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ORIGINAL ARTICLE

Fulfilling Human Resources Development Goal in West Africa: Can the Training of Ophthalmologist Diplomates Be Improved?

L'Accomplissement du But de Développement de Ressources Humain dans l'Afrique Ouest : l'Entraînement d'Ophtalmologiste Diplomates peut-il Être Amélioré ?

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ABSTRACT

OBJECTIVE: **To ascertain the perspectives of Trainee Ophthalmologist Diplomats (TOD) on the Ophthalmic Diploma Training (ODT) in West Africa with a view to improving the programme.**

METHODS: **A survey of set 2005 TOD on ODT was carried out in Ghana, 2006.**

RESULTS: **The trainees included 10(83.35%) males and two (16.7%) females whose ages ranged between thirty-two and fifty-one years. The sponsors of the trainees included Sight Savers International, five (41.7%); Christian Blind Mission International, three (25.0%); Eye Foundation, Lagos, Nigeria two (16.7%); Ministry of Defence Nigeria, one (8.3%); and Health Authority Ghana, one (8.3%). Nine trainees (75.0%) felt the programme was well structured, training allowances were adequate eight (66.7%) and inadequate four (33.3%). Eleven (91.7%) trainees would work wherever they were posted; ten (83.3%) trainees had sense of fulfillment and three (25%) would like to proceed for residency training. All trainees were at least good in chalazion surgery and treatment of common medical eye conditions. Majority were at least good in eye surgery like cataract, eleven (91.7%); trabeculectomy nine (75.0%); pterygium 10(83.3%); eyelid, eight (66.7%); destructive 11(91.6%) and refraction 9(75.0%). Some trainees' perceived problems included inadequate sponsorship (33.3%), short duration of the course four (33.3%) and poor accommodation facility two (16.7%). However, trainees' suggested increase in training posts, four (33.3); training allowance three (25.0%); and incentives for trainers/training hospitals two (16.7%).**

CONCLUSION: **The ODT programme ensures ophthalmic manpower for secondary eye care level despite challenges. The stakeholders should look into problems facing the programme in order to improve it. WAJM 2009; 28(3): 177–181.**

Keywords: **Diplomate Ophthalmologist, Manpower development, West Africa.**

RÉSUMÉ

CONTEXTE: *Il y a un manque d'ophtalmologists au Nigeria. En partie pour adresser ce problème, les États africains Ouest ont été des cours de diplôme de formation.*

OBJECTIF: *vérifier les perspectives d'Ophtalmologiste de Stagiaire Diplomates (TOD) sur l'Entraînement de Diplôme Ophtalmique (ODT) dans l'Afrique Ouest avec une vue à l'amélioration du programme.*

MÉTHODES: *une enquête de jeu 2005 TOD sur ODT a été réalisée au Ghana, 2006.*

RÉSULTATS: *les stagiaires ont inclus 10 (83.35%) les mâles et deux femelles (de 16.7 %) dont les âges ont varié entre trente-deux et cinquante et un ans. Les sponsors des stagiaires incluent des Épargnants de Vue les cinq internationaux (41.7 %); Mission Aveugle chrétienne trois internationaux (25.0 %); la Fondation d'Oeil, Lagos, le Nigeria deux (16.7 %); le Ministère de la Défense, le Nigeria un (8.3 %); et l'Autorité de Santé, le Ghana un (8.3 %). Neuf stagiaires (75.0 %) ont estimé que le programme a été bien structuré, les allocations de formation étaient adéquates huit (66.7 %) et insuffisant quatre (33.3%). Onze stagiaires (de 91.7 %) travailleraient où qu'ils aient été postés; dix stagiaires (de 83.3 %) avaient le sens d'accomplissement et trois (25 %) voudrait procéder pour l'entraînement de résidence. Tous les stagiaires étaient bons au moins dans la chirurgie chalazion et le traitement de conditions d'oeil médicales communes. La majorité était bonne au moins dans la chirurgie d'oeil comme la cataracte onze (91.7 %), trabeculectomy neuf (75.0 %), pterygium 10 (83.3 %), la paupière huit (66.7 %), les 11 destructifs (91.6 %) et la réfraction 9 (75.0 %). Les problèmes perçus de certains stagiaires ont inclus le parrainage insuffisant (33.3%), la durée courte du cours quatre (33.3 %) et la pauvre facilité de logement deux (16.7 %). Cependant, l'entraînement d'augmentation suggéré de stagiaires voyage par la poste quatre (33.3%); l'allocation de formation trois (25.0 %) et les stimulants pour les hôpitaux d'entraîneurs/entraînement deux (16.7 %).*

