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Contributing Factors to Late Age Pregnancy and its Outcome Among Elderly Primigravidas in Kakamega County,Kenya

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Abstract

Delayed childbearing is becoming apparent in developing countries especially among the upper and middle class women as they become increasingly empowered. The objective of this study was to determine the pre-disposing factors to late age pregnancy among childbearing women. A cross sectional survey of childbearing women aged between 18 and 40 years and hospital personnel, in 3 selected hospitals and tertiary institutions in Kakamega County, Kenya was carried out. Purposive and stratified sampling strategies were employed. The findings revealed that although the majority age of primigravidas lies between 26 to 30 years, an increasing number of women at the age of 31 to 40 years were still having their first borns. Primigravidas at such ages were found to be more vulnerable to birth complications. It emerged that prolonged education, financial stability, career development, lifestyle, drug and substance abuse and lack of awareness were the leading contributing factors to delayed pregnancy among child bearing women.

Keywords: primigravidas; education; pregnancy; maternal; age.

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1. Introduction

The lifestyle of today's women is changing as they have more command over their conceiving capabilities. In the traditional society, women often relied on marriage and childbearing as avenues for gaining social status, respect and power in the household as well as in the community arena. Consequently, early marriage and childbearing were highly valued in many traditional societies. However, the socioeconomic shift in society has moved the woman from being primarily a domestic worker to a competing career person in the professional world. This is compounded with the "autonomy" effect, whereby women with higher education earn higher incomes, decide to have fewer children of better quality and at the time of choice [11].

The existing trends and lifestyle changes in modern society among childbearing women continue to threaten the traditional childbearing norms such as age of first time pregnancy. It is becoming a common trend to find women pushing childbearing period up to their late thirties and early forties oblivious of the consequences. Women are having first babies at older ages and as a result, the overall proportion of births to women at age 35 and older has been increasing. Educational attendance is one of the major contributing factors to this phenomenon as it has reduced time available for women to engage in child bearing, thus postponing the decision to have one's first child. This is particularly true in Sub-Saharan Africa, where national laws forbid pregnant teenagers from attending school in most countries [9]. There is naturally a rather mechanical effect of schooling on fertility if women tend not to have children while continuing to attend high school or college, thus delaying the beginning of and shortening their reproductive life [4].

2. Material and methods

Study population and study site

The units of analysis included childbearing pregnant women aged 18-27 years, 28-34 years and 35 years and above attending antenatal clinic in various health facilities in Kakamega County namely; Kakamega County referral Hospital, St Mary's mission hospital and Lumakanda District hospital [12]. These ages were selected to bring out the variance in the biological stages of growth and development of women that have different results in birth outcomes

Other units of analysis included medical personnel, i.e. obstetricians & pediatricians, medical superintendents, nurses in- charge, marriage counselors from ministry of health and county health sector, nutritionists and nurse-midwives, while record keeping clerks provided health records. Childbearing women from tertiary education institutions in the Kakamega County also formed part of the study. These were from; Masinde Muliro University of Science and Technology, Mt. Kenya University, Kenyatta University, Sigalagala Technical Institute and Kakamega Medical Training College (MTC).

3. Research design

This was a cross sectional survey. The independent variable was age at pregnancy while the dependent variables were the predisposing factors.

Table 1: Sampling strategy, sample size and data collection

STUDYPOPULATION UNIT	SAMPLING METHOD	SAMPLE SIZE	INSTRUMENTS
Records clerk	Purposive	6	Documentary evidence from files
Doctors	Purposive	6	Interview
Nurse in – charges	Purposive	3	Interview
Medical Superintendents	Purposive	3	Interview
Nurses/midwives	Quota	18	Interview
Nutritionists	Purposive sampling	3	Interview
Pregnant women (Primigravidas) attending clinic	Stratified random	415	Questionnaires
Child bearing women in tertiary education institutions	Stratified random sampling	400	Questionnaires
Policymakers, MOH, KKG County	Purposive	3	Questionnaire
Marriage counselor	Purposive	3	Questionnaire
FGD	Quota	8-12	FGD guide

