots only where there's a, where there's tape. Only three people on a bench. (participant F)

> COVID was everywhere, or if it's just the norm, "I've been coming here, I've been doing it like this, now why different now? And now I must stand in a line outside, which wasn't the thing before." I actually had one patient say, "we're standing here like dogs". But that was what we had to do. (participant A)

> We still not allowing our normal amount of patients inside. We're still working from outside bringing in as we go on during the day, we still only seat two on a bench that is more than one meter apart, we're still sticking to that…I think one of our challenges was the social distancing. Because of space provided, I mean, that was when women had to stay two meters apart. We had to let the pregnant mommies stand or the mommies with the baby stand outside because there's no space inside. I think that was one of the most difficult things. (participant C)

> People need to be screened if they are coming in… Here we screened those who are coming, pregnant women that are coming for postnatal clinic. There were no partners now to accompany them because of the social distancing. And then because of the social distancing, we must just take few. Because we must (ensure there is) distance amongst them...They had to stay outside in the cold because we don't allow them to come in. All of them, we can't allow them (participant E).

Social distancing policy came with challenges and lead to pregnant women and women with newborns having to wait outside for indefinite lengths of time. As one of the above quotes

suggests this lead to some women feeling the new rules were disrespectful and leaving them 'standing like dogs'. Additionally, all patients regardless of their needs were required to attend appointments alone. The rapid implementation of COVID-19 policy and protocol lead to multiple effects and, from the perspective of ANC nurses, some were more favourable than others.

2.) *Changes to patient's behaviour and emotional state*

Nurses caring for patients with increased anxiety and fear

Nurses working in ANC reported that pregnant women displayed more fear and anxiety during the height of the pandemic. Uncertainty seemed to be the driver behind patient's fears as women were unsure of how COVID-19 could affect them and their fetus. Some nurses felt that women were less likely to attend their antenatal care appoints due to the fear the pandemic caused, as one nurse states,

> … patients default because they don't want to be in the hospital setting. Because they were scared… There were some patients that were very scared. (Participant H)

Over the course of the pandemic there were fears of contracting COVID-19 from hospitals and other health facilities. These worries extended to maternity wards and even if women were not defaulting on care, they carried these anxieties with them to their appointments. Nurses shared stories of their experiences that highlight the different ways these fears manifest and how they affected care in different ways. For example, nurses spoke of an increase in unwanted pregnancies and that pregnant women were hesitant to take the COVID-19 vaccine. The following quotes demonstrate this,

> I think there was a time when there was lot of unknown with regards to the COVID vaccine. So I think then, like the patient was not trusting of us and they were very scared about the things that we're doing to them and the strains we were bringing in because in their minds they were being forced so that was it. So, like, they don't want to take a lot of the things that was offered to them here. Because of the rumours that were going around about microchipping you know and that aura of everything as well (participant D)

> Especially your first-time young mommies that are very concerned, even before COVID. But COVID just made those type of patients a little bit more anxious because they were pressured by the work or wherever they worked to get the COVID vaccine. And they asked, like, you know, "is it safe for my baby?" And at the time, yes, you get your directive from the department what you need to tell the patients but to be honest, nothing has been proven. (participant A)

> Yeah, there were, at that time a lot of unwanted pregnancies. So they would say, "I was scared to come to the hospital". So, they came here with no one, and no history. (participant D)

Women's fears of contracting COVID-19 from hospitals was discussed by ANC nurses as something they had to manage alongside other challenges caused by the pandemic. Nurses felt this affected women's health in several ways, including increasing their fears and anxiety.

An increase in pregnancies amongst young adolescents

Nurses stated that one of the most worrisome changes to ANC since the beginning of the COVID-19 pandemic has been the increase in pregnancy rates amongst young adolescents.

