# Effect of adolescents' demographic factors on reproductive outcomes affecting teenage pregnancy in Momba District, Tanzania

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***Abstract***
*This study investigates the prevalence and determinants of teenage pregnancy in Momba District, Tanzania, focusing on teen background information and pregnancy rates, age at first marriage, and partner support. A stratified random sampling approach was used to ensure representation across different age groups and geographic areas focusing the five wards. The surveys included closed ended questions and data were analyzed using SPSS version 25. Descriptive statistics were used to summarize demographic data. Pearson correlation, poison regression and multiple regression was employed to examine relationships between key variables such as age, education level, marital status, employment and reproductive outcomes. Findings show that 30.4% of respondents were pregnant at the time of the interview and among them, 41.5% were experiencing their first pregnancy. The number of pregnancies varied, with just over half having had more than one. Notably, two-thirds of these had experienced two pregnancies, suggesting that many may have had their first pregnancy at a relatively young age. Number of pregnancies was not significantly associated with any socio-demographic factors tested in the Poisson regression model (all $p > .05$). However, age at first pregnancy was strongly associated with age ($B = 1.429$, $p < .001$), indicating that older respondents tended to experience their first pregnancy later. Education level was negatively associated with age at first pregnancy ($B = -0.341$, $p < .001$), while marital status was positively associated ($B = 0.448$, $p < .001$). Regarding partner support, both education level ($B = 0.759$, $p = .024$; OR = 2.135, 95% CI [1.107–4.117]) and marital status ($B = 0.838$, $p < .001$; OR = 2.311) were significant predictors, suggesting that married and more educated respondents were more likely to receive partner support. Recommendations include enhancing education access, implementing*

*sexual health education, addressing early marriages, providing vocational training for girls, and improving adolescent-friendly health services*.

**Keywords:** *Teen Pregnancy, Number of pregnancies, Age at first marriage and Partner's support*

## INTRODUCTION

Over 16 million teenage girls become pregnant worldwide each year, making adolescent girls a major target group of global health and development interventions. This aligns with the interconnected nature of the Sustainable Development Goals, the Global Strategy on Women's, Children's and Adolescents' Health, and a Lancet Commission on Adolescent Health and Wellbeing. Patton et al. (2016) and WHO (2015) suggest a multisectoral policies approach with a strong link between adolescent (reproductive) health and education, including comprehensive sexuality education. Approximately 95% of adolescent births occur in low- and middle-income countries, and over 50% of women give birth before the age of 20 years in sub-Saharan Africa (WHO, 2020; Odejimi et al., 2016; Sully et al., 2020; Crooks et al., 2022). According to the estimates, half of teenage pregnancies in underdeveloped nations are unplanned and the majority of these teenage pregnancies result in abortions. Therefore, teen pregnancy is a pressing public health concern in sub-Saharan Africa, where in 2021, it was estimated that there were 6,114,000 births among girls aged 15–19 across sub-Saharan Africa (UNICEF, 2022).

East Africa has one of the highest rates of teenage pregnancy and births worldwide. In a study conducted by Worku et al. (2021) and Anadolu (2020) in East African countries including Burundi, Ethiopia, Comoros, Uganda, Rwanda, Tanzania, Mozambique, Madagascar, Zimbabwe, Kenya, Zambia, and Malawi, the prevalence of adolescent pregnancies was 54.6 percent across the region, with the highest rates in Zimbabwe (65.29 percent) and the lowest rates in Rwanda (36.15%). In Tanzania, the Tanzania Demographic and Health Survey and Malaria Indicator Survey (TDHS-MIS) found that teenage pregnancy increased from 22.8% to 26.8% between 2010–11 and 2015–16 and then dropped slightly to 22% in 2022 (NBS, 2011; DHS, 2015/16; DHS,2022). Although the 22% prevalence of teenage pregnancy reported in the 2022 TDHS-MIS for

Tanzania shows a decline from the 27% reported in the country's 2015/2016 DHS-MIS, it is still unacceptable (DHS, 2024).

The prevalence of teenage childbearing differs across regions within Tanzania. The five leading regions are Songwe (45%), Ruvuma (37%), Katavi (34%), Mara (31%), and Manyara (29%), DHS (2022). This suggests that Tanzania needs to further intensify the efforts to reduce the incidence of teenage pregnancy (DHS, 2024). This study seeks to fill this gap by exploring the relationship between adolescents' demographic characteristics and key reproductive outcomes, including age at first pregnancy, total number of pregnancies, and the level of support received from partners.

**The Health Belief Model (HBM)**

This study is informed by the Health Belief Model, a framework developed by sociologists in the 1950s to explain and predict health behaviors by focusing on individuals' perceptions of health risks and the perceived benefits of preventive actions. Applied to teenage pregnancy, the model posits that a teenager's perception of the severity and likelihood of becoming pregnant, as well as their beliefs about the effectiveness and benefits of using contraception, play a crucial role in shaping their contraceptive behavior.

