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REPRODUCTIVE AWARENESS BEHAVIOUR AND PROFILES OF ADOLESCENT POST ABORTION PATIENTS IN BLANTYRE, MALAWI
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ABSTRACT

Background: **Adolescent sexuality and its sequelae are now acknowledged as major public health, social and economic problems in Malawi, for which appropriate programmes and services are being designed and implemented.**
Objectives: **To identify the profiles of adolescent post abortion patients, their reproductive and contraceptive knowledge and factors related to the index pregnancy.**
Setting: **Queen Elizabeth Central Hospital, Blantyre, Malawi.**
Design: **Cross-sectional, descriptive study.**
Methods: **All adolescents treated for incomplete abortion, January to December 1997 were eligible. Data was collected by means of interviewer-administered questionnaire, one for each, during reproductive health education and/or post abortion contraceptive counselling and service provision. This was subsequently analysed using EPI-INFO 6.0 data analysis packages.**
Results: **Of the 465 adolescents treated during this period, 446 (95.9%) were enrolled in the study. Their mean age was 17.5 years (SD 1.3), that at menarche and sexual debut 14.3 years (SD 1.4) and 15.7 years (SD 1.75) respectively. The unmarried adolescents formed 43.9%, while students comprised 38.6% of the total. Their level and accuracy of knowledge on reproductive biology was poor. While their contraceptive knowledge was high, its use was very low, 70.9% vs 9.5% respectively. The number of sexual partners one had had ranged from 1 to 10 with a median of 1. The index pregnancy was reportedly unwanted by 45.1 %. The young (< 16 years), more educated, single and students were more likely to have unwanted pregnancy.**
Conclusions: **Sexual activity starts early in Malawi, with poor contraception, thus predisposing to unwanted pregnancy. Lack of appropriate reproductive awareness appears to be partly responsible for that. These need to be addressed through the national reproductive health programmes and services.**

INTRODUCTION

Although adolescence is one of the most crucial periods in ones life, little attention has until fairly recently, been devoted to the reproductive health care for adolescent boys and girls, especially in sub-Saharan Africa, Malawi included. This has partly been due to the fact that the concept of adolescent reproductive health and care thereof are relatively new. Secondly the context within which adolescent sexuality, pregnancy and childbearing occur, has undergone dramatic changes over the past two decades or so (1-3). Thirdly, the HIV/AIDS epidemic and sexually transmitted infections (STI's), to which adolescents are particularly vulnerable, have raised awareness of their health concerns leading to an acknowledgement for the need for specific services for them (2,4-7). Disintegration of the social fabric and emergence of a new culture, especially among the growing urban population, has made people re-think about the whole issue of adolescent sexuality and sequele thereof.

Adolescents (10-19 year olds) form a sizeable and increasing proportion of the population in Malawi (8-10). According to the 1987 National census, adolescent females comprised 44.2% of all females in the reproductive age bracket (10-49 years) (8).

Studies conducted in Malawi have shown that sexual debut amongst females occurs quite early. Weiss *et al*. reported a mean age of 13.6 years (4), while Lema *et al.* reported a mean sexual debut age of 15.7 years (11). The MDHS showed that 27.3% of adolescents were already mothers and 7.4% were pregnant with their first child then. It also showed that by15 years of age about 5.7% of the adolescents were already mothers, a proportion which increased to 55.2% by age 19 years (12).

Sexuality amongst adolescents is often complicated by unplanned/unwanted pregnancy due to poor or lack of contraception. Induced unsafe abortion is subsequently used to resolve the resultant pregnancy for social, cultural, economic as well as personal reasons (13-15).

In acknowledgement of the impact of adolescent sexuality such as unplanned and unwanted pregnancies, abortions, sexually transmitted infections, HIV/AIDS and school drop-out, the Malawi government has established a reproductive health unit, whose one of its responsibilities is to address the above concerns. The unit is in the process of getting its act together. To facilitate its work as well as that of other potential players, appropriate and locally relevant data as well as information will be crucial.

