ASSESSING THE RELATIONSHIP BETWEEN TEENAGE PREGNANCY AND, UNYAGO AND EDUCATION LEVEL: A CASE OF MTWARA REGION IN TANZANIA

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ABSTRACT

This paper discusses the relationship between teenage pregnancy and education level, age, and unyago in the Mtwara region of southern Tanzania. A multiple regression analysis was conducted and findings suggest that there is a strong relationship between the variables. It was also noted from the study that as more girls who attended unyago accessed the secondary education, the numbers of pregnancies decreased. Girls with primary education who attended unyago and failed to join secondary education are the ones mostly affected by pregnancies as compared to girls who accessed secondary education.

1.0 Introduction

Unyago has been practiced in different places of Mtwara. Basically, unyago is a local rite of passage, or initiation period, into social roles and sexuality period in Mtwara. Forms of unyago are also practiced in other ethnic groups of Tanzania, but unyago in Mtwara is often pointed out as the main cause of pregnancy. It is perceived to be highly sexualized social event, which normally takes place at a young age (girls are sometimes as young as eight years old), thus raising concern among reproductive health and HIV/AIDS professionals. It is important to note that ordinary citizens interviewed in Mtwara reported being proud of unyago , given that it is the principal method to relay important social messages of self respect, respect for parents and elders, community building, and strength of the women in the community (Bangser. M, 2010).

There has been a problem of early pregnancy especially for girls who have no access to secondary education in Mtwara due to limited job and other economic opportunities. Meanwhile, Mtwara has consistently been characterized by the highest rates of adolescent pregnancy in the country. For example, in 2004, the Tanzania National Bureau of Statistics (TNBS) estimated that 35.5% of the adolescent in Mtwara had begun childbearing compared to 26% nationally. Adolescent pregnancy has also been a key driver of the recent criticism of unyago and Jando (Colleen M.H, 2012)

There has been a problem of early pregnancy especially for girls who have no access to secondary education in Mtwara due to limited economic, income earning work and livelihoods opportunities. This could possibly suggest that these girls are idle most of the times and are likely to participate in sexual activities in order to get income, which lead them to get pregnant.

Teens who are more involved in their schools are less likely than their peers who are not closely connected to their schools to get pregnant. Important aspects of school engagement

include grades, test scores, class participation, homework completion, and perception of support and connectedness with teachers and administrator.

Helgesson, L (2001), indicates that almost all girls in the research areas in Kisarawe and Masasi districts go through initiation rite and before girl passes through this rite of passage, she will not gain recognition as a woman. Many girls are looking forward to the initiation ceremony. According to their study, the respondents stated that some girls lost their interest in schools soon after they gone through the initiation ceremony. They were introduced to another kind of life than they used to and thoughts about boyfriends, beauty and marriage became more important than studies. Some respondents also said that the initiation rite was too much centered on sex and that girls were encouraged to have sexual relationships as soon as possible after unyago.

Mbelwa, C and Isangula G. K (2012), in their study found that education level and income unemployment status were associated with the risk of pregnancy among teenagers and adolescent girls. Teenagers and adolescents were at risk of pregnancy if they had no formal education and unemployed. Low level of mothers' education was also associated with increased pregnancies.

More interestingly, a study by Kasomo (2009) indicates that gender does not significantly contribute to school dropout cases. Instead it was found that both male and female students are equally exposed to the factors evidently impinging the educational and career opportunities of both male and female students. These factors include pregnancy (96.2%), peer pressure with (85.8%), lack of school fees (79.2%) , lack of parental guidance (77%), drug addiction (74.5%), intimate boys/girls relationship (73.4%), forced early marriages (68.9%), lack of interest and laziness in school work (65.8%), too much pocket money from parent (49.1%), cultural beliefs that do not value education of girls (42.3%), discouragement from teachers (31.6%) and fear of being in the same class with boys (9.2%).These results clearly show that pregnancy is one of the greatest impediments to girls' educational careers at secondary level education.

