

Factors associated with the continuity of prenatal care among pregnant women in the health zone of Kingasani, Kinshasa, Democratic Republic of the Congo

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ABSTRACT

Introduction

Antenatal care provides a platform for important health benefits, including health promotion, screening, diagnosis, and disease prevention. It is established that timely implementation of appropriate evidence-based practices in antenatal care can save lives.

Purpose

This study aimed to identify factors associated with the continuity of prenatal care among pregnant women in the Kingasani Health Zone.

Methods

This descriptive correlational study used proportional stratified sampling to select participants and collect data from February 20, 2021, to April 5, 2021. A total of 165 subjects were included in the study.

Results

The analysis revealed that the continuity of prenatal care is statistically linked to the delay in initiation of ANC (RR: 2.108, 95% CI [1.334-3.332], χ^2 : 13.780, $p < 0.0001$), encouragement of women to follow ANC (χ^2 : 5.643, $p = 0.007$), and compliance with appointments by pregnant women (RR: 3.143, 95% CI [1.106-8.901], χ^2 : 8.189, $p = 0.004$). However, continuity of antenatal care is not linked to the distance between home and the antenatal care service (RR: 2.188, 95% CI [1.002-5.377], χ^2 : 5.866, $p = 0.015$). These findings partially confirm that the use of prenatal services in the Kingasani Health Zone is positively influenced by the personal characteristics of the subjects.

Conclusion

Prenatal care providers have a major task in explaining to pregnant women the number of ANC visits scheduled for a pregnancy, their frequency, the importance, and the principles of each ANC activity. Evaluating the quality of ANC and the frequency of ANC clients at referral health centers is crucial.

INTRODUCTION

Maternal health is an essential condition for women's well-being and a crucial factor in development. Through

maternal and child protection programs, there is support for pregnancy and childbirth in health structures. Furthermore, estimates from the World Health

Organization (WHO) reveal that around the world, at least 1,600 women die every day from complications related to pregnancy and childbirth. That is one death per minute, which represents 585,000 maternal deaths per year. A quarter of women will suffer painful, degrading, and humiliating lesions throughout their lives following difficult childbirth, causing vesico-vaginal fistulas (Youssouf 2014).

Antenatal services are a set of interventions provided by organized health services to pregnant women. They make it possible to detect certain major risks for which actions are possible to prevent, or to detect and manage certain conditions likely to threaten the health of the mother and child, and to advise, support, and inform pregnant women and their families. Prenatal consultations are recognized as one of the three main pillars in the fight against maternal and infant mortality; the other two pillars are family planning and essential obstetric care, including childbirth in optimal conditions of hygiene and safety (Jacques Saizonou et al. 2014).

The vision of the World Health Organization (WHO 2016) is a world where every pregnant woman and newborn receives quality care throughout pregnancy, childbirth, and the postnatal period. In a continuum with reproductive health care, prenatal care provides a platform for important health benefits, including health promotion, screening, diagnosis, and disease prevention. It is also established that through the timely implementation of appropriate evidence-based practices, antenatal care can save lives. Also crucial: this care offers the opportunity to communicate with and support pregnant women, families, and communities at a critical time in these women's lives. The process of developing these recommendations regarding prenatal care highlighted the importance of effective communication on physiological, biomedical, behavioral, and sociocultural issues and of effective support, particularly on the social, cultural, emotional, and psychological levels, for pregnant women while treating them with respect. These communication and support functions of antenatal care are essential not only for saving lives but also for improving others, as well as for healthcare utilization and quality of that care. Women's positive experiences during antenatal care and childbirth can create the foundation for healthy motherhood.

According to Chemgne (2010), high coverage of prenatal consultations (ANC) could save up to 160,000 additional lives among newborns. In addition, ANC includes many other benefits besides reducing mortality. Indeed, they are a critically important entry point into health services, and programs offered through ANC will enhance the impact and effectiveness of childbirth and postnatal care. On the other hand, the discontinuity of obstetric care appears to be one of the main obstacles to reducing maternal mortality (Tollegbe, 2004).