This study was therefore designed with the foregoing in mind. It was aimed at identifying the level and accuracy of knowledge on reproductive biology, reproductive behaviour and profiles of adolescent post abortion patients treated at the Central Teaching Hospital, Blantyre, Malawi, which handles the largest number of post abortion patients in the Country. It is one in a series of planned research activities on adolescent health in Malawi, whose findings are thought will contribute to the growing body of information on adolescent health and fertility in Malawi, thus guiding the policy makers, programme workers and supporting international donor agencies appropriately in their programmes

MATERIALS AND METHODS

This was a descriptive, cross-sectional study involving adolescents (10-19 year olds), post abortion patients managed in the gynaecological ward of the Queen Elizabeth Central Hospital, Blantyre, Malawi. The hospital serves as a district hospital for Blantyre, with a population of about 800,000 inhabitants or 8.0% of the total national population. It is also the regional referral hospital for the Southern Region of Malawi, the largest of the three in terms of size and population, as well as the university teaching hospital for the only medical school in the Country. It is the biggest hospital nationally in terms of bed capacity and occupancy rates, the variety of disease conditions and patterns seen and treated, and number of health professionals. Patients come from within the district, region as well as other regions of Malawi. Patients are also received from Mozambique, which surrounds Malawi to the east, south and west. Patients are usually self-referred, as this is the only public hospital in the district and services are free of charge. It therefore serves people from the low and middle socio-economic levels.

The study was conducted between January 1, and December 31, 1997, both days inclusive. All adolescents treated for incomplete abortion or conditions therefof were eligible. Each was approached individually during health education talks or post abortion contraceptive counselling, which has now become a standard practice in our unit. Explanation on the nature of the study, its purpose and potential benefits to herself and other adolescents in Malawi and the Region. She was then requested to participate in it. A verbal consent was considered adequate for this study.

They were assured of total anonymity and confidentiality of information divulged in the course of the interviews. They were told that they had a right to refuse to participate in the study at any stage of the interviews if they so wished, and that this would not in any way influence the care they would receive, while in the ward or afterwards.

Those who agreed to participate in the study were interviewed by a research Nurse on their socio-demographic profiles, reproductive awareness and behaviours; contraceptive awareness and use. They were also asked about their past obstetric histories and whether the index pregnancy was wanted or not. The information was recorded on partially structured questionnaires, one for each subject.

The data was then analysed using EPI-INFO 6.0 data analysis package. The student t- test of significance was employed with a p-value of <0.05 considered significant, where applicable.

RESULTS

During the period of study, 1685 women of different reproductive age groups were treated for incomplete abortion and its complications in the unit. Of these, adolescents (10-19 years) comprised 485 (27.6%). Those who agreed to participate in the study and therefore formed the study group were 446 (95. 9%). The other 19 (4.1 %) did not for various reasons, which included being too sick (1.1 %), refused to (1.7%), or died before they could be interviewed (1.3%).

Socio-demographic profiles: Their ages ranged from 13 to 19 years with a mean of 17.5 years (SD 1.3). Those aged less than 18 years (i.e. minors) were 44.5% of the total (Figure 1). About one third, 134 (30%), had attained secondary school level of education, but only 0.4% had college education. Almost half (47.5%) of the total group had attained upper primary school level of education, i.e between standard five and eight. The married were 56. 1 % and single 43.7%. About two-fifths (38.8%) of the study group were students (Table 1).

Reproductive awareness: The adolescents were asked to mention the time in their menstrual cycles when it was safe for them to have sexual intercourse with the lowest risk of conceiving. Of the ones who responded (n=439), only 12.8% gave correct answers. The others gave varying responses, none of which was correct. The single and more educated adolescents (especially those with secondary school education), were more likely to give correct responses ($p<0.001$). They were also asked if they thought a girl could conceive during the very first sexual act if she does not use contraception. Less than a third (27.4%) said yes. Of the others, 51.8% said it was not possible, while the remaining (21.0%) did not know, i.e. they were non-committal.

