International Journal of Gynecology and Obstetrics 132 (2016) 64–67

Contents lists available at ScienceDirect

International Journal of Gynecology and Obstetrics

journal homepage: www.elsevier.com/locate/ijgo

CLINICAL ARTICLE

Barriers to early prenatal care in South Africa☆

Diane N. Haddad [a,b,*], Jennifer D. Makin [b], Robert C. Pattinson [b], Brian W. Forsyth [b,c]

[a] Doris Duke International Clinical Research Fellowship, Yale University School of Medicine, New Haven, CT, USA
[b] University of Pretoria MRC Maternal and Infant Healthcare Strategies, Pretoria, South Africa
[c] Yale University Department of Pediatrics, New Haven, CT, USA

ARTICLE INFO

Article history:
Received 6 January 2015
Received in revised form 12 June 2015
Accepted 8 September 2015

Keywords:
Access to care
HIV
Maternal mortality
Mixed-methods study
Obstetrics
Prenatal care
South Africa
Sub-Saharan Africa

ABSTRACT

Objective: To understand the barriers delaying early prenatal care for women in South Africa. *Methods:* A mixed-methods study was conducted at a center in Pretoria. *Results:* Following interviews with 21 women at a prenatal clinic in Pretoria, a quantitative survey was completed by 204 postpartum women. During interviews, women described presenting late owing to contemplating induced abortion, fear of HIV testing, and fear of jealousy and bewitching. The survey results demonstrated that a majority of women (133 [65.2%]) reported knowledge of recommendations to present before 12 weeks; however, the average gestational age at initial presentation was 19.1 ± 7.7 weeks. Women were more likely to present earlier if the pregnancy was planned ($P = 0.013$) and were less likely to if they had at any point contemplated induced abortion ($P = 0.021$). Fears of bewitching and harmful psychological stress owing to a positive HIV test result prevailed in both the interviews and the surveys. *Conclusion:* Significant efforts should be devoted to improving access to contraception and prepregnancy counseling in order to improve early prenatal care attendance. Similarly, addressing cultural concerns and fears regarding pregnancy is imperative in promoting early attendance.

1. Introduction

Prenatal care (PNC) presents a crucial opportunity to address major causes of both maternal and infant mortality in Sub-Saharan Africa [1]. In South Africa, HIV has been identified as the most common cause of maternal deaths and HIV-infected women have a near eight-fold higher risk of death than uninfected mothers [2]. In the 2012 "Saving Mothers" report [3], an overwhelming 42% of maternal deaths were associated with HIV infection. Strengthening HIV services is recognized as being necessary to improve maternal outcomes [4].

PNC provides an opportunity to screen for HIV; one in three pregnant women in South Africa is HIV positive, with the majority being diagnosed during their pregnancy [5]. Early PNC allows for the initiation of antiretroviral therapy (ART), which is essential for preventing disease progression and vertical transmission. Routine PNC also facilitates screening for pre-eclampsia and other causes of mortality, and for appropriate guidance regarding pregnancy warning signs. Inadequate PNC has been identified as an avoidable factor in perinatal mortality [6].

Changes to national health guidelines have recently been made, with the intention of improving HIV diagnosis and access to ART. In 2010, national policy shifted from an opt-in policy requiring separate consent for HIV testing to the current provider-initiated testing with voluntary counseling and testing for HIV that is currently routinely incorporated into PNC visits. In 2013, the latest guidelines recommended the initiation of ART at 14 weeks of pregnancy for all HIV-positive women [7]. Clinic and hospital poster campaigns were launched, informing mothers of the need for PNC in the first 12 weeks of pregnancy [8].

However, most women in South Africa (56%) do not attend PNC before 20 weeks [9]. Numerous barriers to accessing care have been identified, including transportation [10], household commitments [11], under-resourced clinics with excessive waiting lines [11], and a lack of perceived benefit [12], in addition to delayed booking at clinics [13]. Additionally, in Sub-Saharan Africa, cultural superstitions about jealousy and bewitching are reported to delay presentation at a clinic [11]. The aim of the present study was to further explore the barriers encountered by women when seeking PNC in an environment of changing healthcare policy.

2. Materials and methods

In order to understand the barriers keeping women from accessing PNC, a mixed-methods study was performed. First, qualitative interviews were conducted with individual pregnant mothers seeking PNC at Phomolong clinic near Kalafong Hospital in Pretoria during

☆ The qualitative portion of this study was presented at the 33rd annual Priorities in Perinatal Care Conference; March 2014; Cape Town, South Africa. The quantitative portion was presented at the 34th annual Priorities in Perinatal Care Conference; March 2015; Drakensburg, South Africa.

* Corresponding author at: MRC Maternal and Infant Healthcare Strategies, Kalafong Hospital, Private Bag X323, Arcadia 0007, South Africa. Tel.: +27 123731083; fax: +27 12866274915.
E-mail address: diane.n.haddad@vanderbilt.edu (D.N. Haddad).

http://dx.doi.org/10.1016/j.ijgo.2015.06.041
0020-7292/

November and December 2013. The interviewers expected to record many of the barriers already identified in the literature. The interviews were to be conducted until theoretical saturation was attained. Permission for this study was obtained from the Tshwane District Research Board (49/2013), the University of Pretoria Ethics Board (386/2013), and the Yale University Human Investigational Committee (HIC1308012623).

