# Teenage Pregnancy Patterns and Experience in SidoonTown, River Nile state, Sudan, 2022

# Marium H. ZeyadaIdriss<sup>1</sup>, Faiza Taha<sup>2</sup> Ehsan A. Abdallah<sup>3</sup>

<sup>1</sup>PhD in Nursing Science - Al-Neelain University, <sup>2</sup>Associate Professors of obstetrics and gynecological nursing -Faculty of Nursing Science - University of Khartoum-Sudan, <sup>3</sup>Assistant professor of obstetrics and gynecological nursing -Department Faculty of Nursing Science - Al-Neelain University-Khartoum-Sudan

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# **ABSTRACT**

Background: Teenage is a stage of physical and mental human development that occurs between childhood and adulthood. Teenage pregnancy is a global public health problem that affects the physical and emotional health. Teenage pregnancy is linked with many risk factors that affect the health of the mother and the outcome, as spontaneous abortions, as well as neonatal and maternal mortality and morbidity. Objective: to study issues related to teenage pregnancy patterns and experience. Methodology: This study adopted a descriptive crosssectional community-based design. The study was conducted among a sample of 205 women using the simple random sampling method of the teenagers living inSidoon Townof the River Nile state. The data required for the purposes of the study were collected using structured face-to-face interviews. The data were analyzed using SPSS, version 23 and suitable descriptive and inferential statistical methodswere used, and P < .05 was accepted for statistical significance. Results: The majority of the participants (78%) were aged between 17-19 years, and those got married and had their first pregnancy between 14-16 years were 79% and 84.4% respectively. About half of the participants (53.2%) didn't complete their primary level school education. The results also indicated that 40.5% of the participantswere subjected to forced marriage experience, whereas 59.5% had the right to choose. Pregnancy was experienced by 176 (85.9%) of the women, out of whom 159 (86.9%) delivered their babies vaginally, while C/S birth was found among 24(13.1%) of them; abortion was experienced by 25.4% of them, most of which happened without a determined cause. Planning of pregnancy and using of family planning (FP) was found among 78(38.5%) of the participants. The majority of them used hormonal FP without medical advice and 62 (78.8%) used combined pills. Teenage pregnancy associated morbidity wasfound among 59 women (gestational diabetes, pregnancy induced hypertension, preterm labor, post-partum depression and infection: 19,13,24,3 and1 respectively). Significant correlation was found between passive smoking and history of the abortion among women, P = 0.05.

**Conclusion:** Teenage pregnancy is linked with the participants' morbidity. Early pregnancy interferes with the continuation of the woman's education, and lack of awareness related to use of FP methods used was seen. **Recommendation:**Health education for the study community is needed to enhance their health awareness.

Keywords: Teenage, Pregnancy Pattern, Experience, Family Planning.

# INTRODUCTION

Teenage years are the best years of life; it is transitional period of human development with physical and mental, cognitive, social and emotional change that occurs between childhood and adulthood. Nutrition, education, counseling and guidance are needed to ensure growth into healthy adults<sup>(1)</sup>. Teenage pregnancy is considered a public health problem by the World Health Organization