Most of the recent studies related to this study have been trying to point out various issues affecting teenagers and adolescent girls, but it has been difficult for one to know clearly the criteria used to show the relationship that exist between the variables. For example Mbelwa and Isangula (2012), Kasomo (2009), and Bangser (2010) pointed out the issues affecting the girls, but did not explain clearly the criteria used to show the relationship between the variables. It is important to note that in this study a multiple regression model shows clearly the relationships which exist between the variables by observing the sign (plus or minus) placed before the coefficient of each independent variable.   This paper, therefore, intends to assess the relationship between education level, age, pregnancy and unyago amongst the girls particularly for a case of Mtwara Municipality in Tanzania, by conducting a multiple regressions study. The findings obtained from this study aims at assisting government, educators and other stakeholders in laying down a foundation that could be used as a tool to empower girls through education.

2.0   Methodology
2.1   Model Formulation

The Assumptions for Model Formulation
According to Bluman, A. G (2007); the following multiple regression assumptions were taken care of;
(i)   There is a linear relationship between the dependent variable and the independent variables
(ii)   The values for the y variables are independent
(iii)   The independent variables are not correlated.

In general the multiple regression model is given by;

$$y = b_0 + b_1 x_1 + b_2 x_2 + \dots\dots\dots\dots b_k x_k + e$$

Where,
- y is the dependent variable
- $x_1, x_2, \dots\dots\dots, x_k$ are independent variables
- $E(y) = b_0 + b_1 x_1 + b_2 x_2 + \dots\dots\dots\dots b_k x_k$ is the deterministic part of the model.
- b_i determines the contribution of the independent variable x_i
- e is the random error

The multiple regression model of this study consists of three independent variables and dependent variable and is given by; $y = b_0 + b_1(\text{age}) + b_2(\text{gpeau}) + b_3(\text{gseau})$
where,

- y is dependent variable representing total girls pregnant (tgp)
- x_1 is independent variable representing age
- x_2 is independent variable representing girls with primary education attended unyago(gpeau).
- x_3 is independent variable representing girls with secondary education attended unyago(gseau)
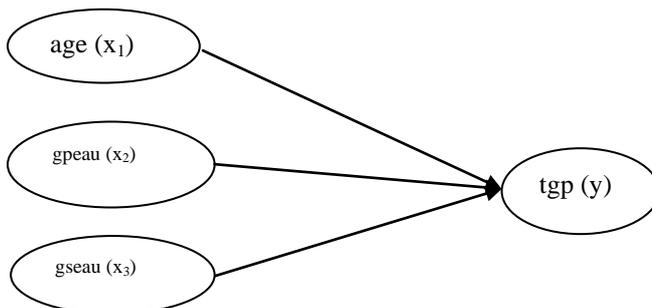

Figure 1: The Variables Involved in the Multiple Regression Model

Where b_0 is the y intercept, b_1, b_2, and b_3 are called partial regression coefficients. Each b_i represents the amount of change in y for one unit of change in the corresponding x value when the other x values are held constant.

2.2 Sample Size

Respondents in this study consisted of females from Mtwara municipality. The participants' ages ranged from 15 to 20 years old.

2.3 Data Collection

There are several ways of collecting appropriate data which differ considerably in context of money costs, time and other resources at the disposal of the researcher (Kothari C.R, 2004). In this study questionnaires were used to collect data from the respondents. Questionnaires were initially distributed to the respondents randomly. The respondents were given seven days (one week) for filling the questionnaires. Data entry began immediately as the completed questionnaires were collected by the researcher. In total, all 100 questionnaires were collected. However only 85 usable questionnaires (85%) were coded and analyzed.

3.0 Results
3.1 Data Analysis

3.1.1 Demographic Information

A summary of demographic information of the respondents used in this study is as shown in Table 1.

AGE	TGAU	GPEAU	GSEAU	GPEP	GSEP	TGP	%GPEP	%GSEP
15	13	6	7	0	1	1	0.0	7.7
16	9	5	4	2	0	2	15.4	0.0
17	11	4	7	2	0	2	15.4	0.0
18	19	7	12	3	1	4	23.1	7.7
19	13	5	8	4	3	7	30.8	23.1
20	20	7	13	7	5	12	53.8	38.5

