

# Endodontic Dental Staff Perception about the Variables Affecting the Exposure Percutaneous Injuries at Selected Dental Clinics, Saudi Arabia

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**Abstract:** Background: Sound judgment and good communication and managerial skills. The most common method of preventing percutaneous injuries is to use adequate individual protection equipment and to receive a vaccination against HBV with posterior serum conversion analysis. Exposure to percutaneous injury increases the probability of transmission of pathogens, such as the Hepatitis B virus (HBV) or the HIV virus. Such injuries may also cause alterations in the psychosocial circumstances of the injured health care provider. Ministry of Health estimates that 19% of the population had already contacted HBV and 1% exhibited chronic disease caused by this virus, while worldwide, two billion individuals have already been infected with HBV. (Gerberding, 2003). Objective: To appraise the level of awareness' towards work-related injury among endodontic staff at Selected Dental Clinics, Saudi Arabia. Method: A cross-sectional survey was conducted at dental Clinics, Saudi Arabia. Twenty six items self-administered questionnaire was provided to 140 endodontic staff in the research setting based on To evaluate the level of awareness' towards work-related injury among endodontic staff at Selected Dental Clinics , Saudi Arabia. Results: This study showed the majority (82.85%) of the endodontic dental staff had a high level of perception towards the Variables affecting the Exposure Percutaneous injuries at Selected Dental Endodontic Clinics, Saudi Arabia. This study showed the majority (82.85%) of the staff have a high level of perception towards the Variables affecting the Exposure Percutaneous injuries which were found in "Surgical cap usage". Followed by (78.57%) at the item of "Vaccination against Hepatitis B". Conversely (62.0%) of the dental staff had a low level of perception towards the Variables affecting the Exposure Percutaneous injuries at Selected Dental Endodontic Clinics, Saudi Arabia, which was in item "Number of doses of Vaccination against Hepatitis" (64.28%) as well as same findings were found in item of "Gloves usage ". Conclusions: The current study results revealed that there was a high level of endodontic staff perception towards the Variables affecting the Exposure Percutaneous injuries at Selected Dental Endodontic Clinics, Saudi Arabia.

**Keywords:** Variables, Percutaneous injuries; Perception; & Endodontic Staff

## 1. Introduction

While dental practice staff may be out in the open to some of the most common safety risks, as potential slips, trips, and falls, they also face unique workplace hazards that could result in on-the-job injuries. For example, the use of dental tools such as explorers, probes, and drills exposes dentists, hygienists, and dental assistants to possible injury and disease through puncture wounds or hand-to-mouth contact. This is why creating a culture of safety in the workplace, combined with the appropriate workers' compensation insurance, is critical to protecting the well-being of employees and your business. (Adegboye , Moss, Soyinka & Kreiss , 2000)

Stein & Makarawo,(2003),the Occupational Safety and Health Administration (OSHA), developing a safety culture can significantly reduce workplace accidents.. exemplify the characteristics of culture appraisal tackles currently obtainable and discusses their existing and possible utilization, including brief utilization that contain assume as appraisal tools.

Utilization of work place policies & procedures concerning infection control as one of the main variables affecting the Exposure Percutaneous injuries especially for dental staff which include explicit suggestion for utilize of personnel protective equipments (PPE) when create contact with

blood and body fluids hold blood is expected Health care staff is at risk of acquiring . (Haddad, et al., 2002).

Contamination from side to side proficient experience to infectious syndrome. Entire precautions were primarily developed in 1987 by the Centers for Disease Control and Prevention in the United States and in 1989 by the Bureau of Communicable Disease Epidemiology in Canada. The minority studies have reported on surgeons' adherence towards universal precautions and reported be deficient in of adequate practices in relation to fulfillment towards the personnel protective equipments (PPE). (Norden, C, Rockwell K, Hruska, T, 2008).

