



Factors Influencing Late Initiation of Antenatal Visits Among Pregnant Women in the Dormaa Central Municipality in the Bono Region of Ghana

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Abstract: Skilled and qualified healthcare professionals provide antenatal care to expectant mothers. Antenatal care identifies, prevents, and manages pregnancy-related problems. This study evaluated the prevalence and factors related to late antenatal care in the Dormaa Central Municipality in the Bono Region of Ghana. This health facility-based cross-sectional study was conducted in the Municipality from March 2022 to July 2022. A total of 400 pregnant women were enlisted using a convenience sampling technique and made to answer a structured questionnaire developed for the study. Data were processed with SPSS version 26 to conduct descriptive and inferential statistics and identify the relationship between dependent and independent variables. The study found that the prevalence of late initiation of antenatal care was 42.5%. The education level of pregnant women influenced late antenatal care initiation. Pregnant women's gravidity and parity level were also associated with late antenatal care initiation. Pregnant women who were uninformed of the correct time and husbands' influence were also associated with late antenatal care initiation in the Municipality. The study concluded that most pregnant women who started antenatal care late did so because of their level of education, obstetric circumstances, unawareness, and husbands' influence, which have significant health consequences on the mother and unborn child. It is important that health policymakers and implementers in the country promote and expand health educational programmes for pregnant women to raise their antenatal care visit awareness. Husbands should be encouraged to help with early antenatal care initiation of their pregnant wives. In addition, a qualitative investigation should be carried out to fully understand the reasons that delay pregnant women's commencement of antenatal care in the Dormaa Central Municipality.

Keywords: Pregnant, antenatal, pregnant women, antenatal visits

1. INTRODUCTION

Reproductive health is a concern at any age throughout the life of women and represents more than 80% of health issues globally (Elizabeth et al., 2020). Antenatal care is the care provided by skilled healthcare professionals to women throughout their pregnancy and it includes risk identification and screening, prevention, and management of pregnancy-related diseases (Ali, 2020). Antenatal care prevents and reduces pregnancy and delivery-related complications such as postpartum haemorrhage, hypertension, pre-eclampsia, eclampsia, sepsis, spontaneous abortion, and obstetric fistula which are the leading causes of maternal morbidity and mortality globally (Kotoh & Boah, 2019). Therefore, pregnant women with late initiation of antenatal care are more likely to attain poor health outcomes during pregnancy (Aung, 2016). The goal of antenatal care is to reduce maternal and child morbidity and mortality, as such timely antenatal care initiation is crucial for the safety of the pregnant mother and the unborn child through early identification, management and prevention of pregnancy-related problems by giving supplementation of micronutrients like iron and folic acid and screening of infection (Tola, 2021). Evidence has established that pregnant women who can initiate early antenatal care do not suffer from pregnancy-related complications because such complications are detected at the onset of the early visit, and appropriate medications and attention are given to such women. Also, there are safe maternal health, safe childbirth, and a reduction in pregnancy-related mortalities (Yah & Tambo, 2018).

Late antenatal booking and infrequent antenatal care are common. However, they are avoidable patient-related risk factors for maternal deaths (Muhwava, 2016). Women accessing prenatal care early receives the full benefits of treating medical conditions, identifying and reducing

potential risks, and addressing behavioural and environmental factors that contribute to poor pregnancy outcomes (Barder et al., 2020). Globally, a pregnant woman dies every minute from complications related to childbirth and about half a million women die each year due to maternal causes with 99% of the deaths taking place in developing countries (Ochako et al., 2011). Moreover, approximately 830 women die from preventable causes related to pregnancy and childbirth-related complications every day and countries with low-resource settings account for almost all of these deaths (Rahman, 2021). Evidence shows that many women especially in sub-Saharan Africa do not access antenatal services in their first trimester of pregnancy with others attending only once which has contributed to most maternal-related complications such as severe bleeding leading to anaemia (Kotoh & Boah, 2019). In Ghana, the maternal mortality ratio is estimated at 310/100,000 live births, while neonatal and infant mortality rates were 25/1,000 and 37/1,000 pregnancies, which is partly due to most pregnant women initiating antenatal care late (Appiah et al., 2020). This study, therefore, determined the prevalence and associated factors to late initiation of antenatal care among pregnant women in the Dormaa Central Municipality.

2. MATERIALS AND METHODS:

Study area

The study was conducted in Dormaa Central Municipal. Dormaa Municipal is one of the most populous districts in the Bono Region. It covers an area of 599km². It is located in the forest belt of Ghana and shares a boundary on the North with Dormaa East, South with Dormaa West, and West with Cote d'Ivoire. The Municipal capital town is Dormaa Ahenkro and it is located 80km from Sunyani the Regional capital and 8km from the Cote D'Ivoire Ghana border.

