

Infection Control Practices in Orthodontics during COVID-19

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ABSTRACT

Aim: To find out infection control practices among orthodontists in Punjab, Pakistan during COVID-19 pandemic.

Methods: This cross sectional study was conceived from 1.6.2020 to 1.1.2021. A pre-designed proforma was used to find out the infection control practices in orthodontics. Each pre-designed proforma consisted of 10 questions about infection control. The pre-designed proforma was distributed among 50 orthodontists. The response rate was 100%.

Results: The results showed that most of the orthodontists were up-dated and in practice of using proper infection control measures while COVID-19. Gloves, PPE, Protective eye wears and face shields were worn by most of the respondents. Most of them were using proper disinfection and sterilization measures.

Conclusion: The knowledge and practices of infection control in orthodontics was appropriate and up to standards during COVID-19.

Key words: Infection Control; Orthodontics.

INTRODUCTION

The control of spread of infection in dental and orthodontic practices is very important^{1,2} The knowledge and attitudes of dentists and orthodontists play very important role in control of spread of infection in dental and orthodontic practices.^{3,4} With on-going COVID-19 pandemic its importance is even more now⁵⁻⁸.

Orthodontists should wear masks, gloves, PPE, protective eye wears, face shields and should use proper disinfection and sterilization protocols.⁸⁻¹⁰ They should be vaccinated against HBV and should also be ready for COVID-19 vaccination.¹⁰

Proper disinfection and sterilization of orthodontic items is very important to prevent spread of any sort of infection because microbes such as HBV, HCV, HIV, mycobacterium, Streptococci pseudomonas, Acinetobacter, Staphylococci, Lactobacilli, Diptheroids and other microorganism can be transmitted through contaminated orthodontic items easily.¹¹⁻¹⁵

Few studies have been conducted regarding infection control in orthodontics in Pakistan. This study will increase the knowledge regarding infection control in orthodontics. The aim of this study was to find out the infection control practices among orthodontists in Punjab, Pakistan during COVID-19 pandemic.

MATERIALS AND METHODS

This cross sectional study was conceived from 1.6.2020 to 1.1.2021. A pre-designed proforma was used to find out the infection control practices in orthodontics. Each pre-designed proforma consisted of 10 questions about infection control. The pre-designed proforma was

distributed among 50 orthodontists. This research was approved by the Ethical Committee. The response rate was 100%. The proforma was distributed online. SPSS version 17.0 was used for data analysis.

RESULTS

The responses are shown in Table 1. The results showed that most of the orthodontists were up-dated and in practice of using proper infection control measures while COVID-19. Gloves, PPE, Protective eye wears and face shields were worn by most of the respondents. Most of them were vaccinated against HBV and were ready for upcoming COVID-19 vaccination for front line health workers. Most of them were using proper disinfection and sterilization measures (Table 1).

Table 1: Pre-Designed Proforma Questions and Responses

Question	Response option	%age
Do you wear gloves while orthodontic practice?	Yes	100
	No	0
Do you wear protective eye wears and masks while orthodontic practice?	Yes	85
	No	15
Do you wear protective face shields while orthodontic practice?	Yes	75
	No	25
Are you vaccinated against Hep. B Virus?	Yes	100
	No	0
Do you disinfect orthodontic items?	Yes	95
	No	5
Do you properly sterilize orthodontic items?	Yes	100
	No	0
Do you use negative pressure systems?	Yes	25
	No	75
Do you wear PPEs while practice?	Yes	65
	No	35
Do you practice all infection control measures?	Yes	90
	No	10
Ready for Upcoming COVID-19 Vaccine?	Yes	85
	No	15

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DISCUSSION

The knowledge and attitudes of dentists and orthodontists play very important role in control of spread of infection.^{3,4} The aim of this study was to find out the infection control practices among orthodontists in Punjab, Pakistan during COVID-19 pandemic.

Orthodontists should wear masks, gloves, PPE, protective eye wears, face shields and should use proper disinfection and sterilization protocols.⁸⁻¹⁰ They should be vaccinated against HBV and should also be ready for COVID-19 vaccination.¹⁰ Few studies have been conducted regarding infection control in orthodontics in Pakistan.

A pre-designed proforma was used to find out the infection control practices in orthodontics. Each pre-designed proforma consisted of 10 questions about infection control. The pre-designed proforma was distributed among 50 orthodontists. The response rate was 100%. The results showed that most of the orthodontists were up-dated and in practice of using proper infection control measures while COVID-19. Gloves, PPE, Protective eye wears and face shields were worn by most of the respondents. Most of them were vaccinated against HBV and were ready for upcoming COVID-19 vaccination for front line health workers. Most of them were using proper disinfection and sterilization measures.

It is very important for orthodontists to adopt strict infection control measures in routine and while COVID-19 pandemic.¹⁶ The effective infection control measure should includes wearing of PPE, facemasks, eye wears, face shields, sterilization and disinfection, and use of disposable instruments.¹⁷ The aerosols should be avoided to maximum and negative pressure should be used while such procedures. Finally, Tele-orthodontics is a way of reassuring orthodontic patients.¹⁸

There are certain limitations of this study such as small sample size and cross sectional nature of study. However, within limitations of this study, the results showed that knowledge and practices of infection control in orthodontics was appropriate and up to standards during COVID-19.

CONCLUSION

The knowledge and practices of infection control in orthodontics was appropriate and up to standards during COVID-19.

Conflict of interest: Nil

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