

# **ABC Project catalogue**

**Revised 2023** 









No	Core group	ABC-affiliated researchers	Collaborators	PhD-student			
1	hvl	Georgios Tsilingaridis, Göran Dahllöf, Margaret Grindefjord, Ida Brännemo	KI FTV Stockholm Anna Levinsson Göteborgs Universitet	Ida Brännemo			
		Project title A telephone-based case-management intervention for caries prevention in children with severe early childhood caries					
2	RUTH	Georgios Tsilingaridis Ida Brännemo, Göran Dahllöf	KI Child Health care Region Of Stockholm	Ida Brännemo			
		of an extended postnatal home area of Stockholm, Sweden	e visiting program on oral hea	alth among children in a			
3	bvc	Georgios Tsilingaridis, Therese Kvist, Ida Brännemo, Jeanette Norman	KI FTV Stockholm Child Health care Region Of Stockholm	Ida Brännemo Jeanette Norman (master-student)			
	Oral health in children participating in an extended postnatal home visiting program						
4	bvc+hvl	Georgios Tsilingaridis, Therese Kvist, Ida Brännemo	KI FTV Stockholm Child Health care Region Of Stockholm				
	Project title A case-management intervention aimed at reducing Early Childhood Caries in disadvantaged areas – a mixed methods study						
5	PBFN	Annika Julihn Maria Anderson Georgios Tsilingaridis Jessica Tarander, Alfheidur Astvaldsdottir	KI FTV Stockholm Alfheidur Astvaldsdottir (SkaPa)	Jessica Tarander (master-student)			
	Project title Management of deep carious lesions in primary molars						
6	SCS	Maria Anderson	KI FTV Stockholm Malmö University				
	Project title Difference in caries development depending on language spoken at home and income level in country of origin of immigrants						









AutoTx	Åsa Alvinge Georgios Tsilingaridis Maria Anderson	KI FTV Stockholm	Åsa Alvinge (master-student)		
		d premolars to the maxillary	incisor region - A		
Pulp revitalisation	Alina Wikström Georgios Tsilingaridis Maria Anderson	KI FTV Stockholm Malin Brundin Umeå Universitet			
Project title	1	I			
EAPD	Georgios Tsilingarids Göran Dahllöf Monica. Barr-Agholme	KI EAPD			
Project title Dental management of long-term childhood cancer survivors: a systematic review.					
TVR	Göran Dahlöf, Robert Schibbye	KI Folktandvården	Robert Schibbye		
Project title					
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	Project title   Longtern   retrospective co   Pulp   revitalisation   Project title   Project title   Dental m   TVR   Project title   Project title   Project title	Georgios Tsilingaridis Maria Anderson   Project title Longterm survival of autotransplanted retrospective cohort study   Pulp revitalisation Alina Wikström Georgios Tsilingaridis Maria Anderson   Project title   EAPD Georgios Tsilingarids Göran Dahllöf Monica. Barr-Agholme   Project title   Dental management of long-term child   TVR Göran Dahlöf, Robert Schibbye   Project title   Project title   Project title	Georgios Tsilingaridis Maria Anderson FTV Stockholm   Project title Longterm survival of autotransplanted premolars to the maxillary interospective cohort study KI   Pulp revitalisation Alina Wikström Georgios Tsilingaridis Maria Anderson KI   Project title FTV Stockholm Malin Brundin Umeå Universitet   Project title Georgios Tsilingaridis Göran Dahllöf Monica. Barr-Agholme KI   Project title Dental management of long-term childhood cancer survivors: a sys   TVR Göran Dahlöf, Robert Schibbye KI   Project title Folktandvården   Project title Folktandvården   Project title Folktandvården   Project title Folktandvården		









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# No Project title

**Core group** hvl

Principal Investigator Göran Dahllöf

PhD student Ida Brännemo

Co-investigators

Georgios Tsilingaridis Margaret Grindefjord

Tove Hasselblad

Anna Levinsson

A telephone-based case-management intervention for caries prevention in children with severe early childhood caries

#### **Project overview**

Project start	2015	
Calculated end	2021	
Grants awarded		
Source	SOF	
Year	2013, 2016, 2018	

### Aim

1

This study aim to test the hypothesis, that a targeted telephone based case management intervention directed towards children with established or high risk of severe early childhood caries could prevent further caries development.

## **Project description**

Despite improvements in oral health among children, children living in areas characterized by low socio-economic status still have a significant disease burden with regard to dental caries. Special efforts to prevent disease development in this group of children have been unsuccessful. Interventions need to start during the first year of age before dental caries is initiated and need to educate parents to become competent to manage preventive measures daily. Also, in order to achieve cost effectiveness in prevention, the right target groups need to be identified by more accurate and proactive methods.

This study aim to test the hypothesis, that a targeted telephone based case management intervention directed towards children with established or high risk of severe early childhood caries could prevent further caries development. Two groups of children are included: preschool children who are treated under general anesthesia for severe early childhood caries and children below 3 years of age who develop severe early childhood caries. For these target groups, a predictive model that estimates future risk for severe caries will be developed. A carefully designed 1-year intervention focusing on increasing awareness, knowledge and motivation among the targeted families through a structured case management approach will be delivered by dedicated dental health coaches. Their task is to keep contact with the families, to provide information preventive measures that have been individually agreed on, to motivate parents to keep preventive appointments and to provide tools for caries prevention. Intensity and content of the intervention will be determined by individual risk









and adjusted over time. The structured case management programs/the intervention will be developed based on international experience of targeted, preventive programs for children and their families (i.e. based on experience of case management in prevention of childhood obesity). The primary endpoints are new carious lesion (decayed surfaces and decayed

teeth), number of visits to dental health care during the observation period, number of unscheduled appointments, number of missed and cancelled appointments, oral health related quality of life, dental fear and anxiety and parental stress. Secondary endpoints are the parent's evaluation of the contact with the dental health coach as well as dental health coaches' experiences of their role.