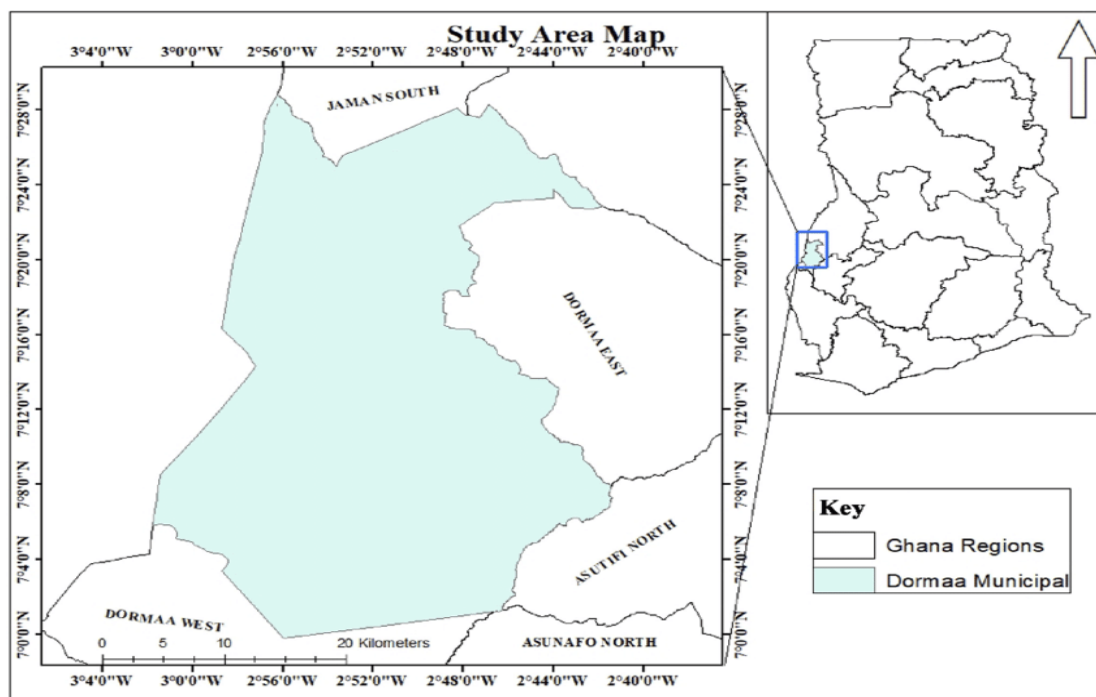


Figure 1. Map of Dormaa Municipality

Study design

The study employed a health facility-based cross-sectional design to recruit pregnant women to determine prevalence and the factors associated with late initiation of antenatal care from March 2022 to July 2022 in the municipality.

Population and sample size

The study comprised pregnant women of their reproductive age and a resident of the municipality who was beginning their first antenatal visit. Pregnant women who initiated their antenatal care at the time of pregnancy, and have consented to partake in the study were also included. However, pregnant women who were severely sick, unconscious or mentally challenged were excluded. Moreover, pregnant women who sought antenatal services in the municipality but do not stay in the municipality were considered for exclusion from the study. The study employed Simple Cochran formulae to $n = \frac{z^2 pq}{e^2}$ to determine the required sample size of 416.

Data collection technique

Non-probability convenience sampling technique was employed to recruit 416 pregnant mothers who visited health facilities within the municipality for antenatal care. The study deployed a well-structured closed-ended questionnaire to gather data from respondents face to face. Data on respondents were gathered from their socio-demographic characteristics, initiation of antenatal care and obstetric factors. The questionnaire was read and filled out for respondents who could not read and write after they have been explained in their local language. For participants who were able to read, the questionnaire was given to them under guidance to answer by themselves. Study respondents' consent was sought before the administration of structured questionnaires. Respondents were asked to sign or thumbprint on a well-written consent form after the study has been explained to them for them to agree to participate voluntarily.

Data analysis

The data collected were cleaned and entered into SPSS software. The entered data were coded in

the software. Descriptive statistics were used to describe the factors that influence the late initiation of antenatal care by summarizing them into frequencies and percentages. Mean and standard deviation were calculated for the ages of respondents from the data collected. Pearson chi-square set at a 95% confidence interval was used to measure the association between the dependent and the independent variables and a PV less than 0.05 indicated a significant association between the dependent and independent variables.

