

Title : HIV Teaching: A dental curriculum which fosters knowledge and attitude

Authors : Amitha Ranauta¹, Professor Anwar Tappuni², Professor Paul Coulthard³

Institute of Dentistry, Barts and The London School of Medicine and Dentistry, Queen Mary University of London

Background

The joint United Nations programme on HIV/AIDS (UNAIDS) has challenged nations to diagnose 90% of all HIV-positive persons, provide ART for 90% of those diagnosed, and achieve viral suppression for 90% of those treated by 2020 with the ultimate aim of ending the AIDS epidemic by 2030 (UN, 2014)

It was with this objective that 640 delegates met at the 8th World Workshop on Oral Health and Disease in AIDS (WW8) in Bali, Indonesia in September 2019. The agreed outcome endorsed by a declaration, established that “the UNAIDS objectives of ending the global HIV/AIDS epidemic by 2030 could be significantly enhanced by improving the current level of knowledge in healthcare professionals and the public at large.” (Croser 2019, FDI 2019). Studies have shown that healthcare workers in Indonesia have moderate levels of knowledge about HIV/AIDS but their attitudes to Patients with HIV (PWH) remain negative (Nusrina, 2018). It is essential that dentists possess the appropriate technical skills and interpersonal skills to deliver effective dental care to PWH. A key proposal of the WW8 meeting was the need for targeted educational input to enhance HIV education of dental students and dental healthcare workers. HIV teaching must become an essential element of the dental curriculum to ensure that dentists have a professional attitude and are competent to manage PWH.

This proposition was supported by a poster presentation of the results of an exploratory survey of our senior students’ perceptions of the HIV teaching received as part of the undergraduate curriculum. The objective was to verify whether the communication skills and the knowledge acquired, helped the students’ confidence in managing PWH.

Briefly, the HIV teaching we deliver in our school runs across several modules throughout the five-year dental curriculum. In the early years, students learn the pathophysiology of HIV/AIDS as part of the Human Health and Disease module. Clinical and didactic specialist teaching of the subject in later years consolidate the students’ learning. Practising of universal cross infection control is emphasised throughout the programme. Experiential problem-based work using role-play with actors, feedback and discussion is a key communication skills’ teaching tool. Students try out a variety of simulated scenarios including raising the possibility of HIV infection, taking a relevant history, giving a diagnosis of Kaposi’s sarcoma as part of practicing their communication skills. Students are taught to consider the issues faced by people living with HIV. Dental students’ fears and anxieties about HIV often emerge during communication skills small group teaching sessions, which encourage non-judgmental discussions, and help to reduce bias towards this group of patients.

Aim: This pilot study explored

- a) the views of students in a UK dental school on usefulness of their current HIV related teaching and
- b) the impact of this teaching on their self-perceived confidence in delivering dental care to HIV patients.

Methods:

A short survey consisting of five closed questions with Likert scale responses were sent to Year 4 and Year 5 dental students (Table 1).

Questions	Likert scale responses
1. Following teaching, I believe I have an understanding of HIV and its management	Agree/ Strongly Agree/Disagree/Strongly disagree/Undecided
2. The HIV teaching prepared me to provide dental treatment to HIV patients	Agree/ Strongly Agree/Disagree/Strongly disagree/Undecided
3. Applying universal cross infection control increases my confidence to give dental care to HIV patients	Agree/ Strongly Agree/Disagree/Strongly disagree/Undecided
4. As a dental graduate, I feel confident about providing routine dental care for HIV patients	Agree/ Strongly Agree/Disagree/Strongly disagree/Undecided
5. Without the HIV teaching, I would still feel confident about providing routine dental care for HIV patients	Agree/ Strongly Agree/Disagree/Strongly disagree/Undecided

Table 1 Showing questions and responses options in short survey

Data was collected using the survey as an online self-administered questionnaire. Descriptive data analysis was conducted and used to present the results. Additionally, a one to one interview was performed with a past dental student for a thematic analysis.

Results

44/142 year 4 and 5 students (31%) responded to the survey as follows:

Q1- 71 % of the participants agreed that the teaching helped them to understand HIV and its management.

Q2- 75 % felt the HIV teaching prepared them to provide dental treatment to HIV patients.

Q3- 89% of students agreed that applying universal cross infection control increased their confidence to give dental care to HIV patients.

Q4- 69% of the students felt confident about providing routine dental care for HIV patients.

Q5- 73% felt without the HIV teaching they have received; they would not have felt confident treating HIV patients

Thematic analysis of a pilot one-to-one interview with a dental graduate revealed the value of the communication skills teaching in emphasising empathy. The analysis showed that teaching about HIV in the dental curriculum was a way of raising awareness amongst the students' cohort. The participant recollected reluctance demonstrated by undergraduate peers of treating PWH, as many of the students had not knowingly met anyone living with HIV; *"most people have never faced anybody that they know is HIV positive "*.

Discussion

In the UK, there is an expectation that dental schools will fulfil their obligation to meet the GDC standards for education, *“1.1 The registrant will recognise and take account of the needs of different patient groups including children, adults, older people, and those with special care requirements throughout the patient care process”* (GDC, 2015).