CONCLUSION: *le programme d'ODT garantit la main-d'oeuvre ophtalmique pour le niveau de soin d'oeil secondaire en dépit des défis. Les parties prenantes devraient examiner des problèmes faisant face au programme pour l'améliorer. WAJM 2009; 28 (3) : 177–181.*

Mots clé: *les Ophtalmologistes de Diplomate, le développement de Main-d'oeuvre, l'Afrique Ouest.*

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Abbreviations: CBMI, Christian Blind Mission International; **INGO,** International Non-Governmental Organisation; **MOH,** Ministry of Health; **ODT,** Ophthalmic Diploma Training; **SSI,** Sight Savers International; **TOD,** Trainee Ophthalmologist Diplomats; **WACS,** West African College of Surgeons; **WAHC,** West African Health Community.

INTRODUCTION

One of the cardinal factors militating against effective community integrated, equitable distributed and sustainable eye care services especially in a resource limited economy like Sub Sahara Africa is inadequate manpower. In West Africa, the gains of sub regional workshops spanning decades, addressing the inadequacy of eye care specialists needed for effective eye care delivery in the sub region was consolidated, when in 1992, the West African College of Surgeons [a constituent of the West African Health Community (WAHC)] approved the curriculum for ophthalmic diploma programme to train category of Ophthalmologist Diplomat, the course has commenced since 1993.[1]

The efficient and effective eye health care delivery in the community depend on interrelated but hierarchical primary, secondary and tertiary eye care levels. The Ophthalmologist Diplomate role is defined as responsible for secondary facility eye care of definitive management of blinding conditions such as cataract, trichiasis entropion, ocular trauma, primary angle-closure glaucoma, cornea and intraocular infections. Also, Ophthalmologist Diplomat functions should include supervision of community eye care programme.[1, 2]

Ophthalmologist Diplomate is a medical officer with at least two years post qualification experience and had undergone an 18 month structured training followed by a six month supervised internship. The training is centrally coordinated by the West African College of Surgeons. It curriculum is divided into a number of block postings spanning eighteen month period such as: Block I (Lectures in Basic Sciences, Optics and Foundation of Clinical Ophthalmology); Block IIA (Refraction), Block IIB (Clinical I: including medical and surgical ophthalmology); Block III (Community Eye Health); and Block IV (Clinical II: including medical and surgical ophthalmology). This is followed by a short revision course and final examinations. All trainees in sets converge during postings such as: Block I at University College Hospital, Ibadan, Nigeria; Block III at National Eye Centre, Kaduna, Nigeria; and during the revision and final examinations at Korle Bu Teaching Hospital, Accra, Ghana. During other block postings, trainees are posted either in unit or group to various accredited hospitals across West Africa nations including Nigeria, Ghana and the Gambia. The trainees are awarded Diploma in Ophthalmology of the West African College of Surgeons [DO (WACS)] after successful completion of the two year programme comprising mandatory eighteen month block postings, final examinations and six month internship. The six month internship can be at any accredited hospital, usually having high patients load, within the sub region.

