
Does order influence children's discomfort during dental impressions? KAAKKO T*, HORN MT, COLDWELL SE. Department of Pediatric Dentistry, University of Washington, USA.

Laboratory studies with adults and children have found lower pain reports when pain proceeds from high to low rather than from low to high. However, pediatric dentists often ease children into difficult procedures (from easiest to most painful). We investigated the influence of order on a clinical procedure (upper and lower alginate impressions). Subjects were 24 children aged 5-6 years (preoperational stage) and 24 children aged 9-10 years (concrete operational stage). Children were randomly assigned to either start with lower (easier) or start with upper (harder) impressions. Fast set alginate was used during the lower impression and a longer setting-time alginate was used during the upper impressions. Discomfort during the sequence of impressions was measured using the "Affective Facial Scale". A telephone interview was conducted two weeks later to evaluate the memory of discomfort experienced during the sequence of impressions using a three-point scale. The results indicated that the older children who started with the lower impression reported significantly lower discomfort than older children who started with the upper impression (Mann-Whitney U, $Z=-2.08$; $p<0.037$). The same tendency was seen two weeks later on a telephone interview. By phone, 92% of the older children who started with the lower impression, rated the sequence of impressions as "not at all bad", while only 58% of older children who started with the upper impression, rated the overall experience as "not at all bad" ($\chi^2= 3.56$, $p<0.059$). The younger children did not show any difference in their ratings of discomfort at either of the time periods. In conclusion, consistent with clinical practice, we observed that older children benefit from beginning an appointment with an easier procedure and working up to a more difficult one. This was not observed in younger children. However, younger children may have difficulty expressing and communicating their emotions in a research setting.