Specifically, perceived susceptibility refers to a teenager's belief in their risk of becoming pregnant; a heightened sense of susceptibility often leads to a greater likelihood of adopting preventive measures. As a result, teens who view pregnancy as a serious threat and themselves as susceptible are more inclined to use contraception. Perceived seriousness encompasses beliefs about the severity of pregnancy's consequences, which may include health issues, social stigma, or interruptions to education and career aspirations. A strong perception of seriousness typically encourages contraceptive use. Meanwhile, perceived benefits represent beliefs about the effectiveness and advantages of contraception in preventing pregnancy. If teenagers recognize contraception as both effective and beneficial, they tend to use it more frequently. Those who hold such beliefs are also more likely to engage in consistent contraceptive practices.

On the other hand, perceived barriers involve the obstacles that may hinder contraceptive use, such as costs, accessibility, or fear of social

disapproval. When perceived barriers are high, they can deter contraceptive use, illustrating how concerns over cost or access may lead to reduced usage. Lastly, cues to action signify the external or internal stimuli that trigger preventive behaviors. These cues can come from sources like healthcare provider messages, peer support, or even events such as a delayed menstrual period. Whether it's encouragement from a healthcare professional or the awareness of a missed period, such stimuli can effectively motivate teens to adopt preventive strategies.

## METHODOLOGY

### Research Design

This study employed a cross-sectional design to investigate the reproductive health outcomes of teenage girls aged 13 to 19 years in Momba District, Songwe Region, Tanzania. The design allowed for the collection of both quantitative and qualitative data at a single point in time to examine relationships between demographic characteristics and reproductive experiences.

### Study Area and Population

The study was conducted in five wards of Momba District: Chilulumo, Chitete, Kapele, Msangano, and Nzoka. These wards were purposively selected due to their high prevalence of teenage pregnancy. The target population comprised teenage girls aged 13–19 who were either currently pregnant or had at least one child at the time of data collection.

### Sampling Techniques

A stratified random sampling approach was used to ensure representation across different age groups (15-17, and 18-19 years) and geographic areas (the five wards). Within each stratum, purposive sampling was used to identify eligible participants' pregnant or parenting teenage girls through, community health workers, and local leaders. From this eligible pool, participants were then randomly selected to ensure a representative sample. A total of 349 participants were included in the final sample. The sample size was determined using Cochran's formula, considering a 5% margin of error and a 95% confidence level.

### Data Collection

Data were collected using a structured questionnaire which was pre-tested in a neighboring ward to ensure clarity and reliability. Trained research assistants administered the survey in Swahili through face-to-

face interviews. These interviews were conducted in safe and private settings to allow the participants to air their views without fear. The questionnaire captured socio-demographic information, pregnancy history, and perceptions of partner support.

**Data Analysis**

Quantitative data were processed, entered and analyzed using SPSS version 25. Descriptive statistics were used to summarize demographic data. Inferential statistics, specifically Pearson correlation, were employed to examine relationships between key variables such as age, education level, and reproductive outcomes. Poisson regression was used to analyze the association between socio-demographic factors (age group, education level, marital status, and employment status) and the count outcome variable representing the number of pregnancies. Goodness-of-fit tests including deviance and Pearson chi-square statistics were conducted to verify model adequacy. Multiple linear regression was performed to examine the influence of the same socio-demographic predictors on the continuous outcome variable, age at first pregnancy. Binary logistic regression was applied to assess the effect of socio-demographic variables on the likelihood of receiving partner support

**Ethical Considerations**

Ethical approval for this study was obtained from the Open **University of Tanzania and the** Permission was also granted from Songer Region and Momba District Council. Given the fact that some of the participants were minors (below 18yrs of age), informed consent was obtained from parents or guardians, and assent was obtained from the adolescents themselves. Participation to the study was voluntary, participants were first informed of their right to withdraw at any time to the study without any consequences. For confidentiality purpose, data were kept confidential, and the study did not collect any information that can be used to identify the respondent.

## RESULTS AND DISCUSSIONS

Table 1 presents demographic data from a sample of 260 individuals. The majority of respondents fall in the 15-17 age range (55.2%), with a smaller group (44.8%) aged 18-19. In terms of education, a large proportion (55.6%) have secondary school education, contrasted with only 43.8% who had primary education. Studies in Tanzania and other East African countries (Ngoda et al., 2023; Wado et al., 2019) reported

that teenagers who had secondary education or above have lower odds of having ever had a pregnancy compared to those with primary or no formal education.

Marital status data reveal that the majority (58.4%) of participants were unmarried at the time of the study. Employment figures underscore a concerning trend, with only 0.3% of respondents employed, indicating a largely unemployed teenage population.

