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Original Article

Socio-demographic Factors Influencing Teenage Pregnancy at Maternity Hospitals Khartoum State, Sudan, 2022.

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Abstract

Background: Teenage pregnancy remains an important and complex issue around the world, with reports indicating that Africa compared to other continents. Studies have indicated that key factors such as age, educational level, economic status, and family structure significantly influence teenage pregnancy incidence. Understanding these factors is crucial for developing targeted interventions to reduce teenage pregnancies in the region. **Objectives**: To study Socio-demographic Factors Influencing Teenage Pregnancy. **Methods:** This was a hospital-based cross-sectional study carried out in two specialized maternity hospitals in Khartoum State. 240 participants were selected through systematic sampling method. Data were collected using a standardized interview questionnaire, analyzed using the Statistical Package for Social Sciences

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(SPSS) version 25, and presented in tables and figures. **Results:** The study revealed that a majority of participants got married between the ages of 14-16, with a lower percentage having higher education levels. Only one-third of the participants completed secondary education 45% of participants' parents were divorced, while 8.3% were separated. There was a statistically significant association between education level, family history of teenage pregnancy, and causes of teenage pregnancy (p-value = 0.00). **Conclusion**: Teenage pregnancy is influenced by a complex interplay of socio-demographic factors. Key predictors include age, marital status, education, socio-economic status, contraceptive use, early sexual activity, and community influences.

Keywords: Teenage pregnancy, Socio-demographic factors, Education.

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Introduction

Teenage pregnancy is a significant public health and social issue, particularly prevalent in developing countries. It is influenced by a variety of socio-demographic factors, including individual behaviors, familial circumstances, and broader community and economic conditions. Understanding these factors is crucial for developing effective interventions to reduce the incidence of teenage pregnancy and mitigate its associated risk [1].

Socio-demographic factors play a major role in determining teenage pregnancy rates in Sudan. Research indicates that adolescents from lower socioeconomic backgrounds are at a higher risk for early pregnancies due to restricted access to education, healthcare, and family planning resources [2, 3]. In Sudan, where educational opportunities for girls are often limited, this issue is particularly pronounced [4]. Additionally, family structure and dynamics contribute to teenage pregnancy rates. Traditional family structures and norms in Sudan can influence adolescents' reproductive decisions, with those from unstable or non-traditional family settings facing higher rates of teenage pregnancies compared to those from stable family environments [5,6]. Educational attainment is another critical factor; Lower levels of education are strongly associated with higher rates of teenage pregnancy. Teenagers with no or only primary education are at greater risk. [7-11]

The proportion of adolescent girls whose needs for family planning were satisfied by modern methods increased from 36% to 60% between 1995 and 2020. Yet one in four adolescent girls aged 15–19 who want to avoid pregnancy are currently not using a modern method, Irregular or non-use of contraceptives significantly increases the likelihood of teenage pregnancy. Lack of access to and information about contraceptives is a common issue [8.11.12.13].

Early initiation of sexual activity and early marriage are critical factors contributing to teenage pregnancy. These behaviors are often influenced by cultural and social norms. [11-15]

Peer pressure and experiences of sexual abuse are significant predictors of teenage pregnancy, highlighting the need for protective social environments for teenagers. [11, 12]

The main objective of this paper is to examine the socio-demographic factors influencing teenage pregnancy.

Research Methods:

A hospital-based cross-sectional design was adopted in the present study. This study was carried out in two specialized maternity hospitals (Omdurman Maternity Hospital and Omdurman New Saudi Hospital), which provide maternity healthcare services to women from different states of the country. The targeted population was pregnant teenagers attending delivery room from all Sudanese tribes, ethnic groups and all socioeconomic groups. The sample included 240 pregnant teenagers who were enrolled in the study, and they were selected from each hospital by the systematic random sampling technique. The data were collected by four trained research teams using a standardized questionnaire administered to assess the socio-demographic factors influencing teenage pregnancy. The data were analyzed using the statistical package of social science (SPSS), version 25 and a significance test was checked by chi-square test and the results were accepted when the p-value was 0.05% or less. An ethical approval was obtained from the Institutional review Board at Al Neelain University and Khartoum State Ministry of Health, permissions were obtained from the hospital authorities. An informed consent was obtained from each participant before the interview.

