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Research Article

KNOWLEDGE, ATTITUDE AND PRACTICE AMONGST DENTAL GRADUATES REGARDING ORAL MANIFESTATION OF HERPES SIMPLEX

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A B S T R A C T

Background: Herpes simplex is a virus causing contagious sores, most often around the mouth or on the genitals.There are two types of the herpes simplex virus. HSV-1, also known as oral herpes, can cause cold sores and fever blisters around the mouth and on the face and HSV-2 .the dental clinic is an environment where disease transmission occurs easily.

Aim: To survey Knowledge attitude and practice amongst dental practitioners regarding oral manifestation of herpes simplex.

Objective: To evaluate the awareness about herpes simplex amongst the dental practitioners.

Method: It was a Questionnaire based survey. The survey data was collected from 100 dental graduates from several dental colleges. The questionnaire was divided into 3 parts with section A testing the knowledge of the dental graduates. Section B testing the practice and section C testing the attitude towards treating patients.

Results: From the survey conducted more than 50 % of the dental graduates had a very good knowledge about the disease.59% of the people had a positive attitude towards the disease and their attitude towards treating patients with the disease in this study.The average value for the professional behaviour towards the disease was 78.6% in this study.

Conclusion: The dental graduates, have very good knowledge, they made themselves aware of the preventive measures they have to undertake when treating a patient with herpes simplex.

INTRODUCTION

Oral and perioral (herein referred to collectively as oral) herpes simplex virus (HSV) infections represent one of the most common oral soft tissue disease processes encountered in the general population.1,2 HSV-1 serotype is the most common cause of orofacial infections, howeverPrimary oral HSV infections usually occur in early childhood and while the majority are subclinical, clinical infections initially present with general symptoms, such as malaise, fever and lymphadenopathy (referred to as a prodrome) followed by vesicles and/or ulcers affecting a variety of intraoral surfaces.3 Most primary oral HSV infections are readily diagnosed based on clinical history, signs and symptoms and further laboratory investigation is generally not warranted.[14]

About 85% of the US population is infected with herpes simplex virus type 1 (HSV-1).Infection tends to occur in one of two distinct timeframes: because of the nonfastidious nature of children, childhood infection is predominant.A second wave of infections tends to occur in adolescence.Following the primary infection, 40% of people experience recurrences. These are typically less severe.HSV-1 is a threat to the dental team in that it can also affect the skin (herpetic whitlow) and the cornea (ophthalmic keratitis).[8] Several literature includes reports of herpes whitlow andherpes keratitis in dental health care providers aftertreating patients with active herpes lesions, in the absenceof proper infection control practices .[16]

Incidence of HSV-1 infection has been associated with age, race, female sex, lower educational background, and lower socioeconomic status. However, few studies have examined the confounding effects of these factors. Individuals in developing countries and from lower socioeconomic backgrounds tend to acquire antibodies against HSV-1 at an earlier age than individuals from industrialized countries or from more affluent backgrounds. Herpes simplex viruses are transmitted during close personal contact through the exchange of virus-containing secretions like vesicle fluid from active lesions, saliva, semen, and cervical fluid. The virus must contact mucosal surfaces or abraded skin, where it then first replicates and initiates infection. Initial replication of the HSV-1 often occurs in the oropharyngeal mucosa and establishes latency in the trigeminal ganglia.[1]