Due to the sensitive nature of the data, the respondents were assured of utmost confidentiality but gave them the freedom to voluntarily participate and give information**.**

4. Data Analysis and Presentation

Continuous variables were summarized using descriptive statistics. Raw data was collected , coded and analyzed by the use of Statistical Package for Social sciences (SPSS) version 17.0.2 (2009) Statistical techniques used to analyze were; frequencies and percentages, cross tabulation and correlational analysis [13]. The analysis took

both quantitative and qualitative forms. Descriptive statistics and Chi square tests were used to analyze results.

5. Results

Contributing factors to late age pregnancy

Respondents were asked to state the factors contributing to late age pregnancy. The responses were summarized as shown in figure 1

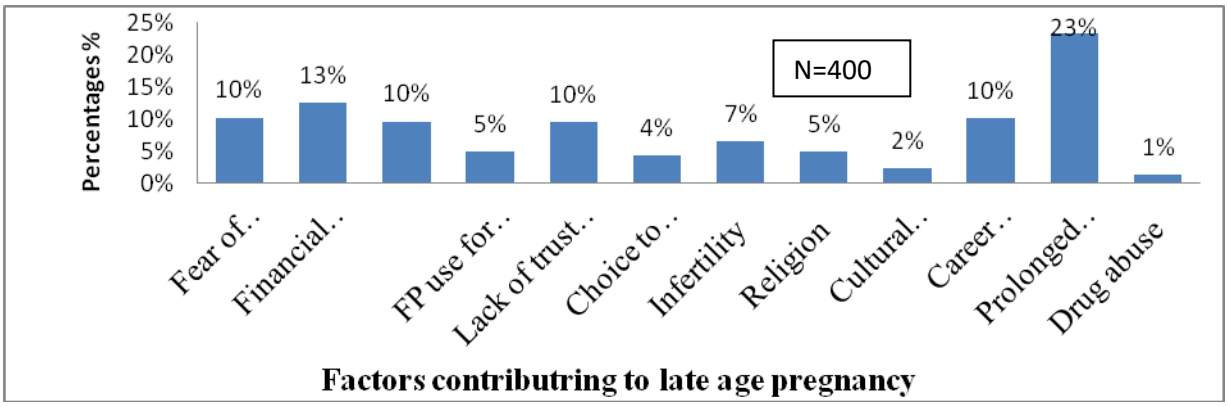

Figure 1.0: Factors contributing to late pregnancy among child bearing women in Kakamega County, Kenya.

A Chi-Square value ($\chi^2_{11,0.01} = 46.35$) showed that there was highly significant (P<0.01) variation in the responses on the factors contributing to late pregnancy among child- bearing women. Results from the questionnaires with childbearing women attending clinics gave various responses on the contributing factors to late age pregnancy. The contributing factors mentioned as shown in fig 1.0 include prolonged education 166 (23%), career advancement 72 (10%), financial instability 89 (13%), lack of awareness on reproductive health 75 (11%), career development 72 (10%), infertility 40 (7%), fear of responsibilities 73 (10%), choice to remain single 4%, prolonged use of contraceptives 35 (5%), use of drugs 1(1%), lack of trust in men 68 (10%), religion 35 (5%) and cultural practices17(2%).

The evidence of extended education, career advancement and lifestyle was supported by FGDs with childbearing women in both health facilities and tertiary institutions as the key contributing factors to late age pregnancy. Most women preferred to gain education and financial stability first before engaging in child bearing. Many studies have shown that pursuit of education has many benefits for women in that it can affect women's early fertility decisions through access to knowledge, information and new ideas [4]. Education enhances overall efficiency, market opportunities and social status. It also changes attitudes and behavior, bringing about receptiveness to new ideas and experiences, and increasing independence from traditional authority, and a questioning of passivity [7]. As a result, when enrolled in school, it is not desirable, nor is it feasible for students to have children as it is disruptive and generally young people lack the financial resources and the prospect of a stable income that would be ideal for marriage and formation of a family. Consequently, education has translated to the core factors contributing to late age pregnancy.

