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Review Article

Evolution of the Prototype of the Concept of Teaching Clinical Occupational Medicine at Undergraduate Level in South-Eastern Nigeria.

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SUMMARY

This concept paper narrates the activities that started in 1995, in the course of developing the concept of teaching clinical occupational medicine in a Nigerian Medical School. The setting was a medical school in South East, Nigeria. The activities included, conception of the idea, development of the concept, the practical application of the concept in teaching medical students both in the University and the clinical teaching in the teaching hospital; development of the concept to the level of prototype; testing the concept over a period of time to see that it really works; scientific research to validate the concept. This was done in 2006 for current practice in medical education stipulate not less than ten years, from the inception of the concept. In this presentation, the introduction discussed the issues in current medical practice in Nigeria, in particular and other parts of the world in general. The discussion explained the issues raised in the development and implementation of the concept. The conclusion included recommendations on how best to apply the prototype of the concept in other medical schools where clinical occupational medicine is not yet being taught at undergraduate level. In this respect, the forming of linkages with universities in developed countries, where clinical occupational medicine is taught at undergraduate level, is emphasized. One thousand and fifty medical graduates of the aforementioned medical school have benefited from this concept. This means that they can diagnose and manage common occupational diseases.

Key Words: Prototype; Concept; Occupational; Medicine.

INTRODUCTION

The setting is in the Department of Community Medicine, of a Medical School and her sister institution, the Teaching Hospital in South Eastern, Nigeria. The clinics run by the department in the teaching hospital came under focus in 1995 and the absence of an Occupational Medicine clinic was glaring.[1]

The curriculum of the medical students for Occupational Health was also, reviewed critically. It was obvious that clinical occupational medicine was included in the curriculum. In this era of globalization it is clear that medical graduates in Nigeria should be well versed in clinical occupational medicine, since these medical graduates could work in any part of the world when they graduate. It is therefore necessary to include the clinical component in the teaching of occupational health, in our medical school.,[2] A request was made to the management of the aforementioned Teaching Hospital to establish an occupational medicine clinic. This was promptly granted in 1996.

It now became possible to augment teaching of clinical occupational medicine to medical students with clinical exposure in the occupational medicine clinic. Eventually the idea/concept was developed to a prototype which can be duplicated in any medical school if the

concept is not already in place. In public interest, the prototype of the concept of teaching clinical occupational medicine at undergraduate level is hereby stated.[3]

OBJECTIVE OF THE CONCEPT

The overall objective of this concept is to produce medical graduates who have clinical occupational medicine skills that will enable them to recognize and manage common occupational diseases seen in our environment.[4]

INSTITUTIONAL ARRANGEMENT

Teaching of clinical occupational medicine is done by Faculty members of Department of Community Medicine of the medical school, who also hold the complimentary position of Honorary consultant in community medicine, (which includes occupational medicine) in aforementioned sister institution, the Teaching Hospital.[5] 4, 5th and 6th (final) year Medical students are involved. About one thousand have graduated since the concept started in 1996.

TRAINING PROGRAMME

400 Level: Taking of detailed occupational history of patients in the Occupational Medicine clinic, and the wards is emphasized. Also recognition of simple signs and symptoms of occupational diseases.

500 Level: Students with Faculty members manage patients (in the casualty, wards and clinic) who have common occupational diseases (in the out patient department and the outreaches. Viz: Occupational skin diseases, noise induced hearing loss, accident and trauma in the work place, HIV/AIDS in the workplace, occupational lung diseases and/health problems of agricultural workers and small scale industrialist.

600 Level- the Final Year: Students are taught management of occupational diseases at the primary healthcare level and also providing Health services for health care professionals.[7]

EVOLUTION OF THE CONCEPT

Development of the concept of teaching clinical occupational medicine at undergraduate level in the said Medical School started in 1996 after the establishment of the occupational medicine clinic. The constraint in starting the clinic was the fact that only consultants in community medicine interested in Occupational Medicine as a sub-specialty, participate in running of the clinic. In Nigeria and the whole of the West African sub-region, specialization in occupational medicine is within community medicine. Infact in the specialty of community medicine, occupational medicine is only one of the about eleven sub-specialties.[8,9] The author who has occupational medicine as his sub-specialty actually sought and obtained management approval for establishment of the occupational medicine clinic in the said Teaching Hospital in 1996. The concept was religiously implemented as stated in the prototype (or model). The first set of medical graduates of the medical school who benefited from the programme according to the final assessment before graduation were found to be competent in the skill of clinical occupational medicine.