**Table 1**
*Respondents' characteristics*

| Category | Frequency | Percent (%) |
|---|---|---|
| **Age** | | |
| 15-17 | 195 | 55.2 |
| 18-19 | 158 | 44.8 |
| **Total** | **353** | **100** |
| **Education Level** | | |
| Never attended | 4 | 0.6 |
| Primary | 153 | 43.8 |
| Secondary | 194 | 55.6 |
| **Total** | **351** | **100** |
| **Marital Status** | | |
| Not married | 53 | 15.1 |
| Married | 147 | 41.6 |
| Divorced | 153 | 43.3 |
| **Total** | **353** | **100** |
| **Employment** | | |
| Not employed | 339 | 97.7 |
| Employed | 1 | 0.3 |
| Self-employees | 7 | 2 |
| **Total** | **347** | **100** |

As presented in Table 2, 30% of the respondents were pregnant at the time of the interview. Nearly 72% reported experiencing their first pregnancy between the ages of 18 and 19, while the remaining 28% had their first pregnancy before the age of 18. According to Ayele et al. (2018); Worku et al. (2021), and Stark (2018), older teenagers have greater odds of teen pregnancy compared to younger teenagers, a finding that agrees with other studies in Africa. This could be attributed to the fact that teenagers aged 18–19 often succumb to both internal (physiological) and external (socio-environmental) pressures for having sex after being exposed for a much longer period post-menarche when compared to younger teenagers (DHS, 2022).

Early marriage may expose teenagers to becoming pregnant in three ways; one is that married teenagers may be preoccupied with a need to procreate to meet the expectations of their husbands and in-laws (Shahabuddin et al., 2016). Second, the teens' freedom to use contraception becomes limited (de Vargas et al., 2019) as they often marry much older men who assume control over decision-making (UNFPA, 2022). Furthermore, poor girls might engage in sex in exchange for money or monetary promises out of necessity as they struggle to meet their pressing needs (Amoateng et al., 2022).

**Pregnancy Status, Number of Children, and Partner Support**

Pregnancy status, number of children, and partner support are crucial factors, as they provide valuable insights into teens' family dynamics, maternal health, and social support systems, which can significantly influence both pregnancy outcomes and overall well-being. The findings in Table 2 indicate that 30.4% of respondents were pregnant at the time of the interview. Among the respondents, 41.5% were experiencing their first pregnancy. The number of pregnancies varied, with just over half having had more than one. Notably, two-thirds of these had experienced two pregnancies, suggesting that many may have had their first pregnancy at a relatively young age.

Recurrent teenage pregnancy occurs when there is more than one pregnancy before the age of 20 among females (Aslam et al., 2017). Young mothers have about 30% and 50% chances of becoming pregnant again within a year and two years after the first pregnancy, respectively (Luttges et al., 2021). The care of an additional family member demands extra resources, further deteriorating the quality of life of the mother and her offspring (Pinzon, 2012). Also, recurrent pregnancy within short intervals predisposes the girl to poor pregnancy outcomes and reduces her ability to access quality education or vocational training (Maravilla, 2017). Her chances of acquiring gainful employment become a difficult task, resulting in a possible vicious cycle of poverty in her family. Teenagers who are pregnant may not continue with formal education, which negatively affects their educational attainment, apart from the fact that currently pregnant girls are allowed to continue with their studies even after giving birth (DHS, 2024). However, parents start perceiving them as adults and sometimes allow them to start their own families after pregnancy, viewing them as independent adults (Eyeberu, 2022).

The findings also reveal that a large majority (85.6%) of respondents have children with the same partner, despite only 42% being married. While 56.1% of respondents reported receiving support from their partners, a significant 43.9% indicated a lack of such support, underscoring the challenges faced by many. For those who received partner support, the majority (63.4%) indicated it was provided through health services, reflecting a strong emphasis on physical care during pregnancy. In contrast, emotional and financial support were less common, reported by only 16.5% and 11.3% of respondents, respectively (Table 2).

**Table 2**
*Pregnancy Status, Number of Children, and Partner Support*

| Category | Frequency | Percent (%) |
|---|---|---|
| **Currently Pregnant** | | |
| Yes | 106 | 30.4 |
| No | 243 | 69.6 |
| **Total** | **349** | **100** |
| **Age at First Pregnancy** | | |
| 15-17 | 30 | 28.3 |
| 18-19 | 76 | 71.7 |
| Total | 106 | 100 |
| **First Pregnancy** | | |
| Yes | 44 | 41.5 |
| No | 62 | 58.5 |
| **Total** | **106** | **100** |
| **Number of Pregnancies** | | |
| One | 44 | 13.1 |
| Two | 112 | 33.4 |
| More than two | 179 | 53.5 |
| **Total** | **335** | **100** |
| **Whether the child's father is the same person** | | |
| Yes | 249 | 85.6 |
| No | 42 | 14.4 |
| **Total** | **291** | **100** |
| **Whether the Partner Provides Support** | | |
| Yes | 194 | 56.1 |
| No | 152 | 43.9 |
| **Total** | **346** | **100** |
| **The nature of support provided** | | |
| Emotional | 32 | 16.5 |
| Financial | 22 | 11.3 |
| Health services | 123 | 63.4 |
| No response | 17 | 8.8 |
| **Total** | **211** | **100** |

A study by Cheng et al. (2016) found that women who reported low support from their partners during pregnancy had increased odds of experiencing antenatal anxiety and depression and at the same time, pregnant women with with low partner support were also more likely to smoke and engage in alcohol drinking. This contention is supported by Bloch (2010); Stapleton (2012) and Dutta et al (2022) that women with low antenatal partner support have worse mental health and health behaviors than their peers who report high partner support.

