Exploring factors contributing to late initiation of antenatal care among pregnant women at Ou Nick Health Centre, Oshana Region, Namibia

J S Mwaudikange, BNSc; **R V Ndaikile,** BNSc, MNSc, RN, Cert Occupational Health and Safety;
B T Namangolwa, BA (Sociology and Industrial Psychology), MSW

Clara Barton School of Nursing, Faculty of Health Sciences, Welwitchia University, Katima Mulilo Campus, Namibia

Corresponding author: *R V Ndaikile (ndaikilerainhold@gmail.com)*

Background. Timely initiation of antenatal care (ANC), within the first 12 weeks of gestation, is critical for the early detection and prevention of maternal and perinatal complications. Despite World Health Organization recommendations, late ANC initiation remains prevalent in Namibia, particularly in rural settings.
Objectives. To explore the factors contributing to late initiation of antenatal care among pregnant women at OU Nick Health Center, Oshana region, Namibia.
Methods. A qualitative, exploratory-descriptive and contextual design was used. In-depth, semi-structured interviews were conducted with eight pregnant women who initiated ANC after 12 weeks' gestation. Data were audio-recorded, transcribed verbatim, and analysed using thematic content analysis. Methodological rigour was ensured through member checking, an audit trail, reflexivity, and thick description of the research context to enhance transferability.
Results. Four interlocking domains of influence emerged: (*i*) individual-level barriers, including limited health literacy, fear of stigma, and financial hardship; (*ii*) interpersonal-level dynamics, particularly unsupportive or denying partners and family disapproval; (*iii*) community-level factors, most notably cultural norms, spiritual fears (e.g. bewitchment), and misinformation from kin; and (*iv*) health system-level challenges including distance, transport costs, overcrowding, and prolonged waiting times. Crucially, participants proposed actionable solutions: mobile outreach, radio-based health education, mandatory male involvement, and, innovatively, compulsory paternity testing at the first ANC contact to ensure accountability.
Conclusion. Late ANC initiation is not a behavioural deficit but a rational response to structural, cultural and interpersonal constraints. Addressing it demands a multisectoral strategy – community engagement, health system strengthening, and policy reform – that centres on women's lived realities. As the researcher observed during clinical placement, '"When the tummy is big" is not ignorance; it is adaptation.'

Keywords. Antenatal care, late initiation, maternal health, social determinants, Oshana Region, Namibia.

Undergraduate Res Health 2026;4(1):e4508. https://doi.org/10.7196/URHJ.2026.v4i1.4508

The research reported in this article was conducted by Jordan Mwaudikange as a fourth-year student in partial fulfilment of the requirements for his Bachelor of Nursing and Midwifery Science degree at Welwitchia University, Katima Mulilo Campus, Namibia. Jordan graduated in 2025. Mr Rainhold Ndaikile and Ms Brenda Namangolwa, nursing lecturers, supervised the study.

Globally, an estimated 295 000 maternal deaths occurred in 2020, with 96% concentrated in low- and middle-income countries.[1] Sub-Saharan Africa bears the heaviest burden, and within it, Namibia's maternal mortality ratio remains unacceptably high at ~200 deaths per 100 000 live births.[2] Leading causes of maternal death, including postpartum haemorrhage, hypertensive disorders and complications from unsafe abortion, are largely preventable with timely antenatal care (ANC).[3]

The World Health Organization (WHO) recommends eight ANC contacts, with the first visit occurring before 12 weeks' gestation to enable early risk stratification, prophylaxis (e.g. folic acid, tetanus toxoid), and counselling on danger signs.[4] In Namibia, between 92% and 96% of pregnant women attend ANC. However a national strategy published by the Ministry of Health and Social Services in 2018 revealed that only 42% of women initiated ANC in the first trimester.[5] At Ou Nick Health Centre in Oshana Region, November 2024 data showed that of 54 new ANC attendees aged 15 - 39 years, 18 (33.3%) presented in the first trimester, 33 (61.1%) in the second trimester, and three (5.6%) in the

third trimester (Ou Nick Health Centre, Monthly ANC Statistics Report: November 2024, unpublished internal report available from Ou Nick Health Centre Administration Office, Oshakati, Namibia).