South Africa has a high rate of teenage pregnancy, however nurses noticed an increase in young adolescents attending the ANC,

> We've seen a huge influx in teenage pregnancies... I think it was because parents were not at home… We've had a lot of teenage pregnancies and I mean hardly teenagers, they're still thirteen, fourteen… we refer the under sixteen-year-olds, you know thirteen, fourteen, fifteen-year-olds. We refer to district hospital at 36 weeks, they will continue their antenatal care there and they will deliver that side also.
>
> Interviewer: What else? And in terms of intake trends. Did you notice any changes in the in women who were presenting for their bookings?
> Participant D: Yes, the youngsters, I had a lot of youngsters. And especially when lockdown first started.
>
> I've seen lately, it's a lot of younger girls coming…In the beginning before COVID started there wasn't so much, it would usually be fifteen-year-olds, sixteen-year-olds, here and there. Since the beginning of the year, I think I've seen five or six fourteen-year-olds.

Nurses observed changes in some of their patient's emotional state and an alarming trend in young (girls thirteen to fifteen) requiring ANC. Some nurses felt that the increase in young adolescent were attending ANC as a consequence of lockdown and that women's fears increased due to anxieties around contracting COVID while at the clinic and were uncertain about the COVID vaccine. A connection was also made between the lockdown and an increase in unwanted pregnancies.

3.) Interpersonal and professional challenges affecting nurses

The nurses that participated in this study experienced interpersonal and professional challenges due to COVID-19. An increase in workload, being short staffed, fears of passing COVID-19 on to their family members and a decrease in motivation were all spoken about as challenges that came with the pandemic.

Nurses experienced an increase in workload and were short staffed

As frontline workers, nurse were vulnerable to contracting COVID-19 and due to high amounts of nurses getting sick, there was not always enough staff in the ANC clinic. This meant that individual nurses had to carry heavier workloads, this was compounded by extra tasks required due to COIVID-19 precautions. One nurse explains,

> And we've been so short staffed in that very beginning when everyone was at home. Which it was quite tough that we are always short staffed. It just added more to our (workload) it was very difficult because most people were sick, and there was nobody to replace those people (participant)

While some nurses felt there was not an increase in patient load, others stated that the number of women seeking care at the beginning of the pandemic increased,

> So normally, we will take as many people as we could for first booking for the clinic for every single day… it was always full. I think when COVID started it was actually twice as full.... We had a lot of people come in for booking and their pregnancy. We've been working harder since COVID started. Really, we have been very, very busy (participant)

Whether there was an increase in patient load or not, most nurses felt that they did have to work harder with the onset of the pandemic with nurses describing their experience as 'draining' and that their expected workload is 'still hopeless'. A combination of absent nursing staff due to illness and increase in responsibilities meant that ANC nurses carried a heavier workload during the height of the pandemic. Nurses emphasized that they were over-worked, drained and had few options available to them with regards to coping with rapid change.

Nurses were concerned about transmitting COVID to family members

A major concern amongst nurses working in ANC was passing COVID-19 onto family members, especially their children. This lead to feelings of anxiety and having to isolate even when at home. These fears are expressed in the following statements,

> I mean, we have families, because all that I was worried about was my diabetic mother. My husband's diabetic father. And our two little babies because we have a two-year-old and a one-year-old. So, it was just the anxiousness about it, but you need to move. And yeah, I had to go home through the garage because my husband didn't even want me to come in before I took a shower in the outside room or whatever (participant A)

> The worst I can remember from the beginning of COVID is when I got home, the children were running to me always. "Hello, hello". And then when COVID started it's like, "Don't touch me". And yeah, this is like, I must first go shower first get rid of everything. And then I can go to the children. Because now I'm like, "Don't touch", especially my son, he loves running to me and giving me a hug. And they will stop when I say "no, no, no, no! Don't touch." (participant B)

> Even us as staff, we were anxious. Because we were thinking what if I contract this disease. When I go home, I will have to isolate. To live away from my family in a separate (room). What if you come with the COVID home and infect them? (participant E)

Such experiences exacerbated the already difficult situation of working in health care facilities at the time of a pandemic where uncertainties were commonplace. Nurses felt multiple forms of isolation and not being able to physically connect with their own children was often mentioned as an example of this.

