her attire. The mean length of time spent fixating on the face was significantly longer for the face than for any attire.

For all of the images, the circum-oral area had considerably more concentration of fixations than the eyes. The numbers of children who fixated on the circum-oral area were significantly higher than the numbers of children who focused on the dentist's eyes. In addition, the length of time of the fixation was significantly longer for the circum-oral area than for the eyes regardless of the image. With respect to attire, dentist's images that included distractors, such as pens or ties, garnered a higher concentration and longer length of fixation than images that had no distractors included.

DISCUSSION

Children fixated on the dentist's face, especially the circum-oral area. This was true regardless of whether the image included the dentist wearing a mask, eyeglasses, or other distractors. The eyes were the next most common area focused on, followed by the dentist's apparel.

Clinical Significance

Dentists should consider how they appear to children as a standard course of behavior. Coming to a child with a simple smile could begin a positive interaction that may make the pediatric patient feel safe and secure. Having a more approachable appearance may be a technique dentists can use to help ward off the child's feelings of anxiety or fear of the dentist.

Celine G, Cho V, Kogan A, et al: Eye-tracking in dentistry: What do children notice in the dentist? *J Dent* 78:72-75, 2018

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SHARPS SAFETY

Addressing sharps safety

BACKGROUND

Sharps are dental instruments that can penetrate the skin and, when contaminated with body fluids, have the potential to cause a sharps injury. The United Kingdom medical profession experiences an estimated 40,000 sharps injuries annually, with a 0.3% risk of HIV transmission, a 2% risk of hepatitis C transmission, and a 5% risk of hepatitis B transmission. All members of the dental team are at daily risk of a personal sharps injury. In light of this, the UK implemented health and safety regulations to prevent sharps injuries in hospitals and other health care sectors. The regulations include information and training that must be provided for employees. These apply to all employers, contractors, and workers in the health care sector. Examples of sharps injury experiences, an approach to assess the risks of sharps injuries, and specific guidelines to help the clinical team address 6 common causes of injury, as well as barriers to preventive actions, were offered.

SHARPS INJURIES EXPERIENCES

Student/Recent Graduate Survey

A survey of student dentists and recent dental graduates in 2016/2017 assessed the sharps injury experience in the early days of a dental career. Of the 164 participants, nearly a third had already suffered a sharps injury, with just under half experiencing the injury within the past year. Half of the respondents knew a colleague who had at least 1 sharps injury. The most commonly reported injuries, in order, were needlestick injuries (32%), with 19% occurring while using a re-sheathable needle system; dental bur injuries (26%); and matrix bands injuries (24%). Twelve percent of the participants did not report a sharps injury.

About 20% of the participants did not feel confident managing a sharps injury. Twelve percent reported not receiving training in the past year, and 3% had not received any training. Even through 71% of the sample believed their sharps training was adequate and 22% believed it was excellent, 7% still believed they were inadequately trained (Box 1).

Box 1. Instructions to Manage a Sharp Injury

1. Don't suck the wound to make it bleed
2. Bleed the wound gently under running water
3. Wash with soap and water
4. Dry the wound and protect with a plaster
5. Identify source of contamination for example, patient details
6. Seek urgent medical advice (for example from your Occupational Health Service or Accident and Casualty Service) to assess the risk and take appropriate action. Effective prophylactic medications are available
7. Document and report the incident locally to your employer.

(Courtesy of Imran A, Imran H, Ashley MP: Straight to the point: Considering sharp safety in dentistry. *Br Dent J* 225:391-394, 2018.)

Incident Reporting in Hospital Setting

Over the course of 12 years, two thirds of the injuries occurred in restorative dentistry clinics. A fifth occurred in oral surgery clinics. Although the number of injuries did not increase, the number of incidents reported increased after a simplified reporting method was developed.

ASSESSMENT TOOL

A Risk Assessment Tool for Sharps (RATS) has been developed to proactively assess the risk of a sharps injury occurring in advance rather than reporting them after they occur. It is based on a simple evaluation of the clinical environment and identifies 6 known situations highly at risk for sharps injuries: (1) re-sheathing or re-sheathed needles, (2) leaving bur packs open, (3) leaving a bur in the handpiece in the bracket table slot, (4) leaving unprotected or unneeded sharps on worktops or bracket tables after use, (5) keeping an untidy bracket table, and (6) leaving an ultrasonic scaler tip in the handpiece in the bracket table slot.

Although the RATS method is not yet validated and the relative risk for each area has not been quantified, the RATS method is a useful clinical audit tool so that each member of the clinical team can identify a potential problem and take action to reduce the risk.

ADVICE FOR THE DENTAL TEAM

Addressing Sharps Injury Causes

A bur pack should only have the lid opened when a bur is being removed or replaced. The lid should be closed at all other times.

Handpieces containing a bur or scaler tip should be immediately detached from the coupling when its use is over and placed safely on the bracket table. Inverting the handpiece or scaler instrument in the slot only maintains the risk of sharps injury to the leg and risks contamination from contact with an unclean work surface.

Maintaining a tidy bracket table reduces sharps risks. Both the dentist and the dental nurse should maintain an orderly, safe clinical environment.

The problem of sharps injury is multifactorial. Improved equipment and technology, such as sharp safety bins and safety needle injection systems, can be effective. Any new product will require a level of understanding, so training is required. The use of these new products should be implemented as a safety precaution.

The dental team's sharps education should also be updated regularly. When improved safety systems are available, education can contribute to dramatic improvements in sharps injuries data.

Barriers to Adopting Sharps Safety Habits

Using new versions of equipment should be routine. Cost can be a barrier in some dentists' minds, but the cost of these single-use items is marginal compared to the financial implications of a sharps injury. Using a proven method to reduce risk is required by law in many jurisdictions.

Regulations don't currently *force* clinical teams to act in a sharps safe manner. This means that some dental teams will continue to use unsafe habits. Such lack of adherence to regulations should be addressed in updates.

All members of the dental team may not receive sufficient education or training in the safe use of sharps. More rigorous guidance added to sharps injury training and the use of safer sharps should be required.

Some practices are unaware of the scale of the sharps injury problem and do not learn from others' incident reports. It's important to share information and disseminate news of better methods to ensure the safety of the dental team.

Clinical Significance

The main reason for not adopting sharps safety methods is the inertia of dental teams that leads to them simply continue to follow unsafe habits and behaviors. Sharps safety is the responsibility of the entire team, led by the dentist, and requires that all members be up to date with the latest advances and methods. It's important not only for patient care but also for the health of the dental team.

Imran A, Imran H, Ashley MP: Straight to the point: Considering sharp safety in dentistry. *Br Dent J* 225:391-394, 2018

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SILVER DIAMINE FLUORIDE

Fluoride varnish added to silver diamine fluoride treatment

BACKGROUND

Sodium fluoride (NaF) varnish has been widely used in Europe for over 50 years, but only recently has it been approved by the Food and Drug Administration (FDA) for preventing dental caries. Clinicians also use it to arrest dental caries. Silver diamine fluoride (SDF) can arrest cavitated