**Association between background information and age at first pregnancy, number of pregnancies, and partner's support**

The findings on the association between background information and age at first pregnancy, number of pregnancies, and partner's support are presented in Table 3;

***Age and Age at first pregnancy***

Age is a significant determinant of teen pregnancy, as it directly relates to the likelihood of sexual activity, contraceptive use, and overall maturity. Younger teens may have less access to sexual health education and resources, making them more vulnerable to unintended pregnancies. Findings show a strong positive correlation ($r = 0.751$, $p = 0.000$) between age and age at first pregnancy implying that older individuals reported having their first pregnancy at a later age, possibly due to level of education, delayed marriage, or access to reproductive health services, while younger women tend to become pregnant earlier.

***Age and Number of Pregnancies***

Younger women may experience more pregnancies that could be associated with educational and socio-economic conditions that, in turn, can influence family size and the frequency of pregnancies over a woman's lifespan. Results show that the correlation between age and number of pregnancies was negative and not statistically significant ($r = -0.112$, $p = 0.052$).

***Age and Partner support***

The role of the partner is central to the psychological and emotional outcomes of teen pregnancies. Findings show a weak negative correlation ($r = -0.172$, $p = 0.001$) that suggests that as age increases, individuals may be slightly less likely to receive support from the man who got them pregnant.

***Level of Education and Age at First Pregnancy***

Younger age often correlates with an earlier age at first pregnancy. Results showed a strong negative correlation ($r = -0.615$, $p = 0.000$), implying that older individuals are more likely to have their first pregnancy later in life and this could be due to their engagement in pursuing higher education levels.

***Level of Education and Number of Pregnancies***

Higher levels of education typically correlate with a lower number of pregnancies. However, the correlation ($r = 0.047$, $p = 0.416$) was found to be not statistically significant, suggesting that education alone does not have a strong direct influence on the total number of pregnancies.

***Level of Education and Partner Support***

Partner support plays a critical role in the experiences of women during pregnancy and significantly influences the timing of their first pregnancy**.** A weak positive correlation ($r = 0.170$, $p = 0.002$) was found, suggesting that individuals with higher education levels are more likely to receive support from their child's father.

***Marital Status and Age at First Pregnancy***

It is assumed that marital status plays a role in the age at which women experience their first pregnancy. However, the correlation ($r = -0.001$, $p = 0.990$) is negligible and statistically insignificant, indicating that marital status does not predict the age at which someone has their first pregnancy. Married women often have earlier pregnancies than unmarried women, although this varies by socio-economic context.

***Marital Status and Number of Pregnancies***

There is a notable association between a woman's marital status and the number of children she has. A moderate positive correlation ($r = 0.291$, $p = 0.000$) indicates that married women are more likely to experience more pregnancies than their single counterparts.

***Marital Status and Partner Support***

Married individuals often report higher levels of emotional, practical, and financial support, which can significantly influence pregnancy experiences and outcomes. A moderate positive correlation ($r = 0.289$, $p = 0.000$) suggests that married individuals are more likely to receive support

from their child's father. This aligns with greater financial, emotional, or social support within a formalized union.

***Employment Status and Age at First Pregnancy***

Employment may shape pregnancy experiences since educated individuals are generally more likely to be employed and, consequently, may have greater autonomy in deciding when to become pregnant. Typically, employed women have a higher average age at first pregnancy, influenced by factors such as financial stability and career progression. However, the study's findings revealed a weak and statistically insignificant correlation between employment status and age at first pregnancy ($r = 0.059$, $p = 0.306$), indicating that employment may not significantly influence the timing of first pregnancies in this context.

***Employment Status and Number of Pregnancies***

A woman's decision regarding the number of children she has is often shaped by her employment status. A slight negative correlation ($r = -0.126$, $p = 0.030$) indicates that employed women tend to have fewer pregnancies. This may be due to the financial security and improved access to reproductive healthcare that employment offers, which can lead to delayed or fewer pregnancies.

***Employment Status and Partner Support***

Findings regarding partner support show that the correlation coefficient was ($r = 0.051$, $p = 0.347$), which was statistically insignificant, indicating that employment status does not strongly influence whether a partner provides support during or after pregnancy. Partner support often varies according to the employment status of women. While employed women may experience higher partner support due to shared financial responsibilities, those who are unemployed may find additional pressures that can strain partnerships.