Ethical approval

The Ghana Health Service Ethics Review Committee approved the study (GHS ERC ID NO-040-04-22). After ethical approval, data gathering commenced. However, before collecting data, permission was obtained from the Director of Health Services at the municipality and head of the antenatal departments of the hospital

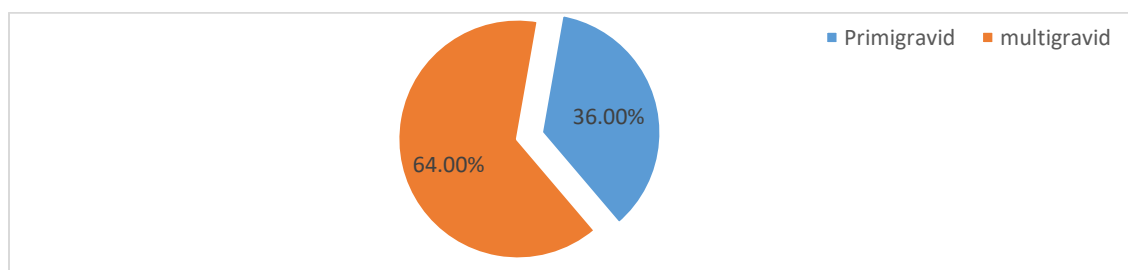
3. RESULTS

The study recruited 400 respondents out of the anticipated 416 participants and there was a 96% response rate. The mean age of respondents was 27 ± 6 (16-43) years. About 122 (30.5%) of the respondents were between the ages of 20-25 years, 106 (26.5%) were aged 26-30 years, 80 (20.0%) were aged 31-36 years whilst the remaining 39 (9.8%) fell within the ages of 37-49 years. About 160 (40.0%) of the respondents were married, 141 (35.2%) were co-habiting and 99 (24.8%) were single. Most 239 (59.8%) of the respondents had basic education, 98 (24.5%) had secondary education whilst 37 (9.2%) had no formal education. The majority 313 (78.2%) of the respondents were Christians while 85 (21.3%) were Muslims. Most 325 (81.2%) of the respondents lived in rural areas whilst 75 (18.8%) settled in urban areas. The majority 325 (81.3%) of the respondents were Akans while 85 (21.3%) were Northners. About 103 (25.7%) of the respondents were farmers, 117 (29.2%) were into trading, whilst 99 (24.8%) were into other jobs (Table1).

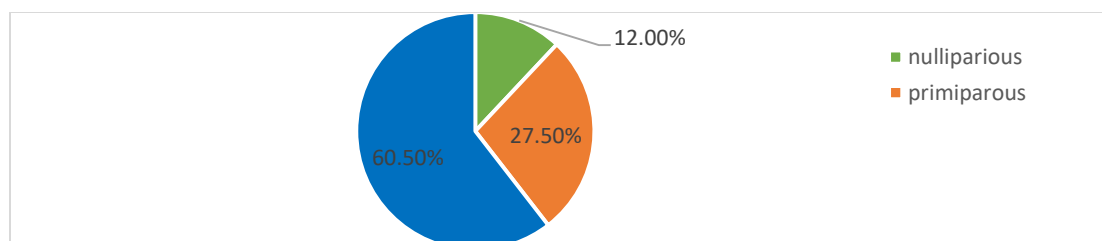
Table 1. Socio-demographic characteristics of respondents

Variable(s)	Category	Frequency	Percentage (%)
Age (years)	27.0 \pm 6.5 (16-43) years		
	16-19	53	13.2
	20-25	122	30.5
	26-30	106	26.5
	31-36	80	20.0
	37-49	39	9.8
Marital status	Married	160	40.0
	Single	99	24.8
	Co-habiting	141	35.2
Educational level	Non-Formal Education	37	9.2
	Basic education	239	59.8
	Secondary education	98	24.5
	Tertiary education	26	6.5
Religion			
	Christian	313	78.2

	Islam	85	21.3
	Traditional	2	0.5
Residency			
	Rural	325	81.2
	Urban	75	18.8
Ethnicity			
	Akan	289	72.2
	Ewe	8	2.0
	Northerner	85	21.3
	Others	18	4.5
Occupation			
	Farming	103	25.7
	Trading	117	29.2
	Housewife	60	15.0
	Civil service	21	5.2
	Others	99	24.8

Gravidity and Parity of Respondents**Figure 2. Gravity of Respondents**

Most 256 (64.0%) of the respondents were multigravida whilst 144 (36.0%) were Primigravida during the period of the study (Fig. 2).

**Figure 3. Parity of Respondents**

About 242(60.5%) of the respondents were multiparous, 110 (27.5%) were primiparous and 48 (12.0%) were nulliparous (Fig. 3).

Trimester of pregnancy

About 231 (57.7%) of the respondents were in their first trimester, 139 (34.8%) were in their second trimester whilst 30 (7.5%) were in their third trimester (Fig. 4).