The teaching at this dental school includes theoretical knowledge on HIV and its systemic and oral manifestations. There is a substantial amount of teaching which focuses on professional ethics involving discussion and debate on essential topics of respect, dignity, confidentiality, discrimination and stigma; the application of interpersonal and communication skills in the context of delivering dental care to PWH. The survey was sent to Year 4 and 5 students at the end of the academic year. The potential limitation of this study was the participants were recruited at one time point, which was concurrent with elective placement for year 4 and qualification for year 5, which may have affected the response rate. Another potential limitation of this study may have been recruiting dental students from only one dental school.

Analysis of the survey results was supportive of the current curriculum content in relation to HIV teaching. The conducted survey revealed that the majority of the students recognised that the teaching they have received has prepared them well and given them confidence to treat HIV patients, and that without it they will have not been able to manage PWH. Their confidence was underpinned by applying universal cross infection control. Dental students are expected to develop a professional identity of a clinician who has insight into one’s attitudes; be emotionally prepared for treating people with infectious diseases, be stimulated to build self-confidence and treat all patients with respect. Despite this, some dental students perceived a lack of preparedness in delivering dental care to HIV patients. Nearly a quarter of students (24%) did not agree with the statement *“The HIV teaching prepared me to provide dental treatment to HIV patients”*. It would be enlightening to explore further the reason for this reluctance and to identify whether it is due to students’ perception that PWH need specialist complicated clinical management or if it’s due to prejudice against this group of people. A more detailed questionnaire and in-depth analysis are needed to explore this further.

A recent study in a Malaysian Dental School investigating clinical dental students’ knowledge and attitude towards HIV/AIDS patients found Dental students’ knowledge was not significantly associated with attitude. Singh and Co-workers proposed that students’ fear and concern about being infected with HIV may overpower their intellectual and practical ability to cope with the treatment and management of such patients (Singh et al., 2017).

A cross-sectional study of nine dental schools in Malaysia found that Dental students’ ethical beliefs about HIV/AIDS were not compatible with the expected ethical standard of the code of ethics as they held negative attitudes towards PWH (Khan, Liew, & Omar, 2017).

In a recent study in Egypt, dental students’ poor knowledge of HIV was attributed to conservative cultures and the deeply entrenched HIV- and AIDS-related phobia in the Middle East and North Africa region (Abou El Fadl, Abdelmoety, Farahat, & Hussein, 2019). It appears therefore, that the reluctance in treating PWH is not confined to dentists from a particular culture or country.

The positive influence of educational programmes on willingness to treat HIV positive patients has been established in the literature. Arheiam and colleagues argue that education that provides adequate knowledge and moral beliefs reflecting professional ethics can change attitudes of dentists (Arheiam et al 2017)

Conclusion

This evaluation suggests the course format and content are effective in building the students confidence and supports the value of teaching HIV to undergraduate students. However, further evaluation of the teaching is needed to explore the reasons for the continued reluctance of some students to manage this group of patients.

References

- Abou El Fadl, R. K., Abdelmoety, A., Farahat, Z., & Hussein, M. A. (2019). Assessing the levels of HIV-related knowledge and attitudes toward HIV-infected patients among undergraduate dental students: a cross-sectional study. *HIV AIDS (Auckl)*, *11*, 83-92. doi:10.2147/HIV.S195984
- Arheiam Arheiam, Maha El Tantawi, Asim Al-Ansari, Mohamed Ingafou, Asma El Howati, Kamis Gaballah & Wafaa AbdelAziz (2017) Arab dentists' refusal to treat HIV positive patients: a survey of recently graduated dentists from three Arab dental schools, *Acta Odontologica Scandinavica*, *75*:5, 355-360, DOI: 10.1080/00016357.2017.1316867
- Croser. (2019). The 8th World Workshop on Oral Health and Disease in AIDS. *Br Dent J*, *227*(7), 547. doi:10.1038/s41415-019-0869-3
- FDI. (2019). Focus on HIV/AIDS and oral health at the 8th World Workshop in Bali, 13-15 September 2019. . Retrieved from <https://www.fdiworlddental.org/fr/news/20190529/focus-on-hiv-aids-and-oral-health-at-the-8th-world-workshop-in-bali-13-15-september>
- GDC. (2015). General Dental Council. Preparing for practice. Dental Team Learning Outcomes for registration. 2015. Available at <https://www.gdc-uk.org/professionals/students-and-trainees/learning-outcomes> (accessed January 2020).
- Khan, S. A., Liew, M. L., & Omar, H. (2017). Role of ethical beliefs and attitudes of dental students in providing care for HIV/AIDS patients. *Saudi Dent J*, *29*(1), 7-14. doi:10.1016/j.sdentj.2016.08.005
- McCarthy, G. M., Koval, J. J., & MacDonald, J. K. (1999). Factors associated with refusal to treat HIV-infected patients: the results of a national survey of dentists in Canada. *Am J Public Health*, *89*(4), 541-545. doi:10.2105/ajph.89.4.541
- Nusrina, I. (2018). *Knowledge, attitudes and practice of health workers towards HIV/ AIDS in Aceh Besar, Aceh – Indonesia*. (PhD), The University of Sydney Retrieved from <http://hdl.handle.net/2123/19437>
- UN. (2014). 90-90-90: treatment for all. (n.d.). . Retrieved from <https://www.unaids.org/en/resources/909090>
- Singh, V. P., Osman, I. S., Rahmat, N. A., Bakar, N. A. A., Razak, N., & Nettem, S. (2017). Knowledge and Attitude of Dental Students towards HIV/AIDS Patients in Melaka, Malaysia. *Malays J Med Sci*, *24*(3), 73-82. doi:10.21315/mjms2017.24.3.9