**Table 3**
*Correlation between background factors, Age at First Pregnancy, Number of pregnancies, and Partner support*

| Variables | | Number of Pregnancies | Age at First Pregnancy | Partner Support |
|---|---|---|---|---|
| Your Age | Pearson | -.112 | .751** | -.172** |
| | Sig. | .052 | .000 | .001 |
| | N | 301 | 310 | 346 |
| Level of Education | Pearson | .047 | -.615** | .170** |
| | Sig. | .416 | .000 | .002 |
| | N | 300 | 306 | 342 |
| Marital Status | Pearson | .291** | -.001 | .289** |
| | Sig. | .000 | .990 | .000 |
| | N | 301 | 310 | 346 |
| Employment Status | Pearson | -.126* | .059 | .051 |
| | Sig. | .030 | .306 | .347 |
| | N | 297 | 306 | 340 |

## Predictive Analysis of Age at First Pregnancy, Number of Pregnancies and Partner Support

The following are the findings from the regression analysis as presented in Table 4.

### *Number of Pregnancies*

A Poisson regression analysis revealed that none of the tested predictors which are age group, education level, marital status, or employment was statistically significant (all $p > .05$). For instance, respondents aged 18–19 had slightly lower odds of reporting multiple pregnancies (OR = 0.721, $p = .323$), while those with primary education had higher odds (OR = 1.855, $p = .256$), though neither reached significance. Although the model showed acceptable fit, the predictive strength of the included socio-demographic factors was limited.

### *Age at First Pregnancy*

Using linear regression, age was a strong positive predictor of age at first pregnancy (B = 1.429, $p < .001$), indicating that older adolescents reported later pregnancy onset. Education level showed a negative association (B = -0.341, $p < .001$), suggesting that respondents with more education had earlier pregnancies. Marital status also had a positive association (B = 0.448, $p < .001$), while employment status showed no significant effect.

### *Partner Support*

Binary logistic regression showed that age was not significantly associated with partner support (B = 0.390, p = .264; OR = 1.477). However, education level (B = 0.759, p = .024; OR = 2.135, 95% CI [1.107–4.117]) and marital status (B = 0.838, p < .001; OR = 2.311) were significant predictors, indicating that more educated and married respondents were more likely to receive partner support. Employment status showed a strong but non-significant trend (B = 1.519, p = .064; OR = 4.566, 95% CI [0.917–22.727]), suggesting a possible link between economic independence and support, though further investigation is warranted.

**Table 4:**
*Regression analysis between background factors, Age at First Pregnancy, Number of pregnancies, and Partner support*

| Outcome | Predictor | B | SE | Sig. | OR | 95% CI |
|---|---|---|---|---|---|---|
| Number of Pregnancies | Age Group: 15–17 | -0.283 | 0.306 | .355 | 0.753 | [0.414–1.373] |
| | Age Group: 18–19 | -0.327 | 0.331 | .323 | 0.721 | [0.376–1.379] |
| | Education Level: Primary | 0.618 | 0.545 | .256 | 1.855 | [0.639–5.393] |
| | Education Level: Secondary | 0.045 | 0.123 | .712 | 1.046 | [0.822–1.332] |
| | Marital Status: Single | -0.184 | 0.113 | .101 | 0.832 | [0.667–1.037] |
| | Marital Status: Married | -0.098 | 0.129 | .450 | 0.906 | [0.704–1.168] |
| | Employment: Informal vs Formal | 0.291 | 0.340 | .393 | 1.337 | [0.687–2.604] |
| Age at First Pregnancy | Age | 1.429 | 0.090 | .000 | — | [1.252–1.606] |
| | Education Level | -0.341 | 0.088 | .000 | — | [-0.513–-0.168] |
| | Marital Status | 0.448 | 0.047 | .000 | — | [0.355–0.541] |
| | Employment | -0.113 | 0.216 | .601 | — | [-0.538–0.312] |
| Partner Support | Age | 0.390 | 0.349 | .264 | 1.477 | [0.745–2.926] |
| | Education Level | 0.759 | 0.335 | .024 | 2.135 | [1.107–4.117] |
| | Marital Status | 0.838 | 0.190 | .000 | 2.311 | [1.592–3.356] |
| | Employment Status | 1.519 | 0.819 | .064 | 4.566 | [0.917–22.727] |

## Limitations

Despite the use of robust regression techniques, several limitations were observed in the analysis of socio-demographic predictors for reproductive health outcomes:

i) The Poisson regression model for the number of pregnancies showed no statistically significant predictors, suggesting that the selected

socio-demographic variables had limited explanatory power for this outcome within the study sample.

ii) Wide confidence intervals in some predictor estimates, particularly within the number of pregnancies analysis, indicate potential imprecision due to sample size limitations and variability in participant responses.

iii) Employment status did not significantly predict age at first pregnancy or partner support, which may reflect limited variability in this variable.

iv) Although education level and marital status were significant predictors in certain models, the absence of significance in other variables highlights the possibility that additional, unmeasured factors may be important in determining reproductive health outcomes.