Childbearing age and prolonged education in Kakamega County, Kenya

In the Figure 1.1, women at various education levels were asked to give their opinions on getting children.

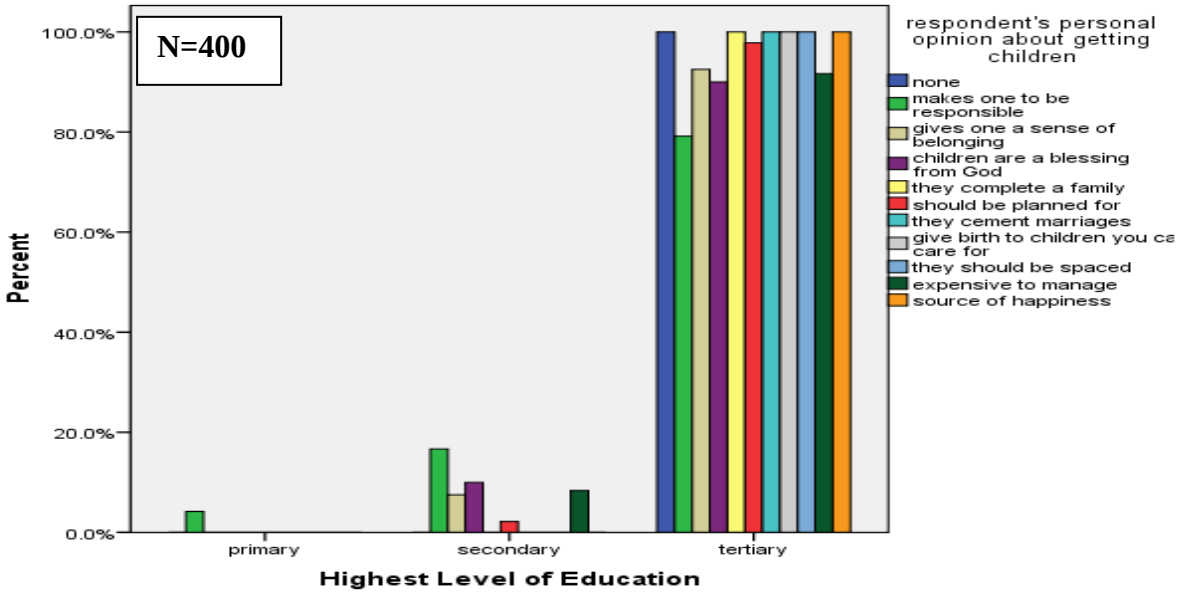

Figure 1.1: Childbearing age and education in Kakamega County, Kenya.

Pearson Chi-Square value ($\chi^2_{20,0.05} = 35.559$) showed that there was highly significant association (P>0.01) between the respondent's personal opinion about getting children and highest level of education. Results showed that as a woman goes up in the education system, her opinion about childbearing changes as other priorities come before child bearing.

From the graphical presentation, it is clear that women who only achieved primary and secondary education did not have reasons for not giving birth. In fact, most of them felt that having children gives one a sense of responsibility in a society. However, educated women 13 (4%) viewed children as a bond to marriages and perhaps they should go to school, complete education before marriage, and thereafter have children. 63 (18%) of the educated women group believe that children are blessings from God. This made them relaxed as they went on with education. This idea made them worry less about the right time of conception. Educated women also viewed children as family completion. The interviewed educated women, 67 (19%) believed that without children, families would not be complete.

Interview results from educated women in tertiary institutions revealed that, educated women felt that there must be a better way of bringing up children and therefore, children should be well planned for before getting them. This meant that a woman would complete education, find a job and after gaining financial stability, they decide to have children. Regardless of the time taken to undergo the education system, a woman must wait until she is stable before getting children. Also, the respondents noted that one should give birth to the children that can be cared for.