Numerous studies, notably by Gleit et al., as cited by Roy (2008), suggest that greater use of prenatal health services among women with higher levels of education can be partly explained by several characteristics: higher financial resources, better control over these resources, greater autonomy in household decision-making, increased self-confidence, and higher expectations for the care provided by healthcare professionals.

Efficiency, quality of care, and good treatment are considered characteristics that positively influence the trust of users in health services (Hernandez, Avila, & Coll., 2004; Hurtado & Sáenz de Tejada, 2001).

In the Democratic Republic of Congo (DRC), a study (EDS II-RDC 2013-2014) showed that 88% of women consulted a health professional during the pregnancy of their most recent birth. In Kinshasa, the PEDS-II-RDC results reveal that 96.4% of pregnant women received prenatal care from a trained provider for their last live birth (Ministry of Planning and Implementation Monitoring, Ministry of Public Health, and ICF International, 2014).

Many studies have examined prenatal care-seeking behavior in our environment. However, they did not report results relating to the continued use of prenatal care by pregnant women according to the contexts investigated. Additionally, there is insufficient information on the social factors explaining the continued use of prenatal care in the Kingasani area.

Therefore, to address this gap in the local literature and contribute to the promotion of continuous prenatal care, we justified this study on a practical level. The study aims to identify factors associated with the continuity of antenatal care among pregnant women in the Kingasani health zone.

METHODS

Study environment

This study was conducted in the Kingasani health zone, an operational public health unit that manages primary health activities for people living in this part of the city of Kinshasa, in the Democratic Republic of the Congo.

Target population and study sample

The target population for this study includes births in maternity wards of reference health structures in the Kingasani area (2021). This research focuses on women who have given birth and attended a total of four prenatal care appointments in the Kingasani health zone. This population is chosen due to their exposure to various social issues related to prenatal visits in an environment where pregnancies among women (adults or adolescents) are frequent.

The study employs proportional stratified sampling, a probabilistic technique for selecting subjects according to strata. This technique involves dividing the target population into relatively homogeneous subgroups called strata and then selecting a sample proportionate to each stratum. The goal is to obtain homogeneous strata of the population.

Sample size and survey plan

To determine the sample size, we used the 'FISHER' formula in the Kingasani health zone. The prevalence of regular attendance at CPN 4, according to health zone statistics, is 11%. For a confidence level of 95% with an accuracy of 5%, we estimated the sample size for our study.

$$n = \frac{(t)2xpqxq}{(m)2}$$

Where:

- n: sample size.
- t: 95% confidence level (typical value of 1.96);
- p: estimated prevalence of the phenomenon in the population (proportion of pregnant women who have completed all ANC appointments during pregnancy) which is 0.11.

- 1: a constant.
- q: 1-p
- m: margin of error at 5% (typical value of 0.05).

$$n = \frac{(1,96)2 \times 0,11 \times 0,89}{(0,05)2} = 150,43 = 150 \text{ Subject}$$

The minimum sample size is 150. Additionally, we increased the sample by 10% (15 subjects) to prevent possible loss of follow-up, resulting in a total of 165 subjects.

To create the sampling frame, we referred to the Kingasani health zone in the city province of Kinshasa. The lists of maternity wards and deliveries in each health area of Kingasani included 18 maternity wards and 5,392 deliveries. These lists constituted our sampling frame for the proportional stratified survey, resulting in the division of the Kingasani health zone into seven strata for data collection:

1. Trinity Health Center
2. Béthanie Health Center
3. Bolingani Health Center
4. Fraternity Health Center
5. Molende Health Center
6. Kingasani Hospital Center
7. Medical Health Center
8. Sasapo Health Center
9. É Light Health Center
10. Raf Health Center
11. Hope Clinical Health Center
12. Siloe Health Center
13. Bolia Health Center
14. Londolobe Health Center
15. St. Paul Health Center
16. Lô.Lazare Health Center
17. Raby Health Center
18. Ternbo Health Center

