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**Editorial** 

## Undergraduate Mentored Research Should be the Foundation for Knowledge Creation in Universities

Research is an integral part of undergraduate training in many universities, including the University of Ibadan, but many times the expectations set for the students are cruelly low and the mentoring given to them is less than optimal, with the result that the quality of 'knowledge' produced thereby leaves a lot to be desired. This is all the more tragic because many of these undergraduates are highly intelligent and their curiosity is easily aroused. Their inquisitiveness and passion can lead to great new discoveries in science and technology, if properly nourished.

In 2014, as part of the Medical Education Partnership Initiative in Nigeria (MEPIN) project, a process of undergraduate mentored research for medical and dental undergraduates in the clinical phase of their training was commenced. The students already had a good foundation in their pre-clinical years in that they had been exposed to research methods and biostatistics during the period. Ordinarily, they were expected to undertake group research projects during some specific clinical rotations in the clinical years of their training, but this new initiative was designed to have students granted some protected time for individual mentored research during the period of clinical training.

This effort involved the key academic leaders in the College of Medicine, University of Ibadan, starting from the Provost and the Deans of Faculties. Volunteer mentors were sought from among the senior academics in the College and a list of high-performing medical and dental students was obtained from the Deans. A meeting of the volunteer mentors was convened to make them aware of the nature and objectives of the programme. They also participated in a half-day workshop on mentoring. After this, there was a two-day workshop for the students to introduce them to research planning and methods. They were trained specifically, in research proposal preparation, learning proposal writing by actually doing it!

The intention was to select the best 50 to 60 percent of the proposals for funding so that the students could conduct the research under the mentorship of the senior academic they were to be paired with at the end of the workshop. The output of the workshop was astounding. The students and the mentors were so enthusiastic that more than 90% of the proposals ended up being sponsored. Some of the mentors provided additional funds from their own research grants if the cost of implementing the student's proposal exceeded the ceiling placed on the funding that could be made available to each participant.

The students subsequently went through the research process with the guidance of their mentors. They learnt about obtaining approval from Ethics Review Committees, getting the buy-in of research participants, obtaining informed consent, data collection and analysis, and dissemination of the research findings. There were a couple of follow-up workshops on data analysis and on manuscript writing to provide further opportunity for formal mentoring. The outcome of this mentored process are the articles published in this special edition of this journal. The students who participated have since graduated as doctors and dentists. In spite of devoting considerable time to their individual research projects, they excelled in their course work and two of them were the valedictorians in their sets.

I commend the articles written by these students to you for reading. Many of them have brought out new knowledge that will enhance the health of the population if implemented. I also believe that this experience will make some of them choose careers that incorporate health research. This kind of mentored research should be available to all undergraduates who wish to enjoy such opportunities.