Research Protocol

# Qualitative semi structured interviews to explore families' experience following a traumatic dental injury

As part of the DDSc in Paediatric Dentistry

**Study Team**

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**Sponsor:**

The University of Liverpool is the research Sponsor for this Study. For further information regarding the sponsorship conditions, please contact:

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**Title**

An exploration of families' experience of emergency care and management following dental trauma injuries.

**Background**

The term 'traumatic dental injuries' (TDI) encompasses any injury to a tooth including fractures of the crown and/or root of the tooth, luxation injuries (tooth that has moved position and been push sideways, into the gum or down) and avulsions (knocked out tooth).

TDIs are a common occurrence in children. The initial emergency care and advice provided is vital for the long-term survival of the tooth. The worse the tooth injury, the more important it is to receive appropriate management. Traumatised teeth also require careful follow up, if the injury is not identified, diagnosed and managed in a timely manner, it decreases the prognosis of the tooth and can lead to tooth loss. Tooth loss not only has an effect on the child's dentition and need for long term replacement options but also has a huge effect on the child's mental wellbeing. It is therefore imperative that families follow a clear pathway and receives the appropriate management in the appropriate place at the appropriate time. Unfortunately, despite professional guidelines on how to manage TDIs, there is evidence to suggest that there is a lack of both public and professional awareness of the optimal care pathway in the emergency management of such injuries.

**Design**

Qualitative interviews with a family dyad including a child who has experience of dental trauma and an adult family member (parent/legal guardian), about their journey and experience following a traumatic dental injury (TDI). The interview will be held either face to face if restrictions allows, or virtually via a video platform. The child and their family member will be interviewed together by one researcher and there will be another researcher present as a chaperone for the interview who will remain silent. The interview is likely to take between 30-60 minutes. The interview will be audio-recorded and then transcribed. Both the child and their family member should be present throughout the interview and be able to hear all questions.

**Aim**

To explore families' experience and their management pathway following a dental trauma injury

**Objectives**

- Explore how the tooth injury happened

- Explore what happened after the injury, where did they decide to sought advice and management and what urgent management was undertaken
- Explore what families felt went well and what did not go well
- Explore what families would have liked to have happened following the tooth injury
- Investigate what follow up management the child has received for the tooth injury
- Explore how COVID-19 has impacted the families' experience of dental trauma management

**Analysis**

Thematic analysis will be conducted using NVivo software. Key themes will be identified surrounding their experience, their thoughts on how their experience could have been improved and whether the impact of COVID affected their journey and experience. These will be interpreted according, with involvement of experienced topic and qualitative researchers.

**Population eligibility**

Participants will be recruited using purposive sampling from children who attended the emergency department in Alder Hey Children's Hospital following a dental trauma, or children who have attended Liverpool University Dental Hospital's Paediatric Department for management of TDI.

The inclusion and exclusion criteria detailed below will be applied when considering potential participants:

**Inclusion criteria**

- Children/ young person aged 7-15 who experienced dental trauma to a permanent (adult) tooth from January 2019 onwards
- The child/young person lives with a parent/guardian who can consent, this adult does not have to have been present at the time of injury
- The participant is able to communicate in spoken English
- Minimum of 6 months between injury and date of recruitment

**Exclusion criteria**

- Unable to speak English
- Children under the age of 7 or aged 16 and older at the time of the TDI.
- Children in care who do not live with someone who can consent for them

**Withdrawal criteria**

The participant can withdraw from the study up until thee interview is transcribed at which point pseudonymisation will occur. This will happen approximately 2 weeks following their interview.

**Sample size and sampling methods**

Purposive sampling of children of different ages between 7 and 15 years old at time of TDI, a variety of genders and a variety of TDIs.

There is no specific sample size. We will continue to recruit until the interviewer (NG) and experts in qualitative research and the research area, feel that there are no new themes raised during the interviews.

**Duration**

It is estimated to take a year to identify and invite potential participants, to undertake the interviews, and to transcribe the interviews. Analysis will commence following transcription. Recruitment will end when no new themes are identified by the team of researchers.

**Possible benefits and risks of participating?**

There is no direct benefit for taking part in the study. However, it could be an opportunity to share their experience and expertise in a way that can benefit others.

There are no perceived disadvantages or risks involved. The information that is given will be kept confidential, but the research team may have to pass on information in accordance with the local safeguarding policy if there is a concern for anyone's safety and welfare.

**Ethical approval**

The Chief Investigator will obtain approval from IRAS and the University of Liverpool Research Ethics Committee (REC).

The discussion of the event has the potential to be traumatic for the family. If there are any signs of distress, the interviewer will ask the family if they wish to stop the interview. Support will be offered to each family by the researcher with provision of a debrief sheet. The interviewer has worked with children and families in paediatric dental clinics is familiar with reading signs and signals of distress. the interviewer is also trained in both paediatric and adult safeguarding and would escalate any concerns as per normal paediatric dentistry practice. There will also be a chaperone present who would also be trained in safeguarding and can aid the interviewer and provide support if required.

**Informed consent**

Potential participants will be informed of the potential benefits, risks and obligations that are associated with agreeing to participate in the study. A verbal explanation of the study will be provided by the researcher. Further information will be provided via a participant information sheet, one for designed specifically for children and one for adults or more advanced readers.

Families will be advised that they are free to pause the interview at any point and are able to withdraw their consent to participate up until their data is transcribed and pseudo anonymised up to two weeks post-interview without any reason.

**Confidentiality**

The Chief Investigator will preserve the confidentiality of participants taking part in the study and will abide by the EU General Data Protection Regulation 2016 and Data Protection Act 2018. The researcher will conduct all interviews with families in a private room to ensure that participants are not overheard by others, nor disturbed by background noise. The families will be encouraged to find a private room where they will not be disturbed if the interview is being held using video or telephone call.

Each participants/family will be assigned a pseudonym name and the PI will retain the details of who the pseudonym is assigned to. The PI will share the pseudonym with the CI/primary supervisor only. The pseudonym will be used on any transcripts sent to supervisors to discuss analysis and would be used in all coding, themes and quotes in the final thesis/papers.

No personal information will be collected for the purpose of this research.

**Protection from harm**

All researchers that have contact with participants will have the appropriate level of disclosure obtained from the Disclosure and Barring Service.

**Sponsor**

The University of Liverpool will act as Sponsor for this study. It is recognised that as an employee of the University the Chief Investigator has been delegated specific duties, as detailed in the Sponsorship Approval letter.

**Funding source**

The study is supported by DDSc bench fees which will cover any funding required for families' travel to and from the interview and refreshments.

**Study Management**

The day-day management of the study will be coordinated through a schedule of events by the PI.

**End of study**

The study will end once the data has been analysed and reported.

**Archiving**

Data and all appropriate documentation will be stored for a minimum of 10 years after the completion of the study.

**Publication policy**

The results of this study will be presented at national and international conferences, and an abridged version published in a peer-reviewed scientific journal. The study will also contribute to a thesis win partial fulfilment of the DDSc programme at the University of Liverpool.