Table 1:
Presentation of population, ANC, delivery, stillbirths, and live births according to the SNIS of 2021 (ZS Kisangani)

ZSK area	ZS Pop		CPN		Childbirth		Live birth		Stillborn	
	Effective	%	Effective	%	Effective	%	Effective	%	Effective	%
Atandele	150120	6.1	0	0	0	0	0	0	0	0
From Sep-May	23949	9.7	194	12	1551	29	1537	29	14	31.1
Kingasani	16473	6.7	424	3	51	1	51	1	0	0
Londolobe	37566	15.5	591	4	591	11	581	11	6	13
Molende	35566	14.9	2959	18	951	18	942	18	9	20
Mulie	43927	17.9	1524	9.1	559	10.3	559	10.4	0	0
Nsanga	41517	16.9	664	40	752	14	748	14	3	7
St.Paul	28974	11.8	2516	15.1	937	17	929	17	13	29
Total	244391	100	16613	100	5392	100	5346	100	45	100

Source: [Kisangani Health Zone Central Office \(SINIS 2021\)](#). Population aged 0 to 11 months, 9463; From 12 to 59 months 37,853; More than 59 months 18942; Women of childbearing age 49683

Table 2:
Presentation of participation according to strata (health areas), (2021)

No.	Health Areas	Delivery total	Proportion in all deliveries	Number of births delivered
1	Kingasani	51	0.009x165	1
2	Molende	951	0.18x165	30
3	May 17	1551	0.29x165	48
4	Nsanga	752	0.14x165	23
5	Londolobe	591	0.17x165	18
6	St. Paul	937	0.17x165	28
7	Molie	559	0.11x165	17
Total		5392		165

Data collection method, technique, and instruments

Data was collected through interviews for three main reasons: the method is applicable to almost all sectors of the population (literate and illiterate), it ensures questions are well understood before recording answers, and it guarantees high response rates. The interviews were conducted one-on-one with the mothers to avoid the influence of other people's presence on the responses.

A structured face-to-face interview was used to gather information from the subjects. This method involves the researcher directly contacting the respondent to collect precise information on the phenomenon under study. The data were collected using a questionnaire interview guide containing closed and open questions related to the social factors influencing the continuity of prenatal care.

Data analysis plan

The data recorded on the collection tools by the investigators were compiled, cleaned, and coded by the analyst. New variables were created, and the data were

entered using EXCEL 2010 to create the database, which was then analyzed using SPSS version 20.

Initially, we described the data by presenting proportions in percentages and the averages of certain variables. We then examined the relationships between independent and dependent variables using Pearson's chi-square test. The study results are estimated at a 95% confidence interval (CI) with the alpha error risk set at 5% ($p=0.05$).

Ethical considerations

Given that this research involves human subjects, particularly in the health field, ethical considerations were addressed from the beginning. We sought voluntary participation from the subjects after informing them about the nature, purpose, duration, and methods used in the research. Confidentiality principles were strictly observed to respect the privacy and personalities of the respondents. The survey questionnaires were securely stored, accessible only to the principal investigator, who committed to maintaining confidentiality and anonymity of the information provided by the subjects.

RESULTS

Description of the sociodemographic characteristics

Six sociodemographic characteristics were analyzed: age, education level, professional activity of the couple, marital status, monthly income of the couple, religious denomination, number of living children, and known obstetric history.

