# Late booking at the Michael Mapongwana antenatal clinic, Khayelitsha – understanding the reasons

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# *Declaration*

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## ABSTRACT

**Background:** The initiation of antenatal care ("booking") is universally recommended in the first trimester. While working in the Michael Mapongwana antenatal clinic (ANC) in Khayelitsha, the researcher noticed that late booking was prevalent, with consequent impaired antenatal care and increased potential for adverse outcomes. The objective of this qualitative study was to understand why women book late at this specific ANC.
**Methods:** Twenty-three in-depth, open-ended interviews were conducted with 23 late bookers (i.e. who booked after 18 weeks) who attended the ANC between June and October in 2009. The interviews were recorded, transcribed, and analysed according to the "Framework" model.
**Results:** The mean gestational age at booking was 26,4 weeks (range: 20 to 34 weeks). The majority were multigravid, unmarried and unemployed. A high incidence of previous or current obstetric problems was noted. Important *personal barriers* included ignorance of purpose of antenatal care, ignorance of ideal booking time, and denial or late recognition of an unplanned pregnancy. *Provider barriers* appeared to be significant, especially the cumbersome booking system, absence of an ultrasound service, and perceived poor quality of care.
**Conclusion:** A combination of personal and provider barriers contributed to late booking at this clinic - it seems that the perceived effort of attending this antenatal service outweighed the perceived value thereof. Provider barriers should be addressed by accommodating patients' needs, optimising nurse-patient interaction, provision of an ultrasound service and improvement of the booking system. Public awareness of early booking and the holistic value of antenatal care should also be enhanced.

# INTRODUCTION

Studies have clearly shown that women who receive antenatal care have lower maternal and perinatal mortality, and that there is an association between antenatal care utilisation and pregnancy outcomes.[1] Conversely, inadequate antenatal care is associated with significantly higher perinatal mortality rates, mainly due to significantly more low birth weight infants (due to preterm delivery, not growth restriction) in poor antenatal care attenders[2-6]. An increased risk of chorio-amnionitis and abruptio placentae was also found with avoidance of antenatal care.[6]

The initiation of antenatal care ("booking") is universally recommended in the first trimester. There is, however, a global phenomenon that some women book late, especially in developing countries. The definition of late booking varies between studies[7]– some define it as booking after 12 weeks[8,9], 13 weeks[2,4,10-13], 14 weeks[14,15], 16 weeks[6,16-18], 18 weeks[19-21], or 20 weeks[22].

Much improvement of antenatal care is needed in the developing world. In South Africa, despite free antenatal care for all since 1994, many women still book late. The WHO's 2003 South African statistics show that only 56% of our pregnant women attended antenatal care at least 4 times[23] – this was found to be mostly due to late booking[1]. According to the South African Medical Research Council's 2007 statistics, only 27% of South African women attending antenatal clinics booked before 20 weeks[24].

A 1987 Johannesburg study found that the majority of unbooked mothers were free patients, of lower maternal weight, living further from the hospital. Their main reasons for not attending were that transport was too expensive, they were travelling away at the time, or they booked somewhere else[25]. A 2001 qualitative study conducted in the primary care obstetric services in Cape Town, focused on patients' perceptions of the role of antenatal care and the quality of care. They concluded that women's perceptions of quality of care was an important factor in their health-seeking behaviour, and that their information needs had to be met[26]. A 2003 qualitative study investigated late booking in rural Hlabisa, KwaZulu Natal[17]. The lack of understanding of the importance of antenatal care was pervasive. Most women saw antenatal care as a nuisance, yet they believed labour to be a time of great risk, and wished to deliver at a health facility. That was their primary reason for booking at an ANC: to obtain an antenatal attendance card, in order to deliver at a health facility. A 2004 study in Ubombo, rural KwaZulu Natal, confirmed that long distances and culturally assigned household tasks had kept some women from the ANC[27].

In 2008 and 2009 the researcher worked at the Michael Mapongwana antenatal clinic (ANC) in Khayelitsha - a large, suburban informal settlement just East of Cape Town. This ANC and labour ward (together forming the Midwife Obstetric Unit or MOU) is situated right next to the Michael Mapongwana community health centre in the Harare suburb. Late booking was clearly a common occurrence at this ANC. Their 2009 statistics showed that from January to April, 62% (1024) of the 1663 ANC attendees had booked after 20 weeks, and 31 women had delivered in their labour ward without booking.

