

KNOWLEDGE, ATTITUDE AND AWARENESS OF PARENTS REGARDING THE IMPORTANCE OF BARRIER TECHNIQUES (USE OF GLOVES, MASKS & GOGGLES) BY THE PEDIATRIC DENTISTS AT PRINCE HASHEM MILITARY HOSPITAL, JORDAN

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ABSTRACT

The aim of this study was to assess the awareness and knowledge of parents regarding the importance of barrier techniques (gloves, masks, and goggles) by the pediatric dentists.

Three hundred fifty four parents, 185 females (52.3%) and 169 males (47.7%) who visited the Pediatric Dental Clinic of Prince Hashem Ben AL Hussein Hospital in the east of Amman formed the study group. The study period was eight months (15 April 2016 to 15 December 2016). The parents were selected randomly to fill the questionnaire about the age, gender and the knowledge about utilized barrier techniques by the pediatric dentists. The age of the parents ranged from 25-50 years.

96.2% parents wanted the pediatric dentists to wear gloves during dental treatment, while 95.8% of them felt that mouth mask should be used and 87.3% wanted the dentist to wear the goggles. However, 77.1% of the participants believed that gloves protect both the dentist and patient from transmission of infection. 89.8% of the parents had chosen the dentist who changed their gloves between patients. Furthermore, 61.9% of the study group thought that the purpose of wearing gloves was to prevent transmission of infection from patients to other patients. 88.1% wanted the dental assistant to wear gloves when helping the dentist. 96.2% of the parents were satisfied by the precautions taken.

High level of perception, interest and awareness of the parents in this study group regarding the use of barrier technique by pediatric dentists was noticed. The majority of the participants believed that the wearing of barrier technique during dental treatment protect the dentist and their patients from transmission of infectious disease.

Key Words: *Pediatric dentist, gloves, parents attitude about wearing gloves and masks, infection transmission.*

INTRODUCTION

The oral cavity of the patient is a good habitat for growth of multiple microorganisms, so transmission of infection can occur easily in the dental clinic from patients to dentists or from patients to other patients via different routes such as oral fluids, blood, and contaminated instruments.¹⁻⁴

Dental clinics are considered the best environment for a source of infection and transmission of disease.⁵ Nevertheless, the prevention of cross infection control is a critical part in the dental clinic so the dentists and dental assistants have a role to play in the control of transmission. Barrier techniques (gloves, face masks, and goggles) must be worn during dental treatment.⁶⁻⁸

Due to increased incidences of contagious diseases such as hepatitis B (HBV), Hepatitis C (HCV), swine flu, cytomegalovirus, herpes simplex and acquired immune deficiency syndrome (AIDS), dentists should protect themselves as well as the patients from cross infection.^{1,9-12}

Wearing gloves is one of the procedures used to reduce infections from patients to patients and from patients to dentists because ungloved hands during dental procedures are considered the main source of infection due to an accumulation of blood product beneath finger nails.¹³⁻¹⁵

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Using face masks is another method which is used to help protect from infections, but if they were worn for a long period of time they become contaminated, so the face mask should be changed between patients or when it becomes wet because of exhaled air.¹⁶⁻¹⁷

Majority of dentists wear masks and gloves but only few use goggles. Using goggles should also be given due attention.

Main aim of this study was to evaluate the attitude and knowledge of parents towards the use of barrier techniques used by pediatric dentists working at Prince Hashem Ben AL Hussein Hospital in the east of Amman (Zarqa).

METHODOLOGY

Three hundred and fifty-four parents of pediatric patients attended the Pediatric Dental Clinic at Prince Hashem Ben AL Hussein Hospital in Zarqa Governorate, one of the Hospital related to the Royal Medical Services located about 25 km east of Amman. Parents of the patients were selected randomly during the period of the study, which was carried out for eight months period (15 April 2016 to 15 December 2016). 185 were females (52.3%) and 169 were males (47.7%). The age of the study group ranged from 25-50 years with mean age 38±3. To carry out the study permission was obtained from the 'Medical Research Committee' of the Royal Medical Services.

A questionnaire consisting of eight questions was filled by parents. The questionnaire was in Arabic language. These questionnaires involved age, gender, and the attitude and knowledge of the parents regarding the use of barrier techniques which involved masks, gloves, and goggles by pediatric dentists as a method of prevention of infection during dental treatment.