Table 3:
Distribution of respondents according to age groups

Variable	Frequency n=165	%
<i>Age (in completed year)</i>		
- 18-24	68	41.2
- 25-31	55	33.3
- 32-39	42	25.5
<i>level of studies</i>		
- Without level	18	10.9
- Primary incomplete	18	10.9
- Primary	28	17.0
- Secondary incomplete	52	17.0
- Secondary	32	19.4
- Incomplete academic	8	4.8
- University	9	5.5
<i>Woman's occupation</i>		
- Household	83	50.3
- Public sector	12	7.3
- Private sector	29	17.6
- Informal sector	41	24.8
<i>Occupation of spouse</i>		
-unemployed	31	10.8
-public sector	50	30.3
Private sector	38	23.0
Informal sector	46	27.9
<i>Marital status</i>		
Bride	122	73.9
Bachelor	18	10.9
Divorcee	14	8.5
Widow	11	6.7
<i>Religious denomination</i>		
- Catholic	22	13.3
- Protestant	17	10.3
- Muslim	11	6.7
- Kimbanguist	2	1.2
- Wake up	111	67.3
- Others	2	1.2

These results demonstrate that 68 out of 165, or 41.2% of respondents, are aged 18-24, followed by 55 who are aged 25-31, and the low representation is 42, or 25.5% of respondents. surveyed aged 32-39. 52 out of 165, or 31.5% of respondents, have an incomplete secondary education level, followed by 32, or 19.4%, and 28, or 17%, respectively have secondary and primary levels compared to incomplete university and university levels which represent 4.8% and 5.5%. Most pregnant women work in the housekeeping profession, i.e., 50% (83 out of 165) followed by 24.8% or 41 pregnant women who work in the information sector, 17.6% and 7.3% respectively in the private and public sectors. 30.3% of spouses are in the public sector compared to 27.9% in the informal sector. 73.9% of respondents are married, 10.9% are single, 8.5% divorced and 6.7% widows. We also note that the majority 111 out of 165 or 67.3% of respondents

come from revival churches followed by those of the Catholic church 22 or 13.3% of respondents while the Kimbanguist church and others represent 1.2 % respectively.

Table 4:
Distribution of respondents according to known obstetric history

Known obstetric history	Frequency n=165	%
Caesarean section	04	2.4
Stillborn	05	3.0
Ectopic pregnancy	06	3.6
Miscarriage	46	27.9
Premature delivery	18	10.9
Postpartum hemorrhage	24	14.5
Without history	62	37.6

It appears from this table that miscarriages are the complications most observed in 46 respondents, i.e., 27.9%, followed by premature births with 10.9% while 37.6% have no history.

Continuity in the prenatal service

Table 5:
Distribution of respondents according to the CPN activities carried out

Activities of CPN carried out	Frequency n=165	%
<i>Number of ANC performed by pregnant women</i>		
4 visits or more	80	48.4
1-3 visits	85	51.5
<i>People who encouraged initiating CPN</i>		
CPN service staff	61	36.9
The friends	44	26.6
The spouse	37	22.4
Others (family)	23	13.9

The results indicate that 51.5 % of women did not have a total of four CPNs during their gestation while 48.4% had a total of 4 (CPNs) or more. It was more the staff of the CPN services who encouraged the pregnant women to participate in the CPN.

Table 6:
Presentation of subjects according to the personal characteristics of the pregnant women in relation to ANC

Personal characteristics of women concerning ANC	Number (n=165)	%
<i>CPN initiation deadline</i>		
≤ 14 weeks	111	67
≥ 14 weeks	54	33
<i>Respect the appointment time at the CPN</i>		
Yes	147	89
No	18	11
<i>Distance traveled by pregnant women to go to the CPN</i>		
Short distance	144	87
Long distance	21	13

These results indicate that 67% of respondents initiated ANC before 14 weeks, 89% kept the appointment and 87% of respondents affirmed that the distance between home and the ANC service is short.

Bivariate Statistical Analysis

Table 7:
Relationship between continuity of antenatal care and time to initiation of ANC

CPN initiation deadline	Continuity of prenatal care		RR	χ^2	ddl	P	s
	4 visits or more	1-3 visits					
≤ 14 weeks	65	46					
≥ 14 weeks	15	39	2,108	13,780	1	0.0001	**
Total	80	85					

Continuity in prenatal care is statistically linked to the early timing of ANC (RR: 2.108; 95% CI [1.334-3.332]; χ^2 : 13.780; P=0.0001.