As a result of late booking, gestational age (GA) estimation was often difficult, due to an uncertain last menstrual period (LMP) in many patients and prevalent obesity, which hampered accurate symphysis-fundus (SF) measurements. Late bookers missed the opportunity for an early dating ultrasound, and were often too late for a second trimester detail ultrasound as well. The earlier the ultrasound assessment in pregnancy, preferably between 10 and 12 weeks, the better the prediction of gestational age[28]. After 24 weeks, ultrasound is less accurate than a reliable LMP for estimating gestational age[28].

Some major structural defects can also be detected by early ultrasound examination after 10 weeks of gestation[28]. Late booking could consequently lead to uncertain gestation and impaired antenatal care.

A high rate of hypertensive disorders and apparent post-term pregnancies (often according to late booking SF measurements) was observed at this ANC. Deciding on induction of labour in these high risk pregnancy states becomes difficult in the absence of accurate GA. This could lead to maternal and foetal problems which could have been prevented by earlier booking.

HIV prevalence is high in Khayelitsha, with an antenatal HIV prevalence of 31.1% in 2008[29]. Enrolling HIV positive antenatal patients into the PMTCT (Prevention of mother-to-child transmission of HIV) program timeously depends on early booking. Late booking can therefore be a risk factor for transmission of HIV to the foetus, especially since the new 2010 WHO recommendations for PMTCT include that antenatal ARV prophylaxis should start earlier in pregnancy, at 14 weeks or as soon as possible thereafter[30].

All these risks related to late booking compelled the researcher to examine this phenomenon in this setting. If one could understand why these women book late, recommendations could be made, further research could be conducted, and effective interventions could be implemented.

In the literature, factors associated with late booking are often categorised under sociodemographic characteristics, personal barriers (which includes attitudes and knowledge, culture and lifestyle, and resources), and system/provider barriers[31]. The factors in Table 1 have been found to be associated with late booking in the developing world.

**TABLE 1: Factors associated with late booking in the developing world**

1) Sociodemographic factors:
Poverty[1,18,25,26,32,33]; unemployment[25,32,33] or unemployed partner[18]; older age[17,25,32]; younger age[12,27]; higher parity[11,14,25,32,33,]; low level of education[11,12,17,26,32,33]; being unmarried[25,33]; and geographic location[25].

2) Personal factors:

a) Attitudes and knowledge:
Lack of value placed on antenatal care[15,17,26,32]; uncomplicated obstetric history[11,17,25,32,33]; normal current pregnancy[14,17]; unwanted pregnancy[15,26]; not knowing they were pregnant[17,18,26]; was not advised to obtain antenatal care[27].

b) Culture and lifestyle:
Perceived health needs[17,26]; demands of (culturally assigned) daily activities[27].

c) Personal resources:
Lack of transport[17,25,26,32]; lack of child care[26]; lack of time off work[26]; lack of social support[26].

3) Systemic/Provider barriers:
Lack of resources (skilled personnel and money)[1]; poor quality of care[1,26,33]; long distances[1,17,18,25,27,33]; difficult accessibility of health centre[17,26,32,33]; difficulty in getting appointments[26]; poor nurse-patient relationship (eg. abuse by nursing staff)[26,34].

With this data as a background, the researcher embarked on a qualitative study to understand why women in this specific setting, the Michael Mapongwana ANC, book late.

## METHODS

Twenty-three minimally structured, in-depth, open-ended interviews were conducted at the ANC with 23 late bookers who attended the ANC between June and October in 2009. Late booking was defined as after 18 weeks, in keeping with some studies[19-21] and for convenience sake, as a few of the sampled patients had reportedly booked at "5 months", which could have been just before 20 weeks. The late bookers were selected by the researcher and the nurses through convenience sampling from the ANC attendees waiting to be seen. The interviews were conducted in English, and a Xhosa interpreter - a breastfeeding supporter at the ANC - was needed in only 3 of the interviews.

Ethical approval was obtained from the Stellenbosch University's Health Research Ethics Committee (Ref nr N08/09/241). All patients signed a consent form and total anonymity was ensured.

