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Dental Clinic Patients' Knowledge, Attitudes, Epidemiology and Practises around Cross-Infection and Infection Control

Hanuk Kenedy*

Department of Epidemiology, Alexandria University, Egypt

Abstract

The goal of the study was to evaluate the patients who attended dental clinics at King Abdulaziz University Hospital (KAUH) in terms of their knowledge, attitudes, and practises (KAP) regarding cross-infections and infection control in dentistry. In 2014, 225 patients who visited the dental clinics of KAUH in Jeddah, Saudi Arabia, participated in a cross-sectional survey. It was conducted using a standardized, private, anonymous interviewing questionnaire. With the use of 12 MCQs, knowledge of dental infections was evaluated. Answering seven statements on a three-point Likert scale helped determine the attitudes. The practises that patients self-reported were assessed as well. We used both descriptive and inferential statistics. The study's findings showed that, respectively, 39.5%, 38.7%, and 21.8% of the participants had low, good, and satisfactory understanding of diseases and infection management in respectively, dentistry. The most popular platform for learning about dental infections was social media. The degree of oral infection knowledge among participants was significantly correlated with their educational background.

Keywords: Patient safety; Cross infection; Dental infection; Infection control

Introduction

Patient safety is a crucial area of medicine that focuses on enhancing the standard of patient care, reducing treatment errors, and enhancing safety. Infectious infections are a significant public health issue that many nations' healthcare systems must deal with. The provision of dental care carries certain risk. Transmission of infectious agents between patients and healthcare professionals in a clinical setting can result in cross-infection. Blood, saliva, contaminated equipment, contaminated air droplets, and contaminated instruments can all spread dental infections. Without being aware of their physical state, individuals seeking dental care may be in the prodromal stage or be carriers of certain infectious diseases [1]. Additionally, some infectious diseases have protracted incubation times or a "window period" after infection during which antibodies can't be produced.

Numerous pathogenic organisms that are present in the respiratory tract and oral cavity might cause cross-infection in the dental field [2]. The cytomegalovirus (CMV), the hepatitis C and B viruses (HCV and HBV), the herpes simplex viruses (HSV types 1 and 2), HIV/AIDS, Mycobacterium tuberculosis, staphylococci, streptococci, and other viruses and bacteria are examples of these organisms. Furthermore, numerous communicable diseases are emerging and reemerging globally in this era of eco-epidemiology. Emerging diseases like Ebola, the Middle East Respiratory Syndrome-Corona Virus (MERS-CoV), the H1N1 and H5N1 flu viruses, and others can spread while a dentist is working. The greatest hazards for infection transmission in dentistry practises include blood borne infections like HIV/AIDS, HCV, HBV, and other developing blood borne pathogens [3]. Blood and bodily fluid exposure requires serious concerns from Another investigation was carried out by analysing the literature produced over the last five decades on occupational risks of viral infections in operating rooms. The outcomes showed that the risks of viral infections were unchanged from a decade ago. In addition, a household study conducted in Damietta revealed that 1.1% of participants had HBV, 9.3% had HCV, and 0.4% had both diseases. Dental operations were one of the key risk factors for both illnesses. Additionally, the ongoing rise in patients visiting dental offices should serve as a warning to dentists and Dental Health Care Programs (DHCPs) about the need for extra safeguards when caring for dental patients. These steps are necessary to protect both patients and employees [4].

Method

Ethics Statement

Studies showed that infection is not properly controlled in some dental practises and hospitals, despite the fact that many rules and recommendations are provided by governmental organisations, medical and dental society, and other organisations. It is crucial to identify patients' KAP with regard to infection control procedures in dentistry. According to a 2013 survey conducted in Riyadh, Saudi Arabia, the majority of their patients believed that the dentist should wear gloves, a face mask, and eyeglasses when performing dental work. A smaller percentage of people were aware that dental practises can transmit HBV and HIV, nevertheless [5]. The majority of research on infection management in dentistry has been done on dentists or dental students. A small number of researches were conducted among patients visiting Jeddah dental clinics. So, such research is required. The purpose of assess the degree of patients' knowledge, attitudes, and practises (KAP) on cross-infections and infection control procedures in dentistry at King Abdulaziz University Hospital (KAUH), Jeddah.