## DISCUSSIONS

### *Age at first pregnancy*

Age was a strong positive predictor of age at first pregnancy indicating that older adolescents reported later pregnancy onset. This is supported by a study by Nalwadda et al. (2010) in Uganda which reports that delayed sexual debut implies delayed exposure to the risk of pregnancy and childbearing, and this influences the fertility performance of a woman. Age at first sex has a bigger effect on fertility changes, while traditional societal norms prohibit sexual activity and pregnancy before marriage; however, many young people still engage in premarital sex (Ariho & Kabagenyi, 2020). These findings are consistent with the studies conducted in some other developing countries, which have found fertility decline to have been influenced by delayed sexual debut. For example, studies in Namibia (Indongo & Pazvakawambwa, 2012) and Rwanda (Ndahindwa, 2014) reported that age at first sex significantly influences fertility levels. The delayed sex debut can be associated with the reduction of teen pregnancies as well. A study by Owolabi, et al. (2017) reports that, comparably, a large percentage of West African adolescents use some antenatal care for their first birth; they seek care later, make fewer visits during pregnancy, and receive fewer components of care than older first-time mothers.

### *Age and Number of Pregnancies*

Age was not found to be a predictor of pregnancy rates. However, a study conducted in Kenya by Michelle et al. (2021), found that the teenage pregnancy and motherhood rate in Kenya stands at 15%. This implies that

about 1 in every 5 teenage girls between the ages of 15-19 years have either had a live birth or are pregnant with their first child. The Kenya study also reported that the pregnancy rate increases rapidly with age from 3% among girls aged 15 to 40% among girls aged 19. Being pregnant or having children at a young age creates an additional burden to the family, whereby the majority of teenage mothers, due to their age, are not able to cope with motherhood, and they mostly depend on their parents to raise their children (Thobejane, 2015).

***Age and Partner support***

Age was not significantly associated with partner support based on this study. However, research from India and other LMICs shows that married girls' young age and relative inexperience can limit their support and power in marriage relationships, particularly for girls who are married below the age of 18 years (Raj et al., 2010; Santhya et al., 2010). In India, partner support and marital family support are critical in affecting young women's experience of pregnancy. Partner support becomes an essential resource for women during pregnancy as women's natal family members and peers are not easily accessible from their marital homes (Dasgupta et al., 2013; Raj et al., 2010; Santhya et al., 2010). Furthermore, due to their young age, women are dependent on their partners to negotiate support with their in-laws. Generally, women who receive high levels of emotional and practical support from their partners are more likely to feel prepared for pregnancy and motherhood. This positive support structure can also make the motherless stressed and, therefore, improve maternal mental health. This could be associated with the fact that all the participants were teens.

***Level of Education and Age at First***

Education level showed a negative association, however, the United Nations Development Programme-UNDP (2019) reports that, despite the decrease in the global adolescent birth rate, the current number of teenage births remains high, and Sub-Saharan Africa had the most births in the age range of 15–19-year-olds (6,114,000), while Central Asia had far fewer (68,000). In the same year, the corresponding figure for girls aged between 10 and 14 was 332,000 in Sub-Saharan Africa and 22,000 in Southeast Asia (UNDP, 2019). At these age ranges, the teenagers are still in their primary school, O-level, or not in school.

A study by Ikwara and Atwijukiire (2023) indicates that in some communities, cultural norms and family expectations may contribute to early childbearing, and women who become pregnant in their teenage years typically face additional societal pressures and limited access to educational opportunities, which can lead to a cycle of early pregnancies. Mwiinga (2025) in his study reported that over 50% of respondents who were married early in marriage tended to divert from pursuing further education, and their primary roles are often seen in the domestic sphere rather than academic or professional contexts. Which for the case of this study, all the participants were either pregnant or already had a child before

***Level of Education and Number of Pregnancies***

Education was not statistically significant in this study. These findings differ from those obtained by other scholars, indicating that the high pregnancy levels could be caused by reasons other than teens' education levels. According to Mulama (2024), the relationship between literacy and repeated pregnancies underscores the role of education in empowering girls to make informed choices about their reproductive health.

Eastman et al. (2019) observed that improved access to education and the resulting increase in employment prospects are linked to lower fertility rates, as individuals are more likely to prioritize personal and professional development over larger family sizes. This pattern is reinforced by research showing that women with higher levels of education tend to postpone childbirth to pursue further studies and build their careers (Cherlin, 2021).

Additionally, educated women generally have greater access to information on reproductive health and family planning, enabling more informed and deliberate decisions about when to have children (Littlejohn, 2012). Cherlin (2021) also reported that women holding university degrees typically have their first child at a later age than those with less education, indicating a deliberate choice to delay motherhood in favor of educational and career goals. Furthermore, the rate of unplanned births tends to decline as a woman's educational level increases, with highly educated women being significantly less likely to experience unwanted pregnancies.