The study confirmed the hypothesis that the continuity of prenatal care is positively influenced by personal characteristics regarding ANC:

- Delay in initiation of ANC (RR: 2.108, 95% CI [1.334-3.332]; p < 0.0001)
- Encouragement by others (χ^2 : 5.643, p = 0.007)
- Compliance with appointments (RR: 3.143, 95% CI [1.106-8.901]; χ^2 : 8.189; p = 0.004)
- Short distance to ANC services (RR: 2.188, 95% CI [1.002-5.377]; χ^2 : 5.866; p = 0.015)

These findings are consistent with many other studies, which indicate that marital status, previous obstetric history, and geographic accessibility significantly influence the use of ANC services.

Table 8:
Relationship between antenatal care and people who encouraged ANC

People who encouraged for CPN	Continuity of prenatal care	
	4 visits or more	1-3 visits
CPN service staff	28	33
The friends	19	25
The spouse	20	17
Others (family)	13	10
Total	80	85

The continuity of CPN by pregnant women depends on the encouragement of caregivers, spouses, and obstetric history. There is a statistically significant connection P= 0.05.

Table 9:
Relationship between continuity of prenatal care and compliance with appointment times

Respect for time and appointments	Continuity of prenatal care		RR	χ^2	ddl	P	S
	4 visits or more	1-3 visits					
Yes	77	70	3,143	8,189 ^s	1	0.004	**
No	3	15					
Total	80	85					

Continuity in prenatal care is statistically linked to compliance with time and appointments by pregnant women (RR: 3.143; 95% CI [1.106-8.90]; χ^2 : 8.189; p=0.004

Table 10:
Relationship between continuity of prenatal care and the distance traveled by pregnant women to go to the ANC

Distance traveled by pregnant women to go to the CPN	Continuity of prenatal care		RR	χ^2	ddl	P	S
	4 visits or more	1-3 visits					
Short distance	75	69		5,866 ^s	1	0.015	NS
Long distance	5	16	2,188				
Total	80	85					

The continuity of prenatal care in relation to the distance traveled is not significant; (RR: 2.188; 96% CI [1.002-5.3777]; χ^2 : 5.866; P=0.015).

DISCUSSION

Profile of Respondents

When distributed according to age groups, 41.2% of respondents were aged 18-24, followed by 33.3% aged 25-31, and the lowest representation was 25.5% of respondents aged 32-39. Furthermore, 31.5% of respondents had incomplete secondary education. Additionally, 73.9% of respondents were married, 10.9% were single, and the majority of pregnant women (50%) were in the housekeeping profession. This was followed by 24.8% (41 pregnant women) in the informal sector. Among spouses, 30.3% were in the public sector compared to 27.9% in the informal sector. Lastly, 67.3% of respondents were from revival churches, and 37.6% had no obstetric history.

Our results are consistent with the findings reported by Badiaga (2008). In his study, 74% of subjects were aged between 15 and 30 years, 4.7% were aged under 16 years, and 9.4% were aged over 35 years. Youssouf (2014) noted

that 88% of women were in the age group of 14 to 30 years. Mafuta and Kayembe (2011) found the average age to be 26.6 (\pm 6.8 years), with more than two-thirds aged between 20 and 34 years (68.6%). These subjects lived in a union (85.5%) and had secondary education. The reproductive history revealed that most respondents in the single group were under 19 years old (44.2%). The proportion of married women (73.9%) in our study is lower than that of Badiaga, where 84% of pregnant women were married.

Regarding the profession of women and their spouses, the results of our study corroborate those reported by Badiaga in 2008 at the maternity ward of the Kati reference health center in Bamako, which found that 68% of cases were housewives. Similarly, Mafuta and Kayembe (2011) reported that most subjects were self-employed workers or housewives (49% and 26.2%, respectively).