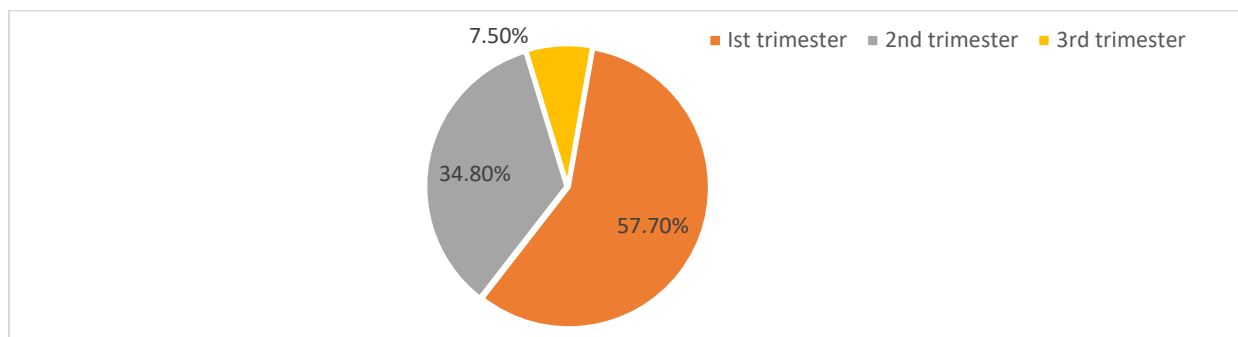


Figure 4. Trimester of pregnancy

Initiation of ante-natal care

Figure 5 shows that, about 170 (42.5%) of the pregnant women initiated antenatal care late while 230 (57.5%) initiated antenatal care early.

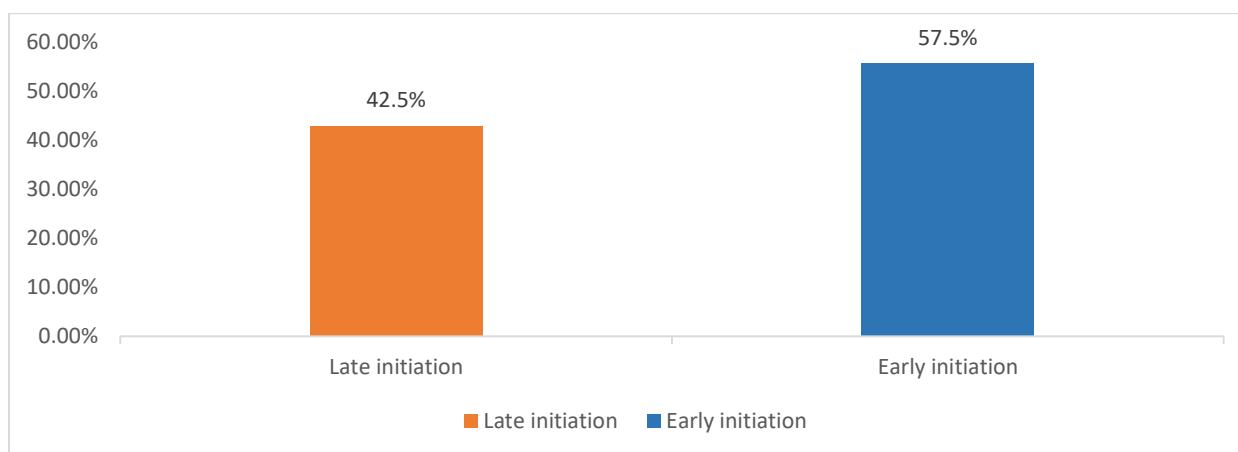


Figure 5. Initiation of antenatal care

Socioeconomic factors influencing initiation of antenatal visit

Most 297 (74.3%) of the respondents indicated it was the right time to initiate antenatal care while 103(25.7%) revealed that, it was not the right time to initiate antenatal as at the time they were seen at the health facility. About 214(53.5%) of the respondents revealed that their husbands influence their antenatal care initiation whilst 186(46.5%) said otherwise. The majority 346 (86.5%) of the respondents indicated that they

visit the clinic whenever, they become pregnant while 53(13.5%) also indicated not all the time they visit the clinic when they get pregnant. Concerning reasons for initiation of antenatal care, about 194(48.5%) of the pregnant women revealed that it was time to start antenatal care, 126(31.5%) indicated due to known risk factors while 80(20.0%) said due to sickness. About 288(72.0%) of the respondents lived close to a

health facility while 112(28.0%) were far from a health facility. The transport system of 331(82.8%) of the respondents was frequent, 69(17.2%) were infrequent. Most 294(73.5%) of the respondents spent less than thirty minutes to reach a health facility while about 68(17.0%)

spent about 30-60 minutes to access antenatal care. About 309(77.3%) of the respondents indicated that, the cost of transport to accessing ANC was cheap whilst 91(22.7%) said otherwise (Table 2).

