

# ATTITUDE OF PARENTS TO GLOVE USE BY DENTAL STUDENTS

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## ABSTRACT

*The aim of this study was to evaluate the attitude of parents to the use of gloves by dental students. One hundred sixty-eight parents attending clinics of Colleges of Dentistry and Pharmacy were asked to participate in the present study. Special Questionnaire was used in this research.*

*The majority of parents (96%) stated that the wearing of gloves was very important during dental treatment of their children by dental students. Ninety eight percent of participants stated that gloves are worn for protection of dental students and their children. Most of the parents (94.6%) would not bring their children for treatment to dental students who do not wear gloves. The majority of parents thought that gloves should be changed after dental treatment of each child patient. The majority of parents (97%) of parents were satisfied with infection control precautions taken by dental students.*

## INTRODUCTION

Infections disease as hepatitis B, acquired immune deficiency virus, herpes simplex and cytomegalovirus are very important risks for dentists and patients.<sup>1-3</sup> Cross infection could be defined as transmission of infectious agents between patients, parents and the staff in clinical environment.<sup>4</sup> The route of transmission can be by inoculation or inhalation of infectious agent. The main source of infection in dentistry is infection through intact skin or mucosa due to accidents including sharps, or direct inclusion into cuts and skin abrasion.<sup>5,6</sup> The main procedure for use in dental surgery against cross infection includes gloves, mask, eye goggles, tray cover, cover of working surfaces and light handles.<sup>7-10</sup>

Wearing gloves is very important in reduction cross infection during dental procedure since the main source of infection is due to accumulation of blood product beneath finger nail.<sup>11</sup>

Masks are important in reducing cross infection. Wearing of mask for long period of time will lead of mask contamination with microorganism after 20 min.<sup>4</sup> So dentist should change masks between patients or when they become wet by exhaled air.<sup>12,13</sup>

In dental clinics gloves are worn for many reasons to protect the dental operator from infectious patient, to avoid transmission infection from patient to patient, to reassure the patient that the dental operator is aware of the danger of cross infection and is taking steps to

avoid it.<sup>14</sup> A survey showed that 84.6% of dentists wear gloves for all patients and procedures.<sup>15</sup> Some dentists may show hesitation to gloves wear difficulty, particularly when using endodontics instruments.<sup>14,15</sup>

Dentists reported many reasons for non-routine using of gloves such as reduce sensation, reduce movement, low infection risk, skin reaction, patient acceptance, lack of supply and cost.<sup>15</sup> Many studies were under taken to evaluate patient and parent knowledge and attitude to infection control barrier used by orthodontist, dentist and pediatric patients.<sup>4,14,16-25</sup> However, the parents attitude to cross infection barrier technique by dental students has not been recorded. So, the aim of the present study was to assess the attitude of parents toward the usage of the barrier technique mainly gloves by dental students.

## METHODOLOGY

Parents attending universal dental clinics in Riyadh for treating their children for the first time were asked to participate in this study. A questionnaire was prepared depending on previous studies.<sup>17,20-22,25</sup> Question asked were: Do you consider that dental student should wear gloves while treating your child? Are gloves worn to protect dental student or your child or both? Would you attend dental student who didn't wear gloves? Do you consider that dental student should change gloves between patients or washing them is sufficient? Questioner were in Arabic language. Plot of study was done on 15 parents to make sure that questions were clear. Each parent completed the questionner in the dental clinic to reduce the outside influence.<sup>24</sup> Data were analyzed. Studies were done over a period of 2 months (September and October 2017). 168 parents were included in the study.

## RESULTS

Results can be seen in Fig 1 to 5.

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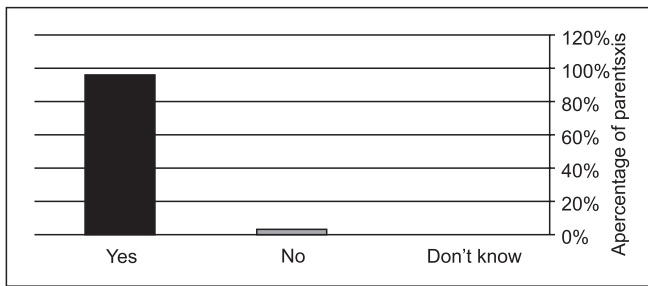


Fig 1: Parent's opinion on whether dental students should wear gloves during treatment of their children

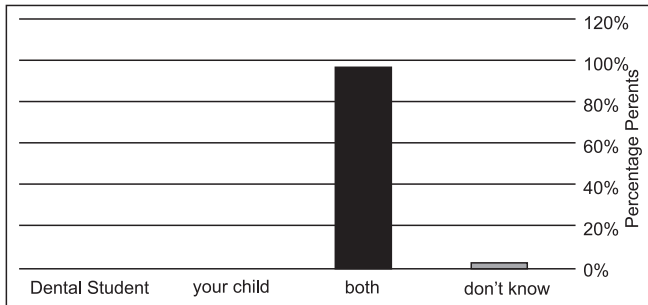


Fig 2: Parent's opinion on whether gloves are worn to protect dental student or their children