Table 1: Shows Demographic Information of the Respondents

Keys: TGAU – Total Girls Attended unyago.
   GPEAU – Girls with Primary Education who attended unyago
   GSEAU – Girls with Secondary Education who attended unyago
   GPEP – Girls with Primary Education who were Pregnant
   GSEP – Girls with Secondary Education who were Pregnant
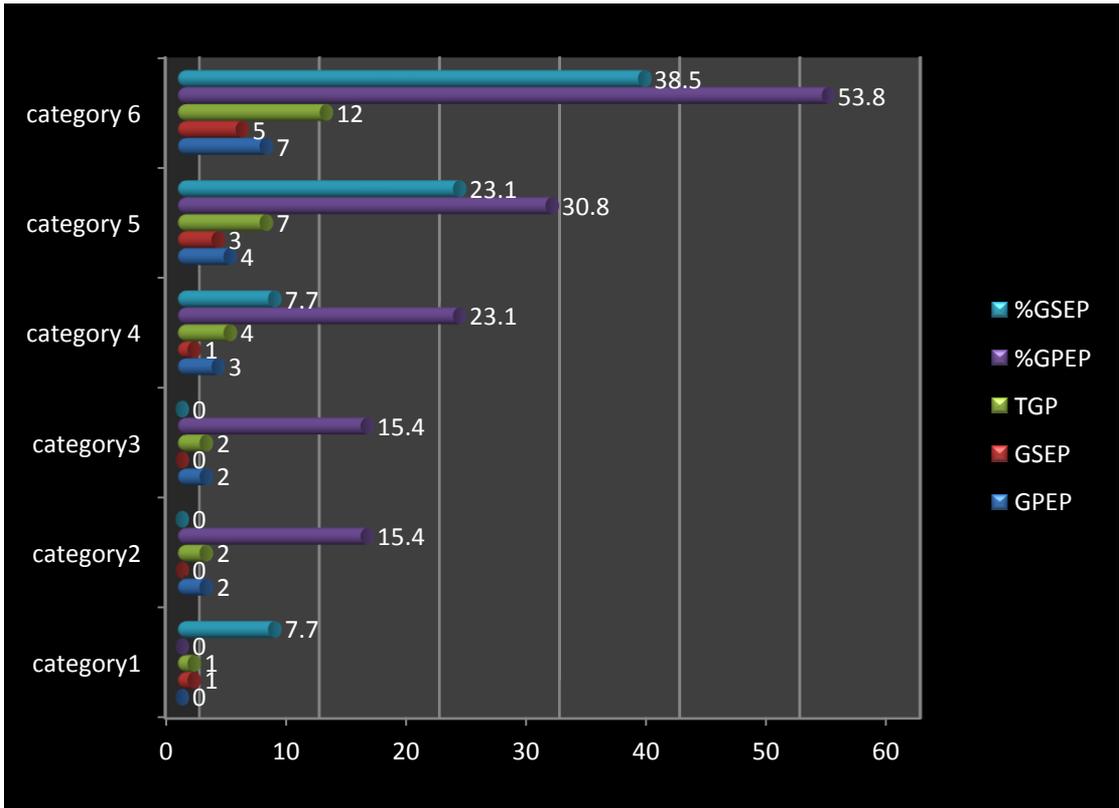   TGP - Total Girls who were Pregnant

Figure 2: The Bar Graphs which show the number of Girls Pregnancies and the Corresponding Percent

3.1.2 Multiple Regression Model

The data shown in Table 1 were analyzed using the software named "IBM SPPS statistics 19".The results of interest are as shown below.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.950[a]	.902	.754	2.073

Table 2: The Values of Coefficient of Multiple Correlations (R), Coefficient of Multiple Determinations (R^2), Adjusted R Square and Standard Error of the Estimate Values

		Unstandardized Coefficients	
Model		B	Std. Error
1	(Constant)	-41.209	15.502
	Age	2.389	.872
	Gpeau	1.461	1.443
	Gseau	-.496	.718

Table 3: The Constant (y – Intercept of Multiple Regression Model) Value, Partial Regression Coefficients Values for Age, Gpeau, Gseau and Standard Error Values.

If we plug the y- intercept (constant) value, partial Regression coefficient values for age, gpeau, gseau in the general regression model, then the multiple regression model of this study is given by $y = -41.209 + 2.389(\text{age}) + 1.461(\text{gpeau}) - 0.496(\text{gseau})$. In this case it is possible to predict the numbers of girls at any time who are pregnant given that the information on age, girls with primary and secondary education attended unyago are known.