Table 2. Socioeconomic factors influencing antenatal care initiation

Variable	Category	Frequency	Percentage (%)
The right time to initiate ANC			
	Yes	297	74.3
	No	103	25.7
Husband influence on ANC initiation			
	Yes	214	53.5
	No	186	46.5
Visit ANC whenever pregnant			
	Yes	346	86.5
	No	54	13.5
Reasons for ANC initiation			
	Time to start	194	48.5
	Risk factor	126	31.5
	Sickness	80	20.0
Proximity to a health facility			
	Near	288	72.0
	Distant	112	28.0
Transport system to a health facility			
	Frequent	331	82.8
	Infrequent	69	17.2
Time is taken to reach the ANC centre			
	<30 minutes	294	73.5
	30-60 minutes	68	17.0
	>60 minutes	35	9.5
Transport cost to ANC			
	Cheap (<10GHS)	309	77.3
	Expensive(>10GHS)	91	22.7

Association between socio-demographic factors and initiation of antenatal care

The Pearson chi-square test set at a 95% confidence interval was used to determine the strength of association between socio-demographic factors and initiation of ante-natal care. Respondent's level of education was 11.24 times more to initiate antenatal care late during pregnancy [$\chi^2 = 11.24$, $P = 0.010$] (Table 3).

Table 3. Association between socio-demographic factors and initiation of antenatal care

Variable	Late initiation n (%)	Early initiation n (%)	χ^2 (p-value)
Age (years)			
			10.8(0.054)
16-19	21(12.3)	32(13.9)	
20-25	49(28.8)	73(31.7)	
26-30	48(28.2)	58(25.3)	
31-36	44(25.8)	36(15.6)	
37-49	8(4.7)	31(13.5)	
Marital status			
			3.74(0.154)
Married	61(35.8)	99(43.0)	
Single	41(24.1)	58(25.3)	
Co-habiting	68(37.6)	73(31.7)	
Education			
			11.24(0.010)*
Non-formal education	24(14.1)	13(5.6)	
Basic education	97(57.0)	142(61.7)	
Secondary education	44(25.8)	54(23.4)	
Tertiary education	5(2.9)	21(9.1)	
Religion			
			2.69(0.259)
Christian	132(77.7)	181(78.7)	
Islam	36(21.1)	49(21.3)	
Traditional	2(1.2)	0(0.0)	
Residency			
			0.1(0.75)
Rural	141(82.9)	184 (80.0)	
Urban	29(17.1)	46 (20.0)	
Ethnicity			
			4.14(0.24)
Akan	116(68.2)	173(75.2)	
Ewe	3 (1.8)	5 (2.2)	
Northerner	45 (26.4)	40 (17.4)	
others	6 (3.5)	12 (5.2)	
Occupation			
			8.80 (0.06)
Farming	57(33.5)	46 (20.0)	
Trading	47(27.6)	70(30.5)	
Housewife	31(18.2)	29(12.6)	
Civil service	5(2.9)	16(6.9)	
others	30(17.6)	69(30.0)	

Association between gravidity, parity and initiation of antenatal care

The Pearson chi-square test set at 95% confidence interval was employed to determine the relationship between the gravidity, and parity of pregnant women and their initiation of antenatal care. The study found that pregnant women with one or more pregnancies were 7.85 times to initiate antenatal care late [$X^2=7.85$, $p=0.005$]. In addition, it was revealed that pregnant women with one or more children were 6.27 times to initiate antenatal care late [$X^2=6.27$, $p=0.043$] (Table 4).

Table 4. Association between gravidity and parity, and initiation of antenatal care

Variable	Late initiation n (%)	Early initiation n (%)	X^2 (p-value)
Gravidity			7.85(0.005)*
Primigravida	49(28.5)	94(42.2)	
Multigravida	123(71.5)	129(57.8)	
Parity			6.27(0.043)*
Nulliparous	15(8.7)	33(14.8)	
Primiparous	42(24.4)	67(30.0)	
Multiparous	115(66.9)	123(55.2)	

Association between socioeconomic factors and initiation of antenatal care

The Pearson chi-square test set at a 95% confidence interval was applied to determine the link between socioeconomic factors and initiation of antenatal care. The study found that respondents' right time of initiation antenatal care was 16.42 times more likely to influence their late initiation [$X^2=16.42$, $P=0.0001$]. In addition, the influence of respondents' husbands was 5.23 times associated with respondents' late initiation of antenatal care [$X^2=5.23$, $p=0.022$]. Pregnant women who visit antenatal care when pregnant was 3.0 times associated with late initiation [$X^2=3.0$, $P=0.08$]. Moreover, pregnant

women reasons for late antenatal care initiation as 3.11 times associated with delay initiation [$X^2=3.11$, $P=0.21$]. Further, transport system and time taken to reach antenatal care vicinity were 2.3 times and 4.47 times associated with late initiation of antenatal care [$X^2=2.3$, $P=0.124$], [$X^2=4.47$, $P=0.107$] respectively. Additionally, pregnant women proximity to health facility and transport cost were 0.28 times and 0.37 times associated with pregnant women late initiation of antenatal care [$X^2=0.28$, $P=0.59$], [$X^2=0.37$, $P=0.54$] respectively (Table 5).