***Level of Education and Partner Support***

Education was found to be a significant predictor indicating that more educated respondents were more likely to receive partner support. This is supported by Kirova and Snell (2018), that the experience of love and having children is one of the sweetest moments in most women's lives, but most women who got married in childhood did not get this experience since most of their marriages were traditional and without love and affection. Therefore, most adolescent women became pregnant accidentally, and since they had no preparation for this and had not received pregnancy knowledge in adolescence, they experienced several challenges that risked their lives and their children's health. Also, the fact that many girls were forced to drop out of school after marriage, which made them regret that they did not continue their education to have a job, and this lack of a job and sufficient literacy caused them to have less self-confidence. When partners are highly supportive, women often feel more empowered to delay pregnancies in favor of achieving personal and professional milestones. Likewise, women who feel unsupported by their partners are more likely to have unintended pregnancies, often leading them to face challenges in parenting and socio-economic stability.

***Marital Status and Age at First Pregnancy***

Marital status had a positive association in this study. This is supported by Singh et al., (2022) that, since fertility rates are responsive to changes in the institutional meaning of marriage, a reduction in the time spent within marriage is an important mechanism in reducing total fertility, especially in a country where non-marital fertility is low. Age at marriage plays a critical role as a population control strategy, with early marriage significantly extending a woman's reproductive period and increasing the likelihood of early pregnancies (Jain & Kurz, 2007; Malhotra & Elnakib, 2021). Therefore, promoting a higher age at marriage is vital for achieving Sustainable Development Goal (SDG) 5.6. Strengthening the enforcement of legal marriage age regulations and implementing awareness campaigns are necessary steps to reduce the prevalence of early marriage among women (Singh et al., 2023).

***Marital Status and Number of Pregnancies***

Marital status was not a predictor of pregnancy rate. This is supported by Laksono and Wulandari, (2021) that this trend may stem from factors such as greater reproductive stability, cultural expectations, or limited access to contraception, particularly in societies that place a high value on

larger families. Marriage often promotes childbearing, and as relationship stability grows, the likelihood of having more children increases. Additionally, early marriage has been linked to higher pregnancy rates among certain demographic groups (Elleamoh & Dake, 2019). Research by Odusina et al. (2020) found that despite numerous interventions at the individual, household, and community levels, fertility rates in West African nations remain elevated. Data from the NDHS (2013, 2018) further reveal that most births occur within marital relationships, implying that a significant decline in marital fertility would likely lead to a reduction in overall fertility rates (NDHS, 2018).

Teenage mothers often faced a lack of family support, which manifested in several ways, including opposition to their decisions, lack of cooperation, and disregard for their experiences. In some cases, family traditions and the influence of certain relatives contributed to repeated or unwanted pregnancies. These young mothers felt they had little control over decisions related to pregnancy and childbirth, which led to an increase in unplanned multiple pregnancies, inadequate antenatal care, and poor newborn care practices (Dutta et al., 2022).

***Marital Status and Partner Support***

Marital status was a significant predictor. According to Kalra et al., (2021), lack of emotional and practical support from male partners during pregnancy can heighten psychological stress, as it creates feelings of abandonment and insecurity, making pregnancy a difficult experience for young women. Further, many women report that their pregnancies are negatively affected by the absence of supportive care, along with neglect and mistreatment from both their husbands and in-laws (Pereira et al., 2007; Bhattachary et al., 2019). Women who entered marriage at a young age often encountered adverse life experiences, as much of their childhood and adolescence was marked by coercion and dissatisfaction. Their life circumstances differed significantly from peers, leading to feelings of regret and longing (Yoosefi et al., 2023). Early marriage frequently limits girls' access to education and employment opportunities, contributing to ongoing emotional distress and a sense of lost potential. This, in turn, has been linked to psychological challenges such as depression, suicidal thoughts and attempts, low self-esteem, and feelings of inferiority (Yoosefi et al., 2023).

***Employment Status and Age at First Pregnancy***

Employment was not statistically significant, nonetheless, previous studies have reported conflicting results regarding this association. In their study, Miettinen and Jalovaara (2020) reported that, for basic-level educated women, being unemployed encourages first pregnancy, especially for young women below 25 years. However, studies have shown that job commitments and career aspirations often lead female workers to plan their pregnancies more deliberately. This trend reflects a societal shift in which economic considerations affect reproductive choices, with many women prioritizing their careers over immediate family formation (Van den Broeck & Maertens, 2015). Finishing education and securing a foothold in the labor market are important milestones in the transition to adulthood, and they tend to influence decisions regarding family formation. Unemployment or an otherwise uncertain employment situation could then severely hamper entry into parenthood (Miettinen & Jalovaara, 2020). The majority of adolescent births occur in low- and middle-income countries, primarily affecting girls from poorer backgrounds with limited educational opportunities.

