



(RESEARCH ARTICLE)



Prevalence and associated factors of adolescent pregnancy among women attending antenatal clinic at Tumbi Regional Referral Hospital, Coast Region, Tanzania

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Abstract

Background: Approximately 16 million adolescent girls aged 15-19 years and 2 million adolescents under the age of 15 years give birth annually. The aim of this study is to determine the prevalence and associated factors of adolescent pregnancy among women attending antenatal clinic at Tumbi Regional Referral Hospital, Coast Region, Tanzania.

Material and methods: This was a descriptive cross-sectional study conducted from February 01 to April 15, 2023. A total of 118 adolescent pregnant women were enrolled in this study. Interviews were conducted with 118 sampled adolescent girls.

Results: The analysis focused on 118 adolescent pregnant women. Of these, 87.3% adolescent pregnant women aged 18-19 years. 95.8% were living in Rural area. Marital status 82.2% were married. Education level primary school 50.8%, living with husband 50%. Father's occupation, peasant 91.5%, mother's occupation peasant 89%. Time required to reach health facility one hour or less 83.1%. Time required to reach school one hour or less 66.1%. Awareness on reproductive health 84.7%, on contraceptive 91.5%. Source of information clinics 60.2%. Types of contraceptive used injectable 59.3%.

Conclusion: This study found a higher rate of adolescent pregnancy among women attending antenatal clinic in Tumbi Regional Referral Hospital. Adolescents who were more likely to adolescent pregnancy were those with limited knowledge about sexual and reproductive health living in rural from families with low economic status, their mothers had a low level of education.

Keywords: Adolescent Pregnancy; Women; Antenatal clinic; Tumbi Referral Hospital; Tanzania

1. Introduction

Adolescent pregnancy is giving birth at teenager. Approximately 16 million adolescent girls aged 15-19 years and 2 million adolescents under the age of 15 years give birth annually. These births constitute about 11% of all births worldwide, and nearly 95% occur in developing countries. Adolescent pregnancy is a global public health problem that affects both developed and developing countries [1]. Reports on adolescents giving birth have shown to be 2% in China, 18% Latin America and the Caribbean, and more than 50% in sub-Saharan Africa [2]. Half of all adolescent births occur in just seven countries, Bangladesh, Brazil, the Democratic Republic of Congo, Ethiopia, Nigeria, India and the United States [3]. Each year, births to adolescent girls aged 15 to years account for 16% of all births in sub-Saharan Africa [4]. The prevalence of adolescent pregnancy in eastern Africa ranges from 18 to 29% and around half of these pregnancies are unintended [5]. Globally an estimated 3.9 million adolescents experience unsafe abortions, which contribute to the

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highest maternal mortality and morbidity [6]. Adolescent pregnancy is considered the leading cause of newborn and maternal mortality in developing countries [7]. Pregnancies among adolescents are associated with several adverse health, educational, social and economic outcomes [8]. Adolescent pregnancies occur in poor populations, which could be influenced by poverty, lack of education, and work opportunities [9]. Giving birth as a teenager leads to having more children than women who start childbearing after their teenage years. The outcome of such phenomenon contributes to high population growth. Teenage pregnancy is also associated with social stigma, stillbirth, low birth weight and maternal death. Furthermore, the complete lack of access to health care, absence of skilled delivery services, or delayed entry into antenatal care (ANC) deprive both the teenage mother and her offspring of basic health care services [10]. Some investigators identify different determinant factors of teenage pregnancy: like not living with parents, low socioeconomic status, early sexual intercourse and low level of contraception knowledge [11]. In Tanzania Main land the percentage of teenagers who have had a child or are pregnant is 27% more than three times higher than in Zanzibar which is 8% [12]. Therefore, the aimed of this study is to determine the prevalence and associated factors of adolescent pregnancy among women attending antenatal clinic at Tumbi Regional Referral Hospital, Coast Region, Tanzania. The findings of this study could help policymakers, governmental and non-governmental organizations to design programs and interventions towards adolescent pregnancy and pregnancy-related complications.

2. Material and methods

2.1. Study area and period

This study was conducted at Tumbi Regional Referral Hospital, Kibaha District, Coast Region, Tanzania from February 01 to April 15, 2023



Figure 1 Coast Region and its 6 districts

The study was conducted to determine the prevalence and associated factors of adolescent pregnancy among women attending antenatal clinic at Tumbi, Kibaha district.

Kibaha is one of the six administrative districts of Coast Region in Tanzania (Figure 1). The district covers an area of 1,502 km² (580 sq mi). Kibaha District is bordered to the northeast by Kibaha Urban District and the north by Chalinze District. The district is bordered to the southeast by the Kisarawe District, On the western side the district is bordered by Morogoro District of Morogoro Region. According to the 2012 census, the district has a total population of 70,209.

2.2. Study design

The study design was a descriptive cross-sectional study which prevalence and associated factors of adolescent pregnancy among women attending antenatal clinic at Tumbi Regional Referral Hospital was studied at a time. Structured pretested questionnaire with key information was used to collect the desire data.

