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**Table of Contents****Life Sciences**

- Physico-chemical parameters and macrobenthos of an estuarine creek and an artificial pond in Lagos, southwestern Nigeria

**Ogunwenmo, Christiana A. & Osuala, I. A.**

University of Lagos, Faculty of Science, Department of Marine Sciences, Akoka, Lagos, Nigeria

Received: 6 Sept., 2003 Revision accepted: 18 Sept., 2004

[View Abstract](#)[Download Article](#)

- 
- Population variation in relation to phytochemical analysis of extracts in *Ipomoea triloba* L. (Convolvulaceae)

**Ogunwenmo, K. Olusola & Obisanya, Ibirike A.**

Babcock University, Ilishan-Remo, Department of Basic and Applied Sciences, PMB 21244, Ikeja, Lagos 100 001, Nigeria

Received: 9 Sept., 2003 Revision accepted: 12 Dec., 2004

[View Abstract](#)[Download Article](#)

- 
- The use of Fungal Glucoamylase Enzyme for the Production of Glucose Syrup from Cassava Starch

**Akinola, S. O. & Ayanleye, T. A.**

Federal Institute of Industrial Research, Biotechnology Department, Oshodi, PMB 21023, Ikeja, Lagos 100 001, Nigeria

Received: 6 Dec., 2003 Revision accepted: 30 Dec. 2004

[View Abstract](#)[Download Article](#)

- 
- Five Year Request Pattern for Tumour markers in a Tertiary Centre in Nigeria

**(1)Adedapo K. S, (2)Shittu, O. B & (1)Osifo, B. O. A.**

University College Hospital, (1)Department of Chemical Pathology, (2)Department of Surgery, Ibadan, Nigeria

Received: 1 Dec., 2003 Revision accepted: 13 Dec. 2004

[View Abstract](#)[Download Article](#)

- 
- Sexual maturation among school teenagers and implications for family life

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Research

## Sexual maturation among school teenagers and implications for family life

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### Abstract

There appears to be an observed progressive drop in the age of sexual maturation among Nigerian adolescents. There is also progressive urbanization, industrialization and diffusion of western values into the culture, especially in relation to sexual morals and behaviour. The extent to which these changes may affect the sexual maturation processes, and their implications for health and the adolescents' family life education and counselling were studied. A cross-sectional evaluation of the age of the attainment of secondary sexual characteristics among secondary school students in Ibadan North Local Government Area, using a questionnaire study instrument was undertaken. The results show that the mean ages have not changed much for the general population when compared with previous studies. The values ranged from 12.2 years for the rapid growth spurt to 15.4 years for the sexual awakening. Mean age of the menarche was 13.2 years, similar to existing data. However, the interval between the onset of platonic heterosexual interest and sexual awakening was 0.9 and 0.4 years intervals in the boys and girls respectively. The obvious implications of the later for adequate sexual health and family life education for the youths are discussed.

**Keywords:** Sexual maturation, adolescents, family life education, sexuality

### Introduction

There is widespread impression that the age of sexual maturation is dropping among the youths in the developing countries, Nigeria included. This impression would however appear to be most with the children from the upper socio-economic groups in the country in private primary and secondary schools. There is also growing data on adolescent sexual health problems in the country including pre-marital intercourse, sexually transmitted diseases, abortion and related issues (Isiugo-Abanihe, 1993; Akinyele & Onifade, 1996). These have led to efforts at sex and family life education programmes of different types (Akintayo, 1988; Asuzu *et al*, 1989). Experiences and survey results show that though parents appear to be the best placed and preferred by the youths to do this, very few of them give this education appropriately to their children (Asuzu *et al*, 1989).

The delivery of adequate family life education

to the youths however requires appropriate understanding of the psychology as well as the needs of the adolescents themselves. For example, there are arguments and discussion about the right age to introduce formal sexuality education to the youths. This cross-sectional study was undertaken to help our understanding of the pattern of development of the secondary sexual characteristics among students in public secondary schools in Ibadan North Local Government with emphasis on heterosexual interest and the sexual awakening.

### Materials and methods

The study was conducted in two out of the 22 public secondary schools in Ibadan North Local Government Area, selected by a simple random sampling method following appropriate community entry procedure. Both schools were mixed (boys and girls) secondary schools. The research instrument was a questionnaire adapted from the previous inventory developed by Akinboye (1982) and pretested among students for

construct validity in another secondary school not used in the study, after content validation with specialists who work with adolescents. Most of the questions were completely structured while a few were open ended.

The questionnaire consisted of three sections, on socio-demographic, attitudinal and experiential maturation events recall and was administered to two classes of the senior secondary II students in the schools in a class room setting. Explanations of the questions were given to the students as needed. The students were clearly instructed that the study was voluntary and their responses will be treated in strict confidence.

Ninety-three of the ninety-six students filled the questionnaire well enough to be used for analysis. The responses in the questionnaire were scored and collated for analysis.  $X^2$  or t-tests were used for the nominal and continuous variables generated respectively.

## Results

Tables 1 and 2 show the mean ages at which the students experienced the different adolescent developmental milestones. Even though the girls experienced milestones earlier than boys, the age difference is not up to the two years reported by Oduntan *et al.*, 1976. Table 3 shows the comparison of the equivalent or possibly equivalent developmental milestones in the boys and girls. Only armpit hair development and breast development in boys and girls as well as voice deepening in the boys showed statistically significant difference. The first seminal emission in the boys and menarche in girls did not show statistical difference in the ages of their occurrence.