Nurses experienced a decrease in motivation and a drop in quality of care

Experiences were diverse and although nurses understood why social distancing was enforced it still had an impact on how they felt about their work. Nurses expressed a loss of passion and a disconnect with their patients,

> Participant I: So, COVID took away from us what we had called passion for nursing, midwifery. It really took our passion away if I can say it like that.
> Interviewer: Yeah, am I hearing you correctly, that the fear was the main thing that drove that?
> Participant I: The fear, yes, the fear.

Later in the interview participant I further discuss the impact of enforced social distancing:

> The only thing I don't like about this pandemic is the interaction with your patient, you don't get that. One-on-one with that patient. I don't know how to say, it's like all of that social distancing that you have to do, it hinders your quality of care. (participant I)

Mandatory PPE kept nurses protected but it also lead to feeling dehumanized:

> So now you have to be between this and cross contamination and you have to wear your mask and de-germ between hands and wash your hands. It became like we are robots. It felt like we're becoming robots. Because the human part of us is being taken away. The fact that we had to we cannot touch anyone that we want to, we cannot go stand by the patient's head and say it's fine Mama, breathe in and out, you know? (Participant G)

When asked how she was coping with the stress of working in the clinic, participant G continues to describe how it felt to be working at the height of COVID-19.

> The fact that you were almost like treated like you were in a prison. That frustrated me, because I mean I live for my job, I go home, I come back, this is what I do. This is what I want to do. But being placed in a box, like you cannot do this, you cannot do that. No, that frustrates me a lot. And the fact that the visiting hours were taken away, I understand that people come with COVID or whatever. But people can come in, they can have TB without us knowing. But we don't treat them like we treated these people with COVID. (participant G)

Discussion

This study found that the height of COVID-19 significantly impacted ANC nurses. Swift changes in policy and protocol meant nurses had to quickly adapt to new regulations in very uncertain conditions. Nurses spoke of increased concern for their patients due to behavioral changes such as heightened stress and anxiety. Additionally, an increase in pregnancy amongst girls and young adolescents worried nurses working in ANC. Participants of the study also experienced personal and professional challenges brought on by COIVID-19, affecting their relationship with their families and motivation to offer quality care. What also stands out from these findings, as well as within similar studies, is that several stressors were heightened during the worst times of the pandemic, however COVID-19 was not when such challenges began (cite). Additionally, South Africa's ability to significantly control the spread of COVID-19 did not put an end to ongoing hardship nurses in the country face.

The reconfiguration of ANC services brough on by the pandemic have been discontinued and ANC services, for the most part, follow procedure of a pre-COVID era. PPE is no longer mandatory, social distancing policies have been removed allowing women to wait in the designated wait areas, and appointments are no longer staggered. There are still limitations placed on companions in some ANC clinics as space limitations is an ongoing issue. A systematic review on the effects of COVID-19 from 2020-21 in maternity staff around the world found that changes to maternal health care service structure greatly impacted those working in in these settings (Schnitt 2023). This led to both positive and negative changes in maternal health care. Some nurses reported that the improvement in hygienic practices will continue as it has been well incorporated into the health system. Wearing PPE was understood as necessary. While not a finding of this specific study, other studies have shown that the delay in PPE for HCPs in South African public health system carried devastating effects, leading to increased deaths and a distrust in government (cite).

A significant finding within this study was that nurses experienced personal hardship and the aftereffects of this are not well known. For example, nurses must carry the memory and possible ramifications of not being able to touch or interact closely with their family, including young children. Fear of passing COVID-19 on to family members was a reoccurring theme within

research on nurse's experience of the pandemic (cite). This signifies the negative impact having to social distance had on HCPs and should not be treated as something as simply in the past. The 2023 systematic review showed that social distancing from one's family was a reoccurring theme in several of the articles reviewed and lead to deep feelings of sadness. With an increased focus on mental health in many parts of the world since COVID-19, there has been an increase in conversation and understanding of anxiety, experiences of isolation, and depression (cite). Events that are experienced as traumatic can have long-term effects on one's well-being, and this needs further consideration for both HCPs and their families (cite).