Based on the literature and the researcher's own experience at the ANC, the following potentially significant points were used as a foundational interview guide:

1) Sociodemographic characteristics
2) Obstetric history
3) Feelings about current pregnancy
4) Support by partner and family
5) Perception of value of antenatal care
6) Perception of when to book
7) Knowledge of pregnancy problems
8) Source of education regarding pregnancy and antenatal care
9) Whether they visited a GP, and why
10) Experience of the booking process and the ANC service

Not all these points were discussed with all patients. If other themes were presented, these were explored further. This interview guide was also modified as insight was gained during the process of conducting the interviews. After the 23 interviews, it appeared that data saturation had been reached.

The interviews were recorded on a dictaphone, and later transcribed to a word processor by the researcher and three assistants. The "Framework" model was used for data analysis[35]. Initial immersion in the data was achieved by listening to and reading through the interviews, after which the researcher could formulate a thematic framework of the factors contributing to late booking.

## RESULTS

### PATIENT PROFILE

All patients were Xhosa-speaking and of African ethnicity. Patient age ranged from 20 to 36 years, with a mean of 25,9 and a median of 26 years. Five patients were primigravid, and the rest were multigravid.

Sixteen of the patients were born in the Eastern Cape. It is a common cultural phenomenon for people to move to Cape Town in search of a better education or occupation, but to remain tightly-knit to their family in the Eastern Cape. Only 7 patients did not finish high school, so lack of

education was generally not significant in this group. Eleven patients were unemployed at the time of the interview.

Only 5 patients were married, while 17 had a boyfriend (not discussed with 1 patient). Six patients had parents living in Khayelitsha, while the others' parents were either elsewhere (often in the Eastern Cape), deceased, or not discussed (in 2).

A few patients mentioned medical problems during a previous pregnancy or delivery, and some had had a previous caesarean section. Two patients had had an abortion in a previous pregnancy. Four patients were HIV positive, eight were HIV negative, and 11 did not know their HIV status. No medical problems were noted in 16 patients. Seven patients had experienced varying degrees of medical problems in this pregnancy. For some the medical problem was the reason for initiating antenatal care.

The mean approximate GA at diagnosis of this pregnancy was 11,3 weeks, with a median of 8 weeks and a range of about 4 weeks to 24 weeks. With four patients pregnancy was diagnosed only after 18 weeks. The mean approximate delay between diagnosis and booking was 14,4 weeks, with a median of 16 weeks, and a range from 0 to 21 weeks.

The mean gestational age at booking was 26,4 weeks, and the median was 26 weeks, with a range of 20 to 34 weeks. Six patients had visited the GP before booking – 5 early (i.e. before 18 weeks) and 1 late. Two patients had visited an ANC in the Eastern Cape before booking here – 1 early and 1 late. The researcher decided to keep those patients who had received antenatal care elsewhere before 18 weeks, because the initial question sought to ascertain why these women booked late at this specific ANC.

## FRAMEWORK

After examining the data, the researcher was able to formulate and list the barriers indicated by the patients to be contributory to their late booking. These barriers were listed under the main categories of personal and provider barriers, as found in previous literature[31]. Table 2 shows the compiled thematic framework.

**TABLE 2: Thematic Framework of factors contributing to late booking**

1) **Personal barriers**

*1.1) Attitudes and Knowledge*

- 1.1.1 Ignorance of purpose of antenatal care
- 1.1.2 Ignorance of ideal booking time
- 1.1.3 Uncertainty regarding LMP or GA
- 1.1.4 Initial denial of pregnancy, or avoidance of testing
- 1.1.5 Late recognition of pregnancy symptoms
- 1.1.6 Considered abortion → late disclosure

*1.2) Culture and lifestyle*

- 1.2.1 "Laziness" (difficulty waking up early)
- 1.2.2 Booked in Eastern Cape, or visited family in Eastern Cape

***1.3) Personal resources***

1.3.1 Difficulty getting off from work
1.3.2 Lack of support from boyfriend
1.3.3 Fear of mom's reaction → late disclosure

**2) <u>System or Provider barriers</u>**

2.1 Perceived poor quality of ANC care
2.2 Desire for ultrasound
2.3 Perceived poor quality of labour ward care
2.4 Booking perceived as uncomfortable or cumbersome
2.5 Thugs en route to taxi early in the morning

The researcher then indexed all the transcribed data manually according to the categories in the thematic framework, after which the separate categories were compiled into thematic charts (using tables in a word processor). Upon going through these charts, the researcher was able to identify the common sub-themes, as well as their representative quotations, as listed below.