Nonetheless, tertiary education has a more consistent and stronger effect on delay of childbearing. Women who bear their first child early usually have larger families than those who wait longer. However, each year of schooling reduces the likelihood of a girl under having a child by 14 percent [9]. Women who finish college have a lower fertility for instance those with a bachelor's degree and those with graduate degrees have the least fertility [6].

Career advancement and financial security

The average gross salaries earned by women in tertiary institutions in Kakamega County, Kenya were discussed and shown in Figure 1.2

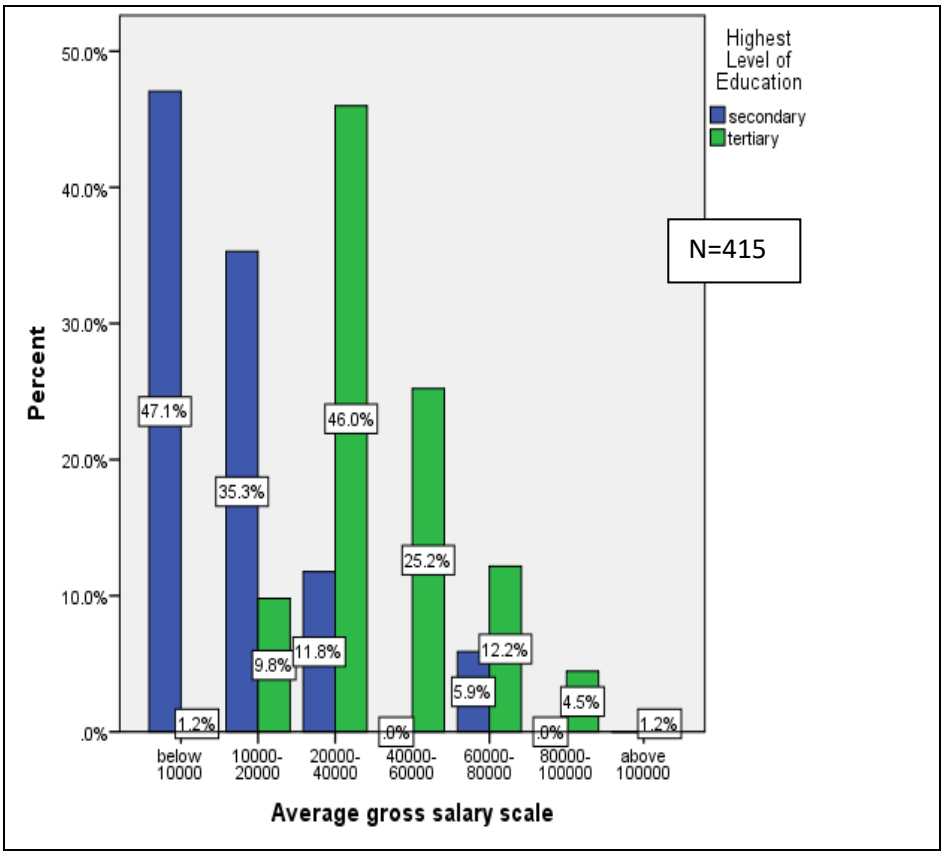

Figure 1.2: Average gross salaries earned by women in tertiary institutions in Kakamega County, Kenya.

The Pearson Chi-Square value ($\chi^2_{6,0.01} = 18.51$) showed that there was highly significant (P<0.01) association between the average gross salary scale and level of education. From the research it is clearly seen that most women want to get educated before planning for their families which translates to higher income and financial stability. Women who gained tertiary education earned up to ksh.100 000 and above, while most of their counterparts with only secondary education earned only up to Ksh. 20,000 and below. This clearly indicates that more education means more income for the educated woman.

FGDs and interviews with women in tertiary institutions revealed that after women have gained education, they

develop their careers in order for them to attain job security and financial stability. Naturally, this delays childbearing period thus delaying age at first pregnancy. The socioeconomic shift in society has moved the woman from being primarily a domestic worker to a competing career person in the professional world. It also calls for consistency at work to create job security and for promotions to be awarded. In most circumstances, this reduces time available to engage in child bearing, thus postponing the decision to have one's first child. Fertility issues are closely watched because they have broad implications for a nation's economic health: while overpopulation is feared owing to the stress on resources, a collapsing population is also a cause for alarm, as it dries up economic growth [6].

