

PATIENT PRECEPTION REGARDING CROSS INFECTION CONTROL; A CROSS SECTIONAL STUDY

¹NOUSHEEN KHAN, ²RAFIA SARTAJ, ³SHARINA NAZ, ⁴MUSTAFA SAJID, ⁵MUHAMMAD JAMIL, ⁶MOHSIN JAVAID

ABSTRACT

Patients should also know about cross infection control along with the healthcare workers. Media coverage has done a good job to raise the knowledge of the patients about cross infection control specially gloves and face mask. Objective of the study is to perceive the knowledge of the patients regarding the use of gloves, masks, eye wear and method of sterilization. Study design was cross sectional survey. A questionnaire was distributed among three hundred and fifty individuals who were selected randomly. 332 patients were responded among three hundred and fifty. Out of 332 patients 205 were males and 127 were females. Most of the patients (248) had second visit in dental clinics. 98% patients agreed that dentist must used gloves during dental treatment but only 24% patients knew about autoclave. Conclusion of the study is that patients are often well aware about basics of barrier technique but are deficient in knowledge of methods of sterilization.

Key Words: Barrier Technique, Cross Infection, Gloves, Sterilization

This article may be cited as: Khan N, Sartaj R, Sajid M, Jamil M, Javaid M. Patient preception regarding cross infection control; a cross sectional study. Pak Oral Dent J 2021; 41(1):15-17.

INTRODUCTION

Many patients who may have infectious diseases reported in outdoor department of dentistry. These infected persons can spread the infection to other healthy individuals including dental staff. Infection spread from infected patients to healthy individuals through inhalation, contaminated instruments, blood and oral secretions of the infected patients.^{1,2}

Many healthcare individuals have been reported with infectious diseases after contaminated by blood

of infectious patient. Hepatitis B, hepatitis C, HIV and TB are the common and life threatening infectious diseases which can be spread to healthcare individuals and other healthy patients.³⁻⁷

In dental clinics infected diseases spread from infected patients to healthy health care individuals, infected health care individual to healthy patients and infected patients to the healthy patients. In western countries dental clinics have adopted a lot of measures to prevent the spread of these infectious diseases. Knowledge of cross infection control is very important for health care workers. Barrier technique and advanced sterilization methods can prevent the cross infection from infected individuals to non infected individuals.⁸⁻¹⁰ Gloves, face mask, eye wear, gown and head wear are included in the barrier technique. Disinfection and sterilization in the autoclave can prevent the spread of infection.¹¹⁻¹⁴

Patients should also know about cross infection control along with the healthcare workers. Media coverage has done a good job to raise the knowledge of the patients about cross infection control especially gloves and face mask.¹⁴⁻¹⁹

There are lot of factors which affect the awareness of general population about barrier technique such as, level of education, socioeconomic status, number of visits to the hospitals, region, age and gender etc.⁷

Objective of the study is to perceive the knowledge of the patients regarding the use of gloves, masks, eye wear and method of sterilization. Assessment

¹ Nousheen Khan, BDS, MCPS, Assistant Professor Multan Medical and Dental College Multan Multan Medical and Dental College Jahangirabad Multan. Cell: 03029636610, 03334978900 E-mail: dr.mylo@hotmail.com

² Rafia Sartaj, BDS, Demonstrator Multan Medical and Dental College Multan Multan Medical and Dental College Jahangirabad Multan Cell: 03317102716

³ Sharina Naz, BDS, FCPS, Associate Professor Multan Medical and Dental College Multan, Multan Medical and Dental College Jahangirabad Multan. Cell: 03006382817

⁴ Mustafa Sajid, BDS, FCPS, Associate Professor Multan Medical and Dental College Multan House no.45, Employees Colony Layyah. Cell: 03136705216:03000870781. E-mail: mustafa_sajid@hotmail.com

⁵ Muhammad Jamil: BDS, MSc (BRISTOL) FDSRCS (EDINBURG). Professor Multan Medical and Dental College Multan Multan Medical and Dental College Jahangirabad Multan 03337615146

⁶ Mohsin Javaid, BDS, MSpH. Senior Registrar Multan Medical and Dental College Multan Multan Medical and Dental College Jahangirabad Multan Cell: 03136521888

Received for Publication: Jan 17, 2020
First Revision: May 15, 2020
Second Revision: June 15, 2020
Approved: June 16, 2020

of patient's knowledge regarding barrier technique and sterilization program can help to improve the health care awareness program in the general population.

MATERIALS AND METHODS

This study was conducted in Multan Dental College in October 2019. Sample size was calculated with 95% level of confidence and 5% margin of error. Study design was cross sectional survey. A questionnaire was distributed among three hundred and fifty individuals who were selected randomly. 332 patients were responded among three hundred and fifty. Questionnaire had three parts; first part included age, gender, level of education and number of visits to dental clinics and second part included the knowledge about barrier technique. Data was tabulated and analyzed by Microsoft excel 2010.