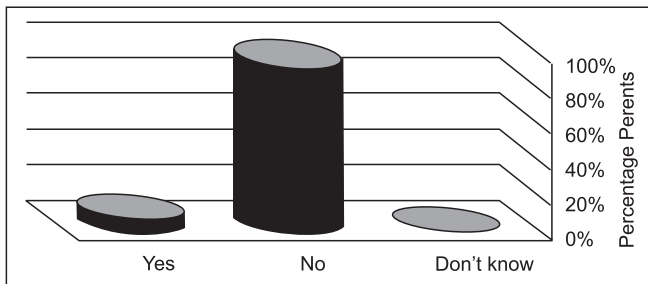


Fig 3: Parent's opinion on whether they would bring their children to dental students who do not wear gloves

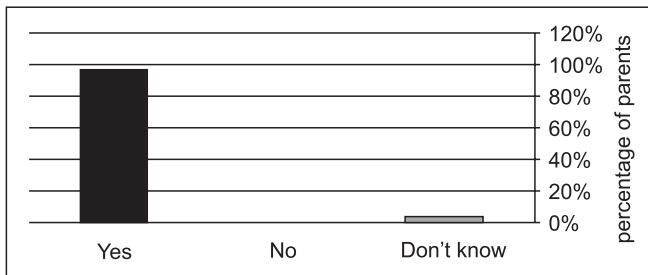


Fig 4: Parent's opinion on whether dental student should change gloves or washing is adequate

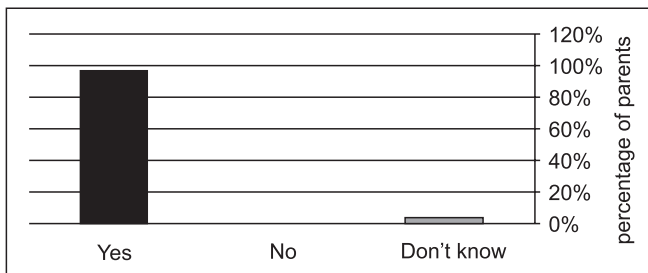


Fig 5: Parent's opinion whether they are satisfied with infection control techniques used by dental students

## DISCUSSION

Some institutions have recommended comprehensive guidelines for the control of cross infection.<sup>26-29,31</sup> In dental school, dental student has less experience than regular practitioner; Application of Standard universal precaution is the most effective way to control cross infection.<sup>31,32</sup> Dental schools are responsible for providing suitable control of infection measures and appropriate training to dental students to establish safe dental treatment.<sup>33</sup>

Many studies showed that dental students did not always adhere to infection control guidelines during dental treatment.<sup>33-38</sup> A study by Chenoweth et al reported that 85% of pediatric dentists use gloves routinely.<sup>39</sup>

The majority of parents considered that dental students should routinely wear dental gloves when providing dental treatment to their children. This result is in agreement with previous reports.<sup>14,17,25,40</sup> Bhayya D and Shyagali T reported that 75% of parents felt that pediatric dentist should wear gloves during treatment of the children. Findings of this study showed the high level of public awareness of infection control rules and even dental students also followed the same infection control guidelines as dentists. Previous reports mentioned that majority of dental students wear gloves during dental treatment.<sup>33,34,37,38,41,42</sup>

In the present study most of parents considered that gloves are worn to protect both dental students and children. This result is in agreement with previous reports.<sup>14,17,18,22,25,40</sup> Very small percentage did not perceive the importance of glove wear (2%) during dental treatment. This result is similar to previous finding.<sup>21,22,24,25</sup>

This study showed that most of the parents would not like to bring their children to dental students who do not wear gloves (94.6%). This finding is in accordance with previous reports.<sup>20</sup> Bhayya D and Shyagali and Asakarna B et al reported 20%, 21.6% respectively of parents would attend pediatric dentists who do not wear gloves during treatment of children.<sup>22,25</sup>

The vast majority of parents were in favor of necessity of glove wear by dental students and in changing gloves between patients (98%). This result is in accordance of previous findings.<sup>20,25</sup> But much higher results were reported by some authors.<sup>4,14, 17-19</sup> This result reflects awareness of parents for the importance of wearing gloves as a part of infection control guidelines during treatment of children. This awareness may be due to media in providing attention to the importance of control of infection in dental clinic.

Ninety seven percent of parents were satisfied with precautions taken for control of infection in dental clinics by dental students. Similar reports showed by Asakarna et al.<sup>25</sup> But only 55% of parents were satisfied with barrier techniques used by pediatric dentists as found by Bhayya D and Shyagali.<sup>22</sup> Finding in this study could be attributed to the trust of parents in dental schools as one of the main source of knowledge in teaching of infection control to dental students and supervision of teachers on students during treatment.

## CONCLUSION

This study found presence of high level of awareness of importance of glove wearing during dental treatment. Also high percentage of satisfaction of parents was noted with infection barrier technique used by dental students.

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