(WHO), which recently developed evidencebased guidelines.WHO addressed six areas regarding teenage pregnancy, including the following: it affects the health of both mother and fetus pregnancy; child birth is almost always the leading cause of death among adolescents in low-income countries; the lack of counseling and education is a critical factor for high number of preterm pregnancies (2). Pregnancy and birth-related complications are the second leading cause of death among adolescents(3.4). It was also found that children born to teenage mothers had higher neonatal mortality than the children born to mothers in different groups<sup>(3)</sup>. Apgar below seven in five minutes after delivery is associated to teenage mothers<sup>(5, 6)</sup>. Girls in low-and middle-income countries (LMICs) constitute the majority (99%) of all maternal and neonatal deaths<sup>(7)</sup>. In LMICs almost 140 million births take place each year. Teen pregnancy and the desire to have children is a contributing factor to high morbidity and mortality(8). Adolescents aged 15–19 years are responsible for a staggering 16 million births, while girls younger than 16 years of age are responsible for an estimated 2.5 million births (9). Teen mothers are less likely to graduate from high school and are more likely to live in poverty and have children who often suffer health and developmental issues<sup>(6)</sup>.Understanding teenage pregnancy requires understanding social and biological factors that affect teenage pregnancy, such as :facing adversity in childhood and adolescence ;behavioral and attention problems, family history, and precarious and poor educational success<sup>(7.8)</sup>. Teenage births often have health children are often consequences: prematurely; they have low birthweight; new born mortality is high. Mothers are less likely to develop postpartum depression and start breastfeeding<sup>(8,10)</sup>. The highest rate of teenage pregnancy is in sub-Saharan Africa, which is often associated with early marriage, with one in four girls giving birth before the age of 18 years. South Sudan is among ten countries with the highest rate of teenage pregnancy (11). One third of South Sudanese girls start giving birth between the ages of 15-19, and 3% give birth even before the age of 15<sup>(12)</sup>. It is worth noting here that South Sudan is part of Sudan and the customs, values and traditions are similar.

#### Research Methods

This study adopted a community-based cross-sectional design and it was conducted in River Nile state (Sidoontown). The targeted population included married female teenagersliving in Sidoon during the study period. The sample consisted of 205 married teenagers who were enrolled in the study, and they were selected by the simple random sampling technique. An ethical approval was obtained from the Institutional Review Board at Al-Neelain University and Khartoum State. A letter of approval was also obtained from the Municipality of Al-Damar, and an informed consent was obtained from each participant before the interview. The data were collected by interview questionnaire administered to determine the teenage pregnancy patterns and experience. The data were analyzed using the Statistical Package of Social Sciences (SPSS), version 16. and suitable descriptive and inferential statistical methods were used, and P < .05 was accepted for statistical significance.

#### RESULTS

The results reveal that; majority of the participants their age range between 17-19 years,59.0% of them their age of marriage was between 14-16 years. More than half of them their education level primary school.

The figure 1 (bar chart) shows that the majority of the participants' husbands were

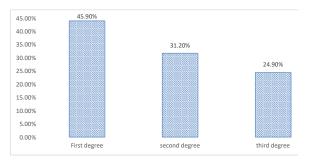


Fig. 1: Distribution of husband's relationship among the participants (n=205)

their relatives of first or second degree (45.6% & 31.2%) respectively.

As the table 1 displays, the majority of teenage women enrolled in the studydid not plan their pregnancy and only 79(38.5%) of

Table (1): Distribution of the participants regarding pregnancy n=205

Items	Frequency	Percent				
Planning of pregnancy						
Planned	79	38.5				
Unplanned	126	61.5				
Using of family planning methods						
Yes	79	38.5				
No	126	61.5				
Administration of family planning						
methods						
Alone without medical	69	86.2				
advice						
Through health care	10	13.8				
provider's instruction						
Types of methods						
Intrauterine device	2	2.5				
Implanon	3	3.8				
Injection	9	11.2				
Combined pills	62	78.8				
Mini pills	2	2.5				
Natural	1	1.2				

Table 2: Distribution of abortion patterns among the participants (n=205)

Items	Frequency	Percentage%				
History of abortion						
No	153	74.6				
Yes	68	25.4				
Number of abortions						
Only one	56	82.4				
Two	12	17.6				
Cause of abortions						
Infection	3	4.4				
Fever	2	2.9				
Medical disorder	3	4.4				
Unknown	58	85.3				
Therapeutic	2	2.9				
abortion						

the participantsplanned it, and most of those who planned it used combined pills and they used it without medical advice. Furthermore, the majority of them used hormonal FP, and out of them,62 (78.8%)used combined pill.

It is evident from the table 2 that quarter of participants (68participants, representing about 25%) lost their fetuses and the majority of them (58) lost it without a determinate cause.