Results

Table (1): Socio-demographic variable distribution across the study groups (n = 240)

Variable	Frequency	Percentage %
Age		
11-13	36	15.0
14-16	58	24.2
17-19	146	60.8
Total	240	100.0
Level of education		
Illiterate	36	15.0
(non-formal education)	11	4.6
Primary	70	29.2
Secondary	90	37.5
University	33	13.8
Total	240	100.0
Place of Residence		
Rural	90	37.5

Urban	150	62.5
Total	240	100.0
Occupation		
Employed	27	11.3
Housewife	103	42.9
(Free worker)	2	0.8
Unemployed	108	45.0
Total	240	100.0
Age at marriage		
11-13	32	13.3
14-16	105	43.8
17-19	103	42.9
Total	240	100.0

Table (2): Distribution of monthly income of the study participant per Sudanese pounds (n = 240)

Descriptive Statistics	
Mean	31,079.17
Median	30,000.00
Mode	30,000
Std. Deviation	15,688.321
Range	60,000
Minimum	10,000
Maximum	70,000

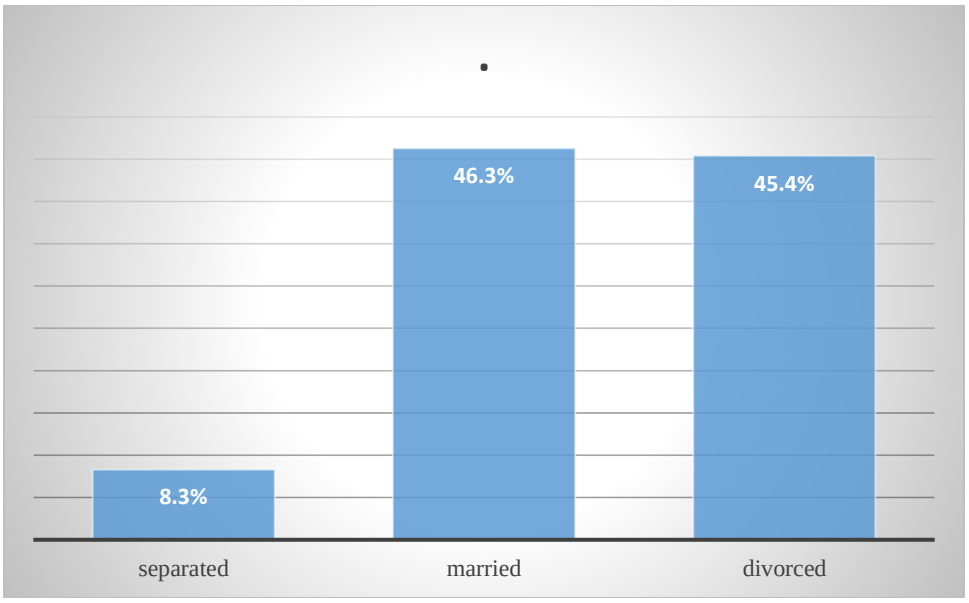

Figure (I): Distribution of Marital status of the participants(n=240)

Table (3): Distribution of fathers Occupation (n=240)

Occupation	Frequency	Percentage%
Employed	44	18.3
Others	196	81.7
Total	240	100.0

Table (4): Association between the level of education, family history and causes of teenage pregnancy(n=240)

