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## Cross-infection and infection control in dentistry: Knowledge, attitude and practice of patients attended dental clinics in King Abdulaziz University Hospital, Jeddah, Saudi Arabia



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KEYWORDS Patient safety; Cross infection; Dental infection; Infection control; Emerging diseases; KAP **Abstract** The objective of the study was to determine the level of Knowledge, Attitude and Practice (KAP) of patients attended dental clinics at King Abdulaziz University Hospital (KAUH) regarding cross infections and infection control in dentistry. A cross-sectional study was conducted among 225 patients who attended the dental clinics of KAUH, Jeddah, Saudi Arabia, 2014. A standardized, confidential, anonymous, interviewing questionnaire was used. Knowledge about dental infections was assessed by 12 MCQs. The attitudes were assessed through answering seven statements on a three- point Likert scale. Patients' self reported practices were also evaluated. Descriptive and inferential statistics were done.

Results of the study revealed that 39.5%, 38.7% and 21.8% of the participants obtained poor, fair and satisfactory level of knowledge about infections and infection control in dentistry, respectively. Social media was the commonest source of information about dental infection. Participant's educational level was significantly associated with the level of knowledge about dental infection. Patients had positive

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attitudes towards infection control in dentistry. Regarding self-reported practice, only few participants would ask dentists about sterilization of dental instruments (9.3%), wearing face mask (13.3%) and gloves (16.4%) if they don't do so. In conclusion, our participants had good attitudes towards infection control in dentistry. However, their knowledge and practice need improvements. Conduction of educational programs is needed through social media, mass media, schools and public places. These programs involve both patients and providers.

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## Background

Patient safety is an important medical discipline which aims at improving quality of patient care, minimizing treatment mistakes and improving safety [1]. Infectious diseases represent an important public health problem facing health care systems in many countries [2].

Provision of dental care is not free from risk [3]. Cross-infection during clinical practice can occur with transmission of infectious agents between patients and health workers in a clinical environment. Transmission of dental infection can occur through infected air droplets, blood, saliva, and instruments contaminated with secretions [4]. Persons who seek dental care could be in the prodromal phase or being carriers of certain infectious diseases, without knowing about their physical conditions. In addition, some infectious diseases have prolonged incubation periods or post-infection ''window period'' during which antibodies can't be detected [4,5].

Cross-infection in dentistry can occur through many pathogenic organisms found in oral cavity and respiratory tract. Example of these organisms are cytomegalovirus (CMV), Hepatitis C Virus (HCV), Hepatitis B Virus (HBV), herpes simplex virus (HSV types 1 and 2), HIV/AIDS, Mycobacterium tuberculosis, staphylococci, streptococci and other viruses and bacteria [4]. Furthermore, nowadays we are living in an era of eco-epidemiology, with global emergence and re-emergence of many communicable diseases [6,7]. Emerging agents as Ebola, Middle East Respiratory Syndrome-Corona Virus (MERS-CoV), H1N1 and H5N1 and others [8] can be also transmitted during dental practice.

Blood borne infections as HIV/AIDS, HCV, HBV, and other emerging blood borne organisms represent the main risks for the transmission of infections in dental practice. Exposure to blood and body fluids need great concerns from both dental care providers and the patients [5]. A study done in Rivadh, KSA, showed that 3.2% of female patients attended the dental clinics of King Saud University had seropositive HBV and HCV. Meanwhile, they didn't know about their infection and had no clinical manifestations. The study concluded that taking medical history without screening for HBV and HCV might lead to treating infected patients as non infected and this can increase the risk of cross infection unless strict adherence to standard precautions is applied [9]. Another study conducted by reviewing literature done on occupational risks of viral infections in the operating room over the last 5 decades. Results revealed that the risks of viral infections remained the same as a decade ago [10]. Furthermore, a house-hold survey done in Damietta, Egypt, 2014, found that 1.1% of the participants were infected with HBV, 9.3% with HCV, and both infections co-existed in 0.4%. One of the main risk factors for both infections was exposure to dental procedures [11]. In addition, the continuous increase in the number of patients seeking dental clinics should give alarming signs to dentists and Dental Health Care Programs (DHCPs) for better awareness of extra-precautions required while treating the dental patients. These measures are needed for protecting both patients and staff members [12].

Although many guidelines and recommendations are issued by medical and dental societies as well as governmental organizations, studies illustrated that infection is not well controlled in some dental practices and hospitals [2].

Identifying KAP of patients towards infection control methods in dentistry is an important issue. A study done in Riyadh, Saudi Arabia, 2013, showed that most of their patients agreed that dentist should wear gloves, face mask and spectacles while providing dental treatment. However, smaller percentage knew that HIV/AIDS and HBV can be transmitted through dental practices [4]. Most of the studies done about infection control in dentistry were conducted among dentists or dental students [13]. Limited number of studies was done among Download English Version:

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