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Parent-reported food texture preferences and texture sensitivity in young children with and without Down syndrome

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Food texture has been identified as a major issue regarding feeding problems in children and thus exploration into this research area is of great interest. In this study, we examined the open-ended survey responses of caregivers describing which food textures were considered to be 'easy' or 'difficult' for their child.

Using caregiver responses to five key questions, children (between 1-4 years) were assigned to a texture sensitive (TS) or non-texture sensitive (NTS) group. Due to the increased likelihood of texture sensitivity in children with developmental delays, in addition to caregivers of typically developing children (n=573), caregivers of children with Down syndrome (DS) (n=157) were also included in this study. Following the completion of the survey, the open-ended responses from the caregivers about textures and foods they considered 'easy' or 'difficult' for their child (n=2924 textures or foods) were coded into 32 texture categories post-hoc.

Results showed the citations of 'easy' textures were negatively influenced by a Down syndrome diagnosis in the child and the total number of comments listed by the caregiver ($p < 0.05$). The interaction between age and texture sensitivity of the child also played a role, with age having less of an impact in the TS children compared to the NTS children in their reports of 'difficult' textures ($p < 0.05$).

The citation of specific textures as 'easy' or 'difficult' also varied. Among TS children, caregivers stated textures such as dry, mealy and smooth as being 'easy' whilst chewy, rubbery and tough were reported to be 'difficult' ($p < 0.05$). Among children with Down syndrome, tender and mushy were reported as 'easy' while lumpy, tough and gritty were reported as 'difficult' ($p < 0.05$).

These results demonstrate that caregivers identify different textures as being challenging for their children based on TS and the presence of a Down syndrome diagnosis.