RESULTS

Out of 332 patients 205 were males and 127 were females. (Table 1) Most of the patients (248) had second visit in dental clinics. Table 2 showed the patients perception about the barrier technique. 98% patients agreed that dentist must used gloves during dental treatment but only 24% patients knew about autoclave. (Table 2)

DISCUSSION

In present study knowledge of the patients regarding cross infection control was checked which was very much satisfactory. 95% patients responded to this study. 98% patients thought that dentist should use gloves during treatment because most of the patients (82%) had visits often to the clinic and 73% patients were well educated.

Most of the responded patients (98%) were agreed that dentist must wear gloves before doing dental treatment. These results are very similar to other studies in Kingdom of Saudi Arabia and India.^{7,14} 83% Jordanian patients agreed that a glove wearing was a necessary part of cross infection control²⁰ but in present study percentage of patients improved to 98%. Reason of difference is that study of Jordan was seven year old than present study. 74% patients denied treatment from the dentist who has not used gloves and masks. This percentage is lower than that of Indian study⁷ and higher than the study of Azodo.¹⁹ Ilyas et al² concluded in Punjab Dental Hospital Lahore that 94% patients agreed upon wearing gloves but in present study this percentage raised upto 98%. Fuad H Al-Moherat concluded that 94% patients emphasized on wearing gloves.²¹

In present study 95% patients agreed that dentist should change gloves before doing second patient which is similar to the study done in Jabalpur.⁷ These results are higher than the study of Azodo¹⁹, Baseer¹⁵ and Fuad H Al-Moherat.²¹

TABLE 1: DISTRIBUTION OF PATIENTS IN DIFFERENT CATEGORIES

Factors	Category	Percentage
Gender	Male	205(62%)
	Female	127(38%)
Employment	Having Job	184(55%)
	Jobless	148(45%)
Education	School	90(27%)
	College	242(73%)
Number of visits	First visit	59(18%)
	More than one visit	273(82%)

TABLE 2: ANSWERS OF PATIENTS REGARDING BARRIER TECHNIQUE

No.	Questions	Yes	No
1.	Should dentist always use gloves during any type of dental surgery?	325(98%)	7(2%)
2.	Should dentist always use mask during any type of dental surgery?	310(94%)	22(6%)
3.	Should dentist always use eye wear during any type of dental surgery?	188(56%)	144(44%)
4.	Should dentist change gloves between the patients?	315(95%)	17(5%)
5.	Should you visit the dentist who is not used gloves and masks?	86(26%)	246(74%)
6.	Can infection spread from one patient to another patient in dental clinics?	295(89%)	37(11%)
7.	Is autoclave a best method for sterilization??	80(24%)	252(76%)

In this study 94% participants stated that masks were important component of cross infection control which was similar to the study in India⁷ and Saudi Arabia.¹⁴ In Jordanian study²⁰ this percentage falls to 74%. In present study more participants agreed on wearing masks than that of Azodo.¹⁹

In present study only 56% of the patients emphasized that dentist must use eye wear during dental procedures. This percentage is very much lower than that of Jordanian study²⁰ where 78% patients agreed that dentist should be used eye wear. In Indian study⁷

43% patients thought that dentist must wear glasses during dental treatment. In the study of Azodo¹⁹ and Baseer¹⁵ less percentage of patients were agreed that eye wear was necessary part of cross infection control.

Barrier technique prevents the spread of infection from infectious to healthy persons. In present study 89% participants thought that infection spread from one patient to other patient in dental clinics which was similar to an Indian study and higher than the study of Baseer and Azodo.^{7,15,19} In the study of Fuad H Al-Moherat 89% patients accepted that infection spread from one patient to other patient.²¹ In the study of Saudi Arabia 79% participants concluded that infectious diseases transmit from one individual to other individual. According to Ilyas 91% patients agreed that infection could spread from infected instruments and lack of barrier technique.²

Only 24% patients knew that autoclave is the best method for sterilization. On contrary to that 44.9% patients had knowledge about in Indian study.⁷ In two studies of Saudi Arabia^{14,15} half and one fourth population knew about autoclave. Lack of knowledge about autoclave is a dilemma which must be considered for public health awareness programs.

CONCLUSION

Patients are often well aware about basics of barrier technique but are deficient in knowledge of methods of sterilization. Data in this study will help in planning of population perception program about cross infection control in dentistry.

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CONTRIBUTIONS BY AUTHORS

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|-------------------|--------------------------|
| 1 Nousheen Khan: | Wrote the article |
| 2 Rafia Sartaj: | Literature Search |
| 3 Sharina Naz: | Article Editing |
| 4 Mustafa Sajid: | Clinical Assistance |
| 5 Muhammad Jamil: | Research Supervisor |
| 6 Mohsin Javaid: | Data collection/Analysis |