Cross-Sectional Design

The Institutional Review Board (IRB) of the Faculty of Dentistry, KAUH gave its approval to the study. Each accepted participant provided a written consent, and administrative approvals were obtained. In 2014, a cross-sectional design was carried out at the

***Corresponding author:** Hanuk Kenedy, Department of Epidemiology, Alexandria University, Egypt, E-mail: kenedy8@gmail.com

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KAUH dental clinics. Both male and female adult patients between the ages of 18 and 60 who visited dental clinics on the interview day were included in the study. Patients with serious illnesses and those suffering from mental problems were excluded [6]. The procedure was a non-probability convenience sample. According to a cross-sectional study's defined formula, the sample size was determined. 267 people made up the computed sample size's bare minimum. We employed a standardised, private interviewing questionnaire.

Non-Probability Convenience

A sample procedure was employed. According to the accepted formula for calculation from a cross-sectional study, the sample size was determined. 267 people made up the computed sample size's bare minimum. We employed a standardised, private interviewing questionnaire. Two experts evaluated the questionnaire's face and content validity [7]. Utilizing Cronbach's alpha, the internal consistency reliability was evaluated and found to be 0.84. 50 questions about personal and socio-demographic information, such as age, sex, education, etc., were included in the questionnaire. Source of information: dental infection and infection control. Twelve multiple choice questions (MCQs) were used as an accessible way to gauge patients' factual knowledge, understanding, and interpretation of dental cross-infection and infection prevention in dentistry [8]. The inquiries raised concerned HIV/AIDS, HBV, HCV, TB, MERS-CoV, and other infections that can spread through dental practise (modes of transmission, existence of a vaccine, infection control measures to stop transmission in dentistry, etc.

Patients' responses to seven statements on a three-point Likert scale were used to gauge their attitudes on the necessary precautions for cross-infection prevention during dental therapy [9]. These questions sought participants' perspectives on the significance of wearing gloves, a face mask, and eye goggles (glasses) while performing dental work. Additionally, they were questioned about how important they thought it was to change gloves after each patient visit, phone conversation, etc. Additionally, participants' thoughts on safety precautions and cross-contamination in dental practise were solicited [10].

Result

The outpatient clinic patients were typically in a rush and apologized for not completing the questionnaire, which resulted in a response rate of 85% and 225 patients participating in the study. Age was 31.6 + 13.3 years on average. When asked where they found knowledge regarding dental infection control, 49.8% said social media. This was followed by television (16.4%), books (10.7%), and friends (6.7%). 5.3%, 4.9%, 1.3%, and 4.9% of the sample came from relatives, newspapers, magazines, and other sources, respectively. 39.5%, 38.7%, and 21.8% of the participants scored poorly on tests measuring their knowledge of oral infection and infection management in dentistry, respectively. knowledge test result in comparison to men. The change is not statistically significant ($p > 0.05$), though. However, when compared to other groups, students exhibited the lowest degree of knowledge ($2 = 15.43$, p 0.001). Patients who worked in professions other than medicine showed higher knowledge levels than non-professional participants, although there was no statistically significant difference ($p > 0.05$).

Discussion

To the best of our knowledge, this study in Jeddah is the first to evaluate dental patients' awareness of cross-infection and infection management. Most inadvertent exposure in dental care can be avoided by adhering to infection control recommendations and using the necessary precautions. For the purpose of limiting the spread of blood-borne illnesses and other dentally acquired cross-infections, standard procedures, the use of appropriate measures, pre-exposure immunization, and post-exposure prophylaxis are also essential. About two-fifths of the participants in the current study had insufficient understanding of oral infections and infection management in dentistry. A different study from Sudan found that dental patients knew nothing about HIV/AIDS. Patients' awareness of health issues is increasing along with their worry greater protection while undergoing therapy. According to the current study, participants' knowledge of infection prevention in dentistry was substantially correlated with their educational background. In addition, women scored somewhat higher on the knowledge test than men did (but without significant difference). These findings concur with those of Romanian researcher.

Conclusion

Patients using KAUH dental clinics have a positive attitude toward infection control in dentistry. Both the self-reported practise and knowledge may use some work. Social media was the primary information source for the patients. Through educational initiatives that might include both consumers and providers, patients who have visited dental clinics need to be better informed about cross-infection in dentistry. Social media can be used primarily to raise public awareness of cross-infections among big populations. Additionally, it can be done through television programmes, public spaces, colleges, schools, and retail centres. These initiatives can aid in the eradication of dental infections by raising both consumers' and providers' awareness of the necessary precautions.

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