As regards the source of menstrual blood, only 23.5% could give a correct answer. Of the others, 27% said it comes from the ovaries; 36.8% said the vagina, while the rest did not give an answer, i.e. they did not know. The adolescents who had secondary school level of education had better knowledge compared to the others. When asked where in the women's body the foetus (baby) develops, less than a half (40.1 %) said the womb. Of the others, 28.0% said they did not know, while 31.9% said it was the abdomen -"mmimba" in the local dialect. There was no relationship between their marital status and their knowledge (Table 2).

Figure 1

Distribution of the adolescents by their ages

Table 1

Distribution of the adolescents by their socio-demographic profiles

	No.	%
a) Highest level of education attained (n=446)		
None	23	5.2
Lower Primary (Std 1-4)	75	16.8
Upper Primary (Std 5-8)	212	47.5
Secondary	134	30.0
Post Secondary College	2	0.4
b) Marital Status (n=446)		
Single	195	43.7
Married	250	56.1
Widowed	1	0.2
Separated/Divorced	0	0.0
Cohabiting	0	0.0
c) Current Occupation (n=446)		
None	27	6.1
Self-employed	2	0.4
Casual/Domestic worker	5	1.1
Professional employment	2	0.4
Students	172	38.6
Housewives	238	53.4

Table 2

Distribution of the adolescents by their knowledge on reproductive biology

	No.	%
a) Safe days (n=448)		
Correct answer	56	12.6
Wrong answer	383	85.9
No answer	7	1.5
b) If a girl can conceive with first sexual contact (n=446)		
Yes	122	27.4
No	230	51.6
Didn't Know	94	21.0
c) Source of Menstrual Blood (n=446)		
The uterus (womb)	105	23.5
The ovaries	124	27.8
The vagina	184	38.8
Didn't Know	53	11.9
d) Where the foetus develops (n=446)		
The uterus (womb)	179	40.1
The abdomen	142	31.9
Didn't Know	125	28.0

The adolescents were asked to name any method of contraception they knew of. A total of 316 (70.9%) knew at least one method. The rest, 130 (29.1%) did not know any method. The most known methods were the oral pills, 78.5%; the male condoms, 76.6%; DMPA, 62.0%; IUCD 32.3% (Table 3). The married adolescents were more likely to know more methods than the single. The same was true of the older adolescents (i.e. those aged 18 years and above). However, one's level of education did not appear to influence her contraceptive knowledge (p=0.06).

Regarding the sources of information on contraception and methods thereof, the clinics (health facilities) were the main, followed by the radio, friends, and relatives such as mothers, sisters and aunts. Their male partners and newsprint played a very small role in this aspect (Table 4). The single adolescents tended to have heard more from friends, while the married had heard from clinics and family relations. Some patients had heard from more than one source.

Table 3

Distribution of the adolescents according to their contraceptive knowledge and use

Contraceptive	Knew (n=316)		Used (n=30)	
	No.	%	No.	%
Oral Pills	248	78.5	6	20.0
Male Condoms	242	76.6	17	56.7
DMPA	196	62.0	2	6.7
lUCD	102	32.2	0	0.0
VSC	34	10.8	0	0.0
Traditional	31	9.8	2	6.7
Norplant	16	5.1	1	3.3
Female Condoms	15	4.7	1	3.3
Safe Days	7	2.2	3	10.0

Table 4

Distribution of the adolescents according to their contraceptive knowledge

Source	No.	%
Health facilities/Staff	231	73.1
Radio	106	33.5
Friends	96	30.4
Relatives	85	26.9
Partners/Spouses	67	21.2
Newsprint	15	4.7

(iii) Reproductive behaviour: Their ages at menarche ranged from 10-18 years, with a mean of 14.3 years (SD 1.38). Of the total study group (n=446), 57.0% had attained menarche at age 14 to 15 years (Figure 2). There was no relationship between one's level of education, marital status or occupation and age at menarche (p=0.06).

The ages at sexual debut (i.e. first penetrative sexual intercourse), ranged from 5 to 19 years, with a mean of 15.7 years (SD 1.75). A total of 42.8% had started coitus at 15 years of age or less, while 50.7% had done so at age 15-16 i.e. 1 to 2 years after the mean age at menarche (Figure 3).