As nurses anxieties increased, some of the participants felt their motivation declined. As stated by one of the nurse s in the study, she felt her passion of nursing withered away and she connected this negative experience to new emotional state dominated by fear. Another participant shared her difficulty connecting with patients and this lowing the quality of care she could offer. ANC nurses desire to comfort fearful patients was challenging due to social distancing and communicating with a mask on and therefore making facial expressions impossible to interpret. The participants of this study were not alone with these experiences. The 2023 systematic review found in several studies that with increased anxiety, job dissatisfaction become more common (Schnitt). Increased emotion and psychological support was not reported by HCP's during the COVID-19 pandemic (Mayo 2022).

ANC nurses spoke of the hardship of caring for pregnant women whose fear and anxiety were very high due to the uncertainties around COVID-19 while pregnant as well the possible side effects the vaccine could have on their fetus. All over the world the responsibility to calm patients became a central role of nursing staff during the pandemic (Schnitt, 2023). A disturbing finding of the Saving Mothers Report: National Committee for Confidential Enquiry into Maternal Death (2023) is that suicide now accounts for ___ % of maternal mortality in South Africa. Fear of patients committing suicide was not mentioned by the participants, but they did carry much concern for the mental well-being of their patients. This statistic also speaks to the state of mental health of pregnant women and new mothers during the pandemic. The intersection of maternal health and mental illness is not simply a COVID-19 phenomenon and has been connected to broader socio-economic and structural issues (cite and speak more to this). Managing pregnant women's fears, depression, and anxiety has become part of nurses and midwives working in maternal health. A study conducted in Netherlands on the effects of COVID-19 on antenatal care also found that more of their time was dedication to offering advice and support to pregnant women with increased fear, anxiety and worsening mental health (Gamberini 2023).

Another common finding in studies that looked at the experience of nurses during COVID-19 spoke of the increased workload during the pandemic, however it has been well documented that nurses in the South African health system have been overworked and experience burnout long before the pandemic (cite). Given that there have been no changes to increase funding for human resources, such problems continue. As in the pandemic, ANC clinics in South Africa experience very high patient loads and nursing vacancies continue (cite). Other studies have found that with the lack of consistency brought on by the pandemic, maternal health staff struggled to cope with a steady increase in demands that were new to the clinic operation. For example, having women wait outside for their ANC appointment, created more work for the ANC staff as they would have to locate women outside the clinic wait room. Such policy changes were seen as necessary however it is not clear if the implementation took into consideration the additional work this created for ANC staff as well as adding onto tensions between staff and patients, as patients experienced this change, waiting outside 'like dogs' as dehumanizing.

A significant finding was that ANC nurses noticed an increase in pregnancy amongst girls in young adolescents. ANC nurses reported that younger and younger patients were attending ANC clinic over the course of the South African lockdown. One participant counted that she had cared for five or six pregnant 14-year old adolescent girls during the pandemic, which was a much higher number than she had seen before. Research in South Africa support this finding. One of the reasons given for the increase in pregnant adolescents was that contraceptive accessibility was limited during the COIVD-19 lockdown and the approximately 70% of the pregnancies among adolescents were unwanted (SAMRC). Barriers to contraceptives do not alone explain the increase in pregnancy amongst very girls and adolescents below the age of 16. The age of consent in South African is 16 and investigation into statutory rape needs greater attention when such young girls present pregnant at the ANC clinic. The unmet need of contraception, increase in education around the use of contraception, and dedicated attention to gender-based violence require much greater attention in South Africa. Another area of importance is supporting nurses and midwives that care for pregnant and birthing girls and adolescents, this includes a focus on respectful maternity care. In South Africa, over 600 girls aged 10-13 gave birth in 2020 (Stats SA 2021). Pregnancy and childbirth at such a young age increased maternal complications and had a great impact on one's well-being. Nurse and midwives carry the responsibility of caring for pregnant girls, a difficult and worrisome task.