Table (4) shows that more than forty percent of the participant teenage mothers had

Table 3: Distribution of medical problems associated with pregnancy and delivery among the participants(n=205)

Presence of medical problem	Frequency	Percent			
Yes	73	41.4			
No	103	59.6			
Types of medical problems					
Post-partum haemorrhage	10	13.6			
Infection	2	2.7			
Post-partum depression	1	1.3			
Gestational diabetes	19	26.0			
Pregnancy-induced hypertension	13	17.8			
Preterm labour	24	32.8			
Congenital disease	2	2.7			
Chromosomal disorder	2	2.7			

Table 4: Correlation between passive smoking and history of the abortions (n=205)

		History of the abortions		Total	
			yes	no	
Passive	yes	count	43	45	88
		%of total	24.3	25.4	49.7
smoking					
	no	count	25	64	89
		%of total	14.1	36.2	50.3
Total					
count		68	109	117	
% of total		38.4	61.6	100	

Significant correlation was found between passive smoking and history of theabortions

P- Value = 0.005

medical problemsin pregnancy and delivery, and that the most common medical problem to be experienced bythem was preterm labor(32.8% suffered from preterm labor).

## DISCUSSION

The present study revealed that the majority of the participants' ages ranged between 17-19 years, and that their most common level of educationwas primary school. This finding is similar to a result found by a study conducted by Vincent Gwido and FekaduMazengia Alemu in Juba, which revealed that the majority of the participants' ages were between 17 and 19 years (13). Regarding marital age, two thirds of the studygot married between the ages 14-16. This result is similar to a result by astudy conducted in one of the rural districts in Amhara Region, where there wasa high percentage of early marriage (13). This similarity could be due to the presence of some related socio-demographic, cultural, school dropout and individual adolescent characteristics in the areas of study. Another result by the current study indicated that the majority of the participants were multiparous. This was supported by the study of Ahmed et al, where the majority of therespondents (representing 76%) were multiparous<sup>(14)</sup>.

In terms of employment, the current study found out that the majority of participants were unemployed (94.1%) compared to a study done in Abia State which found 75.8% of the respondents were unemployed (14). This difference could be due to some social, cultural, individual characteristics difference in the areas of study. Three-quarter of the participants became pregnant in thefirst year of marriage. This finding is consistent with that of a study conducted by D. R. Acharya, R. Bhattarai, and A. Poobalan in South Asia, which found that the majority of the participants got pregnant in the first year of marriage<sup>(13)</sup>. This might be because teenagers have high fertility (15). Evidence showed that as the proportion of marriage increased, the probability of exposure to pregnancy also increased (13). According to the results of the

present study, forced marriage was found among 40.5% of the teenage women enrolled in the sample. This high rate of forced marriage may be related to family choices, as nearly half of the participants' husband relationship was a first-degree relationship; these norms are found in most rural areas in Sudan where relatives – especially parents and guardians – often chose their girls' husbands.

Furthermore, the findings of the present study indicated that half of the participates had a regular menarche between 9-13 years, and thatthey got pregnant early, shortly after menarche There is a strong statistically significant association between the age of marriage of the participants and the time of thefirst pregnancy(p-value = 0.00). Their menstrual cycle was dysmenorrheal and they did not take treatment. This might be due to the local culture which may envisage seeking treatmentfor dysmenorrhea as taboo, or perhaps because of limited to access the health facilities. Quarter of participants did not use family planning methods. This result is supported by other studies whichfound that the prevalence of teenage pregnancy increased among contraceptive nonusers (15). When the proportion of contraceptive nonusers increased the proportion pregnancy increased (14).