2.3. Study population

Adolescent pregnant women attending clinic at Tumbi Referral Hospital were registered in the study.

2.4. Sample size

The sample size in this study was 118 participants. The sample size calculation obtained by Kirkwood formula

$$N = \frac{Z^2 * p(1 - p)}{d^2}$$
$$N = \frac{(1.96)^2 * 0.27 (1 - 0.27)}{(0.08)^2}$$
$$3.8416 * 0.27 * 0.73$$
$$= 118$$

N = Sample size

Z= Confidence interval level 95% in this study which is 1.96

P = Proportional of study prevalence (estimated prevalence) 27% 2023

D= Absolute error or precision 0.08 has to be decided by researcher.

2.5. Sampling Technique

Simple randomly technique was employed when participants attending at Tumbi Referral Hospital antenatal clinic were allocated numbers (even and uneven numbers) . Participants who had even numbers were involved in the study.

2.6. Data collection

The data collected by structure guided questionnaires. The questionnaire prepared in English and translated into Swahili to maintain the consistency and content of the questionnaire, confidentiality of information, participant's rights and voluntarily informed consent were secured. The participants were asked the questions and their answers filled in the questionnaire by the researcher.

2.7. Data analysis

Questionnaire filled with irrelevant information were removed. The data from questionnaire with relevant information were analyzed with Statistical Package for Social Sciences (SPSS version 20)

2.8. Inclusion criteria

Adolescent pregnant women attending antenatal clinic willing to participate in the study were included.

2.9. Exclusion criteria

Adolescent pregnant women attending antenatal clinic but unwilling to participate in the study were excluded.

2.10. Ethical clearance

A letter from St. Francis University College of Health and Allied Sciences ethical committee was obtained. The letter submitted to Regional Medical Officer, Coast Regional who forwarded the letter to the Medical Officer In charge who give permission to use participant at Tumbi Referral Hospital.

3. Results

3.1. Socio-demographic characteristic of participants at Tumbi Regional Referral Hospital

A total of 118 adolescent pregnant women participated in this study. Out of these 2 (1.7%) aged 13-15 years, 13 (11%) aged 16-17 years and 103 (87.3%) aged 18-19 years. Places of residence of adolescent pregnant women who participated in the study, 113 (95.8%) were in rural area, 5 (4.2%) were in urban area. Marital status; single 18 (15.3%), married 97 (82.2%), divorced 3 (2.5%). Education level of participants; Not educated 48 (40.7%), primary school 60 (50.8%), secondary school 10 (8.5%) . Adolescent pregnant women living with both parents were 50 (42.4%). Either parent 8(6.8%), husband 59 (50%), alone 1 (0.8%), father's education: Not education were 40 (33.9%), primary education 48 (40.7%) secondary education were 20 (16.9%), Not attended school were 10 (8.5%). Mother's education

level; Not educated were 59 (50%) , primary education were 34 (28.8%) ,secondary education 23 (19.8%), not attended school 2 (1.7%), as shown in Table 1

Table 1 Socio-demographic characteristic of participants of Tumbi Regional Referral Hospital

Variables	Frequency	Percentage (%)
Age(in years)		
13-15 years	02	1.7
16-17 years	13	11
18-19 years	103	87.3
Place of residence		
Rural	113	95.8
Urban	05	4.2
Marital status		
Single	18	15.3
Married	97	82.2
Divorced	03	2.5
Education level		
Not educated	48	40.7
Primary school	60	50.8
Secondary school	10	8.5
Mode of living		
Both parents	50	42.4
Either parent	08	6.8
Husband	59	50
Alone	01	0.8
Father's education		
Not educated	40	33.9
Primary	48	40.7
Secondary	20	16.9
Not attended school	10	8.5
Mother's education level		
Not educated	58	50
Primary	34	28.8
Secondary	23	19.5
Not attended school	02	1.7

3.2. Economic characteristics of adolescent pregnant women in attending Tumbi Regional Referral Hospital

Among 118 adolescent pregnant women father's occupation; peasant 108 (91.5%, government employee 10 (8.5%), mother's occupation; peasant 105 (89%), government employee 13 (11%), distance from health facility; time required

to reach health facility, one hour or less 98(83.1%), more than one hour 20 (16.9%); distance required to reach school; one hour or less 78 (66.1%), more than one hour 40(33.9%) as shown in Table 2.

Table 2 Economic characteristics of among adolescent pregnant women in Tumbi Regional Referral Hospital

Father's occupation	Frequency	Percentage (%)
Peasants	108	91.5
Government employee	10	8.5
Mother's occupation		
Peasants	105	89
Government employee	13	11
Time required to reach health facility		
One hour or less	98	83.1
More than one hour	20	16.9
Time required to reach school		
One hour or less	78	66.1
More than one hour	40	33.9

3.3. Awareness of contraceptives among adolescent pregnant women attending antenatal clinic at Tumbi Regional Referral Hospital

A total of 100 (84.7%) participants were aware of reproductive health, 18 (15.3%) were not aware of reproductive health education, awareness on contraceptive; 108 (91.5%) were aware on contraceptive, 10 (8.5%) were not aware of contraceptives, sources of information; 3(2.5%) got information from school, 40 (33.9%) from media, 71 (60.2%) from clinics, 4(3.4%) form others sources. Type of contraceptive used; pills were 18 (15.3%), injectable were 70(59.3%), condoms were 30(25.4%) as shown in Table 3.