The students indicated 17 (girls) and 18 (boys) years as preferred ages for sex education (Table 4). These ages are equally three years after their last ages of occurrence of any of the secondary sexual developments. They also indicated 24 (girls) and 21 (boys) years as intended ages (to begin) to have sexual intercourse. The later is statistically

Table 1. Mean age attainment of secondary sexual characteristics in adolescent secondary school boys

Sexual Characteristics	No of respondents	Mean age(SD)
Rapid growth spurt	28	12.7 (2.5)
Hair on the pubes	26	13.0 (2.4)
First Seminal emission	23	13.7 (2.9)
Armpit hair development	24	13.8 (2.2)
Breast development	23	14.0 (2.2)
Heterosexual (platonic) interest	21	14.3 (4.0)
Deepening of the voice	24	14.9 (3.3)
Desire for sexual intercourse	17	15.4 (3.9)

Table 2. Mean age attainment of secondary sexual characteristics in adolescent secondary school girls

Sexual characteristics	No of respondents	Mean age(SD)
Rapid growth	60	12.2 (2.0)
Breast development	61	12.3 (1.6)
Public hair growth	55	12.5 (1.8)
Armpit hair growth	60	12.6 (2.0)
First menses	50	13.2 (1.8)
Growth in the hipline/buttock	38	14.1 (3.1)
Heterosexual (platonic) interest	30	14.5 (2.7)
Desire for sexual intercourse	26	14.9 (2.9)

Table 3. Age comparison of onset of pubertal development in boys and girls

Factor compared	Means (boys)	Means (girls)	t-value	P-value
Rapid growth spurt	12.7	12.2	0.8982	0.371
Pubic hair growth	13.0	12.5	0.9070	0.367
Seminal emission/menses	13.7	13.2	0.9857	0.367
Armpit hair development	13.8	12.6	2.3166	0.023*
Breast development	14.0	12.3	3.8990	0.002**
Heterosexual interest	14.3	14.5	-0.2305	0.819
Desire for sexual intercourse (libido)	15.4	14.9	-0.4899	0.627
Voice deepening (M) & menses (F)	14.9	13.2	2.9125	0.005**
Seminal emission (M) & buttock growth (F)	13.7	14.1	0.3971	0.6927
Voice deepening (M) & buttock growth (F)	14.9	14.1	1.0296	>0.2

\*significant \*\*highly significant M: Male F: Female

tistically significantly different. In relation with preferred person to teach sex education, 48% of girls (48%) preferred parents to do so while 76% of boys (76%) opted for medical doctors (Table 5). Whereas the mean ages of heterosexual (platonic friendship) interests were 14.5 years (Table 2) for girls and 14.3 years for boys (Table 1), the erotic sexual awakening and desire developed at 14.9 years for girls and 15.4 years for boys.

Table 4. Youth's expectations of applied sexuality

Index	Boys (SD)	Girls (SD)	t-value	P value
Mean age of intended coitus	20.6 (4.3)	23.9 (4.6)	2.6242	0.0109*
Mean age desire for sex education	18.0 (4.7)	17.1 (3.4)	-	0.3510

Table 5. Preferences for sexuality and sex education

Index	Boys	Girls	$X^2$ value	P value
Prefer parents to teach sex education	14%	45%	8.78	0.0030**
Prefer doctors to teach sex education	76%	31%	12.17	0.0005***
Gave reasons for unanswered questions	10%	24%	1.81	0.1782

\*\*highly significant \*\*\* extremely significant

## Discussion

The mean ages of the secondary sexual characteristics among the low and middle class of Nigerian adolescents does not seem to have changed much, contrary to the general impression. Previous researchers (Oduntan *et al.*, 1976) had shown that the mean age of menses was about 13 years as confirmed by this study. It is probable that the generally observed trend of earlier sexual maturation ages is limited to the upper socio-economic classes of the society. The earlier ages of the onset of the secondary sexual characteristics by two years in the girls indicated in most western data in these regards are not demonstrated in this study. More studies are needed to further explore this in the local environmental especially in adolescents from higher socio-economic groups. Only breast development showed as much difference in this study.

Although, coital experience was not inquired about in this study but the age at which the students expect to start having sexual intercourse indicated ages which would seem to correspond with the boys expected ages of legal adulthood and the girls marriage (25 and 24 years) respectively. This expectation needs to be explored further in future studies as it has implications for sexuality and family life education for the youths. The ages indicated for "sex education" (18 and 17 years) is rather far away from the ages of their sexual maturation and near their indicated ages of commencing genital sexual intercourse. This suggests that they understand "sex education" properly to be coital education rather than the total approach to sexuality education which is often confused with coital experience in day to day usage. This is particularly so in case of the boys. One factor which indicates the need for formal sexuality education (including coital education) as early as the adolescent developmental onset is the closeness of heterosexual platonic interest with erotic interests, most especially in the girls; implying a need for appropriate non-genital sexuality education before this time as the case may be, especially for the chastity-based programmes. Traditional culture, taboo and a possibly uneducated modesty may be helping the girls to merely suppress the libidinous arousal indicated in this study as a cultural sexuality phenomenon. But proper sexuality education will be needed to enable the youths tease these apart and let each interest to be handled healthily as ought whether these include coitus or not.

In a previous study, Asuzu (1989) reported that students and indicated that parents do not fulfil the need for their education in sexuality (including coitus) and family life. The preference of the boys for doctors to do this may partly be from this reason, but it may also be because they understand sex education to be a free coital education, unrelated to marriage and family life as the girls would seem to be indicating. Encouraging must be given to parents, as well as programmes developed for them, to be able to learn how to give this education to their youths, especially the girls.

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