Since its inception in 1993 till date, over 160 Ophthalmologist Diplomates including nationals mainly from West Africa and some from elsewhere have benefited from the programme.[3] Ophthalmic Diploma training programme providing the needed ophthalmic manpower has come to stay in West Africa amidst various challenges. Quality training programme requires regular evaluation not only to maintain standard but also to face the challenge imposed by it quest for excellence. The importance of evaluating a training programme has been underscored.[4]

This study attempted to evaluate ophthalmic diploma training in West Africa through a survey of the trainees during a revision course (4 –11th of September 2006) at Korle Bu Teaching Hospital, Accra, Ghana; marking the end of mandatory eighteen month posting of set 2005. The view of this cohort of trainees on Ophthalmic Diploma training programme is believed would assist the stakeholders in the sub-region and elsewhere. The objective of this study is to ascertain the perspectives of trainee Ophthalmologist Diplomates about the programme in the West Africa sub-region with the view to improving the course.

SUBJECTS, MATERIALS AND METHODS

During a revision course (4–11th of September 2006), at Korle Bu Teaching Hospital, Accra, Ghana; marking the end of mandatory eighteen month posting of set 2005, a survey of trainee Ophthalmologist Diplomates using semi-structured self-administered questionnaires was carried out. The trainees were from ten different hospitals (nine in Nigeria and one in Ghana) and they are as follow: Nigeria Air Force clinic, Lagos Eye Foundation, Lagos, Borno State Eye Hospital, Maiduguri; Eja Memorial Joint Hospital, Itigidi, Cross River State; General Hospital, Calabar; Ministry of Health (MOH), Ilorin; MOH, Kaduna; Christian Blind Mission International (CBMI) Hospital, Maiduguri; United Methodist Church of Nigeria Hospital, Taraba and General Hospital, Aflao, Ghana.

Included in the questionnaires were age, sex, nationality, marital status, place of work, duration in training and the trainees' sponsors. Others were opinion of trainees on diploma training; training allowance, preferred place of practice after training, fulfillment of aspiration at the end of the programme, aspiration for fellowship training and competency in relevant clinical and surgical ophthalmology. The problems of the programme and suggestions for improvement were noted.

The data entry and analysis was carried out using superior performance software system (SPSS) 12.0.1.

RESULTS

All the twelve (100%) trainees comprising ten (83.35) males and two

Table 1: Trainees' Opinions on Ophthalmic Diploma Training in West Africa

Training Aspect	Trainees' Opinion	Number (%)
Course structure	Well structured	9 (75.0)
	Fairly structured	3 (25.0)
Training allowance from the sponsors	Adequate	8 (66.7)
	Inadequate	4 (33.3)
Preferred place to work after the training	Anywhere posted	11(91.7)
	City	1 (8.3)
Trainee's expectation from the programme	Expectation met	10 (83.3)
	Yet undecided	2 (16.7)

Table 2: Trainees' Self Assessment of Competency in Specific Skills

Acquired Skill	Number (%)		
	Excellent	Good	Fair
Cataract surgery	3 (25.0)	8 (66.7)	1 (8.3)
Trabeculectomy	4 (33.3)	5 (41.7)	3 (25.0)
Pterygium surgery	4 (33.3)	6 (50.0)	2 (16.7)
Chalazion surgery	6 (50.0)	6 (50.0)	–
Eyelid surgery	3 (25.0)	5 (41.7)	4 (33.3)
Destructive eye surgery	7 (58.3)	4 (33.3)	1 (8.3)
Proficiency in Refraction	2 (16.7)	7 (58.3)	3 (25.0)
Treatment of common medical eye condition	4 (33.3)	8 (66.7)	–