Women were recruited from the general prenatal waiting area and written informed consent was obtained in a private room. Semi-structured interviews were conducted in English by a white woman with one or two research assistants familiar with local languages and customs (DH). Participants were asked open-ended questions regarding knowledge of PNC and perceived barriers to PNC. The audio from interviews was recorded and the transcriptions were subsequently analyzed using grounded theory analysis in which data were constantly analyzed for emerging themes in order to accurately reflect individual reality [14].

From the qualitative results, a quantitative questionnaire was developed and circulated in the postnatal wards at Kalafong Hospital between January and March 2014. This survey included a socioeconomic status score, a five-point assessment of access to electricity, running water, a flushing toilet, working fridge, and brick/cement house walls; an HIV stigma scale, a 12-question assessment (scale 0–12) asking women to agree or disagree with statements about societal perceptions of HIV-positive individuals with regards to blame and judgment and interpersonal distance; and a patient–provider relationship scale, a 14-statement scale with ratings of 1–4 for each question (maximum score 56) asking women to rate their interactions with clinic staff—all the assessments were previously validated by the research group [15,16]. The surveys were conducted in English and local languages by research assistants. No sample size calculations were performed for the quantitative study. The inclusion of 204 women in the study was based on practical factors, namely the limited time of the researcher. Subsequent power calculations were based on the responses of the women in the qualitative study, treating those women as a control group. If the smallest difference between the groups is assumed to be an absolute difference of 10%, and 95.2% of women in the qualitative study knew about the 12-week booking guideline, 85% of those were booking late. Consequently, with an alpha value of 0.05, the power to detect a difference would be 0.89.

The results were compiled and the data were examined using bivariate analysis, using SPSS version 22.0 (IBM, Armonk, NY, USA) to look for associations using independent samples t tests and χ^2 tests, with $P < 0.05$ considered statistically significant.

3. Results

Qualitative interviews were conducted with 21 pregnant mothers (Table 1). All participants were black African females aged 21–39 years, living in or near the township adjacent to the clinic. Of the 21 women, six were HIV positive and 13 were HIV negative, with two patients having pending HIV test results. Most women had a prior pregnancy, with four primigravida mothers.

Of the 21 women interviewed, 20 were aware of guidelines encouraging PNC attendance within the first 3 months of pregnancy; however, 11 of the 21 did not present before this time.

The participants generally perceived HIV testing as a compulsory component of the prenatal clinic visit and a fear of testing delayed their presenting. Multiple reasons were offered for this avoidance. Owing to the public nature of the clinic, women feared that other members of their community would discover or even make assumptions regarding their HIV status and, consequently, avoided coming to the clinic. This fear of stigma and subsequent discrimination from their communities and their families kept the women from presenting to the clinic earlier. Women described the shame they would experience from their community and the negative reactions from their partners if they were to test positive for HIV.

In addition, women were worried about increased psychological distress that would follow a new diagnosis of HIV, causing negative consequences, even hastening death. In particular, if the woman had not experienced any distressing symptoms, it was considered advantageous to avoid going to the clinic as there was no perceived need. Although most women could communicative the protective benefits of ART, a fear of the effects of HIV still remained. Some women even articulated that if the women were HIV positive, coming to the clinic would be useless because the fetus was going to die.

Other women described late PNC attendance as secondary to previously contemplating termination. Newly pregnant women contemplated termination, but were later dissuaded by either a family member or partner, leading to late presentation. Some women had been told that having an induced abortion was immoral and delayed seeking care while considering the decision.

In addition, the conditions at the clinic—the long queues, waiting times and negative staff attitudes—prevented women from attending. Clinic staff members were described as being rude and unsympathetic to the long lines and poor clinic conditions that women experienced. There were also women who presented to the clinic early but were turned away by the booking staff and told to return at a later date without assessment or explanation.

A commonly described cultural belief was found to exist that if others in the community learned about the pregnancy early, they may become jealous and could bewitch the mother and harm the fetus. Bewitching used by local women, could cause the mother to deliver prematurely and even cause the fetus to die.

Following this, quantitative surveys were conducted in the postnatal wards with 204 women aged 18–42 years (mean 28.5 ± 6.4). Most women had been pregnant before (156 [76.5%]), with 48 primagravidas (23.5%) (Table 2).

In this group, the average presentation at first PNC was 19.1 ± 7.7 weeks, although the average earliest knowledge of pregnancy was reported to be much earlier (9.3 ± 6.4 weeks) (Table 3). The majority of women (133 [65.2%]) were aware that they should present before

Table 1
Demographics of women interviewed (n = 21).[a]

Characteristic	Value
Age, y	28.3 ± 4.1
Parity	1 (0–2)
Gravidity	2.28 ± 0.85
HIV status	
Positive	6 (29)
Negative	13 (62)
Results pending	2 (10)
Married	9 (43)
Gestational age at first knowledge of pregnancy, wk	7.0 ± 5.0
Gestational age at first prenatal care, wk	14.1 ± 6.5
Late prenatal care attendance after 3 months	11 (52)
Knowledge of guidelines for prenatal care before 3 months	20 (95)

[a] Values are given as mean ± SD, median (interquartile range), or number (percentage).

Table 2
Patient survey demographics (n = 204).[a]

Characteristic	Value
Age, y	28.5 ± 6.4
Gravidity,	2 (1–3)
Parity	1 (0–2)
Level of schooling, grade	11 ± 1.5
Unmarried with partner	131 (64.2)
Socioeconomic score (1–5)	4 ± 1.5
Number of adults at home	2.7 ± 1.3
Number of children at home	2.1 ± 1.7

[a] Values are given as mean ± SD, median (interquartile range), or number (percentage).