In a study conducted by Mushagalusa (2005) in the Kadutu area (Kivu-DRC) on the socio-economic determinants of health service utilization, it was found that the use of health services is a dichotomous event, meaning that an individual either uses or does not use the services. An individual's demand for care is measured by the probability of accessing health services when ill. This study revealed that individuals with different socio-economic characteristics have unequal probabilities of accessing care. However, this relationship was not the focus of our study.

Concerning the level of education, 31.5% of respondents had incomplete secondary education, followed by 19.4% and 17% who had incomplete secondary and primary education, respectively. University education was represented by 4.8% and 5.5% for incomplete and complete university levels, respectively.

Some of our results diverge from those reported in other studies. In Koné's (2010) study, the majority of clients were out of school (63.5%). Doumbia (2007) found that 83% of individuals were out of school in Benin.

Regarding obstetric history, 37.6% of respondents had no history. In some cases, miscarriages were indicated in 27.9% of respondents, followed by premature deliveries noted in 10.9%.

Tiako Kamga et al. (2017) argue that pregnant women who experienced complications (such as abortion, intrauterine

fetal death, or ectopic pregnancy) during a previous pregnancy would be more inclined to adequately use antenatal care services.

Personal characteristics of the women in relation to ANC

The results indicate that 67% of respondents-initiated ANC before 14 weeks, 89% kept their appointments, and 87% of respondents stated that the distance between home and the ANC service is short. Diverging results are observed in other studies. For instance, some studies compared the recommendations of the World Health Organization (WHO) for the initiation of ANC, where only 22% of women presented themselves at this deadline (WHO, 2016).

Mafuta and Kayembe (2011) note that most respondents in the single group were under 19 years old (44.2%), were primigravidas (63.5%), and primiparous (40.4%). They initiated ANC late (57.7%), especially in the second trimester of pregnancy (69.2%). The brides' ages varied between 20 and 34 years (71.5%), were multi-pregnant (45.4%), pauciparous (38.3%), or multiparous (33.6%). Most of them initiated ANC late (60.7%). The majority of divorced and separated women were over 20 years old (61.6%), multi-pregnant (69.2%), and multiparous (69.2%). Among them, one in two women had initiated ANC on time (53.8%).

Of all these studies, the results on keeping appointments and the distance between home and the antenatal care service are not established.

Continuity in the prenatal service

The results indicate that 51.5% of women did not have all the ANC appointments and 48.4% had four or more ANC appointments. Additionally, the majority of subjects, i.e., 36.9%, were encouraged by health personnel to initiate ANC, 26.6% by friends, 22.4% by spouses, and 13.9% by others.

These results align with those reported in a survey carried out in Burkina Faso, where only 60% of pregnant women had the four minimum required visits (Rossier, 2020). In rural Guinea, Manyong et al. (2024) found that only 55% of women respected the WHO recommendations regarding the number of consultations, which is at least four ANC visits during pregnancy. Conversely, Doumbia (2007) found that 21.4% of women surveyed in the commune of

Athiémé respected the standards of ANC in 2007. This level of compliance with the standards varies from one district to another.

Verification of the hypothesis

The study hypothesis states that the continuity of prenatal care by potential users of prenatal services in the Kingasani health zone is positively influenced by the personal characteristics of the subjects regarding ANC. The hypothesis is confirmed by the study. The results reveal that the continuity of prenatal care is statistically linked to the delay in initiation of ANC (RR: 2.108, 95% CI [1.334-3.332]; χ^2 : 13.780, $p < 0.0001$), encouragement of women (χ^2 : 5.643, $p = 0.007$), compliance with the appointment by pregnant women (RR: 3.143, 95% CI [1.106-8.901]; χ^2 : 8.189, $p = 0.004$), and continuity of antenatal care is linked to the short distance to travel between home and ANC services (RR: 2.188, 95% CI [1.002-5.377]; χ^2 : 5.866, $p = 0.015$). Findings consistent with our results have been made in many studies. [Rwenge \(2014\)](#) notes that the results regarding marital status reflect the importance of support from adolescents' partners in their use of antenatal care services. Furthermore, data provided by Thaddeus and Maine, or that of [Hulton et al.](#), indicate that the physical distance from health facilities negatively influences attendance, which is also confirmed in the case of prenatal care.