Table 3: Problems Experienced by the Trainees and Suggestions for Improvement

Problem	Number (%)	Suggestion	N (%)
Course is expensive/ inadequate sponsorship	4 (33.3)	Increase training posts for trainee Ophthalmologist Diplomates/accredit more training hospitals	4 (33.3)
		Increase training allowance	3 (25.0)
Duration of the training short for course work /overwhelming stress	4 (33.3)	Motivate trainers/training hospitals with incentives	2 (16.7)
		Extend revision course to 4 weeks/ revision should include clinical aspect	2 (16.7)
Poor accommodation facility /Hike of accommodation fee in some training hospitals	2 (16.7)	Improve accommodation facility	2 (16.7)
		Regular review of diploma curriculum	1(8.3)
Scattered/distant course postings across hospitals in West Africa	1(8.3)	Course postings should be near to trainees' place of work to reduce cost	1 (8.3)
Poor commitment of tertiary training hospitals to train Ophthalmologist Diplomates	1 (8.3	Trainees Ophthalmologist Diplomates should be given equal attention like trainee Ophthalmologist Fellows	1 (8.3)
		Community Eye Health course duration in Kaduna, Nigeria should be reduced	1 (8.3)
Lack of incentives for training hospitals/trainers	1 (8.3	Examination should be done at the end of each posting and only clinical examination at the end of the course (final)	1 (8.3)
Competition between trainees ophthalmologist Fellows and Diplomates for surgical skill acquisition	1 (8.3	Provision of learning aids such as laptops and relevant Compact Discs (CDs) in Ophthalmology to trainees	1 (8.3)
Insufficient number of Training hospitals	1 (8.3	Encourage younger Doctors to enroll for the programme and set age limit for prospective trainee at 40years	1 (8.3)
Hospitals for clinical postings are not well organized	1(8.3)	Course coordinator should periodically visit training hospitals to assess the situation	1 (8.3)

(16.7%) females (5:1) participated in the study. The ages ranged between thirty two and fifty one years (mean age 40.4 SD 6.6). Eleven trainees (91.7%) were from nine different hospitals across Nigeria and one (8.3%) from a hospital in Ghana. All trainees (100%) had completed the mandatory eighteen month of training. The sponsors of the trainees for the programme included Sight Savers International (SSI) five (41.7%), Christian Blind Mission International (CBMI) three (25.0%), Eye Foundation, Lagos, Nigeria (16.7%); Ministry of Defence, Nigeria one (8.3%) and Health Authority, Ghana one (8.3%).

Table 1 shows the trainees' opinion on some of the selected areas of the programme including the diploma course structure, training allowance, the preferred place of work after training and whether the training has met the expectation of the trainees. Concerning the trainees' future plan after diploma training, diplomates respectfully threaded two (16.7%) would like to proceed for residency training immediately and work as ophthalmic on completion of the Diploma programme seen (58.3%) were indicated.

The trainees' self assessment score of acquired clinical and surgical skills is shown in Table 2. All trainees twelve (100.0%) were at least good in chalazion surgery and treatment of common medical eye conditions. Majority were at least good in cataract surgery eleven (91.7%), trabeculectomy nine (75.0%), pterygium surgery ten (83.3%), eyelid surgery eight (66.7%), destructive eye surgery eleven (91.6%) and refraction nine (75.0%). Significant number of trainees were only fair in trabeculectomy three (25.0%), eyelid surgery four (33.3%) and refraction three (25.0%).

The perceived problems of the programme as highlighted by some of the trainees included: inadequate sponsorship four (33.3%), short duration of training compared to work load four (33.3%), poor accommodation facility two (16.7%) among others (Table 3). However, the needed improvements suggested included: increase training posts for Diplomats/accreditation of more training hospitals four (33.3%), increment in training allowance three (25.0%),

incentives for trainers/training hospitals two (16.7%) among others.

DISCUSSION

This study represent the feelings of the trainees about the programme as 100% of the cohort participated. The study at the end of the course suggests an overview opinion of the cohort on the programme.

The sponsors of the programme deserve commendation especially the International Non Governmental Organizations (INGOs): Sight Savers International (SSI) and Christian Blind Mission International (CBMI) for their efforts towards manpower development in West Africa. In this study, SSI and CBM accounted for about 67% of the sponsors, the status (partial or full) of sponsorship notwithstanding. The efforts of INGOs toward provision of effective eye care delivery to economies with limited resources like sub-Sahara Africa have been previously acknowledged.[1] However, it is important that the sponsors consider prevailing inflation rates while reviewing the trainees' allowances. Preferably this should be done for each set of trainee.