Table 5

Distribution of the adolescents by their obstetric histories

Number	Gravidity		Parity		Living children		Previous abortion	
	No.	%	No.	%	No.	%	No.	%
1	314	70.4	98	74.2	58	82.9	40	64.5
2	80	17.9	30	22.7	12	17.1	15	24.2
3	40	9.0	4	3.1	-	-	-	-
4	12	2.7	-	-	-	-	-	-
Total	446	100	132	100	70	100	62	100

The older adolescents (> 16 years old) had started coitus comparatively later than the younger ones (p<0. 001). Likewise the more educated adolescents tended to start coital liaisons later than the less educated (i.e. primary school level and below) (p<0.001). However there was no relationship between ones marital status and the age at sexual debut (p=0.11).

When asked how many sexual partners they had had since they started sexual relationships, the number ranged from 1 to 10, with a mean of 1.54 (SD 0.86). Of the married adolescents, 40.2% had had two or more sexual partners, while 38.7% of the single adolescents had had the same number of sexual partners (p=0.67). There was no relationship between ones level of education and number of sexual partners, as 40.5% of those with upper primary school level of education and 43.2% of those with higher level of education had two or more sexual partners (p= 1.0).

Of the adolescents who knew at least one method of contraception, (n=316), 30 (9.5%) had ever used one of the methods available in Malawi. The methods used mostly included the male condoms (56.7%) oral pills (20.0%), safe days (10.0%); and DMPA (6.7%). The older the adolescent the more likely she was to have used contraceptives. The same was true of the married, when compared to the single adolescents (p<0.001). All the adolescents who had used DMPA were married, while the single had used the male condoms mainly. Their knowledge on specific contraceptive methods did not appear to influence its use (Table 3).

iv) Obstetric histories index pregnancy and abortion: Their gravidities ranged from 1 to 4, with the majority (70.4%) being gravida 1. The number of living children ranged from none to two. Amongst the parous adolescents, 70 (53.0%) had living children. Of those who were gravida 2 and above (n=132), 62 (47.0%) had had at least one previous abortion, with 64.5% of them having had one, and 11.3% had three previous abortions (Table 5). Amongst the single adolescents, (n = 195), 32 (16.4%) were gravida 2 and above, of whom 20 (62.5%) had one previous abortion. Of the students (n= 172), 25 (14.5%) were gravida 2, of whom 12 (48.0%) had one living child, and the rest, 13 (52.0%) had one previous abortion. The older the adolescent the more likely she was to have had at least one previous pregnancy and/or abortion. Likewise, the married and less educated adolescents were more likely to have had at least one previous pregnancy than their counterparts (p=0.02).

As to whether the sexual encounter which might have led to the index pregnancy was wanted or not, 379 (85.0%) said it was. Of those who said it was not (n=67), 86.6% reported that they were either assaulted or forced to have sexual intercourse by someone well known to them, 10.4% did it just to please the man/boy or themselves ("for pleasure"), while the rest (3.0%) did it because they were promised and/or given something in return for the sexual favours such as money or clothes. The older adolescents (> 16 years), were more likely to have planned and/or wanted the sexual liaisons than the younger ones (p=0.02). The same was true for the married adolescents, 91.5% of whom said the coitus was planned wanted compared to 77.8% of the single (p<0.001). On the other hand, students were less likely to have planned or wanted to have sexual intercourse than the housewives (p=0.003).

As to whether the resultant (i.e. index) pregnancy was wanted or not, 201(45.1%) said it was not. Of these, 178 (88.8%) were single. Only 23 (9.2%) of the married adolescents said the pregnancy was unwanted (p=0.001).