Table 5. Association between socioeconomic factors and initiation of antenatal care

Variable	Late initiation n (%)	Early initiation n (%)	X^2 (p-value)
The right time to initiate ANC			16.4(.0001)*
Yes	110(64.7)	60(35.3)	
No	182(79.1)	48(20.9)	

Husband influence on ANC		5.7(0.017)*
Yes	80 (37.6)	92(49.5)
No	133(62.4)	94(50.5)
Visit ANC when pregnant		3.0(0.08)
Yes	143(83.1)	29(16.9)
No	198(89.2)	24(10.8)
Reasons for ANC		3.11(0.21)
Time to start	83(48.8)	106(47.7)
Known risk factor	48(28.2)	78(35.1)
sickness	39(22.9)	38(17.1)
Proximity to a health facility		0.28(0.59)
Near	122(71.3)	78(28.7)
Distant	163(73.8)	58(26.2)
Transport system		2.36(0.124)
Frequent	137(80.6)	33(19.4)
infrequent	190(86.4)	30(13.6)
Time is taken to reach ANC		4.47(0.107)
<30 minutes	121(70.8)	121(77.4)
30-60 minutes	30(17.5)	37(16.7)
>60 minutes	20(11.7)	13(5.9)
Transport cost		0.37(0.54)
Cheap (<GHS 10)	40(23.4)	131(76.6)
Expensive(>GHS 10)	46(20.8)	175(79.2)

4. DISCUSSION

This current study revealed that socio-demographic factors such as the education of pregnant women had an association with pregnant women's late commencement of antenatal care. For example, 59.8% of the respondents had basic education and this influenced their late initiation of antenatal care. The outcome of a quantitative cross-sectional study conducted in Nigeria indicated that the educational level of pregnant women had a relationship with their commencement of antenatal care. The study further revealed that pregnant women who had attained basic education were more likely to report to antenatal care late (Ochako et al., 2011) and this finding

agrees well with the outcome of this recent study. A similar quantitative cross-sectional study was conducted to determine the factors associated with pregnant women's late commencement of antenatal care and it was revealed that, most of the pregnant women who had a basic form of education had a higher odds of attending antenatal care late (Wolde et al., 2019). Moreover, in the United Arab Emirates, it is established that the late commencement of antenatal care by pregnant women are ascribed to socio-demographic factors such as education. The study indicated that pregnant women's education plays a vital role in their initiation of antenatal care (Ali et al. 2020) and this is also in line with the outcome of this study. What could

have accounted for the similarities of study findings could be that these studies were conducted among pregnant women with a low level of education, particularly those in rural areas where their level of education might not be high compared to pregnant women residing in urban areas with some form of formal education. However, a study conducted by Gebresilassie et al., (2019) has argued that the level of pregnant women's education had no association with late antenatal care but rather an early initiation. The study further revealed that pregnant women with higher education attend early antenatal care in contrast to our current findings. The implications of pregnant women being influenced by their level of education to initiate antenatal care late may result in late detection of the onset of pregnancy-related complications which healthcare providers may find it challenging to averting such pregnancy-related complications. For example, pregnant women who have developed an early onset of complication such as high blood pressure or diabetes may worsen their state of health when such health challenge is not addressed earlier. This affects the health of the mother, and the developing foetus, thereby increasing maternal and infant-related morbidities during pregnancy (Ali et al., 2020). In addition, delayed initiation of antenatal care due to absence of maternal education deprives the pregnant mother and the developing foetus from all the benefits they would have received from antenatal service. The pregnant mother who is well educated on how to take care of her pregnancy and to report any pregnancy-related danger signs that can affect her health, pregnancy and the foetus to health professionals for immediate interventions. In addition, they are educated on their nutrition which is the kind of food that will help the mother to grow strong and the baby as well. The delayed initiation of ANC by the pregnant woman may lead to her forfeiting some vital information that would be necessary to keep them fit. This results in poor feeding practices, thereby predisposing the unborn babies to low birth weight and poor health outcomes (Kante' et al., 2013; Appiah-Kubi et al., 2020). When the pregnant mother

delays in initiating antenatal care early, she misses the full benefits of iron, folic acids and other essential drugs necessary to keep her strong and for good foetal development. Iron and Folic intake during early pregnancy help the mother to maintain a steady haemoglobin concentration during and after birth. However, her delayed initiation could result in low haemoglobin concentration which affects the baby as well during pregnancy. The baby can be born anaemic and sometimes suffer from poor mental development due to decreased iron and folic acid supply for brain cell and spinal cord development (Wana, 2020). Babies suffer from poor structural development, which affects their growth rate whilst mothers sometimes suffer from anaemia before and after delivery, with subsequent blood transfusion (Wana, 2020).