This gap reflects more than logistical failure; it signals a disconnect between policy and lived reality. As the researcher (author JSM) noted during clinical placement, 'Many women walk in with advanced pregnancy, yet express surprise when told they're "late". The system labels them non-compliant but rarely asks why.' This study responds to that omission, exploring, from the women's own voices, the complex web of forces shaping delayed ANC initiation.

Methods

Design and setting

A qualitative, exploratory-descriptive approach was adopted to uncover the perceptions, experiences and contextual realities influencing ANC timing.[6] The study aimed to answer the question 'What are the factors contributing to late initiation of antenatal care among pregnant women at Ou Nick Health Centre, Oshana Region?' The study was conducted at Ou Nick Health Centre, a primary facility serving rural and peri-urban communities in Oshakati West, Oshana Region. The setting is characterised by high youth unemployment, limited transport infrastructure, and strong adherence to Oshiwambo cultural norms.

Participants and sampling

Purposive sampling was used to recruit eight pregnant women who initiated ANC at ≥13 weeks' gestation (confirmed via ultrasound or last menstrual period). Inclusion criteria were age ≥18 years, ability to provide informed consent, and willingness to share experiences in English. Women who initiated ANC at ≤12 weeks were excluded. Data saturation was reached at n=8.[7]

Data collection

This study collected data on the factors contributing to late initiation of ANC among pregnant women at Ou Nick Health Centre. Data were collected with the aim of making recommendations to improve maternal care through early ANC initiations. Semi-structured, face-to-face interviews lasting 30 - 45 minutes were conducted by the researcher in a private room at the clinic. An interview guide covered: (*i*) awareness of ANC timing; (*ii*) decision-making processes; (*iii*) barriers encountered; and (*iv*) recommendations. Interviews were audio-recorded and supplemented with field notes on non-verbal cues (e.g. hesitation, emotional tone). Transcripts were written in English and verified for accuracy.

Data analysis

Data were transcribed verbatim before the analysis process began. Thematic content analysis was applied inductively across five phases: (*i*) familiarisation; (*ii*) initial coding; (*iii*) theme development; (*iv*) review and refinement; and (*v*) integration.[8] Codes were grouped into subthemes and overarching themes using the Social Ecological Model (individual → interpersonal → community → health system). Member checking was conducted with three participants to validate interpretations.

Ethical considerations

Ethical clearance was granted by Welwitchia University (ref. no. 31-01/25), the Namibian Ministry of Health and Social Services (ref. no. 22/3/1/2), and Ou Nick Health Centre (ref. no. 9-0/0001). Written informed consent was obtained from the participants, anonymity was ensured by means of participant codes (P1 - P8), and data were stored on a password-protected device. The researcher maintained reflexivity, acknowledging their positionality as a young male nursing student, and mitigating bias through supervision and an audit trail.

Results

Participant demographics

Seven of the eight participants were self-employed, while one was a teacher. In Namibia, many employed individuals are members of medical aid schemes that subsidise private health care costs. As a result, only a few employed individuals access state health facilities due to preference. The participants' ages ranged from 18 to 36 years, six were primigravidas, seven were unmarried, and six initiated ANC in the second trimester (17 - 28 weeks) and two in the third (≥30 weeks) (Table 1), falling short of the WHO recommendation of not later than 12 weeks.

Thematic findings

Four interconnected levels of influence emerged (Table 2).

Individual-level factors

Limited health literacy was pervasive: five women believed that ANC was only necessary 'when the baby is big enough to check' (P1, P8). P2 admitted, 'I'm not really educated and don't know the importance … So it took me time.' Stigma was acute for unmarried adolescents: P5 concealed her pregnancy until it was visible, fearing 'mockery' and parental violence. Financial constraints were universal; transport, lost wages and clinic fees created a 'cost cascade' that pushed women to minimise visits.

Interpersonal dynamics

Partner denial emerged as a critical barrier. P4 described emotional and financial abandonment: 'He doesn't accept the pregnancy … I depend on him, and that delayed me.' Similarly, P2 noted partner disbelief: 'He thought I was lying … took many months before he gave money.' Family disapproval compounded isolation: P7 delayed because of 'fear my parents might beat me'.