It is gratifying that most trainees had a sense of fulfillment and would like to work wherever their services are required as this will provide the needed manpower to underserved communities. The trainees have acquired the necessary clinical and surgical skills expected for the level of their training. All trainees were at least good in chalazion surgery and treatment of common medical eye conditions. Majority were at least good in cataract surgery, trabeculectomy, pterygium surgery, eyelid surgery, destructive eye surgery and refraction. However, a significant number of trainees only had a fair knowledge of trabeculectomy, eyelid surgery, and refraction. This should be of interest to the stakeholders and the reasons for the low rating should be addressed. This has underscored the importance of the course coordinator visiting training hospitals to assess facilities, motivation of trainers/ training hospitals with incentives and regular review of diploma curriculum as observed by some trainees. The trainees are expected to be improving generally and especially in deficient areas during their six month internship to complete the two year programme having completed 18 months of mandatory postings.

The stakeholders should look into trainees' expressed problems of the programme and consider their suggestions in order to sustain and improve the programme. Consideration should be given to trainees who prefer to have elective postings in accredited hospital(s) near their place of practice. However, postings across West African nations have inherent advantages in providing necessary exposure for the trainees. It provides comparative advantage in term of resources and promotes unity. Indeed, it promotes sub regional cooperation and peace.[5]

It may interest the stakeholders to emphasize availability of 'trainee friendly' accommodation facility, commitment of tertiary training hospital(s) to train Diplomates among others before accrediting a particular hospital for training. The accredited training hospital(s) where a facility is not in place should be assisted through incentives from stakeholders.

The short duration of training compared to work load can be addressed through regular review of the curriculum and by making strict course work that will be limited to the most relevant areas to the programme. Increasing the duration of the programme with the view to spread the work load may not be a better option as it defeats the objective of short term training and might unnecessarily increase the cost of training to the sponsors among others. Also, extending the duration of the programme make it having no difference from Fellowship training in Ophthalmology (Residency programme) which has longer duration of training though with added value and responsibility.[6]

The observed competition between trainee Ophthalmologist and Diplomates for skills acquisition in tertiary training hospitals deserves attention. The trainee Ophthalmologist Diplomate is likely to be affected in view of shorter duration of the programme. This can be reduced by accrediting more training hospitals, which would require more funding from stakeholders as it may translate to building new and/or upgrading existing facilities and equipping them to standard. Accredited training hospitals should put measures in place to boost their patients load and the trainers should pay particular attention to the skill transfer to the trainees. However, healthy competition may be needed to boost performance.

The opinion of the trainee that Medical Doctors of younger age should be encouraged into the programme as well as the age limit at 40 year for prospective trainee may be borne out of concern for the active role expected of the Ophthalmologist Diplomates. However, the conversion rate among younger Ophthal-mologist Diplomates to Ophthalmologist Fellows through residency programme may likely be higher compared to the older Ophthalmologist Diplomates and this correlates with this study as 2 out of 3 (67%) trainees who already indicated interest to proceed for residency programme were among the youngest in the set. This may necessarily deplete the pool of Ophthalmologist Diplomates who have specified role to play in the manage-ment of eye diseases and control of blindness at secondary eye care facilities in the sub region, the long term gain of highly skilled eye specialists notwith-standing.

Concluding, the Ophthalmic Diploma training programme is providing needed ophthalmic manpower for secondary eye care level in West Africa. However, there is the need for all stakeholders in the programme including governments of owner nations through West African College of Surgeons and INGOs (SSI, CBMI) through the programme coordinator to look into problems facing the programme as expressed by the trainees and consider their suggestions in order to sustain and improve the programme.

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