This current study has established that the parity and gravidity of pregnant women associate well with their late initiation of antenatal care. For example, in this study about (60.50%) and (64.0%) of the respondents were multiparous and multigravida, respectively. That is most of the respondents had given birth to two or more and had also conceived two or more pregnancies, respectively. In the United State of America, the report of a cross-sectional study has demonstrated that multiparous women delay in attending to antenatal care and this supports the outcome of this study (Barder et al., 2020). Moreover, a study conducted by Wolde et al., (2019) to determine the obstetric history of pregnant women and how it influenced the initiation of antenatal care found that multiparous women had adequate knowledge and as such begins to initiate care after the first trimester. These findings are also consistent with the outcome of this current study. Moreover, in a cross-sectional study conducted in Myanmar, it was revealed that the parity and gravidity of pregnant women influenced the initiation of antenatal care. The study highlighted that pregnant women who had more than one birth pregnancy had an increased odds of delaying antenatal care when they conceived a baby (Aung et al., 2016). In contrast to the above supportive

studies, a descriptive cross-sectional study aimed at establishing a correlation between multiparous and initiation of antenatal care revealed that multiparous pregnant women have a higher odds of starting antenatal care on time compared to nulliparous and primiparous women.(Gidey et al., 2017). In addition, Fobelets et al., (2015), in their qualitative enquiry demonstrated that multiparity women had no relationship to delay timing in antenatal care. Moreover, Jihad et al., (2022), found in a quantitative cross-sectional survey that, pregnant women who were multi-parous and multi-gravid have no association to delay initiation of the antenatal study. Similarly, Ewunetie et al., (2018), had demonstrated in their study that, no significant association existed between the parity of a pregnant woman and the late start of antenatal. The odds of a pregnant woman being multiparous are less likely to affect her delayed initiation of antenatal care. The study found that there was no statistically significant difference between parity and late commencement of antenatal care among pregnant women and this finding also disagrees with the outcome of this current study (Tesfu et al., 2022). Furthermore, a related cross-sectional survey conducted to determine the predictors of delayed antenatal study initiation among pregnant women found that parity and gravidity of pregnant women had no relationship to late initiation of ANC. (Tadele et al., 2022).

What could have accounted for the differences in study findings could be ascribed to the differences in knowledge acquisition among multiparous and multigravida women about antenatal care. The complications associated with multi-gravid and multiparous pregnant women delaying in initiating early antenatal care could increase their preference for patronizing the services of a local birth attendant who may not be skilled enough to attend to all her pregnancy needs. This usually happens when such multiparous or multigravida pregnant woman resides at a long distance to access the services of a health facility. She may adopt the traditional methods of keeping pregnancy which may expose her to several risks that can endanger her health

and that of the unborn child. Her increased preference for seeing a traditional birth attendant who may have not all the necessary skills may increase her odds of pre and post-partum complications such as loss of blood leading to anaemia with subsequent poor and decrease in the supply of oxygen which can necessitate foetal death whilst in the womb. There is also an increased risk in the contraction of infections which become difficult to detect whilst relying on the services of local birth attendance without seeking services early and from skilled professionals. The undetected infections can migrate through the birth canal to affect the unborn child. For example, pregnant women infected with sexually transmitted infections such as Syphilis can affect the eye of the baby if left undetected and treated during the early phase of initiating ANC (Sarker et al., 2021).

The study also found that, among the socioeconomic factors that influence late initiation of antenatal care among pregnant women in the municipality, husbands' influence has a role to play. The role husbands play in decisions concerning pregnant women's initiation of pregnancy influences the woman commencing antenatal care early or late. Husbands in the context of Ghanaian culture are the head of the nuclear family that takes most of the decisions of the family and must also work to provide finances for the upkeep of the family. Situations, whereby the husband does not provide the needed financial assistance to the pregnant wife on time, may contribute to her late initiation of antenatal care. Moreover, women who are married do not have complete autonomy in making decisions for them but have to seek the support or consent of their husbands. In this regard, when the husband is not in support of the decision the wife is suggesting concerning her early initiation of antenatal care may cause her delay in starting antenatal care (Tesfaye et al., 2017). According to the outcome of a cross-sectional study conducted to determine husband non-involvement in antenatal care, initiation may cause late initiation of their wives starting late and this relates well with the outcome of this study (Konje et al.,

2018; Dorji et al., 2019). When husbands involve themselves in their pregnant women's attendance to seeking services, they will ensure that their pregnant wives attend early antenatal services and also will do everything in their capacity to provide the necessary support that may be needed for her to successfully take care of their pregnancy. This means that the influence of husband on their pregnant women's early initiation of antenatal care promote the good health of the woman and the unborn child (Mamo et al., 2021).