## 1) <u>PERSONAL BARRIERS:</u>

### 1.1) <u>Attitudes and Knowledge</u>

#### 1.1.1) Ignorance of purpose of antenatal care

Some patients were under the impression that attending the ANC was mostly to prepare for the delivery.
*"I didn't think there was, like, a problem with the time when do you come… I thought that you only booked so that you can get a place to give birth" (patient 15)*

It seems that some patients valued antenatal care mostly as a therapeutic service, to attend when problems were experienced:
*"[I booked later] because of… I didn't experience any illness… Then I feel to come at that time, because… I didn't feel sick... There was nothing wrong" (patient 20)*

A few patients thought that they could book later due to the experience they had gained in a previous pregnancy.
*"At my first baby, I had to book earlier, because I didn't have any experience… So now, at least… I know if there is a sign… then… I must go to the clinic and find out what is wrong with the baby" (patient 7).*

#### 1.1.2) Ignorance of ideal booking time

Most patients thought that early booking was important to diagnose maternal or foetal problems, and many patients said that one should book by 4 months, as apparently advised at the ANC. Only a few specified that one should book before three months.

On the other hand, some patients admitted that they did not know when to book:
*"I wasn't sure which time is the correct one to come to the clinic to book… [I only booked at six months] because I didn't have the knowledge… I didn't know" (patient 15)*

A few patients thought that one could book later:

*"Is not [a good time to book] for 6 months?... Hayi, I think [a good time to book] it's four. Full four… [If I fall pregnant again] I think [I would book] on four or five [months]"" (patient 23)*

Some patients thought that one should book only once one is sure of the pregnancy, eg. when you can feel the baby moving.
*"[I think one should book at] maybe 4 months… when they can see the baby… 'cause if you come earlier, they cannot see the baby" (patient 11)*

A lack of information received on when to book was mentioned by some.
*"No, I didn't see [any information pamphlets at the ANC]… No [nobody ever told me when is the right time to come book]" (patient 23)*

### 1.1.3) Uncertainty regarding LMP or GA

Some patients were uncertain about the date of their LMP, of which a few had had irregular periods due to previous use of Depo Provera (an injectable contraceptive).
*"It's not easy sometimes [to know how far pregnant you are], because when you're going to periods, sometimes it is in and off… I did realise [that I was missing periods]… but I keep on telling myself maybe it stopped because when… you use [Depo Provera]… it was on and off" (patient 7).*

Ignorance of gestational age at booking was stated by some as part of why they had booked late.
*"I don't know, doctor, how far I'm pregnant… I can't say [I booked] earlier, I can't say [I booked] late, because I don't know" (patient 18)*

### 1.1.4) Initial denial of pregnancy, or avoidance of testing

The pregnancy appeared to be unplanned or unwanted in many patients. For some, this seemingly led to denial of the initial pregnancy symptoms, and postponement of confirming the pregnancy.
*"I stopped my periods in April… so I was assuming all the time, but… I never… was sure… I didn't want to test. Because I didn't want to stress myself… The reason I didn't [book] earlier, because I didn't know that I was pregnant. I was always assuming, until my aunt told me so [at about 23 weeks]… By the time she told me, I was in denial. So I didn't want to accept it" (patient 21)*

### 1.1.5) Late recognition of pregnancy symptoms

A few patients only realised that they were pregnant upon noticing rather late symptoms of pregnancy, such as foetal movements and abdominal distention. Some also ascribed this to the pregnancy not being planned.
*"I noticed that I'm pregnant since June… Firstly, I didn't see my periods… in June… And after that another symptom was… the muscles of my stomach were hard… something was hard in me and something was… in movement… When I went for the first pregnancy test [at a GP], they said it's… five months" (patient 13).*

### 1.1.6) Considered abortion

Two patients had initially considered abortion, which translated to late disclosure of their pregnancy and late booking.
*"I came here for… pregnancy test and then they did it. And I said I want to do abortion… I didn't do anything. I didn't want to tell anyone. Because I was thinking of doing this abortion" (patient 21)*