4.0 Discussions
4.1 Results Focusing on R, R Square and Adjusted R Square
From the knowledge of multiple regressions, whenever the value of R is close to one, it implies that there is a strong relationship. From this study R = 0.95, which indicates that there is a strong relationship between the variables. In this case there is strong relationship between total pregnancies for the girls (tgp), age, girls with primary girls who attended unyago (gpeau), and girls with secondary education who attended unyago (gseau).

The value of R^2 close to one indicates a very good fit for the model and R^2 close to zero indicates lack of fit. From this study $R^2 = 0.902$, which means about 90.2% of variation in the total girls pregnancies can be explained through different values in age, girls with primary education attended unyago (gpeau) and girls with secondary education who attended unyago (gseau).

The value of adjusted $R^2 = 0.754$, which is only little lower than R^2. This value is also close to one, an indication that there is a strong relationship between the variables.

4.2 Results Focusing on Multiple Regression Model
Basing on the multiple regression model of the study, $y = -41.209 + 2.389(\text{age}) + 1.461(\text{gpea u}) - 0.496(\text{gsea u})$

It is clear that the number of pregnancy is predicted to increase by 2.389 when age variable goes up by 1 unit; pregnancy is predicted to decrease by 1.461 when variable for girls with primary education who attended unyago goes up by 1 unit and pregnancy is predicted to decrease by 0.496 when variable for girls with secondary education who attended unyago goes up by 1 unit.

From the multiple regression model, we find that as more girls fail to join secondary education, the number of pregnancies increase. This is indicated by the plus (+) sign placed

before the coefficient of girls with primary education who attended unyago (gpeau). On the other hand as more girls get secondary education, the number of pregnancies decrease. This is indicated by the minus (-) sign placed before the coefficient of girls with secondary education who attended unyago (gseau).
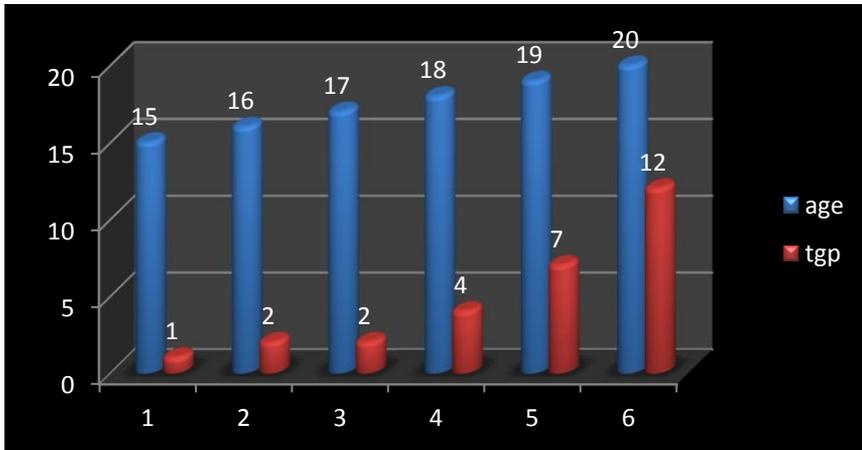

Figure 3: Bar Graph showing Tgp versus Ages

From Figure 3, it is clear that as the girls' age increase; the numbers of pregnancies increase due to the fact that most of the girls with primary education who attended unyago have completed primary school education, but did not join secondary education. This means that most of these girls are not participating in activities which keep them busy and earn income due to limited economic opportunities in Mtwara. This relationship is consistent with the findings of (Mbelwa, C and Isangula G.K, 2012).
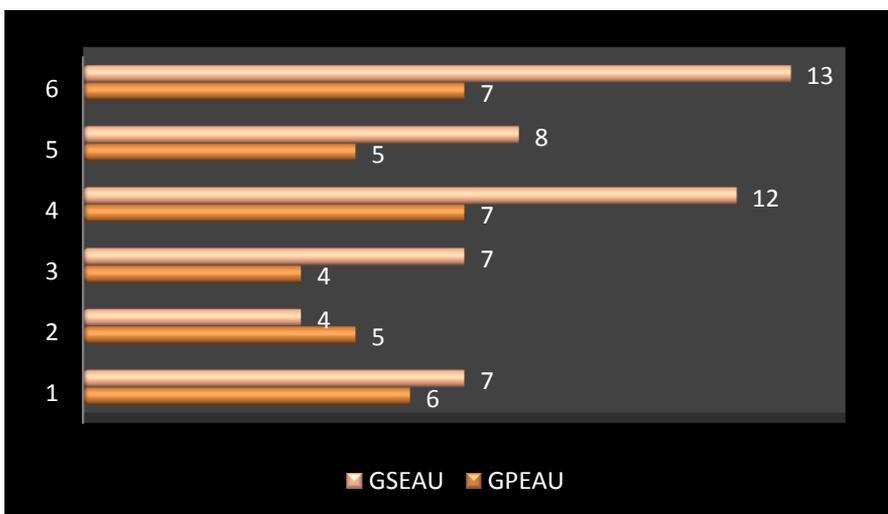