Figure 2

Distribution of the adolescents by their age at menarche

Figure 3

Distribution of the adolescents by their age at sexual debut

DISCUSSION

The results of this study support earlier observations in Malawi as well as elsewhere in the sub- Saharan Africa region that female adolescent sexual debut occurs at relatively young ages. In our adolescent antenatal clinic at the same institution, the youngest expectant mother to date was a 12 year old schoolgirl. According to the patient's history, her conception had occurred before she attained menarche. The youngest parturient mother seen in our unit was an 11 year old school girl in 1997(16). This implies that the first penetrative sexual intercourse must have occurred at least nine months prior to that time i.e. when she was about 10 years old. Weiss *et al.* (4) reported that the mean age at sexual debut was 13.6 years while Lema *et al.* (11) reported a slightly higher mean age of 15.7 years (4,11). Studies in Zimbabwe, Malawi's more affluent neighbour, by Mahomed *et al.*(17) and Mbizvo *et al.* (16) have shown more or less similar mean ages at sexual debut. Such early sexual behaviour raises a lot of concern about the long-term impact on the reproductive health and well being of the individuals. The increased risk of acquiring STI's, HIV/AIDS and development of cervical cytological abnormalities, which are equally common in Malawi, have been associated with early sexual intercourse (2,4,5).

A good proportion, (43.7%), of the sexual activity and the resulting pregnancies were premarital. A slightly less proportion of the adolescents, 38.6%, were students. The sexual liaisons take place in an environment of very poor and/or inappropriate levels of reproductive health knowledge. As shown by the study's findings, only 12.8% of the study group knew the safe days correctly; 27.4% knew that they could conceive even with the first sexual contact; 23.5% knew the source of menstrual blood, while a slightly higher proportion, 40%, knew where the foetus develops in a woman's body. Other studies in sub-Saharan Africa and elsewhere in the developing world have shown more-or-less similar knowledge deficits (1,6,7,14,17,18). This is partly due to lack of well-structured reproductive health educational programmes in schools, the disintegration of the hitherto well-organised and effective traditional and culturally relevant programmes through which adolescents were taught by respected/chosen elders or relatives about sexual and other reproductive health matters, as well as safely inducted into adulthood.

While the level of contraceptive awareness was relatively good, though lower than the overall national level (12), a negligible proportion had ever-used modern contraceptives. Other studies in Malawi and the region have shown similar disparities between the levels of knowledge on contraceptives and their use (6,17-19).

A good proportion of the adolescents had had several sexual partners in such a short span of their sexual reproductive life, the highest number being ten. It is most probable that the majority of these sexual activities were without protection against STI's, and HIV infection. One wonders how many they will eventually have had by the end of their reproductive careers, considering the amorphous nature of marriages and instability thereof (1,2,12).

About 30% of the adolescents had had previous pregnancies, the highest number being three. Of these, 53% had living children, while the rest, 47% had had at least one previous abortion. Although we cannot say which and how many were induced, if what has been documented in other studies in the region is any guide, a good number of these abortions were most likely unsafely induced.

Although the study group comprised adolescents who had reproductive health-related problems and therefore exclude those who may be sexually active and not necessarily pregnant or had aborted, the results paint a disturbing picture all the same, regarding adolescent reproductive health in Malawi. Blantyre being the Commercial Capital City, the biggest and most affluent of all areas, one would have expected higher levels of reproductive awareness and access to services such as contraceptives. If the levels are so low in Blantyre, it is not hard to imagine that they must be much lower in the less privileged areas of the country and therefore poorer adolescent reproductive health indices.

The above scenario does not augur well (or the future demographic, social and economic development at the individual, family, community or national levels in Malawi. It will only serve to compound and perpetuate the existing level of poverty if not worsen it (10). The need to address adolescent fertility issues in Malawi is therefore very real and urgent.

The government has made a lot of efforts in addressing various issues related to adolescent reproductive health. Notable amongst these is allowing pregnant adolescents a chance to continue with education once they have delivered and if they so wish. As indeed noted in this study, several of the school going adolescents had children. It is the hope of the government that this will break the vicious cycle of poverty and dependence as well as repeat adolescent pregnancy and abortion. These efforts are still not widely available nationally and there is some opposition from certain quarters to some of the programmes. However it is a good start which with wider coverage and support will hopefully reverse the gloomy picture noted in this study.

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