## 1.2) Culture and lifestyle

### 1.2.1) "Laziness", or difficulty waking early

The word "lazy" was used by 5 patients when describing why they booked late – they had struggled to wake up early enough to arrive at the ANC in time for booking.
*"No, it was not difficult for me [to come book earlier], but you [have to] wake up early in the morning, that's the reason… We are lazy" (patient 4).*

### 1.2.2) Booked in Eastern Cape, or visited family in Eastern Cape

Two patients had booked at an Eastern Cape clinic before attending this ANC, of which one had done so early (before 18 weeks).
*"Yes I did [visit an ANC in the Eastern Cape]… I was one month pregnant… It was… all-in-one clinic… I did go back to them [for follow-up]" (patient 16).*

One patient had been visiting family in the Eastern Cape during early pregnancy, and only booked here on her return.
*"In this baby I book later, because I was there by the Eastern Cape… [In] Eastern Cape, your clinic… is too far" (patient 5).*

## 1.3) Personal resources

### 1.3.1) Difficulty getting off from work

Some patients mentioned that getting off from work to visit the ANC was an important barrier to earlier booking.
*"If you are working, it is not easy, because… the boss at work they are very strict… if you ask them if you want to go to the clinic… It's the problem at work [that prevented me from booking earlier]… Ja, my boss is very strict" (patient 2)*

For a few, the problem was mostly due to their hesitancy to disclose their pregnancy to the boss.
*"It is me that I'm delaying, because several time I am working. And then, when I'm working, my boss… I can't tell him I'm pregnant… I'm scared!... He can't know I'm coming here… He's gonna ask too much questions… Ja [that is why I booked later]" (patient 10)*

### 1.3.2) Lack of support from boyfriend

In some cases, a lack of support from their boyfriends contributed to late booking.
*"[My boyfriend] ran away… ever since I told him that… I think I'm pregnant… He said this child is not… his… He start to… make some threats… My boyfriend was treating me badly… It's this problem with my boyfriend [that made me book late]… So I was confused that… I must go to Eastern Cape or I must come here [to book]" (patient 22)*

One patient had avoided telling her boyfriend about the pregnancy in fear of his leaving her, which contributed to late booking.
*"Maybe [my boyfriend's] gonna leave me… I didn't tell him [that I am pregnant]… I was scared to tell my boyfriend… Ja [that is a reason why I didn't book earlier]" (patient 12)*

### 1.3.3) Fear of mother's reaction

Fear of the mother's negative reaction to an unplanned extra-marital pregnancy led to late disclosure with some patients, which apparently contributed to late booking.
*"I didn't do anything [after finding out about the pregnancy], because I was afraid to tell my mom… Because she is going to freak out… because I am not working… In September [I told her, at about 4 months]" (patient 19)*

The above patient then booked the month after disclosing to her mother.

## 2) SYSTEM OR PROVIDER BARRIERS

### 2.1) Perceived poor quality of ANC care

While many patients apparently had no problems with the ANC service, some patients complained about long waiting times, overcrowding, rushed assessments and poor service:
*"I experienced something, when you come… like for check-up… You know you must go up and down, and there's a lot of people that's coming and staying there… That's why now I said, 'Oh, I must just wait maybe until I'm seven months, at least then I'm gonna go also there for… 2 to 3 months'… If you come more than many, it's like you're wasting your time here. Because sometimes they come and then just check you here and there and then you must go out again… It's just that… waiting… that's the only thing" (patient 7)*

Some patients reported rude behaviour and negative attitudes by the nurses. A few patients indicated the need for more caring treatment. There were also complaints about the lack of time for questions or education.
*"They don't know how to talk with people… They treat you like dirty… [They] don't care… You are not important here… I told myself it's better to go to a private doctor first… If you come here to our clinic… you don't have a chance to ask, maybe, how is the child?... You are going home without anything, you're not understanding what is going on in your stomach… Here you can't relax, they're shouting at you… as if you know nothing. They just do touch-ups, they don't do their jobs" (patient 14)*

These were reasons why some women had visited the GP initially and some had postponed ANC attendance.

