



## LETTER TO THE EDITOR

# Evidence-based dental education: suggested course outlines for first- and second-year dental hygiene students

Dear Editor,

As healthcare professionals, we should all be aware that there has been an increased effort to incorporate an evidence-based approach into the dental profession to help dentists make the best use of the available clinical evidence when making decisions about patient care. Currently, there are no clear guidelines for how an evidence-based dental curriculum should be taught. In addition, the literature describing the approach to teaching critical thinking and evidence-based approaches to dental hygiene is sparse. We have developed a 7-h evidence-based course at Howard University College of Dentistry (HUCD) for first-year dental hygiene students that includes a focus on teaching the principles of epidemiology and study design and is based on the evidence-based course that we are currently teaching the D1 dental students. Included in this teaching of fundamental epidemiological principles and study design are such topics as confounding, interaction, odds ratios as well as instruction in the relevant statistical concepts including how to correctly interpret *P*-values and confidence intervals. Within those 7 h, we have also included instruction in how to search the dental literature using PICO, which stands for population (P), intervention (I), comparison (C) and outcome(s), and PICO helps in the selection of key terms in the computerized search for relevant information. The PICO process is a method for converting information needs and problems into clinical questions, so they can be answered (1). This instruction in the use of PICO is provided by our faculty and resident dental librarian and includes instruction in other approaches in how to search the literature besides using PICO. At the conclusion of year one, the dental hygiene students will be tested on the material with a 1-h final exam.

When the dental hygiene students are in their second year, they will receive 6 h of instruction in how to read and critically assess the published dental literature using the approach

described by Katz at New York University College of Dentistry (NYUCD) (2). We also use a modified version of the Literature Analysis Form (LAF) that is described in that article and used at NYUCD to evaluate the students' ability to critically assess the published dental literature. This form has been used with success at HUCD in the past to teach the orthodontic and paediatric dental residents. The dental hygiene students will also be taught how to integrate the most relevant information into patient care to provide the optimum treatment for their patients. At the conclusion of the second year, the students will be tested on their ability to read and evaluate a published dental article using a form of the LAF designed for testing, similar to the final exam that second-year dental students take at HUCD and first-year dental students take at NYUCD. Dental hygiene faculties at other institutions are encouraged to consider adopting a similar rigorous evidence-based regimen.

## References

- 1 Forrest J, Miller S, Overman P, Newman M. *Evidence-Based Decision Making: A Translational Guide for Dental Professionals*. Philadelphia, PA: Lippincott Williams & Wilkins; 2009.
- 2 Katz R. The importance of teaching critical thinking early in dental education: concept, flow and history of the NYU 4-year curriculum or "Miracle on 24th Street: the EBD Version". *J Evid Based Dent Pract* 2006; 6: 62–71.

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