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OCCUPATIONAL INJURIES AND EXPERIENCED FEELINGS AMONG DENTAL STUDENTS AND DHCW

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Abstract

Objective: Occupational exposure to blood or body fluids is a common problem among dental students and Dental Health Care Workers (DHCW) and subnotification is high. This qualitative interpretive study aimed to compare experienced feelings and post-exposure procedures among dental students and DHCW with regards to their occupational injuries to biological material from patients.

Methods: This cross sectional investigation was conducted in Araraquara city (222,036 inhabitants), Sao Paulo, Brazil. The city has a campus of the Univ. Estadual Paulista "Julio de Mesquita Filho" (UNESP) and among 40 dental students injured in 2012 at Araraquara Dental School (FOAr–UNESP), 25 voluntarily participated in the study. In the dental surgeon's group who worked in Araraquara city, 324 professionals registered in the Federal Council of Dental Professionals (CRO-SP, Sao Paulo, Brazil) were invited to participate. It resulted in 40 DHCW participations. Semistructured qualitative interviews were individually administered and audio recorded. Responses were transcribed, thematically coded and analyzed using a qualitative approach, the Collective Subject Discourse (CSD).

Results: DHCW showed a low perception of their occupational risk. They were reckless to report their own injuries and showed little concern in relation to the established protocols. Undergraduate students were afraid of contracting bloodborne diseases and were concerned about having to take blood tests. Perforation and blood contact were cited as the most important injuries to notify to the health services. However, this knowledge did not show a positive impact in behavior, because many students did not notify their accidents.

Conclusion: Knowledge and fear of contagion did not result in improved compliance with protocols and notification of injuries among dental students or DHCW. Official institutions, public health services, occupational health associations and universities must improve education strategies to better align perceptions of risk, judgments and decision making process in relation to the notification of accidents.

Material and Methods



FIGURE 1. Interviews were recorded, transcribed, and thematically analyzed.

■ 25 undergraduate students at a public university (FOAr-UNESP, Araraquara, Sao Paulo State, Brazil), and 40 Dental Health Care Workers – DHCW at Araraquara city.

■ Qualitative interpretive design with semi-structured interviews. Collective Subject Discourse (CSD) and qualitative analysis (QUALIQUANTISOFT®) were applied.

■ Questions:

- 1) Have you ever been exposed to potentially infectious biological material? How did you feel at the time of the accident?
- 2) What was the first thing you did after being injured?
- 3) What did you do right after that?

Results

DHCW

How did you feel at the time of the accident?

CATEGORY A : I feared contracting disease (22/40)

"I was scared! But it's part of my profession. I was not very careful. At that time, I was not aware as I am today. (...) because of current diseases, occupational hazards unfortunately exist. (...) I fear diseases such as AIDS and Syphilis. I gently interrupted the session and washed my hands. I went to see the doctor at the Health Unit and he said that as I was gloved hand, I had no risk. I calmed down."

CATEGORY B: I did not see the risk (16/40)

"It was unpleasant, but I was neither worried nor afraid. The contamination rate is very small if I take the right procedures and evaluate the patient's risk. None of them had reported illness, and as I knew the patient, it reassured me he was in good health. I think we kind of know who our patients are. There was also such a small amount of blood. There was nothing to worry about! Also I had been vaccinated against Hepatitis B and I knew that HIV is fragile. If I worry about every accident I may have, then I'm lost. Nothing happened and that's fine. I have no problem, neither I think about it."

CATEGORY C: I knew what I should do (2/40)

"I was very afraid, as the patient was HIV positive. I knew the correct procedure to be performed, I kept calm, I finished what I was doing and went to see the doctor then I took the medication and I did the follow-up for 6 months (...)."

What was the first thing you did after being injured? What did you do right after that?

CATEGORY A: I didn't stop what I was doing (5/40)

"I just changed my gloves and went on. Later I checked the damage on my skin.(...) Then I disinfected the area, washed with soap and water and spread alcoholic solution in my hand. Next I went to the doctor, performed my routine checkups and nothing else had happened."

CATEGORY B : I Did nothing (1/40)

"I just let it go. At that time I had no concern about accidents at work. (...) Of course today do preventive exams, blood tests, as I work with HIV patients. Every once in a while I have to do blood tests to see if I am not contaminated. That accident was not important."

CATEGORY C : I washed my hands and checked the inventory of health (24/40)

"I compressed the area while I washed my hands, so the blood went out. Then I rubbed my hands with 70% alcoholic solution to disinfect the injury. After that, I put on another glove and continued (...). I did not tell the patient anything about it, but I checked his medical history. I decided not to notify."

CATEGORY D: I sought medical service (10/40)

"I washed my hands and went to do blood tests and the patient did too. She did not have any problem that I would be worried about. (...) Thank God she had nothing. I also checked my HBV immunization status. In another case, the patient was HIV positive, and even aware of the fact that the accident was not that serious, I went to the medical service. The patient and I went through all the blood tests. I took the prescribed medication, and did follow up for HIV and HCV. (...) After six months I did all the tests again, and everything was ok."

Dental Students

How did you feel at the time of the accident?

CATEGORY A : I felt calm (5/25)

"At the time of the accident I was not nervous, because I saw there was only saliva (...). The patient was there and the professor was too. No problem."

CATEGORY B: I feared to become contaminated (18/25)

"I was nervous and too afraid to be contaminated. I was desperate and there was no one around to help me. I thought the patient might have a serious illness and could infect me. (...) There was no blood, but I was worried anyway. I thought I could get contaminated with AIDS or Hepatitis."

CATEGORY C: I felt frustrated (2/25)

"I was very frustrated because I had punched myself (...). I was unsure if I should talk to the professor about the accident, but I decided not to."

What was the first thing you did after being injured?

CATEGORY A: I washed my eyes (4/25)

"I washed my eyes and just replaced my goggles."

CATEGORY B: I washed the perforation site (14/25)

"I took my gloves off and went straight to wash my hands. (...) After that, I rubbed them with alcoholic gel, and made a bandage."

CATEGORY C: I went to talk to the teacher (7/25)

"The first thing I did was to talk to the professor to see what measures should I take (...). I started crying and he helped me. I filled in the notification form and went to the public health assistance unit."

What did you do right after that?

CATEGORY A: I continued the procedure (13/25)

"I did nothing , just kept on with the procedure, as I just got contacted with saliva. I talked with both the professor and the patient, and it didn't seem to have a problem. My professor calmed me down after we checked on the patient's records (...) I put on new gloves and continued what I was doing."

Category B: I went to the public health assistance unit (12/25)

"I informed my patient. The professor and I did all the documentation and went along with the patient to do his blood tests, I mean HIV fast tests. (...) On the other day I had my own blood tests."

Conclusion

- Low perception of risk was observed among dental students and DHCW.
- Significant proportion of respondents did not show to have any negative feelings nor were they motivated to report the accident.
- New training strategies among dental students should include paradigm shift to raise awareness and improve their understanding on the consequences related to such injuries in their future professional life.

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