Dental staff perception towards the Variables affecting the Exposure Percutaneous injuries are predictable to manipulate explicit risk for all the health care providers. All the health care personnel in particular the dental staff who is working in surgical units and Operation Theater are more required to have a cause of a better understanding in adherence with PPE usage which is noteworthy as it provides an assessment of the efficacy of accessible preventative strategies. (Gerberding , 2003).

To recognize the precautionary variables which are likely to improve the compliance and decrease the risk of infection transmission. Then, it is possible to integrate these anticipatory approaches into the strategies of health care surroundings. ( Wilczyn, et al., 2005).

Manual policy and procedure of work related universal precaution is the only approach so that all these infections could be prevented. Inadequate experience of surgeons in performing invasive procedures, they are at particular risk of exposure to blood-borne micro-organism (Chopra, et al., 2008).

Chia, Koh, Chong & Jeyaratnam, (2000), endodontics' should have reasonable knowledge and performance in relation to adherence to personnel protective equipments. Moreover, dedicated training must be conducted before dental staff caring for any patient procedure particularly the ones concerning sharp devices. Endodontics' compliance towards the personnel protective equipments has been reported to be with diminutive altitude

According to Elliott et al., (2005) , Exposure Percutaneous injuries caused by non adherence to universal precautions by the health care providers, statistics reported by the Central Register of Occupational Diseases in Poland indicates that among 314 new cases of occupational diseases in HCWs in 2004-2006, HBV and HCV represented 42.6% for 2004 , 32.5% for the year 2006 of all cases.

According to Palenick (2009), notwithstanding the substantial reduction in HBV infection since vaccination was introduced in 1989, the incidence of HCV hepatitis in Poland is still on the increase in this occupational group.

Strategy of work related injury augment consciousness education has not been well-known among health care workers especially the category of surgeons, particularly in developing countries. To the utmost of the application all the precautions against the variables of Exposure Percutaneous injuries, the consideration of dental staff in relation to knowledge and awareness about policies work related injury. Consequently, conducted this study to judge their level of perception towards the Variables affecting the Exposure Percutaneous injuries at Selected Dental Endodontic Clinics, Saudi Arabia.

## 2. Participants and Methods

This study was applied in the selected setting, and ethical approval was granted by the selected dental clinics. The number of sample size was 140 dental staff was recruited for the study. The participants were selected from the clinics. After signing an informed written consent form, the questionnaire was given to each contributor.

Previous to administration of the questionnaire, the purpose of the study was explained to each respondent and confidentiality of the information guaranteed. Current r study was carried out by the author who was appropriately trained in administering the informed consent and the self-report questionnaire to the participants. In this cross-sectional study, a structured questionnaire prepared by the authors, was given to the participants.

A self-administered structured questionnaire about knowledge and awareness work related injury was devised and tested. It included a full range of response options, designed to identify the practitioner's level of to assess their level of attentiveness towards policies among dental staff in the selected setting. Prior to distribution of the questionnaire, a pilot study was done on a selective group of health care workers who were asked to fill out the questionnaire and return it back with their remarks and criticism. Minor changes were then made to the final tool.

The introduction part of the questionnaire consisted of demographic information such as occupation, age, gender, and the marital status. The second part of the questionnaire comprised of questions regarding their level of attentiveness towards universal precautions. This part also assessed the level of perception towards the Variables affecting the Exposure Percutaneous injuries at Selected Dental Endodontic Clinics, Saudi Arabia. It obtained within approximately 20 minutes to complete each appraisal.

The level of perception towards the Variables affecting the Exposure Percutaneous injuries at Selected Dental Endodontic Clinics, Saudi Arabia. The data were coded and analyzed by SPSS® for Windows® ver. 12.0. Strict confidentiality was maintained. All the data were stored in computers at a secured location, with access provided only to the researchers involved in the study. The  $\chi^2$  test was used to test association between categorical variables. A p value <0.05 (two-tailed) was considered statistically significant differences.