Drug and alcohol abuse on pregnancy outcome

Cross tabulation was carried out to establish the relationship between drugs used by respondents versus the age during the first pregnancy. The results were summarized in figure 1.3

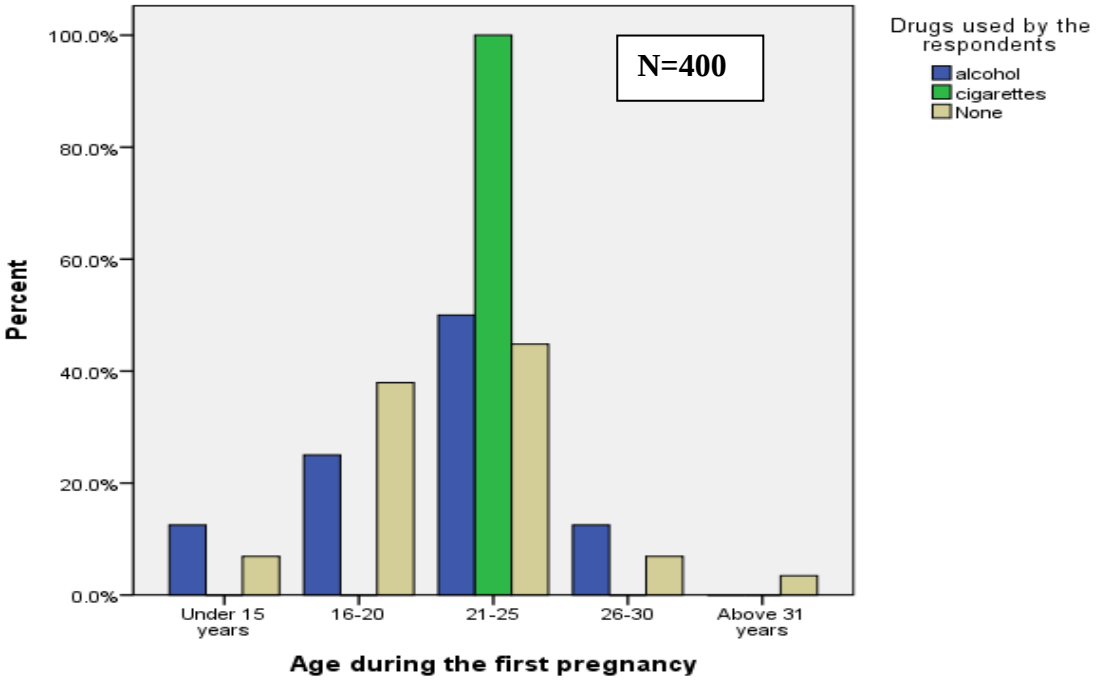

Figure 1.3: Drug use versus age during first pregnancy of childbearing women in Kakamega County.

Pearson Chi-Square value ($\chi^2_{8,0.05} = 2.265$) showed that there was no significant (P>0.05) association between the age during the first pregnancy and the drugs used by the child bearing women. The results show that the respondents attributed child complications to use of drugs. The study showed that 96% of women between 21 years to 25 years get their first pregnancy, but at this age, a lot of drugs, specifically cigarettes and alcohol are used. Use of drugs is seen to be slowly reducing from the age of 26 years to 30 years (Figure 1.3).

As observed, drug abuse among pregnant women has very adverse effects on the unborn children. The childbearing women agreed that drug abuse can have several effects on unborn children. Out of the 271 interviewed, 8.9% (24) childbearing women said that drug abuse can cause mental retardation in unborn

children, 20 of them, 7.4% said that use of drugs can cause abortion. Use of drugs in pregnant women can also cause low birth weight, as suggested by 6.3% (17) of the respondents. Other effects like retarded growth, low birth weight, miscarriages, premature growth and physical challenges were also discussed as the factors that result from use of drugs, and affect the unborn foetus.