### 2.2) Desire for ultrasound

An ultrasound investigation was deemed very important by most of the patients. Although an intermittant ultrasound service had just started at this ANC during the time of this study, many patients mentioned a perceived absence of ultrasound at the ANC. This was the main reason why some patients had visited the GP before later booking at this ANC.
*"I went to the [private] doctor… I got the [ultrasound] picture… I was… three months that time… [I went to the GP] because there is no scan here" (patient 4)*

### 2.3) Perceived poor quality of labour ward care

Although a few patients mentioned positive previous labour ward experiences, one patient related a traumatic labour ward experience which led her to postpone ANC attendance.
*"There was another lady… going to the nurse and saying… she can feel the baby coming… So they said, "No, no… You must go around, walk around'. So, that lady walked through the passage… and then… the birth… In the passage… I was so traumatised. I've never seen anyone delivering a baby… in the passage… I was very, very unhappy… After that, I told myself I don't think I will never ever have another baby… The way they approach you, the way they talk… They always have a bad attitude… The nurses at that [ANC] side were very friendly… But then when I come to the labour… Yhu!... I wish… there'll be some changes" (patient 1)*

A few women had heard others complain about the rude sisters and even alleged physical abuse in the labour ward. This influenced some to book later.
*"I wish I don't have to birth here, because people are talking wrong things… They are being beaten… Ja [that is part of why I didn't want to come book]. 'Cause I wanted to book*

*there in Mitchell's Plain, but I didn't have proof of address on that side… I'm worried about the labour [tearful]" (patient 4)*

**2.4) Booking perceived as very uncomfortable or cumbersome**

While some patients did not find it difficult to come book, many patients complained that they had to wake up very early to arrive at the ANC in time to be helped. There were also complaints about waiting in long queues, often outside in cold weather.

*"It's only now [in this pregnancy] that I came late… Before… I experienced that you must wake up very early in the morning and now you must go. Now that it's winter, it's cold, it's wet… So… that's the only thing that make me come so late… Because there's a long queue, and you must sit outside, and it's also raining… sometimes it's full… Maybe [if] it was summer… it's easier to wake up… It's only… now because it's winter… It's very difficult, because there is a long queue, and then there's a lot of people, that's the only reason [why I booked late]… So I told myself, 'No, I'm not gonna rush' " (patient 7)*

The process of first getting a folder at the day hospital side and then joining the ANC queue seemed quite time-consuming. Apparently a limited number of new bookers (some mentioned 20) were accepted each day. An appointment was not necessary, but you did have to arrive very early, otherwise you might be sent away to return another day.

*"[When you come to book] you start on the other [day hospital] side… Then you come on this [ANC] side… You must come early, otherwise they're gonna turn you back home… They're taking 20 people a day… You must stay outside… They let you inside the gate. Sometimes we just queue here, just around. Sometimes it's cold and raining" (patient 4)*

**2.5) Thugs en route to taxi early in the morning**

Patients confirmed that getting to the ANC was easy, but some mentioned the potential presence of thugs ("skollies") en route to the taxi during the early morning hours as a barrier.

*"I must also take a taxi from where I stay to here, so it's still dark that time, so… it's part of the reason [why I booked late], yes… because there is also skollies in the morning" (patient 7)*

## DISCUSSION

With a mean GA at booking of 26,4 weeks (ranging from 20 to 34 weeks), these women were certainly not borderline late bookers. In terms of sociodemographics, the majority of cases were multigravid, unemployed and unmarried, which is in keeping with characteristics associated with late booking in the literature[9-11,14,16,22,25,26,31,33].

The relatively high incidence of current and past medical problems, in pregnancy and during birth, is unexpected. Previous obstetric complications[11,14,26,32,33] and illness in current pregnancy[14,26] is usually related to early booking, although English and Welsh research has shown that primiparous women with high obstetric risk tended to book later[20].

There are clearly a multitude of factors influencing the patient's decision on when to book – this has been called a "weighing up and balancing out" process[36]. For these late bookers, the scale must have tipped toward the negative side when considering the prospect of booking early. While most of them acknowledged the importance of antenatal care and booking early, they failed to do so. Many patients had diagnosed their pregnancy in the first trimester, but the mean approximate delay between diagnosis and booking was a lengthy 14,4 weeks. Why was that?

An American study of black women of low socio-economic status found that late bookers viewed antenatal care as important, but not as important as other issues that they faced on a daily basis[12]. Another study of African American late bookers found that psychosocial or attitudinal factors were more important barriers to early booking than structural factors, transportation or child care problems[22]. Among low-income women in San Antonio, Texas, the late bookers more frequently reported service-related barriers to receiving care, while financial and personal factors were not reported to be significant[9].