Figure 4: Bar graph Showing the Girls of Particular Age and Education who Attended Unyago

From Figure 4, it is clear that the number of girls who attended unyago with secondary education was bigger than those with primary education. The number of girls who attended unyago with secondary education was 7 girls of 15 years old, 4 girls of 16 years old, 7 girls of 17 years old,12 girls of 18 years old, 8 girls of 19 years old and 13 years old, making a total of 51 girls (60% of the total girls who attended unyago) while the numbers of girls who attended unyago with primary education was 6 girls of 15 years old, 5 girls of 16 years old, 4 girls of 17 years old, 7 girls of 18 years old, 5 girls of 19 years old and 7 girls of 20 years old, making a total of 34 girls (40% of the total girls who attended unyago).
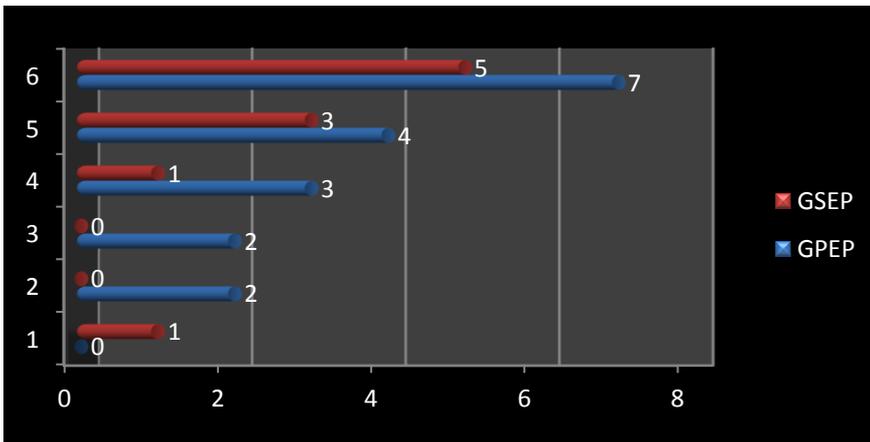

Figure 5: Bar Graph showing the Number of Girls' Pregnancies for Each Age and Education Level

From Figure 5, it is clear that the number of pregnancies for girls who attended unyago and access secondary education was less than the number of pregnancies for the girls who attended unyago with primary education; that is the number of pregnancies for girls with secondary education was

From Figures 4 and 5, we find that there is a strong relationship between the number of pregnancies and education level of the girls. In the case of girls with secondary education, the number of pregnancies is less than that of girls with primary education. The study involved 51 girls with secondary education in which 10 girls (11.76% of the total girls) were pregnant, while 34 girls had primary education and out of these, 18 girls (21.12% of the total girls) were pregnant. This implies that as more girls get secondary education the numbers of pregnancies decrease; while as more girls fail to join secondary education implies high possibility of pregnancies increase. The findings also, to some extent, support previous researches (Colleen, M.H, 2012), however (Kasomo, 2009), focused on the factors that impinged negatively on the educational careers of both girls and boys. With the factors militating against girls, pregnancy was rated first implying that pregnancy is one of the greatest impediments to girls' educational careers at secondary level education.

4.3 Conclusion

From the findings of the study, it is clear that there is a strong relationship among the variables. The findings tell us that the total number of pregnancies was dependent on the ages, unyago and education level for the girls in Mtwara. The study also shows that as more girls in Mtwara accessed the secondary education, the numbers of pregnancies decreased. In another word, the girls in Mtwara who had no access to the secondary education were the ones affected by pregnancies.

Generally, there is a need to carry out awareness campaigns on educational empowerment to all girls in Mtwara. There is also a need for the Government to create projects and programmes that will help parents to increase their income at family level in enabling them send their children for secondary education.

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