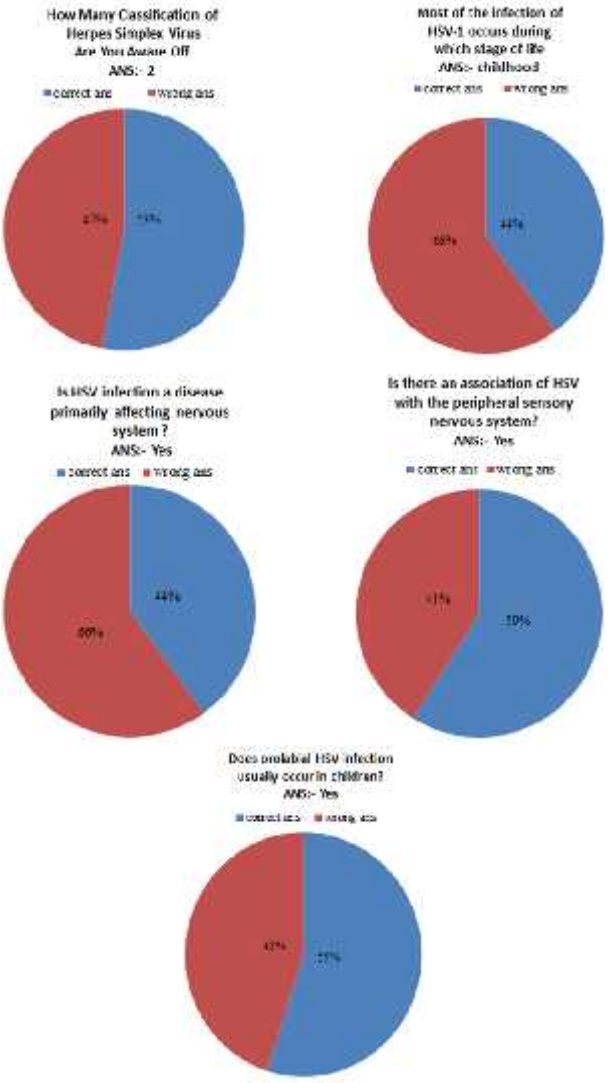
Dental graduates are frequently exposed to patients who suffer from recurrent HSV infections. As many dental

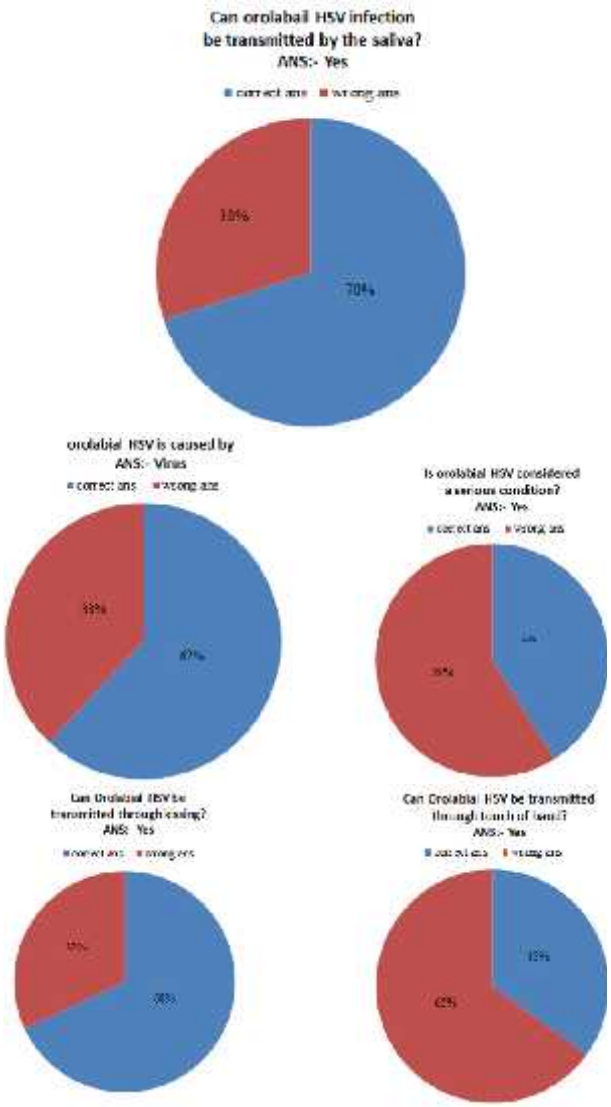
graduates come from middle- or higher income homes, they may not yet have acquired the antibodies. These graduates are therefore at higher risk of acquiring a primary infection. If their lack of immunity is coupled with an incomplete understanding of the disease process, these graduates will be vulnerable to these infections.It iscrucial for us to study the amount knowledge averse that these graduates. This study was conducted to assess knowledge, attitudes, and professional behavior concerning the treatment of patients with HSV infections and to investigate how graduates knowledge, attitudes, and professional behavior are related.