		Estimate	Std. Error	Wald	Df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[Level of education = illiterate]	2.312	.537	18.525	1	.000	1.259	3.365
	[Level of education = Primary]	4.168	.587	50.404	1	.000	3.018	5.319
	[Level of education = Secondary]	6.374	.653	95.298	1	.000	5.095	7.654
	[Level of education = University]	8.320	.754	121.761	1	.000	6.842	9.798
Location	Family history of teenage pregnancy	1.626	.301	29.085	1	.000	1.035	2.216
	Causes of teenage pregnancy	.645	.090	51.477	1	.000	.469	.822

Table (5): Association between age, maternal outcomes and fetal outcomes(n=240)

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[AGE = 1]	1.723	.429	16.110	1	.000	.881	2.564
	[AGE = 2]	3.469	.476	53.192	1	.000	2.537	4.401
Location	Maternal outcomes	.697	.111	39.101	1	.000	.478	.915
	Fetal outcomes	.454	.100	20.694	1	.000	.259	.650

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Discussion

The demographic data of the study participants reveal that the majority were aged between 17 and 19 years. This suggests that early marriage is prevalent within this population. A statistically significant association was found between age and the history of teenage pregnancy, with (a p-value of 0.00). Additionally, only a minority of participants had attained higher education, with just one-third completing secondary education. This finding aligns with the study by Vincent Gwido and Fekadu Mazengia Alemu conducted in Juba (2016), which reported that most participants were aged between 17 and 19 years, and only 8% had completed secondary education [16]. Thus, the level of education was significantly associated with teenage pregnancy, with (a p-value of 0.00). The present study also indicated that less than half of the participants lived in rural areas, while the majority resided in urban settings. This is consistent with existing literature [17]. However, it contrasts with the study by Misganaw Gebrie Worku in Eastern Africa, which found that the majority (73.78%) of participants lived in rural areas [18]. Regarding occupation, less than half of the women were unemployed, and only 11.3% were employed. This contrasts with Misganaw Gebrie Worku's study, where half of the participants were employed [18]. The discrepancy may be attributed to differences in study populations and sample sizes.

Regarding marital status, a significant proportion of participants married between the ages of 14-16 and 17-19, indicating a common practice of early marriage within the study group. This finding contrasts with the study by Gwido Vincent and Fekadu Mazengia Alemu, which reported that 38% of participants were aged 14 to 16 years [16].

Additionally, our study identified a decrease in monthly family income as a predictor of teenage pregnancy. This may be attributed to the fact that adolescent girls from low-income households are more likely to experience early marriage and sexual initiation, potentially due to limited access to reproductive health services and contraceptives [18]. This finding corroborates results from Ghana which revealed that adolescents in Ghana have unmet needs for contraception, Unmet contraception needs are caused by limited access to

contraceptives among adolescents, especially among hard-to-reach adolescents such as those living in rural areas, displaced communities, streets, refugee camps, and married adolescents [19].

Nearly to half of participants' parents were divorced. Teenagers from divorced families are more vulnerable to teenage pregnancy, possibly due to lower levels of parental control and communication about sexual and reproductive issues [20]. These contrasts with the study by Gwido Vincent and Fekadu Mazengia Alemu, which found only 2% of participants' parents, were divorced [16]. Among the fathers of the participants, only 18.3% were employed.

Furthermore, there is a strong statistically significant association between the causes of teenage pregnancy, educational level, and family history of teenage pregnancy, with (a p-value of 0.00)

Conclusion:

Teenage pregnancy is influenced by a complex interplay of socio-demographic factors. Key predictors include age, marital status, educational attainment, socio-economic status, contraceptive use, early sexual activity, and community influences. Addressing these factors through comprehensive education, improved access to contraceptives, and community support can help reduce the incidence of teenage pregnancy and improve outcomes for young mothers and their children.

Recommendation: The study recommends strengthening contraceptive service promotion and provision for teenagers by giving special attention to rural areas, and highlighting the consequences of divorce in the community. Enforcing laws that prohibit early marriage and raising awareness about the consequences of early marriage are also important.

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Conflict of interest

the authors declare that there is no conflict of interest regarding the publication of this manuscript.

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