The current study also showed that the majority of the participant teen motherstook family planning methods (combined pills) without medicaladvice, and this might be due to lowthe level of educationamong the participants and difficulty to access health facilities. Regarding medical problems after pregnancy and delivery, less than half of them had such problems. Studies have shown that teenage pregnancy has poor maternal and perinatal health (16). Complications during pregnancy and childbirth are the second cause of death for 15-19-year-old girls globally. Every year, some 3 million girls aged 15 to 19 undergo unsafe abortions (16). There is statistically significant association between passive smoking and abortion (p-value = 0.005). It was also found that many adolescent mothers suffered pregnancy-induced hypertension (17,18). Babies born to adolescent mothers face a substantially high risk of dying than those born to women aged 20 to 24<sup>(16)</sup>.

### CONCLUSION

Teenage pregnancy has attracted a great deal of concern and attention because it might be high-risk pregnancy condition that requires good skill in antenatal care for good outcome in both developed and developing countries. The factors contributing to teenage pregnancy we numerous; early – planned or unplanned – pregnancy was the most common of them, followed by low level education, and non-use of family planning methods.

# RECOMMENDATIONS

The researchers recommend providing health education and promoting health services and giving moreattention toadolescent mothers, especially in rural areas.

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#### REFERENCES

- World Health Organization. Meeting to develop a global consensus on preconception care to reduce maternal and childhood mortality and morbidity: World Health Organization Headquarters, Geneva, 6–7 February 2012: meeting report 2013 available at:apps.who.int/iris/handle/10665/7806 meeting report (who.int);Accessed on25thOctober2022
- Svanemyr J, Chandra-Mouli V, Raj A, Travers E, Sundaram L. Research priorities on ending child marriage and supporting married girls. Reproductive health. 2015 Dec;12:1-4 available from https://www. Research priorities on ending child marriage and supporting married girls | SpringerLink; Accessed on 13th October 2022.

- 3. Kassa GM, Arowojolu AO, Odukogbe AT, Yalew AW. Trends and determinants of teenage childbearing in Ethiopia: evidence from the 2000 to 2016 demographic and health surveys. Italian journal of pediatrics. 2019 Dec;4 5(1):1-3. Available from https:// www pubmed.ncbi.nlm.nih. gov/31783884/ PubMed (nih.gov) ;Accessed on10 December 2022
- 4. Gravena AA, Paula MG, Marcon SS, Carvalho MD, Pelloso SM. Maternal age and factors associated with perinatal outcomes. ACTA Paulista de Enfermagem. 2013;26:130-5. Available from https:// www Trends and determinants of teenage childbearing in Ethiopia: evidence from the 2000 to 2016 demographic and health surveys | Italian Journal of Pediatrics | Full Text (biomedcentral. com); Accessed on 27 December 2022
- Santos NL, Costa MC, Amaral MT, Vieira GO, Bacelar EB, de Almeida AH. Teenage pregnancy: analysis of risk factors for low birth weight, prematurity and cesarean delivery. Ciencia&saudecoletiva. 2014 Mar 1;19(3):719. Available https://www Teenage pregnancy: analysis of risk factors for low birth weight, prematurity and cesarean delivery -ProQuest; Accessed on 28December 2022
- 6. Kuruvilla S, Bustreo F, Kuo T, Mishra CK, Taylor K, Fogstad H, Gupta GR, Gilmore K, Temmerman M, Thomas J, Rasanathan K. The Global strategy for women's, children's and adolescents' health (2016–2030): a roadmap based on evidence and country experience. Bulletin of the World Health Organization. 2016 May 5;94(5):398. Available from https:// www. The Global strategy for women's, children's and adolescents' health (2016–2030): a roadmap based on evidence and country experience PMC (nih.gov); Accessed on 25th December 2022
- World Health Organization. Key considerations for differentiated antiretroviral therapy delivery for specific populations: children, adolescents, pregnant and breastfeeding women and key populations. World Health Organization; 2017. Available from https://www. https://apps.who. int/iris/bitstream/handle/10665/258506/WHO-HIV-2017.34-eng.pdf. Accessed on 25thDecember 2022
- Hoffman SD, Maynard RA, editors. Kids having kids: Economic costs & social consequences of teen pregnancy. The Urban Insitute; 2008. Available from https:// www. Kids Having Kids: Economic Costs & Social Consequences of Teen Pregnancy -Google Books; Accessed on 28th December, 2022
- 9. Vincent G, Alemu FM. Factors contributing to, and effects of, teenage pregnancy in Juba. South Sudan Medical Journal. 2016 Jun 7;9(2):28-31 available fromhttps://wwwFactors contributing to, and effects of, teenage pregnancy in Juba