METHODS

Questionnairedata were collected from 100 dental graduates from several dental colleges. The graduates volunteered to complete the survey after they were informed about the study and received a questionnaireto be filled out. The graduates were asked to answer anonymously and return the surveys. The survey was approximately 5 minutes, the questionnaire was divided into 3 parts. Section 1 consisted of 10 question testing the knowledge of dental graduates on herpes simplex. Section 2 consisted of 3 likert-type question concerning dental graduate's dental practice methods. section 3 of the survey consisted of 2 likert-type question assessing the attitude of dental graduates towards herpes simplex.

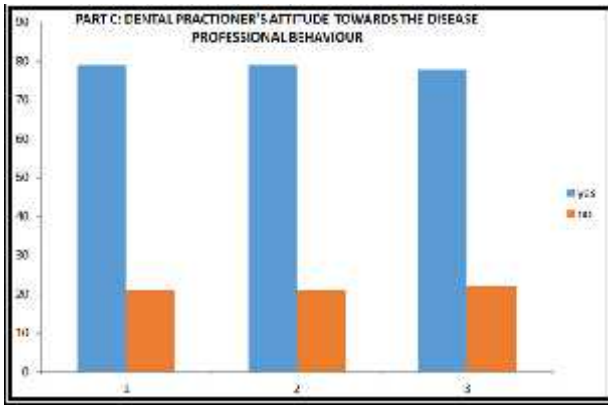
RESULTS

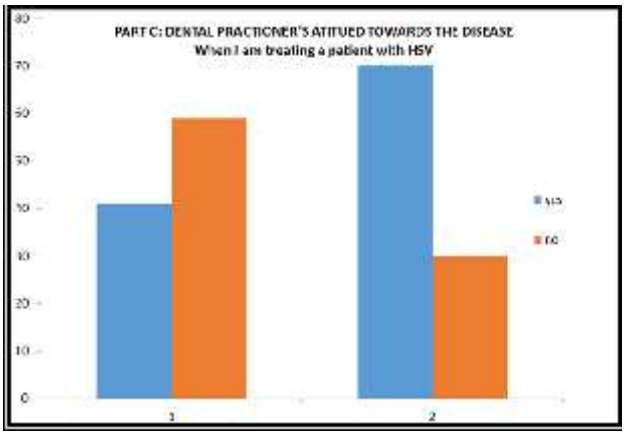




	Part b: dental practice methods	Yes	No
	*when I treat a patient with HVS		
·	I check the patient history	79%	21%
·	I use proper infection control	79%	21%
·	I want to educate them about HSV	78%	22%

Part C: Dental Practioner's Atti Ued Towards The Disease	Yes	No
*When I am treating a patient with HSV		
· I feel uncomfortable	41%	59%
· I am concerned about getting infected	70%	30%





From section A : Q1: How Many Classification of Herpes Simplex Virus Are You Aware Off 53% answered correctly where as 47% answered wrong. Q2: Most of the infection of HSV-1 occurs during which stage of life 44% answered correctly where as 66% answered wrong. Q3: Is HSV infection a cause of disease primarily of the nervous system rather than of? 44% answered correctly where as 66%answered wrong.

From section B :Q1: when I treat a patient with HVS I check the patient history.79% answered correctly where as 21% answered wrong. Q2: when I treat a patient with HVS I use proper infection control 79% answered correctly where as21% answered wrong. Q3: when I treat a patient with HVS I want to educate them about HSV 78% answered correctlywhere as 22% answered wrong.