Other studies remain consistent. Obstetric history influences the use of ANC. [Beninguisse et al. \(2003\)](#) show that it is probable that first-time mothers are more worried about their condition, while multiparous women are confident thanks to the experience accumulated in the past. Likewise, unplanned pregnancies, whose occurrence is considered untimely, reduce the chances of medical care ([Sawadogo et al., 2012](#)).

[Beninguisse et al. \(2004\)](#) revealed that the geographic accessibility of health services is an important determinant of antenatal care utilization. Geographic distances constitute a consistent barrier to the use of antenatal care services for African women, especially in rural areas.

Limitations of the study

The results obtained allow us to achieve the objectives of the study and verify the research hypothesis. However, methodological limitations exist. Indeed, we have not taken

into account in this work an essential aspect of the quality of services, namely patient satisfaction. Likewise, we did not take into account the verification of the links between the sociodemographic characteristics of ANC users and the other variables that influence continuity in prenatal consultations. We limited ourselves to certain personal characteristics such as the initiation deadline of ANC, previous obstetric history, compliance with the appointment by the pregnant woman, etc. Despite these limitations, interesting results were found concerning the research questions, specific aim and objectives, and the hypothesis.

CONCLUSIONS

Prenatal consultations are recognized as one of the three main pillars in the fight against maternal and infant mortality; the other two pillars are family planning and essential obstetric care, including childbirth in optimal conditions of hygiene and safety.

In this study on the social factors affecting the continuity of prenatal care among pregnant women in the Kingasani health zone from February 20, 2016, to April 5, 2016, the data analysis reveals several key findings:

1. **Age Distribution:** 41.2% of respondents are aged 18-24, followed by 33.3% who are aged 25-31.
2. **Marital Status:** 73.9% of respondents are married, and 10.9% are single.
3. **Occupation:** 50% of pregnant women work in housekeeping, followed by 24.8% in the informal sector.
4. **Spouses' Occupation:** 30.3% of spouses work in the public sector, and 27.9% are in the informal sector.
5. **Religious Affiliation:** 67.3% of respondents belong to revival churches.
6. **Obstetric History:** 37.6% of respondents have no previous obstetric history.

Prenatal Care Attendance: 51.5% of women did not attend all scheduled prenatal appointments, while 48.4% attended four or more appointments. The majority of women were encouraged to initiate ANC by health personnel (36.9%), friends (26.6%), spouses (22.4%), and others (13.9%).

Bivariate Analysis Results: Continuity of prenatal care is statistically linked to:

- **Delay in Initiation of ANC:** Relative Risk (RR): 2.108, 95% Confidence Interval (CI) [1.334-3.332], χ^2 : 13.780, $p < 0.0001$.
- **Encouragement to Follow ANC:** χ^2 : 5.643, $p = 0.007$.
- **Compliance with Appointments:** RR: 3.143, 95% CI [1.106-8.901], χ^2 : 8.189, $p = 0.004$.
- **Distance to ANC Services:** Not significantly linked (RR: 2.188, 95% CI [1.002-5.3777], χ^2 : 5.866, $p = 0.015$).

To improve the situation, prenatal care providers should explain to pregnant women the number and frequency of scheduled ANC visits, the purpose and principles of each ANC activity, and evaluate the quality and frequency of ANC attendance at the referral health center.

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Ethical Approval: Not applicable because the context has no IRB or a similar body. However, necessary permissions were sought and obtained from appropriate authorities before the study commenced.

Conflicts of Interest: None declared.

ORCID iDs:

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