Community norms and beliefs

Traditional narratives normalised late booking. P8 stated that 'In our culture, we believe in traditional ways of giving birth. Some people also fear medical check-ups when they are pregnant, so they wait longer.' Spiritual fears were profound: P6 delayed due to belief that 'my sister-in-law … will witch me and I can have a miscarriage'. Such beliefs, though dismissed in policy discourse, were real and protective in participants' worldviews.

Health system barriers

Practical obstacles were structural: P3 travelled from 'deep in Oponono village', requiring costly motorbike transport. Once at the clinic, overcrowding and wait times deterred women from returning: P2 lamented, 'You can sit the whole day before being attended to.' As the researcher observed, 'One nurse managed 43 ANC patients in a half-day shift; rushed consultations eroded trust.'

Table 1. Demographic profile of the participants (*N*=8)

ID	Age (years)	Gestational age at first antenatal care contact (weeks)	Gravida	Marital status	Employment status
P1	27	21	G1	Single	Self-employed
P2	32	25	G1	Single	Self-employed
P3	36	23	G3	Married	Teacher
P4	30	17	G1	Single	Self-employed
P5	18	28	G1	Single	Self-employed
P6	29	32	G2	Single	Self-employed
P7	20	30	G1	Single	Self-employed
P8	19	20	G1	Single	Self-employed

Table 2. Thematic framework with supporting quotes

Themes	Subthemes	Supporting quotes
1. Individual-level factors	1.1 Lack of awareness and knowledge about antenatal care	'I'm not really educated and don't know the importance of antenatal care. I also think I started very late because I had no money and the baby's father does not have money either. So it took me time to come here, especially because of money.' (P2) 'Well, I've seen a lot of my cousins start antenatal care only at five months. I thought that's how it should be, so I also decided to start at five months.' (P8)
	1.2 Fear of social judgement.	'If you are not married, people talk too much. They will say bad things when they see you going for antenatal care too early, so most of us delay.' (P7)
	1.3 Financial constraints	'Sometimes I don't go because I just don't have money. Transport, food, even leaving work or children at home – all of that makes it difficult.' (P1)
2. Interpersonal-level factors	2.1 Partner or family dynamic	'My family doesn't really support me to go early. If your partner or relatives don't encourage you, it's easy to just wait until later.' (P5)
3. Community-level factors	3.1 Cultural and spiritual beliefs	'In our culture, we believe in traditional ways of giving birth. Some people also fear medical check-ups when they are pregnant, so they wait longer.' (P8)
4. Healthcare system-level factors	4.1 Clinic-related issues	'The clinic is very far, and transport is a big problem. That's why I sometimes delay going for antenatal care.' (P3) 'The waiting is just too much. You can sit the whole day before being attended to, and that discourages many of us.' (P2)
	4.2 Nurse outreach	'If nurses and health workers could come closer, maybe through mobile clinics or visiting the community, more women would attend antenatal care earlier.' (P8)
	4.3 Policy development	'I think government should make policies that improve the way midwives and clinics work, so that mothers and babies get better care.' (P1)
Women's proposed solutions		
Community-level recommendations	Community outreach and education	'They should come out more to teach in the community, so that women understand why it's important to go early for antenatal care.' (P3)
	Media campaigns	'If they can use phones or radio to remind and educate women about antenatal care, it will help. Sometimes transport and waiting times make us give up, but messages can push us to go.' (P4)
Interpersonal-level recommendations	Partner involvement	'Men should also be involved. If your husband supports you, you will go early. If he doesn't care, you just stay.' (P2)
	Paternity testing	'Some women delay because they are afraid of questions about who the father is. If there is no support or clarity, it affects when they start antenatal care.' (P6)

Women's proposed solutions

Participants articulated agency, not passivity.

- Community outreach: 'Nurses should go into communities … engage leaders, parents, teachers.' (P5)
- Media campaigns: 'Use radio to remind women … sometimes transport and waiting times make us give up, but messages can push us to go.' (P8)
- Male involvement: 'If men also attend the first visit, they will understand why we must start early.' (P5)
- Paternity testing was a novel, locally voiced demand: 'Once men are sure they are the fathers, they will be more responsible.' (P4) Although ethically complex, this attitude reflects deep frustration with systemic gender inequity.