From section C : Q1:When I am treat a patient with HSV I feel uncomfortable 41% answered correctly where as 59% answered wrong. Q2.When I am treat a patient with HSV I am concerned about getting infected 70% answered correctly where as 30% answered wrong.

DISCUSSION

In another study conducted on KAP of Herpes Simplex conducted on Nigerian denial health care providers there over all knowledge was 43.2% [16] which is very close to the value in this study. A positive attitude was found in about 10.5% [16] of the participants in the other study whereas about 59% of the people had a positive attitude towards the disease and their attitude towards treating patients with the disease in this study. The professional behavior was adequate in 87.4% [16] of participants in the other study. The average value for the professional behaviour towards the disease was 78.6% in this study.There are over 100 million occurrences of herpes labialis within the United States annually. Although herpes is highly contagious, the virus is also very sensitive to the use of soap and warm water. Frequent and thorough hand washing will help mitigate risk if the virus is present on the intact skin of the hands. Treatment of dental patients who present with active lesions represents a potential occupational hazard to the dental team in the form of herpes whitlow and herpes keratitis. clear-cut standard is offered regarding whether or not to treat a patient with active lesions. Rather, individual dentists make these decisions after giving consideration as to whether elective or urgent treatment is needed. Some have concluded it is best not to work on patients with active lesions..[8]

Members of the dental team who are infected create a higher risk for cross-infection to other staff and patients. From a more personal perspective, the pain caused by the infection can be disabling to the point of not being able to work well. Herpes whitlow has been found to occur more frequently in dentists than in the general population (2.4% versus 1.7%; $p < 0.01$). One potentially under-recognized transmission vector involves an aerosolized saliva/herpes mix. The use of simple safety glasses, even with side shields, may protect against direct spray, but will be of questionable use against an aerosol containing the virus..[8]

Harrel and Molinari15 concluded that it is reasonable to believe that components of saliva and respiratory fluids are included in aerosols, and that the greatest creators of aerosols in the dental office are the ultrasonic scaler, the handpiece, and the air polisher, respectively.Harrel and Molinari15 suggest that practitioners should also assume that all patients have infectious disease potentially spread by aerosol, and that this concept should be included as part of the profession's understanding of universal precautions. .[8]

Further, while the use of PPE eliminates much of the danger from splatter or larger particles, aerosols still have the potential to be inhaled via leaks in the mask and to go around safety glasses. They suggest taking a layered approach to protection. In terms of aerosols, examples include such items as use of high volume evacuators, which capture 95% of aerosols; safety glasses with side shields and a face shield; and goggles. The authors suggest two general strategies are useful first, limit treatment of patients with active lesions to urgent care only. Second, in order to minimize disruption of needed dental services, treat active lesions to reduce the length of time it takes them to heal and during which they are infectious.[8]

Until recently, definite evidence of HSV transmission from person to person could not be obtained since differentiation between epidemiologically related and unrelated isolates was not possible. However, in several recent studies, RE analysis of HSV DNA has provided clear evidence to determine whether infections were epidemiologically related.[16]

Delivery of oral health care is the fundamental responsibility of dentists. However, these professionals are at risk for infections caused by various microorganisms such as Mycobacterium tuberculosis, HBV and HCV, staphylococci, streptococci, HSV type 1, HIV, mumps, influenza, and rubella Italy and Pakistan. Preventing cross infection is considered an essential aspect of dental practice because disease transmission may occur this way in the dental health care setting.[16]

Even though HSV infection is mostly latent and often does not Cause any overt disease presentation, the dental graduates have taken the time to learn about the disease, its manifestation, its treatment and its precautions in this study.

CONCLUSION

From the data collected we can conclude that the dental graduates have a good knowledge about herpes simplex, know the proper dental practice methods and also have a reasonable amount of confident attitude when attending to a herpes simplex patient

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