According to this study, the following factors appeared to be the most significant barriers to early booking at this ANC:

1) Ignorance of ideal booking time

While many patients recalled having been told to book at four months, there was a lot of uncertainty regarding ideal booking time. Some patients admitted to not knowing when to book, while a few thought it acceptable to book later – similar to findings in a Nigerian study[15]. Some apparently were never advised on ideal booking time, or never saw an information pamphlet in the ANC. A 1988 Welsh study also found prevalent uncertainty of optimal booking time among late bookers, as well as a failure of the obstetric services to make clear public recommendations[19].

2) Ignorance of purpose of antenatal care

Many women agreed to the importance of early antenatal care, but there often appeared to be a lack of true insight into its comprehensive purpose. The value of antenatal care was usually described in vague terms, often with a focus on the curative, or as preparation for delivery, as was also found in other South African studies[17,26] and abroad[15,18,33]. Lack of value placed on antenatal care is certainly associated with late booking[10,12,14-17,26,31-33,36].

3) Unwelcome pregnancy, avoidance of testing, and denial

There were some unplanned or unwanted pregnancies, which led a few patients to ignore the initial amenorrhoea. Some only went for testing after months of amenorrhoea, often on recommendation of a family member. Patients mentioned “shock”, “denial” and “stress” when it came to doing a pregnancy test. Two patients had initially considered having an abortion. Unwanted pregnancy has been shown to be related to late booking[9,10,12,16,22,26,31,33,36], as has consideration of abortion[22,36]. This barrier was not mentioned by any married patient.

4) Late recognition of pregnancy symptoms, and uncertain GA

Many patients stated that they were uncertain of their GA, which apparently contributed to their late booking. Often the initial amenorrhoea was blamed on previous Depo Provera use, with subsequent late diagnosis of pregnancy. Sometimes a family member noticed the pregnancy before the patient did, as also found in a meta-analysis by Downe et al[36]. Some had waited until evident physical signs had confirmed their suspicion, as also found in a South African study in Hlabisa[17]. Late diagnosis of pregnancy and ignorance of pregnancy symptoms has been associated with late booking[12,16-18,26,31,36], but a Nigerian study did not find inability to confirm pregnancy as a contributing factor[14]. Education to promote a greater awareness of early pregnancy symptoms might improve earlier diagnosis and consequent earlier booking.

5) Lack of support from boyfriend or mother

An unplanned extra-marital pregnancy often translated to late disclosure to the mother, in fear of her potentially negative reaction. When the mother was eventually informed, and showed support, booking would typically follow shortly afterwards. Some boyfriends showed a total lack of support, which sometimes influenced late booking. One patient had not disclosed the pregnancy to her boyfriend due to fear of his leaving her. Social support has been shown to facilitate ANC attendance[26,36].

6) "Laziness", or difficulty waking up early to book

Mentioned by five patients, this description appears to be a symptom of the booking system necessitating very early arrival at the ANC. Similar descriptions of "laziness" have been noted in other South African studies[17,25,26] and Tanzania[18].

7) Booking perceived as very uncomfortable or cumbersome

The booking system was experienced as user-unfriendly, as patients had to wake up very early to wait in long queues in potentially cold weather. Abraham et al, in a similar Cape Town study, also found that the ANC booking system made access difficult for Xhosa-speaking patients[26]. Dissatisfaction with institutional systems is related to late booking[26,31], as well as opening time of the ANC and long waiting times[9,18,33,36].

8) Desire for ultrasound

Many patients wanted or expected an ultrasound examination, which apparently was not available at the ANC (or if it had been available, they were unaware of it). This led some to initiate antenatal care at a GP, often for multiple follow-ups, with subsequent later booking at the ANC.

9) Perceived poor quality of ANC care:

Patients complained about overcrowded conditions, prolonged waiting, and rushed assessments. They wanted more caring treatment, their concerns to be heard, and the opportunity to ask questions, all of which they had not experienced, or did not perceive to be available, at the ANC. This was a reason why some had visited the GP first, and some had postponed ANC attendance. The importance of meeting the patients' information needs has been found to be a significant factor in South African research[26] and elsewhere[31,36]. Improving the perceived quality of care at the ANC could promote earlier booking[26,31,33,36].