From the inception in 1996 till date, 2008, about one thousand and fifty medical graduates of the university have benefited from the concept.[10]

CONSTRAINTS IN IMPLEMENTATION OF THE CONCEPT MANPOWER

As stated earlier, since occupational medicine in Nigeria and the West African sub-region is only one of the sub-specialties in community medicine, not all the community medicine specialists are interested in the practice of clinical occupational medicine. The same goes for resident doctors, who also assist in guiding the medical students in their clinical postings.

RESOURCES

There is no financial allocation to the occupational medicine unit. All requests pass through the head of community medicine department. Consequently, if the head of community medicine department is not interested, the occupational medicine unit gets next to nothing in terms of equipment and other facilities.

TIME ALLOCATION

Allocation of teaching time for occupational medicine is at the discretion of the head of community medicine department and has been observed; reduction in time allocation affected the implementation of this concept. These changes worry medical students.

ATTITUDE TOWARDS OCCUPATIONAL MEDICINE

In Nigeria and the rest of the West African sub-region, some medical experts think that developing countries do not need clinical occupational medicine and that the emphasis should be on infectious diseases like malaria etc. however research carried out by the occupation medicine unit, have shown tremendous exposure of our people especially the small scale industrialists to numerous occupational hazards; and also that indeed many of them come down with occupational diseases and occupationally related diseases.[12]

EFFORTS MADE TO OVERCOME THE CONSTRAINS.

Medical Equipment: Although presently the occupational medicine clinic is not equipped, for reasons already stated above, the author harnesses equipment in use in other units in the hospital. For example, request for x-rays are made from the x-ray department; request for lung function tests are made from respiratory internal medicine clinic. Although occasionally such patients are lost to follow-up, the occupational medicine clinic would have recorded the patients work history and made a provisional diagnosis, and of course would have the records of the patient. The same is the case for other investigations done in the teaching hospital. Occasionally it had been necessary for the clinic to refer patients for investigations in the occupation medicine clinics of some oil companies in Nigeria, which are well equipped for clinical occupational medicine practice.[13,14]

OTHER VITAL COMPONENTS OF THE CONCEPT

MATURITY: After the concept was developed to a prototype, the preliminary report was presented in conferences of learned societies at local and thereafter regional and international levels. Comments by peers in such conferences helped in improving the concept. However this write-up is being presented for publication in a journal ten years, after the concept was developed to a prototype. The reason for the delay is to allow for maturity of the idea and to see that it really works. This is in line with requirements of concepts in medical education being developed to level of prototype.[15]

RESEARCH: Many research projects were carried out at various stages in the evolution of the concept. There was preliminary research that validated the need to develop the concept in the first place. Later there were research projects to validate the concept, and others to evaluate the development of the concept to a prototype. All these are for publication in appropriate scientific journals.

The research projects are also requirements, in line with such medical education ideas.[1]

DISCUSSION

The write up so far has been a sort of narrative of events in the course of development and evolution of the concept of teaching clinical occupational medicine at under graduate level in a medical school. Relevant literature as they apply to various aspects of the concept are now reviewed.

Over the years, there have been calls for improvement of the teaching and practice of clinical medicine. In Nigeria, experts in community medicine have repeatedly made such calls. They have even specifically called for according more attention to the practice of occupational health and for more emphasis on the teaching and practice of clinical community medicine generally and clinical occupational medicine in particular.[1] Political leaders and medical experts in political positions have also observed that for the much desired improvement in medicare to be achieved, intellectuals, must be allowed to exhibit their flair for innovation.[16] It is worthy of note that teaching of clinical occupational medicine at undergraduate level is emphasized in the medical curriculum of medical schools, as stipulated by the medical and dental council of Nigeria. The fact that it is not taught is actually as a result of, Nigerian medical schools applying the so called "hidden curriculum." Medical education experts recognize the existence of the "hidden curriculum", which actually influences the implementation of the real curriculum.[17]

CONCLUSION

Incidence of occupational diseases and occupationally related diseases are on the increase in developing countries including Nigeria. Unfortunately, the diagnosis is left for only the specialists in community medicine and occupational medicine, but these experts are very few in Nigeria and other developing countries.

There is therefore the need to inculcate in all fresh medical graduates, the skill to recognize and commence management of common occupational diseases and occupationally related diseases. This can only be possible if students are taught clinical occupational medicine at the undergraduate level, with emphasis on obtaining a detailed work history.[4,7] Some medical schools, in developing countries have linkages with medical schools and teaching hospitals in developed countries, where clinical occupational medicine is taught at undergraduate level. Medical students going for such postings in developed countries should all do a clinical rotation in clinical occupational medicine. Opportunities for doing such positing in other institutions abroad should be explored especially by medical schools in developing countries who wish to adopt this prototype.[18]

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