Drugs amongst other effects have the potential in causing temporary or permanent infertility [17], indicates that elongated use of drugs can cause permanent or temporal infertility in women. Obstetric and fetal complications associated with maternal substance abuse include miscarriages, placenta praevia, abruptio placenta, premature rupture of membranes, spontaneous abortion, intrauterine growth retardation, premature delivery, birth defects, and neonatal and long-term developmental effects [17]. Generally these amongst other effects have been found to contribute towards delayed pregnancies among women.

Infertility and late age pregnancy

The effects of age on fertility was discussed with the childbearing women and other key as respondents as shown in Figure 1.4

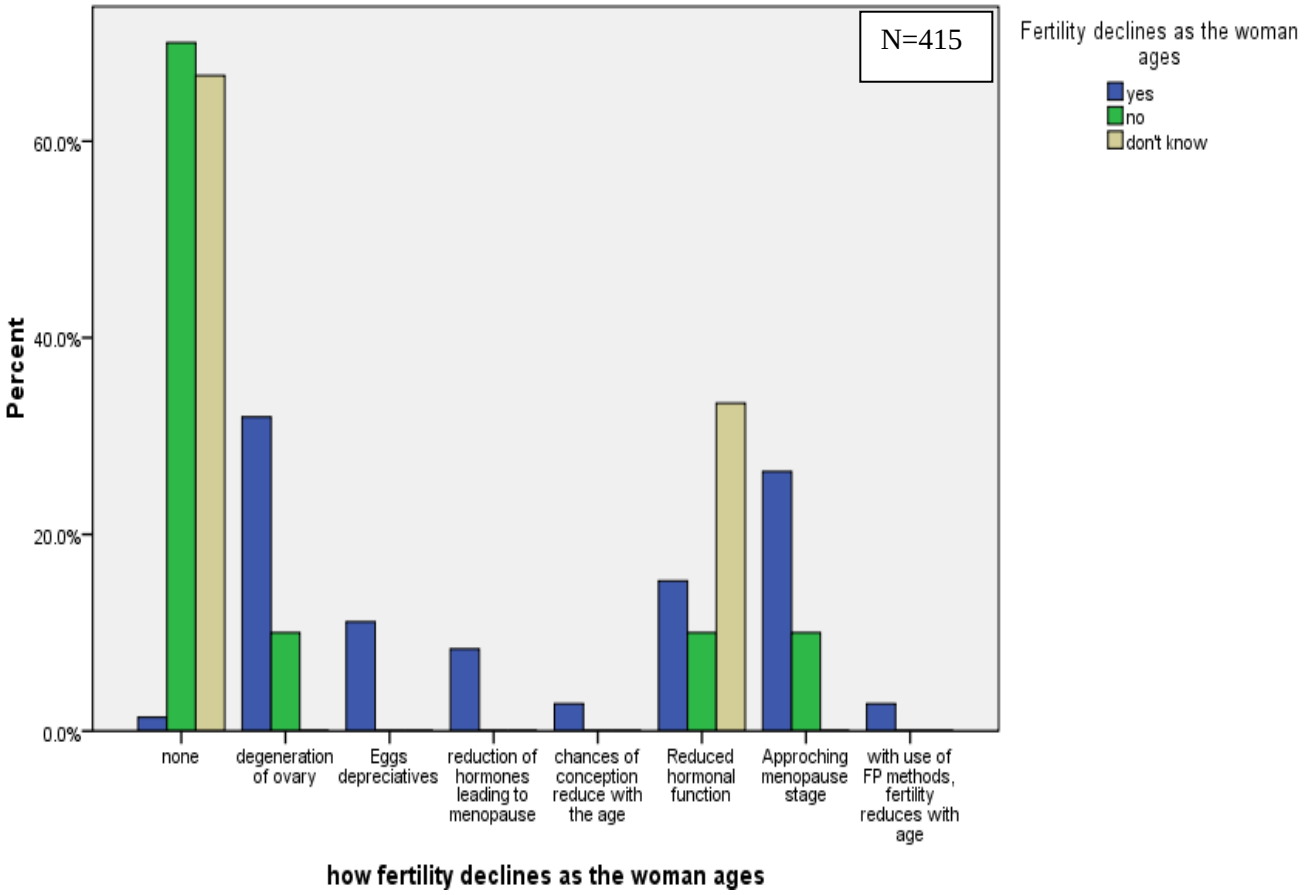

Figure 1.4: Primigravidas age and its effect on fertility in Kakamega County, Kenya.

Pearson Chi-Square value ($\chi^2_{14,0.01} = 86.626$) showed that there was highly significant (P<0.01) association

between fertility and the age of a woman. From Figure 1.4 above, 22 % (64) attributed infertility to the degeneration of ovary, which reduces chances of conception, as a result of aging. 13 % (41) attribute infertility to increase in age. Hormonal functions are also reduced in child bearing women according to 8% (24) of the respondents. 4 % (12) of the respondents said that the hormones in the body of women reduce as they age thus reducing conception chances. Use of family planning methods was also found as a factor towards reduction in women's' fertility, with continuous use, according to 1 % (4) respondents.

Compared to other major organ systems, the female reproductive system ages to the point of failure at a relatively young age. Although the average age of menopause is 51 years, peak efficiency in the female reproductive system occurs in the early 20's with a steady decline thereafter . There is a gradual loss of fertility as a function of female age with the rate of decline in fertility becoming more dramatic after the age of 35. This decline in fertility occurs in spite of the fact that women generally maintain regular, ovulatory menstrual cycles well into the fifth decade [14].

6. Limitations

While carrying out the study, the researcher was likely to encounter the following limitations;

a. Time schedule was thought to be short making it difficult to achieve the set objectives due to the large sample size. As a result, several trained research assistants were engaged to shorten the duration and appropriate sampling techniques were adopted.