Discussion

This study demonstrates that late initiation of ANC is best understood not as individual failure or a lack of knowledge, but as a rational,

contextually grounded adaptation to intersecting social, economic and gendered vulnerabilities. While the findings align with Warri and George's[9] 2020 Cameroonian study, in which perceptions of pregnancy as a normal condition, financial constraints and fear of bewitchment similarly delayed care-seeking, the present study advances existing scholarship by reconceptualising late ANC attendance as purposeful decision-making under constraint rather than passive non-compliance. The data further reveal Namibian-specific dynamics that deepen this understanding, including the centrality of paternal accountability, the role of intergenerational misinformation as a trusted source of reproductive knowledge, and the gendered realities of unmarried adolescents navigating punitive social norms. These interlinked themes provide the analytical foundation for the sections that follow, which unpack how 'lack of knowledge', transport barriers and calls for paternal responsibility are locally interpreted and strategically negotiated within women's lived contexts.

Reconceptualising 'lack of knowledge'

Rather than deficit, participants' beliefs reflect adaptive learning: P8's reliance on cousins' experience mirrors community-based knowledge transmission. As Charlton *et al*.[10] note, 'patient-centered communication improves outcomes'; yet current ANC education often ignores lay epistemologies. Integrating community health workers from local villages, trained in both biomedical and cultural literacy, could bridge this gap.

Beyond 'transport barriers'

Distance is not merely geographical but economic and temporal. The cost of a round trip (NAD50 - 80) exceeds daily earnings for many vendors. Mobile clinics, recommended by participants, and visits by community health workers[11] could reduce opportunity costs. Crucially, timing matters: outreach during non-market days (e.g. Sundays) would increase accessibility.

Paternity testing: A radical proposal?

While controversial, the call for paternity testing underscores a systemic gap: Namibia's Maintenance Act, No. 9 of 2003,[12] is rarely enforced in rural areas. Rather than literal implementation, this demand signals the need for accountability mechanisms, such as mandatory partner counselling in accordance with the existing legal framework, community dialogue on shared responsibility, or integration of ANC with social welfare services.

Study strengths and limitations

This study's strength lies in its emic perspective; it is grounded in women's voices, collected ethically by a local researcher. Limitations include the small sample size and single-site focus. However, transferability is enhanced by rich contextual description.[13] Future mixed-methods research across multiple regions could strengthen generalisability.

Conclusion and recommendations

Late ANC initiation in Oshana Region is a syndemic phenomenon, shaped by poverty, patriarchy, cultural belief, and fragmented health services. Solutions must be equally multilevel.

Clinical practice

- Integrate male partner sessions into first ANC visits.
- Train midwives in culturally safe communication (e.g. non-judgemental responses to spiritual concerns).

Community interventions

- Deploy peer educators (previous ANC attendees) for home visits.
- Launch local-language radio dramas co-created with women, addressing myths (e.g. 'early booking invites envy').

Policy action

- Pilot transport vouchers for first-trimester ANC in rural districts.
- Conduct methodologically sound research to guide the development of context-specific strategies for reducing maternal and newborn mortality in Namibia.
- Establish quarterly community accountability forums where women can voice concerns to clinic managers.

As one participant poignantly stated: 'It's not that we don't care. We care too much; to lose the baby, the money, the respect. So we wait; until it's safe.' This research urges policymakers to redefine 'timely' not by gestational weeks alone, but by readiness; a readiness built through trust, support, and justice.

Declaration. The research for this study was done in partial fulfilment of the requirements for JSM's Bachelor of Nursing and Midwifery Science degree at the Clara Barton School of Nursing, Welwitchia University, Katima Mulilo Campus, Namibia.

Acknowledgements. The authors give thanks to God, the Almighty, for the completion of this study. They thank Welwitchia University and the Ministry of Health and Social Services for permission to conduct the study. Participants who agreed to take part in this study are highly appreciated.

