

Integrating Syndromic Case Management of Sexually Transmitted Diseases into Primary Healthcare Services in Nigeria

*Banwat E B, *Egah D Z, *Peter J, **Barau C, **Majang Y, **Mafuyai S, ***Imade G E, ****Bukbuk D N

*Departments of; Medical Microbiology, **Nursing Services, ***Obstetrics and Gynaecology Jos University Teaching Hospital, Jos, Nigeria. ****Department of Microbiology, University of Maiduguri, Nigeria.

Abstract

Background: Sexually transmitted diseases (STDs) are a huge public health problem; both the aetiological and clinical approaches to management have limitations. WHO has therefore developed an alternative strategy-the syndromic case management approach. This paper reports a training of healthcare providers at the Primary Health Centers aimed at integrating STD care into other services in the PHCs to improve management at the community level.

Methods: Sixteen nurses, from eight PHCs were trained on this new strategy. The training included: identification of STDs, use of flow charts, patient education and counseling, clinic management issues and record keeping and reporting.

Results: Over a period of eight weeks post training, about 731 clients were attended to, 451 (61.7%) had signs and symptoms of various STDs (genital discharge, genital ulcer, genital warts and lower abdominal pains). They were treated using the syndromic case approach. About 18.6% (84/451) were males and 81.4% (367/451) were Females. Singles (never married) constituted 32.8% (148/451) while 28.6% were married. About 26.6% and 12.0% were divorced and separated respectively. Age group 20-35years was at highest risk of infection

Conclusion: Syndromic case management of STDs can be conveniently integrated into the primary health care delivery system in Nigeria.

Key words: Syndromic Management, STDs, Primary Health Care.

Date Accepted for publication: 2009

Nig J Med 2009; 215-218

Copyright ©2009 Nigerian Journal of Medicine

Introduction

Sexually transmitted diseases (STDs) are a huge public health problem, with 340 million cases per year¹. A high incidence and prevalence; a high rate of complications; an alarming problem of antimicrobial resistance; and HIV transmission² characterize the STD epidemic in the developing world. While the problem of STDs is clearly global, they are a particular problem in developing countries where they cause considerable morbidity and mortality². The direct and indirect costs are enormous. Sub-saharan Africa is particularly affected and it ranks first in STD yearly incidence when compared with other regions of the world³. One of the most important public health challenges for Africa now is to make an immediate impact on the STD epidemic with effective and comprehensive integrated activities.

The existence of an association between STDs and HIV infection has been observed since the mid-1980s⁴. Data from a large number of biological and epidemiological studies conducted in four continents provide compelling evidence that STD is a cofactor for HIV transmission⁴. This suggests that STD control has the potential to play an important role in the reduction of sexually acquired HIV transmission. Managing STDs and altering the behaviour that leads to STDs are essential elements of any HIV prevention and management programme⁵.

Traditionally, the establishment of a definitive aetiological diagnosis and provision of appropriate treatment are regarded as the ideal approach in medicine. Unfortunately even in well-organized settings, aetiological diagnosis of STD may be problematic, as it places constraint on time, resources, costs and access to treatment. It may well be unsuitable for those health units lacking experienced health personnel and/or laboratory facilities. This is undoubtedly the case in many peripheral African hospitals and clinics⁶. To address the limitations of both the aetiological and clinical approaches to management of symptomatic

STDs, WHO developed and advocated an alternative strategy, defined as the syndromic case management approach⁷.

The syndromic case management approach uses a constellation of patient symptoms and clinical signs to determine antimicrobial therapy. Antimicrobial combination therapies that will cover the major pathogens responsible for the causation of a syndrome in the geographic area are chosen for the treatment. WHO has developed a series of flow charts or clinical algorithms for the standardized management of the STDs. To maximize the specificity and effectiveness of these charts, there is need to tailor them taking into consideration local conditions.

Early diagnosis and care of STDs integrated into other services is one of the most cost effective strategies to prevent HIV spread. For example, a randomized trial in Tanzania showed that strengthened STD case management of symptomatic persons, using the syndromic approach provided through the existing primary health care (PHC) system, led to an estimated 40% reduction in HIV incidence over two years in a general adult population⁸.

We set out to improve STD management by strengthening STD case management using the syndromic case management approach in eight Primary Health Centers (PHCs) in Nigeria.

Materials and Methods

The study was carried out in Plateau State, North central Nigeria. The state has a population of 622,873 and consist of 17 Local Government Areas (LGAs) including Jos north LGA the site for this study. Jos North LGA is the northern part of the state capital.