b. Due to the sensitive nature of the data, some respondents were anticipated not forthcoming with information. The researcher therefore assured all the respondents of utmost confidentiality but gave them the freedom to voluntarily participate and give information.

Also, being a hospital-based study; the researcher was only able to assess the outcomes of viable pregnancies. Early pregnancy losses could not be examined, but have also been associated with advanced maternal age.

7. Conclusion

Prolonged education, financial instability, career development and lack of awareness about the dangers of late age pregnancy and poor lifestyle choices were the highest contributors to late age pregnancy among child bearing women. The socio economic shift in society has moved the woman from being primarily a domestic worker to a competing career person in the professional world.

Health education to youths in schools on the dangers of late age pregnancy, proper use of contraceptives, reproductive health and sexuality, dangers of the use of alcohol and drugs both before and during pregnancy which lead to infertility should be emphasized to create awareness. Specialized medical care should be provided to older primigravidas.

8. Recommendations

i. Health education to child bearing women in their early life stages (adolescent) will be of great

importance in ensuring that effects of late age pregnancies are mitigated. Governments have a responsibility to ensure that every woman has access to quality maternity care, including prenatal and post-natal services; a skilled birth attendant to assist at childbirth; special care and referral services in the event serious problems arise; and maternity protection in the workplace.

ii. Creation of awareness on the dangers of late age pregnancy on childbearing women should be emphasized. Health education should be given to childbearing women on the dangers of the use of alcohol and drugs both before and during pregnancy. Health education to youths in schools on proper use of contraceptives, reproductive health and sexuality especially on STDs and HIV infections which lead to infertility

9. Key points

1. Late age at first pregnancy has significantly increased leading to adverse pregnancy related complications including infertility.

2. Prolonged education is the major contributing factor to delayed pregnancy.

3. Career advancement, financial security, drug abuse are other contributing secondary factors.

4. Awareness and specialized medical care should be emphasized.

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Ambetsa M.A.

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