Questions asked from the study group were about attitude towards the usage of protective barriers by the pediatric dentist? Opinion was sought whether gloves and face masks are worn to protect pediatric dentist or the patient? Whether they will go to a pediatric dentist who doesn't wear gloves? Whether the pediatric dentist should change gloves between patients or washing the gloves is sufficient? Whether dental assistant should wear gloves or not? Knowledge regarding the purpose of wearing gloves with regards to the transmission of infection? Parent's opinion on whether they are satisfied with barrier techniques (gloves, face mask, and goggles) which are used by the pediatric dentist? The data were collected and analyzed by using descriptive statistics through computerized Statistical Package for Social Sciences (SPSS 15) for windows (SPSS Inc, Chicago, IL, USA).

RESULTS

Details of the results can be seen from Figs 1-6.

DISCUSSION

Using barrier techniques such as gloves, a face mask, and goggles during dental treatment are considered

important for cross infection control in the pediatric dental clinic.^{31,32} In many countries around the world radical changes have been occurring in the pediatric dental clinics since the introduction of infectious disease such as hepatitis C and Mycobacterium tuberculosis, to increase the awareness of dentists, parents and patients toward using the barrier techniques during dental treatment to prevent the transmission of disease from the dentist to the patient and from the patients to other patients.³³⁻³⁷ Likewise, the aim of the present study was to assess the attitude and knowledge of parents towards using barrier techniques by the pediatric dentist during dental treatment. The majority of the parents (96.2%) in the present study expressed

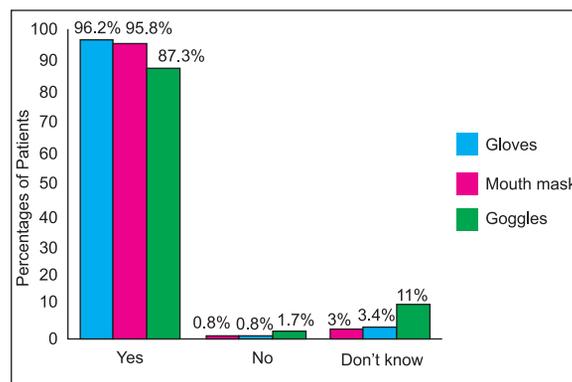


Fig 1: Awareness of parents about the importance of using barrier techniques

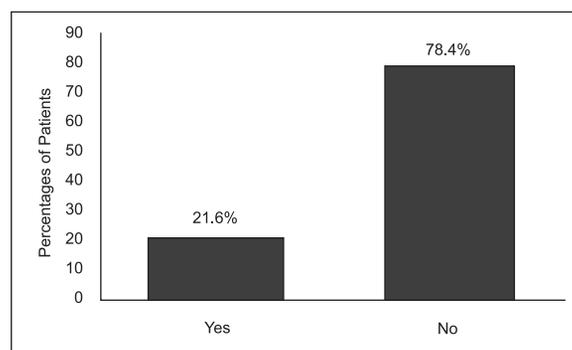


Fig 2: Opinion of the parents whether they should attend a pediatric dentist who doesn't wear gloves

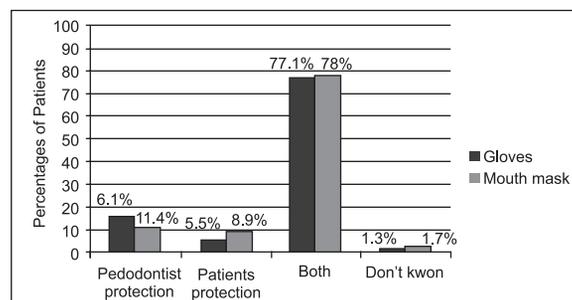


Fig 3: Opinion of the parents whether gloves and mouth masks protects the dentists or the patients

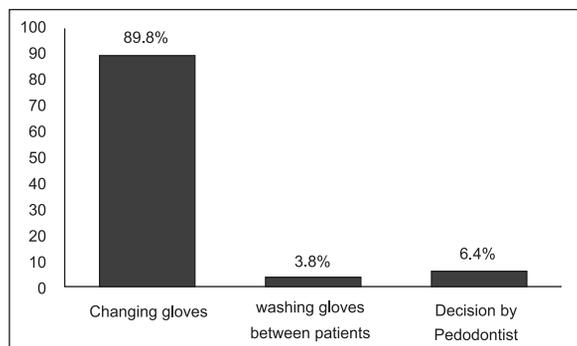


Fig 4: The parents' responses whether the pediatric dentist should change gloves between patients or just washing them is sufficient.

