





## HKU Faculty of Dentistry graduates from both old and new curricula feel well prepared for dentistry

A survey of HKU Faculty of Dentistry graduates has shown that for eight job areas, proportions of graduates who said they felt well prepared for dental practice were similar, regardless of whether they had followed the previous traditional curriculum or the current problem-based learning (PBL) curriculum.

Before 1998, the Faculty's 5-year Bachelor of Dental Surgery (BDS) curriculum was "lecture-based and teacher-led" with "very limited integration between dental disciplines", according to background information in the research study. In contrast, the 5-year BDS curriculum that started in 1998 is student-centred and fully integrates PBL, which promotes "collaborative and interactive learning", as well as integration of different disciplines.

Forty-five percent of the 230 dentists who had graduated from the traditional curriculum from 1997 to 2001 responded to a questionnaire sent in 2002, and 66% of the 241 dentists who had graduated from the PBL curriculum from 2004 to 2008 responded to the same questionnaire sent in 2009. The questionnaire asked each graduate to rate how well prepared he or she was at performing 59 clinic activities that were grouped into nine job areas.

The characteristics of respondents from the two curricula were similar, but dentists who had followed the older, traditional curriculum had more commonly changed job and worked in different types of dental practice than dentists who had followed the PBL curriculum (59% versus 29%).

For eight of the nine job areas surveyed, similar proportions of respondents from the two curricula said they were well prepared (either "well prepared" or "very well prepared") for dental practice. The proportions of the traditional and PBL curriculum groups, respectively, were 93% and 90% for general patient management; 92% and 89% for conservative dentistry (tooth restoration/preservation); 85% and 83% for drug and emergency management; 83% and 81% for practice management (such as clinic, staff, and policy matters); 73% and 71% for periodontology (care for the structures supporting teeth) and public health; 72% and 65% for managing children and special-needs patients; 74% and 63% for oral rehabilitation (installation of artificial teeth); and 59% and 52% for oral and maxillofacial (mouth, jaw, and face) surgery.

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The remaining area, orthodontics (tooth-straightening), had the lowest proportions of graduates indicating they felt well prepared. The proportion was significantly larger in the traditional curriculum group than in the PBL curriculum group (38% versus 23%). The reasons suggested by the researchers include reduced contact with orthodontic patients in the newer curriculum and the trend that orthodontics is being viewed as a specialist field.

When the 59 clinic activities were examined one by one, the researchers found that proportions of graduates who felt prepared were significantly smaller in the PBL curriculum group than in the traditional curriculum group for the following five activities: installation of complete dentures, correcting the vertical relationship between upper and lower jaws (the occlusal vertical dimension) for toothless or nearly toothless patients, making small tooth movements, recognising and dealing with cases of neglect and abuse, and removing partially emerged or unemerged wisdom teeth (impacted third molars).

The dentists in the PBL group were given an opportunity to write about what they thought were strengths and weaknesses of the PBL curriculum. Perceived strengths included experience in many dental disciplines and the development of transferable skills "such as problem-solving, communication, and organizational and interpersonal skills". Perceived weaknesses included insufficient clinical exposure to surgical procedures such as orthodontics, wisdom tooth extractions, and complete dentures.

Although mindful that the questionnaire response rates were relatively low, the authors note that their study is "the first large-scale survey comparing self-preparedness for practice among dental graduates from PBL and traditional curricula". They conclude that graduates of both curricula generally consider themselves as being well prepared for dental practice, and that the findings would be useful in planning HKU's new 6-year undergraduate dental curriculum for 2012.

The research, supported by a HKU Teaching Development Grant, was published in the *Journal of Dental Education*.

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**Source:** Yiu CKY, McGrath C, Bridges S, Corbet EF, Botelho MG, Dyson JE, Chan LK. Graduates' perceived preparedness for dental practice from PBL and traditional curricula. *Journal of Dental Education* 2011;75:1270-9. Medline link: http://www.ncbi.nlm.nih.gov/pubmed/21890858

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For more information about Problem-based Learning (PBL) in Dentistry, download this Faculty booklet:
<a href="http://facdent.hku.hk/docs/PBL\_FacDentHKU\_2008.pdf">http://facdent.hku.hk/docs/PBL\_FacDentHKU\_2008.pdf</a> or watch the Faculty video "Introduction to PBL at the HKU Faculty of Dentistry" via YouTube: <a href="http://www.youtube.com/user/facdent1981">http://www.facebook.com/facdent?sk=app\_57675755167</a>

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