In Tanzania, the report of an exploratory qualitative enquiry indicated that husbands influence the cause of their pregnant women's late initiation by not providing the needed financial assistance to the pregnant woman. As a result, pregnant women may encounter both economic and psychological barriers that may hinder them from beginning early visits (Mgata & Maluka, 2019), and this finding agrees well with the outcome of this study. In Kenya, it is indicated that the influence of husbands plays a key role in determining when a woman should initiate pregnancy care. The study revealed that, pregnant women who consult their husbands on when to initiate services sometimes start late (Ochako et al., 2011). This is consistent with the outcome of this current study. According to the findings of a study conducted to ascertain how husbands influence pregnancy antenatal care initiation, it was revealed that pregnant women whose husbands accompany them to health care facility has a positive influence on their wife's early initiation. This means that husbands have an influence on pregnant women's early initiation of care (Teklesilasie & Deressa, 2018), which contrasts with the findings of this current study. Husbands' influence on pregnant women's delayed initiation of care may lead to poor discussion and joint decisions making on how to take care of the pregnancy and the unborn baby. For example, the husband must plan with the pregnant wife the type of facility to seek services and deliver the baby when due, the required items for delivery, among other essential activities that require the support of the man.

This current study also indicated that the right time for a pregnant woman to initiate care contributes to pregnant women's delay in initiating care. This means that, when pregnant women are not well informed or do not have adequate knowledge of the required time for them to begin antenatal services, they may likely initiate it late. This finding is supported by a study that found that pregnant mothers with poor knowledge of antenatal care especially the right time for booking commence late in seeking health care services (Jihad et al., 2022). Similarly, in a study conducted by Gebresilassie et al., (2019), found that pregnant women who are uninformed of the need for antenatal services and the appropriate timing are always delayed in seeking antenatal services. In addition, the report of a quantitative cross-sectional study conducted on why pregnant women initiate care late found that most pregnant women did not recognise the right time to initiate services (Tola et al., 2021), and this is consistent with the findings of this recent study. Furthermore, it was established in the report of a quantitative study conducted on pregnant women's initiation of antenatal care that the lack of knowledge on the right time for pregnant women to commence antenatal care was a strong predictor of their late initiation (Appiah et al., 2020; Tola et al., 2021).

5. CONCLUSION

Most of the pregnant women who delayed in commencing antenatal care had basic education and also resided in rural areas. This implies that most pregnant women in the municipality when they delay in antenatal care may suffer pregnancy-related complications such as anaemia, and eclampsia which have the potential of causing maternal deaths or foetal-related structural defects. The study also concluded that obstetric factors such as the number of births and pregnancies of pregnant women in the municipality influence their late attendance to seek healthcare. That is most pregnant women who have given birth to two or more and are pregnant for the second or third time rely on their previous knowledge to determine when to seek or initiate antenatal care. This behaviour

exposes the pregnant woman to multiple risk factors for the development of conditions and diseases that may be difficult for healthcare providers to detect at the onset when the visit is delayed. This may lead to health related complications of the mother and the baby with a subsequent increase in maternal morbidities and mortalities as well as an increase in the occurrences of neonatal diseases and sometimes death. Furthermore, the unawareness of the right time for pregnant women and the influence of husbands contribute to the delayed initiation of antenatal care among pregnant women in the municipality. This contributes to psychological, emotional and sometimes economic depression that collectively can affect the health of the mother and the unborn child with the subsequent inability of the pregnant mother to cooperate with her pregnancy and the immediate family members. The study recommends that the policymakers in the health sector such as the Ministry of Health through its agencies including the Ghana Health Service, Christian Health Association, and Teaching Hospitals among others should initiate policies that promote and intensify public health education continuously on the need for pregnant women to initiate antenatal care early on local radio stations and community durbars. These programmes will increase the awareness of pregnant women on the importance of early visit particularly those in the rural communities. Health authorities in the Municipality should intensify health promotion programs aimed at educating pregnant women on the right time to begin a visit to a health facility whilst incorporating in their activities strategies to involve husbands to support and encourage their pregnant wives to visit antenatal care facilities early. There is the need for future qualitative enquiry into cultural, community-level and healthcare providers' related factors that influence pregnant women's late visits to the antenatal facilities in the Municipality.

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