## 3. Results

Dental Staff Perception about the Variables affecting the Exposure Percutaneous injuries at Selected Dental Endodontic Clinics, Saudi Arabia

Items of Perception of Percutaneous injuries	Very Knowledgeable		Somewhat knowledgeable		Not Knowledgeable	
	No	%	No	%	No	%
Facial mask use	104	74.28%	6	4.28%	30	21.42 %
Gloves usage	90	64.28%	31	22.14%	19	13.57%
Surgical cap usage	116	82.85%	14	10.0%	10	7.14%
Vaccination against Hepatitis B	110	78.57%	16	11.4%	14	10.0%
Number of doses of Vaccination against Hepatitis B	90	64.28%	30	21.42 %	20	14.28%
Percutaneous injuries	95	67.85%	30	21.42 %	15	10.71%

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Selected Dental Endodontic Clinics, Saudi Arabia. This study showed the majority (82.85%) of the staff have a high level of perception towards the Variables affecting the

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#### 4. Discussion

This study showed the majority (82.85%) of the endodontic dental staff had a high level of perception towards the Variables affecting the Exposure Percutaneous injuries at Selected Dental Endodontic Clinics, Saudi Arabia. This study showed the majority (82.85%) of the staff have a high level of perception towards the Variables affecting the Exposure Percutaneous injuries which were found in "Surgical cap usage". Followed by (78.57%) at the item of "Vaccination against Hepatitis B". Conversely (62.0%) of the dental staff had a low level of perception towards the Variables affecting the Exposure Percutaneous injuries at Selected Dental Endodontic Clinics, Saudi Arabia.was in item "Number of doses of Vaccination against Hepatitis" (64.28%) as well as same findings were found in item of "Gloves usage " .

Dentists with significant perception about the Variables affecting the Exposure Percutaneous injuries at Selected Dental Endodontic Clinics, Saudi Arabia , those treating fewer patients may perform more intricate and complex procedures, meaning that they wear gloves for a greater proportion of the day and spend more time in a working position that predisposes to problems.

Perception about the Variables affecting the Exposure Percutaneous injuries at Selected Dental Endodontic Clinics, Saudi Arabia , which will consequently reduce the risk of exposure of the health care worker's skin or mucous membranes to potentially infectious materials.

One of the main variables affecting the Exposure Percutaneous injuries is Protective barriers reduce the risk of exposure to blood and other body fluids to which universal precautions apply. Examples of protective barriers include gloves, gowns, masks, and protective eyewear. Just over one half of the respondents indicated that they were provided with protective equipment most times.

Variables affecting the Exposure Percutaneous injuries at Selected Dental Endodontic Clinics, Saudi Arabia , the data was found , more staff was provided with protective equipment than other health care providers. Entertainingly, more respondents who were aware of universal precautions reported . (Lacerda , 2004).

This study results congruent with the research data carried out by Norden, Rockwell & Hruska., (2008),who reported that less than two-thirds of health care workers claimed that they always used personal protective equipment such as

aprons, gowns and gloves, during surgeries and while conducting deliveries. Furthermore, non-compliance among medical doctors and nurses are associated with insufficient knowledge, workload, forgetfulness, workplace safety and the insight that colleagues also failed to track.

The current research data revealed that there was high level of attentiveness towards Variables affecting the Exposure Percutaneous injuries at Selected Dental Endodontic Clinics, Saudi Arabia . These findings suggest that training of health care workers to maintain and enhance their knowledge about Identifying the workers' compensation case—When patients visit the practice, there are several clues to look for to determine if their problems occurred on the job. Paperwork for new patients, such as the American Dental Association (ADA) form, often asks if a dental problem occurred at work. If the dental injury was caused by trauma, it's important to ask, "How did these teeth get knocked out?" or "How did you get that chipped tooth?" If a patient presents with a dental complaint that isn't trauma, a clinical exam can be performed to determine causation to find out if it is, in fact, a work-related injury as one of the main variables of the affecting the Exposure Percutaneous injuries .

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