The programme started with advocacy visits to the local government authorities. This was followed by the training of primary health care providers on the national guidelines on STD syndromic management and counseling and the commencement of program at the PHCs. Lastly, regular Supervisory visits to the PHCs were embarked upon.

Advocacy visits to the local government authorities

The authors carried out five advocacy visits to the Jos North local government headquarters. The local government authorities were informed of the need for the program and their support and commitment towards the program was solicited.

Training of primary health care providers on the national guidelines on STD syndromic management and counseling and commencement of the program at the PHCs

The aim was to improve the knowledge and skills of the healthcare providers and the quality of STD care. Sixteen nurses, two each from the eight Primary Health Centers (PHCs) located in Jos North Local Government Area were trained for five days in November 2004 on the national guidelines on STD syndromic case management and counseling. The training consisted of 25 sessions that included: identification of STDs, use of flow charts, patient education and counseling, clinic management issues and record keeping and reporting. Resource persons were specialist in their various fields. These included; STD clinicians, counselors, and medical records officers. Before and after the training, pre- and post-test evaluations were respectively conducted for all the 16 participants. This was to test the knowledge and skills of the participants before and after the training. The same questions were used for both exercises.

Drugs used in the syndromic case management were provided free to the eight PHCs for the program. To ensure the continuity of the programme, sufficient notice was usually given us by the trainees to get the stock levels of their drugs replenished.

A referral system was established between these centers and the STD clinic at the Jos University Teaching Hospital, so that those patients with complicated STDs were referred to the clinic for further treatment.

After the training participants embarked on mobilization visits to the communities they provide services to, informing them of the availability of such services at the PHC facility.

Patients who presented with symptoms suggestive of STDs were interviewed and examined. A twenty-five minute questionnaire was administered on each of the subjects to document baseline information concerning their personal data and knowledge about STDs.

Regular Supervisory visits

Regular unscheduled visits to the PHCs were made to monitor and evaluate the program. It was also to make contributions and changes where necessary.

Ethics

Ethical approval for the study was obtained from the Jos University Teaching Hospital Ethical Committee

and the Institute Review Board (IRB) of Harvard School of Public Health, USA.

Results

The performance of the participants in the post-test evaluation showed a remarkable improvement in their knowledge and skills over the pre-test evaluation. This was based on the higher mean score recorded in the post test results compared with the pre test results and also the written comments of the participants at the end of the training.

Over a period of 8 weeks between January and February 2005, a total of 731 clients presented at the PHCs for the services. After assessment 451 (61.7%) had signs and symptoms of STDs and were managed with the syndromic case management approach. About 18.6% (84/451) were males and 81.4% (367/451) were Females. Singles (never married) constituted 32.8% (148/451) while 28.6% were married. About 26.6% and 12.0% were divorced and separated respectively. (Table I).

The types of syndromes seen at the PHCs were genital discharges, genital ulcers, genital warts and lower abdominal pains. The distribution of the different syndromes by age group, sex and marital status is shown in table I. Age group 20-35years was at highest risk of infection.

Data was analyzed using Epi-info, version 3.3.

Table I: Distribution of STD Syndromes by Age, Sex and Marital Status in Primary Healthcare Centres in Nigeria

AGE	STD SYNDROME				Total	Cases
	GD	GU	GW	LAP		
10-14	0	1	1	0	2	(0.3)
15-19	9	11	14	9	46	(6.3)
20-24	41	23	58	23	149	(20.4)
25-29	27	15	32	19	98	(13.4)
30-34	29	23	21	20	94	(12.9)
35-39	13	11	18	4	50	(6.8)
40-44	5	2	3	2	12	(1.6)
45-49	4	2	4	3	13	(1.8)
e50	1	1	1	1	4	(0.5)
TOTAL	129	89	152	81	451	
	N=731	(17.6)	(12.2)	(20.8)	(11.1)	(61.7)
SEX						
Male	27	23	34	0		
n=84	(32.1)	(27.4)	(40.5)	(0.0)		
Female	102	66	118	8		
n=367	(27.8)	(18.0)	(32.2)	(2.2)		
MARITAL STATUS						
Married	37	21	51	20		
n=129	(28.7)	(16.3)	(39.5)	(15.5)		
Separated	15	14	18	7		
n=54	(27.8)	(25.9)	(33.3)	(13.0)		
Divorced	33	29	32	26		
n=120	(27.5)	(24.2)	(26.7)	(21.7)		
Single	44	25	51	28		
n=148	(29.7)	(16.9)	(34.5)	(18.9)		

KEY: GD= Genital Discharge; GU=Genital Ulcer; GW=Genital warts; LAP=LowerAbdominal Pain. Parenthesis= percent

Discussion

The International Conference on Population and Development held in Cairo in 1994 recommended that all countries should make reproductive health care, including 'treatment of reproductive-tract infections, STDs, and other reproductive health conditions' accessible to individuals.⁹ Integrating quality STD care by training healthcare providers at the PHCs should achieve this objective. Our experience showed that the health care providers were enthusiastic about the training and participated actively with very good attendance at the sessions. The knowledge and skills acquired by the participants was translated into effective STD care at their various health facilities.

