



PAIN FREE DENTISTRY FOR CHILDREN: The Hall Technique

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INTRODUCTION

The Hall Technique is a novel method for stopping the progression of dental decay in young children. Divergent to traditional methods, this technique does not require drilling of teeth, or a local or general anaesthetic. A stainless steel crown is secured over carious lesions with the goal of the crown remaining until the deciduous tooth exfoliates. Prior to the establishment of a focussed research project on the Hall Technique at Barwon Health and Colac Area Health the use of such a technique was low, 9% and 16% of children's multi surface restorations, respectively.

AIM/ OBJECTIVES

This report explores whether a focussed research project can improve the implementation of a new dental technique for children.

METHODS + IMPLEMENTATION

This project trialled and evaluated the introduction of the Hall Technique into the Community Dental Clinics of the Public Health Service in the Barwon Region in South-West Victoria. Barwon Health and Colac Area Health provide oral health services to the Greater Geelong, Surf Coast Shire and Colac-Otway Shire. The study determined the acceptability of the Hall Technique by dental clinicians, young children and their families; and the overall clinical effectiveness of using stainless steel crowns to seal and therefore stop the progression of dental decay in young children without drilling or needles. Training was provided by Rachel Martin and Alyson Bettega from the North Richmond Community Health.

The Hall Technique crowns were placed for 96 children with 86 (90%) returning at the 12 month follow up visit and 78 (81%) for their 24 month follow up. The average age of the children was 6.0 years (SD 1.1 years) with a range of 3.7 to 8.1 years. There were 50 girls and 46 boys. Ethics approval was received from the Barwon Health Human Research Ethics Committee (13/61).

TOOLS AND TECHNIQUES

Children presenting to any of the Community Dental Clinics over a twelve month period who needed a multi surface restoration were considered for the Hall Technique. Few clinicians initially used the technique. A survey detailing the experience was offered to the child, parent and clinician. Responses were assessed and time to failure of the crown was calculated using survival analysis.

RESULTS

The Hall Technique stainless steel crown was inserted for 96 children. Mean time to failure was 680 days (95% CI 645-716 days). There were 7 failures where 6 fell off and 1 where the child experienced pain and the crown removed. Clinicians agreed that 91 of the children coped with the insertion of the crowns, and 91 of the parents agreed. There was 88 children who chose a happy face when asked how the staff looked after them and 62 were happy with how they felt when the crown was put on. Also, 83 children were happy with how the silver tooth looked.

Prior to the research project, the Hall Technique restorations performed was 9% for Barwon Health and 16% for Colac Area Health. Post research project 73% and 89% of restorations were Hall Technique Crowns. During the same 5 year period the State wide average increased from 11% to 44%.

ACKNOWLEDGEMENTS

We would like to acknowledge the contribution to the study protocol by U Tonmukayakul, R Martin, R Clark, J Brownbill, D Manton, M Hall, J Armfield, M Smith, R Shankumar, K Sivasithamparam, J Kerry-Martin, H Calache