10) Nurses perceived as rude:

Some patients complained about rude or disrespectful treatment by nurses, especially in the labour ward. A few patients were concerned about rumours of physical abuse by labour ward staff. No patient claimed to have personally experienced physical abuse, although this has been reported in South African studies[26,34]. These negative experiences and perceptions contributed to poor ANC attendance in some, as concurred by Abraham et al[26], and others[12,18,36].

Difficulty getting off from work and the presence of thugs en route to the early morning taxi were also noted as contributory factors.

## LIMITATIONS

The language and cultural difference between the researcher and his subjects might have inhibited the response by the interviewees. The use of an interpreter (a breastfeeding supporter at the ANC) during 3 interviews might have influenced the feedback gained, but, on the other hand, she certainly aided in the communication with those three patients.

Having conducted the interviews in the ANC itself, absolute privacy was not always achieved.

The dictaphone used for some interviews produced an inferior sound quality, which made transcription more challenging, but this was remedied by obtaining a better quality dictaphone.

## CONCLUSION

From the data it seems that a combination of personal and provider barriers contributed to late booking in this sample. It was interesting to find that some had indeed initiated antenatal care timeously at a GP, mostly for an ultrasound examination and supposed better quality care. This could indicate that many of these patients actually did value early antenatal care, but did not value the care they were receiving at this ANC.

Their decision-making dilemma regarding when to book can be portrayed as the balancing of scales: knowledge versus experience, and value versus effort. For these patients, *knowledge* of the importance of early booking and the value of antenatal care was outweighed by the *experience and/or perception* of poor quality of service at this ANC. The perceived *effort* of attending this antenatal service outweighed the perceived *value* thereof.

As one lady put it: *"It's like you're wasting your time here" (patient 7)*. Or, as G. McIlwaine said in a 1980 report to the British Social Services Committee, "It amazes me that women come for prenatal care at all. They sit in these clinics for two hours to be seen for two minutes, with someone laying on their hand and they leave. We should be looking at why they come at all"[1].

In conclusion, it seems that - apart from late acceptance or diagnosis of an unplanned pregnancy, or ignorance of ideal booking time - the negative prospect of having to wake up very early to enter a cumbersome booking system at a clinic with nurses perceived as rude, where your information and ultrasound needs might not be met, outweighed the perceived benefit of early antenatal care at this ANC.

## RECOMMENDATIONS

This ANC should strive to provide their patients with the care and information that they seem to be seeking. Further research should be conducted to ascertain the antenatal needs and expectations of this population, and how to accommodate that in the ANC service.
The booking system should be reviewed, possibly by the facility manager and sister in charge of the MOU, and improved. Having new bookers collect folders at the ANC itself instead of at the day hospital, as well as an increase in staff numbers, would certainly improve the patient flow and could facilitate earlier booking – a feasibility study could be done. An appointment system could also be researched. An under-cover waiting area, perhaps with heating, would ease the discomfort of queueing outside.
Management should assess the patient care provided by their nurses, especially in the labour ward – further skills training might be of value. Nurse-patient interactions should be optimised and should accommodate patient expectations and concerns – in keeping with The Patients' Rights Charter of the Department of Health, point 2.3: "a positive disposition displayed by health care providers" and access to "health information"[37].
Provision of an ultrasound service would be welcomed and might enhance earlier booking, especially if the benefit of accurate GA estimation and diagnosis of foetal abnormalities through early ultrasound is promoted. Its cost-effectiveness should be investigated.

Community education on antenatal health should be enhanced, especially outside of the ANC. The focus should be on promotion of booking in the first trimester, the value of early antenatal care and early ultrasound examination, early pregnancy symptoms and calculation of GA from LMP. Further research on the utilisation of television, radio, magazines and school curricula could be done. The well-known Love Life campaign could be used as an example of how to "market" early booking and antenatal care in the community. Family planning clinics could also become involved in such

education. The importance of HIV positive mothers initiating ARV's as early as 14 weeks[23] should be stressed.

Perhaps the consensus recommendation (verbal and documented) for ideal booking time should be "as soon as possible, before 3 months". The current ANC pamphlet (which apparently was not readily available or visible) recommends "as early as possible in your pregnancy – the earlier the better, but definitely before four months". The specified 4 months, however, is what stuck in most patients' minds, and with uncertainty regarding LMP, booking at a supposed 4 months might be late.

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