- (south sudanmedicaljournal.com).south sudan medical journal.com/archive/may-2016/factors-contributing-to-and-effects-of-teenage-pregnancy-in-juba.html accessed on 27thDecember 2022
- Warren CW, Johnson JT, Gule G, Hlophe E, Kraushaar D. The determinants of fertility in Swaziland. Population Studies. 1992 Mar 1;46(1):5-17. Available fromhttps://wwwThe Determinants of Fertility in Swaziland: Population Studies: Vol 46, No 1 (tandfonline.com) Accessed on 28th December 2022
- 11. Chandler M, Proulx T. Changing selves in changing worlds: Youth suicide on the fault-lines of colliding cultures. Archives of Suicide Research. 2006 Jul 1;10(2):125-40. Available fromhttps://www.Changing Selves in Changing Worlds: Youth Suicide on the Fault-Lines of Colliding Cultures: Archives of Suicide Research: Vol 10, No 2 (tandfonline.com); Accessed on 28th December 2022
- 12. Bashir AO, Ibrahim GH, Bashier IA, Adam I. Neonatal mortality in Sudan: analysis of the Sudan household survey, 2010. BMC Public Health. 2013 Dec;13(1):1-9.Available fromhttps://www.Neonatal mortality in Sudan: analysis of the Sudan household survey, 2010 | BMC Public Health | Full Text (biomedcentral.com); Accessed on 28th December 2022
- 13. Nwosu UM. Contemporary factors of teenage pregnancy in rural communities of Abia state, Nigeria. International Journal of Community Medicine and Public Health. 2017 Feb;4(2):588-92Availablefrom https://www Contemporary factors of teenage pregnancy - Google Scholar; Accessed on 28th December 2022

- 14. Acharya DR, Bhattaria R, Poobalan AS, van Teijlingen E, Chapman GN. Factors associated with teenage pregnancy in South Asia: a systematic review. Health science journal. 2010;4(1):3-14. Availablefrom https:// www Bournemouth University Research Online [BURO] Factors associated with teenage pregnancy in South Asia: a systematic review. Accessed on 28th December 2022
- 15. Ayuba II, Gani O. Outcome of teenage pregnancy in the Niger Delta of Nigeria. Ethiopian journal of health sciences. 2012;22(1):45-50. Available from https:// wwwOutcome of Teenage Pregnancy in the Niger Delta of Nigeria | Ethiopian Journal of Health Sciences (ajol.info); Accessed on 5th May 2022
- 16. Gyan C. The effects of teenage pregnancy on the educational attainment of girls at Chorkor, a suburb of Accra. Journal of Educational and Social Research. 2013 Sep 3;3(3):53.Availablefrom https://wwwThe Effects of Teenage Pregnancy on the Educational Attainment of Girls at Chorkor, a Suburb of Accra | Gyan | Journal of Educational and Social Research (mcser.org)Accr accessed on 5<sup>th</sup> May 2022.
- 17. AyanawHabitu Y, Yalew A, AzaleBisetegn T. Prevalence and factors associated with teenage pregnancy, Northeast Ethiopia, 2017: a cross-sectional study. Journal of pregnancy. 2018 Nov 1;2018.Availablefrom https:// wwwPrevalence and Factors Associated with Teenage Pregnancy, Northeast Ethiopia, 2017: A Cross-Sectional Study (hindawi.com); Accessed on 23rdApril 2022.