The unscheduled visits afforded us the opportunity to assess the uptake of the program at interview and examination sessions and how the flow charts are applied. The health providers usually take to the corrections offered at such sessions. The corrections were minimal and the frequency reduced with each visit. The referral system was well utilized as they referred difficult cases to the STD clinic in teaching hospital. The patient turn-out showed that the strengthening of the PHCs would increase access to STD care at the PHC level. This might be due to the fact that; PHCs are easily accessible to clients at the community level, improved skills and knowledge of health providers and reduced associated stigma since it is integrated into other services. These are known difficulties associated with integrating STI into other services¹.

Females accessed the service more than males. The PHCs are mostly biased towards maternal/child health and family planning services which are services patronized by women. In addition it has been reported that in sub-Saharan Africa up to 40% of women attending antenatal clinic have an STD.^{10, 11} The age group of 20-35 years and singles (never married) were more at risk of STDs. This is due to the sexually active nature of these two populations.

The program was ended when trained the trained staff were transferred to other sites by the local government commission. The major difficulty recorded was that of contact tracing, even when suitable methods were employed.

Also the syndromic approach does not address the issues of sub-clinical and asymptomatic STDs or the poor treatment seeking behaviour by individuals with STD symptoms. Therefore additional strategies are needed such as public education to promote awareness of STD symptoms and improve treatment seeking

behaviour; access to treatment for symptomatic individuals; screening for asymptomatic infection and presumptive treatment of partners of index cases.

On the whole, with proper supervision, syndromic case management of STDs as a component of STD control can be conveniently integrated into PHC delivery system in Nigeria

Acknowledgement

We are grateful to the Bill and Melinda Gates foundation for providing the grant for this study.

We want to specially acknowledged the contribution of the following key persons for the various roles they played in the course of this study: Professor P. Kanki, Professor J. Idoko, Dr. J.L. Sankale , Dr. A.S. Sagay , Dr. S. Pam, Dr. SH. Kapikga and W.Odotulu.

We also want to thank the authorities of Jos University Teaching Hospital, University of Jos and Jos North Local Government Council and staff of PHCs for their various supports.

References

1. Broutet N. World epidemiology of sexually transmitted infections. Training course in reproductive health. Sexual health research, WHO Geneva March 2006.
2. Islam MQ. Sexually transmitted diseases in the 1990s: global epidemiology and challenges for control. WHO 1994.
3. Gerbase AC, Mertens TE. Sexually transmitted diseases in Africa: time for action. *Afri Health*. 1998; 20:10-12.
4. UNAIDS/WHO. Consultation on STD intervention for preventing HIV: what is the evidence. UNAIDS/WHO 2003.
5. Jackson D, Dallabetta G, Steen R. Sexually transmitted infections: prevention and management. *Clin occup Environ Med*. 2004; 4:167-88.
6. Ballard RC. Syndromic case management of STDs in Africa. *Afri Health* 1998; 20:13-15
7. WHO. Global programmes on AIDS. Guidelines for the management of sexually transmitted infections. WHO Geneva:2003.
8. Grosskurth H, Mosha F, Todd J, *et al*. Impact of improved treatment of sexually transmitted diseases on HIV infection in rural Tanzania: randomized controlled trial. *Lancet* 1995; 346: 530-6.
9. United Natiion. Programme of action of the UN International Conference on Population and Development. New York: United Nations, 1994.S
10. Mayaud P, Mosha F, Todd J, *et al*. Improved treatment services significantly reduce the prevalence of sexually transmitted diseases in rural Tanzania: results of a randomized controlled trial. *AIDS* 1997; 11: 1873-80
11. Mayaud P, Grosskurth H, Changalucha J, *et al*. Risk-assessment and other screening options for gonorrhoea and chlamydia infections in women attending rural Tanzanian antenatal clinics. *Bull World Health Organ* 1995; 73:82-88.