***Employment Status and Number of Pregnancies***

Employment was not statistically significant, in contrast, repeat adolescent pregnancies are often linked to early marriages and disrupted education, which can bring short-term economic benefits to young mothers (Govender et al., 2020).

Research conducted in Korea found that women with higher education levels and greater economic participation were less inclined to marry or have children. Employed women generally had fewer children than those who were unemployed. This suggests that the financial independence associated with employment enables women to make more deliberate choices about how many children to have and when to have them (Choi et al., 2024).

Again, cultural expectations surrounding motherhood often reinforce traditional gender roles, with women assuming primary responsibility for childcare and household duties. These gender norms affect women's decisions regarding workforce participation and career advancement (Bingham et al., 2025). These socio-economic consequences are observed across Africa, and to tackle repeat adolescent pregnancies, interventions

must address factors such as access to education, health care, and family planning services (Bull et al., 2020).

### *Employment Status and Partner Support*

Employment status showed a strong but non-significant trend. A study by Msipu et al. (2023) found that financial support from partners plays a crucial role in assisting with expenses such as food, transportation, medical costs, and preparations for the unborn child, all of which contribute to better maternal and child health outcomes. Participants expressed a desire to have their partners accompany them to clinic appointments and share in the pregnancy experience. Earlier research has linked male involvement in maternal and newborn care to numerous positive outcomes, including greater maternal use of antenatal and postnatal services, enhanced maternal mental well-being, and a decrease in postpartum depression (Tokhi et al., 2018; Yargawa & Leonardi-Bee, 2015). However, expectations of partner support emotionally and financially are not usually met, resulting in disappointment, conflicts with their partners, and sometimes difficult breakups (Govender et al., 2020). The study found that experiencing an unintended pregnancy can lead to the disruption of a relationship. These findings complement the results of research showing that unplanned pregnancies are accompanied by family disruption and a decline in marital quality and the couple's relationships (Barton, 2017). In some African cultures, payment of damages for getting an unmarried young girl pregnant is perceived as a form of acceptance of paternity, and the process was perceived as a way to give a form of dignity to her family and some assurance that the father was prepared to take care of the child (Nathane-Taulela & Nduna 2014).

## CONCLUSION AND IMPLICATIONS

This study provides insights into how age, education, marital status, and employment relate to adolescent reproductive health outcomes in Momba District. Poisson regression analysis showed that none of the socio-demographic variables significantly predicted the number of pregnancies. For instance, respondents aged 18–19 had slightly lower odds of having more pregnancies compared to those aged, while those with only primary education had higher odds. However, these associations lacked statistical strength. Marital status and informal employment also showed no significant effects. These findings suggest that repeat pregnancies may be shaped by deeper social, cultural, or structural factors beyond the scope of this model.

In contrast, linear regression identified strong predictors of age at first pregnancy. Chronological age emerged as a key factor, with older teens more likely to delay their first pregnancy. Surprisingly, higher education levels were associated with earlier first pregnancies, potentially reflecting vulnerability during school transitions or exposure to risk while still enrolled. Marital status was also significant with married respondents tending to delay first pregnancy possibly due to greater household stability or intentional planning. Employment status showed no significant relationship with this outcome.

Regarding partner support, both education and marital status were significant predictors. Respondents with higher education were over twice as likely to receive support, and married respondents had even greater odds. While employment status did not reach statistical significance, the magnitude of the odds ratio suggests a possible link between economic activity and relationship dynamics an area that open further investigation.

## RECOMMENDATIONS

### Government

Key initiatives include formalizing strengthen policies for teen mothers to facilitate their reintegration into schools, integrating sexual reproductive health education into curricula, employing trained counselors and healthcare professionals, enforcing laws against child marriage with a minimum age of 18, and developing vocational and life skills programs for out of school teen mothers.

### NGOs and CSOs

Develop peer-led education sessions alongside mobile outreach initiatives aimed at reaching adolescents. Concurrently, it is essential to support income-generating initiatives and vocational training that are specifically tailored for this age group. Additionally, partnerships with schools and healthcare centers can create safe spaces for youth education and counseling, which are crucial for holistic development. Finally, documenting and sharing best practices with government and partners will help inform policy improvements and ensure that these initiatives are evidence-based and effective.

### Community and traditional leaders

Community and traditional leaders should take a proactive role in transforming social norms that perpetuate early marriage and educational

exclusion. This can be achieved by leading community dialogues that challenge harmful beliefs and promote the rights of adolescent girls to education and autonomy. Leaders are encouraged to promote alternative rites of passage that celebrate maturity without linking it to early marriage, thus reinforcing the value of schooling. Public advocacy for the retention and re-entry of pregnant girls into school is also critical in reducing stigma and encouraging community support for their continued education. Additionally, leaders should collaborate with local health and social service providers to identify and refer adolescents in need of sexual and reproductive health or psychosocial support. To formalize these efforts, communities should adopt and enforce bylaws that promote delayed marriage and support girls' right to education**,** ensuring these protections are embedded in local governance structures.

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