AI declaration. The authors acknowledge the journal policy on the use of AI, and the requirement to disclose the use of any AI tools in manuscript preparation. AI-assisted tools were used solely for language editing and formatting assistance during the preparation of this manuscript. The authors take full responsibility for the content and intellectual integrity of the work.

Author contributions. JSM: conceptualisation, data curation, formal analysis, investigation, methodology, writing – original draft. RVN: supervision, validation, writing, review and editing. BTN: **s**upervision, writing, review and editing.

Funding. None.

Data availability statement: The qualitative data generated during this study are not publicly available owing to confidentiality and ethical restrictions regarding participant anonymity, but are available from the corresponding author upon reasonable request and subject to ethical approval.

Conflicts of interest: None.

1. World Health Organization. Trends in maternal mortality 2000 to 2020: Estimates by WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division. 23 February 2023. https://www.who.int/publications/i/item/9789240068759 (accessed 26 March 2026).
2. Nambia Ministry of Health and Social Services and ICF International. Namibia Demographic and Health Survey 2013. Windhoek, Namibia: MoHSS Namibia and ICF International, 2014. https://dhsprogram.com/publications/publication-fr298-dhs-final-reports.cfm (accessed 26 March 2026).
3. Say L, Chou D, Gemmill A, Tuncalp O, et al. Global causes of maternal death: A WHO systematic analysis. Lancet Glob Health 2014;2(6):e323-e333. https://doi.org/10.1016/S2214-109X(14)70227-X
4. World Health Organization. WHO recommendations on antenatal care for a positive pregnancy experience. Geneva: WHO, 26 November 2016. https://www.who.int/publications/i/item/9789241549912 (accessed 26 March 2026).
5. Republic of Namibia, Ministry of Health and Social Services. Namibia National Strategy for Women, Children Adolescents'-Health and Nutrition (2018 - 2022) Fostering Integrated Reproductive, Maternal, Child, Newborn and Adolescent Health and Nutrition in the context of the Sustainable Development Goals. Republic of Namibia, 2018. https://platform.who.int/docs/default-source/mca-documents/policy-documents/by-country/nam/nam--12885-who-strategy-for-women-and-costing--6---3--rhx39-fu-pce83fjxfmsyqp6.pdf?Status=Master&sfvrsn=1204b907_2&utm_source=chatgpt.com (accessed 30 March 2026).

6. Pope C, Mays N, Popay J. Synthesizing Qualitative and Quantitative Health Evidence: A Guide to Methods. 2nd ed. Maidenhead, UK: Open University Press, 2021:15-35.
7. Saunders B, Sim J, Kingstone T, et al. Saturation in qualitative research: Exploring its conceptualisation and operationalisation. Qual Quant 2018;52(4):1893-1907. https://doi.org/10.1007/s11135-017-0574-8
8. Nowell LS, Norris JM, White DE, Moules NJ. Thematic analysis: Striving to meet the trustworthiness criteria. Int J Qual Methods 2017;16(1):1-13. https://doi.org/10.1177/1609406917733847
9. Warri D, George A. Perceptions of pregnant women of reasons for late initiation of antenatal care: A qualitative interview study. BMC Pregnancy Childbirth 2020;20(1):70. https://doi.org/10.1186/s12884-020-2746-0
10. Charlton CR, Dearing KS, Berry JA, Johnson MJ. Nurse practitioners' communication styles and their impact on patient outcomes: An integrated literature review. J Am Acad Nurse Pract 2008;20(7):382-388. https://doi.org/10.1111/j.1745-7599.2008.00336.x
11. Lassi ZS, Bhutta ZA. Community-based intervention packages for improving maternal and neonatal health outcomes in low- and middle-income countries. Cochrane Database Syst Rev 2015, Issue 3. Art. No.: CD007754. https://doi.org/10.1002/14651858.CD007754.pub3
12. Government of Namibia. Maintenance Act, No. 9 of 2003. https://namiblii.org/akn/na/act/2003/9/eng@2003-08-18/source (accessed 26 March 2026).
13. Lincoln YS, Guba EG. Naturalistic Inquiry. Beverly Hills, CA: Sage, 1985:296-298.

Received 18 November 2025. Accepted 29 January 2026.