Table 3 Awareness of contraceptives among adolescent pregnant women attending antenatal clinic at Tumbi Regional Referral Hospital

Awareness on reproductive health	Frequency	Percentage (%)
Yes	100	84.7
No	18	15.3
Awareness on Contraceptive		
Yes	108	91.5
No	10	8.5
Source of information		
School	3	2.5
Media	40	33.9
Clinics	71	60.2
Others	4	3.4
Types of contraceptive use		
Pills	18	15.3
Injectables	70	59.3
Condoms	30	25.4

4. Discussion

This study was aimed to identify the prevalence and associated factors of adolescent pregnancy among women attending antenatal clinic in Tumbi Regional Referral Hospital, Coast Region, Tanzania. It was observed that 87.3% were between 18 to 19 years. The study done in Rwanda 36.15%, in Zimbabwe 65.29% [13]. The results in the present study is higher than the results in the two countries. In this study of adolescent pregnancy in women increases with age (being in the 18-19 age groups). This finding was consistent with other researches done by Gideon R. in Uganda and Alemayehu T in Ethiopia [14]. This is an expected result given that the proportion of women who have started their reproductive life increases with age because of longer exposure to biological and social factors, especially due to marriage. Besides, older teenager had the chance to separate from their parents and start to live independently which may lead them to have risky sexual behavior. Place of residence 95.8% were living in rural areas. The issue of cultural influence is a direct factor, for example, families in rural areas and with low education and economic status would prefer to force their young girls towards early marriage for marriage pride and do not consider the next risk of their teens [15]. This study shows that 82.2% were married indicating cultural practices such as early marriage, age, education and residence these are predictor for adolescent pregnancy. This is in agreement with the study conducted in Nepal and Iran which showed that many young people particularly unmarried girls are affected by social and cultural norms that impose barriers towards the risk of sexuality hence increasing the risk of early pregnancy and early motherhood [16]. This study shows that 91.5% father's occupation was peasants. The study found a significant influence of the parents' economic status on adolescent pregnancy, where by adolescents whose parents were poor had a significant risk of early pregnancy than those whose parents had good economic status or wealth. This is in agreement with the study by [17] who stated that family income inequalities tend to create early sexual activity involvement among adolescents and therefore increase the risk of early motherhood. Another study [18] in Sri Lank also reported similar findings, through which it was observed that families with a low income had a significant risk of early sexual activity involvement and adolescent pregnancy [17]. This can be explained as due to the following reasons; low income is linked with failure to obtain daily basic needs including food, clothes and entertainment which make it create an environment for dropping from their studies, some run away from homes looking for jobs (house girls), increase risk of raping and some get easy to accept men hoping for support, all these creates an environment for early sexual practices and pregnancy. This study is also supported by the previous findings [19]. In this study 91.5% were aware of contraceptive, adolescent girls who did not use contraceptive were at higher risk of adolescent pregnancy which is in contrast to different studies [20]. This may be correlated with an increased use of contraception in developing countries, still a contraceptive failure, due to inadequate contraceptive counseling, awareness and utilization skills, is common and this results in unplanned and unwanted pregnancy [21]. The higher rate of teenage pregnancy among contraceptive users also indicates that contraceptive needs may still be unmet including intermittent use of contraceptives and supply interruption [22]. Existing evidences on what works in reducing adolescent pregnancy show that sexual and reproductive health education, counseling and contraception provision are effective in increasing adolescent's knowledge of sexually and health, contraceptive use and decreasing adolescent pregnancy [23].

5. Conclusion

In this study found a high prevalence of adolescent pregnancy with limited knowledge and practices of sexual and reproductive health. Predictors for adolescent pregnancy from the study site were rural residence, parents' poor economic status/poverty, low parent's education status, low knowledge of sexual and reproductive health, cultural influence including early marriage practices, and sexual abuse. Therefore, an innovative intervention study to come up with an effective strategy to address the challenge of adolescent pregnancy in Tanzania is highly recommended.

Recommendation

There is a need to reduce high prevalence and negative consequences of adolescent this should be a collective responsibility and concern for each and every member of the community.

Compliance with ethical standards

Acknowledgments

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Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of ethical approval

In this study no animal was used but human was used. The only study tool used to collect data was questionnaire. However, ethical clearance was obtained from the respective authorities to conduct the study. The research committee of St. Francis University College of Health and Allied Sciences, Regional Medical Officer, Coast Region, Medical Officer in charge Tumbi Regional Referral Hospital gave permission the study to be conducted.

Statement of informed consent

Written informed consent was obtained from all antenatal adolescent pregnant women who consented to the study, records were coded and participants / Researcher names were not used. All the information collected remained confidential and was used for purposes of the study only. Participation was voluntary and no incentives were given.

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