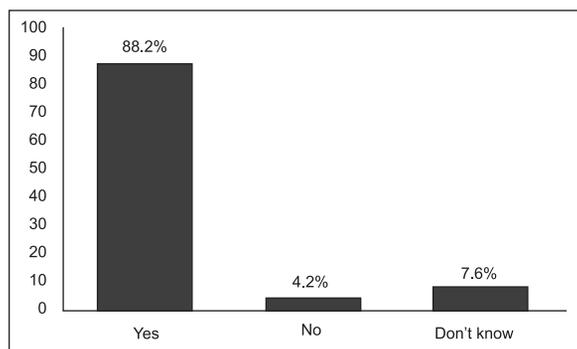


Fig. 5: Parents knowledge about the aim of wearing of gloves with regard to the transmission of infection

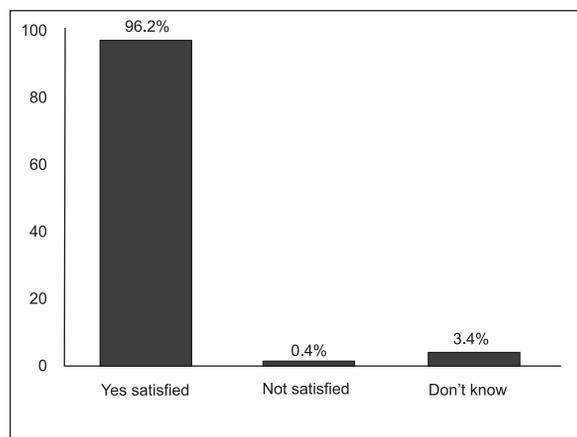


Fig. 6: Parents feeling whether they were satisfied with barrier techniques used by pediatric dentists

the view that the pediatric dentist must wear gloves during dental treatment. This result is in agreement with the result of a study done in Jordan by Al-Moherat and Abu Shagra³⁸ and other studies from other countries.^{1,10,23,25,39,40} However, 3% of the parents did not recognize whether it was necessary to wear gloves or not. This result is similar to some other studies.^{17,38}

A study done by Chenoweth et al reported that 89.9% of pediatric dentists routinely use gloves in their dental clinic.⁴¹ On the other hand, 95.8% and 87.3% of the parents preferred the pediatric dentist who wore

the face mask and goggles respectively. This result is higher in contrast with the study done by Deogade et al who found that 93.5% of the participants believed that the dentist should wear the face mask.³¹

Only 11% of the parents did not know if it is necessary for the dentist to wear goggles during dental treatment. The low percentage of concern means that the parents need to be educated about the benefits of wearing goggles for the protection of patients from transmission of infection. The best result was obtained about the awareness of Jordanian parents regarding transmission of infectious disease from patients to dentists or from patients to other patients. The highest percentage of the parents believed that the wearing of gloves and face mask during dental treatment protects both the pediatric dentists and the patients from transmission of infection (77.1%) and (78%) respectively. This result differs with a study done by AL-Maweri et al in Saudi Arab.

In comparison a study done by Shyagali and Bhayya in India, established that 74% and 65% of the study group considered that the wearing of the gloves and face masks will protect both dentists and patients from infection.¹⁷ Another study done by Chenoweth et al found that 77% of patients preferred their dentist to wear a face mask during dental treatment.⁴¹

In the present study 88.1% dental assistants were found wearing gloves. Finally, 96.2% parents of this study were satisfied with the barrier techniques used by their pediatric dentist. This result was higher than the study done by Bhayya and Shyagali where only 55% of the parents were satisfied with barrier technique used by their dentists.

CONCLUSION

It was concluded from this study that very large number of the Jordanian study group parents were quite aware about the importance of using barrier techniques.

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