## **Project status**

Project 1. Dental health coaches to support families with children who have been treated under general anesthesia due to severe childhood caries Status: recruitment of patients finished 2021. Publications planned for 2023.

Project 2. Dental health coaches to support families with children who are diagnosed with severe early childhood caries before 3 years of age Status: In progress. Adapted to collaborate with the dental child health services in the region of Stockholm.

## **Publications**

Planned 2023



Karolinska Institutet





Core group RUTH

**Principal Investigator** Georgios Tsilingaridis

PhD student Ida Brännemo

**Co-investigators** Göran Dahllöf

Fernanda Soares

#### Impact of an extended postnatal home visiting program on oral health among children in a disadvantaged area of Stockholm, Sweden

### **Project overview**

Project start	2014	
Calculated end	2017	
Grants awarded		
Source		
Year		

## Aim

2

To evaluate oral health outcomes and early oral health promotion of children in a Swedish, parental support programme conducted in a collaboration between Child Health Services and Social Services.

## **Project description**

Methods: The intervention offered first-time parents six home visits from a paediatric nurse and a parental advisor with Social Services. On the fourth visit (infant age 6–8 months), parents received a toothbrush and fluoride toothpaste from non-dental staff. Twice, at child ages 18 and 36 months, a dentist used the International Caries Detection and Assessment System to record caries and conducted a structured interview with the parents on oral health habits. The intervention group (n=72) was compared to a reference group (n=100) from the standard child healthcare programme, which included one home visit.

Results: Significantly, caries prevalence was lower and tooth brushing habits more consistent in the intervention group compared to the reference group in the standard child health programme. The difference was most pronounced at 18 months and had decreased at the 36-month follow up.

Conclusion: The extended postnatal home visiting programme had a positive impact on oral health. Early oral health promotion delivered by non-dental professionals could be a beneficial approach to early caries prevention.

## **Project status**

Finished. Ongoing collaboration with child health care researcher to further evaluate the home visiting program and its effect on children's oral health









## **Publications**

Brannemo I, Dahllof G, Cunha Soares F, Tsilingaridis G. Impact of an extended postnatal home visiting programme on oral health among children in a disadvantaged area of Stockholm, Sweden. Acta Paediatr. 2021;110(1):230-6.









Core group

**Principal Investigator** Georgios Tsilingaridis

**PhD student** Ida Brännemo

**Co-investigators** Jeanette Norman

Lene Lindeberg

# Oral health in children participating in an extended postnatal home visiting program

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### Project overview

Project start	2019	
Calculated end	2023	
Grants awarded		
Source		
Year		

## Aim

3

To evaluate oral health at 12, 24, and 36 months of age in children participating in the extended home visiting program in Stockholm

## **Project description**

The research group of Lene Lindberg is responsible on behalf of the Public Health Agency for the evaluation of the Rinkeby extended home visit program for first-time parents (RUTH) in the Region of Stockholm. The evaluation takes place in the form of a cluster randomized study including 9 BVC with 120-130 families in the intervention and control groups respectively. The evaluation includes parent interviews, staff documentation and information from the children's child health care records. In terms of oral health, we intend to follow up the caries development and oral health habits of the participating children. Children in the intervention and reference group will be examined with regards to oral health as well as dietary and toothbrushing habits at 12, 24 and 36 months of age.

As the home visit program has now spread to several areas and child health care units in the region, we have also produced written and visual information material on dental health to support non-dental staff working in the home visit program, in order to secure a clear and unanimously message regarding caries prevention. The material aims to promote collaboration and knowledge exchange about dental health between dental care, child health care and social services' preventive activities. The material is available to staff in the current study's intervention group but also to other Child Health Care units in the region working in the home visit program to broadly promote oral health in children in socioeconomically disadvantaged areas. All child health care units participating in the extended home visiting program are also supported with toothbrushes and toothpaste.









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## **Project status**

Examinations at 12 and 24 months of age are completed. Examinations at 36 months of age will be performed during 2022/2023









#### Core group

Therese Kvist

**Principal Investigator** 

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PhD student

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#### **Co-investigators**

Ida Brännemo

Georgios Tsilingaridis

Jeanette Norman

Tove Hasselblad

# No Project title

A case-management intervention aimed at reducing Early Childhood Caries in disadvantaged areas – a mixed methods study

#### **Project overview**

Project start	2023	
Calculated end	2027	
Grants awarded		
Source	SOF FoUI-965634	
Year		

#### Aim

4

The overall aim of this research program is to develop effective caries preventive strategies for children living in socially disadvantaged areas of Stockholm. In these studies, we target parents to support the development of health literacy and selfefficacy to make them competent to help their children with caries preventive measures. The main goal is to reduce caries progression rates, to improve children's and families' quality of life and to reduce stress levels.

## **Project description**

Study 1. In a randomized controlled trial test, the hypothesis is that dental caries progression is significantly reduced in a group of children participating in the extended home visiting program followed by additional regular contacts with an oral health coach, compared to children given the standard caries prevention program after the extended home visiting program.

Study 2. In a randomized controlled trial test, the hypothesis is that oral health related quality of life is significantly improved and stress in the family is significantly reduced in a group of children participating in the extended home visiting program, followed by additional regular contacts with an oral health coach, compared to children given the standard caries prevention program after the extended home visiting program.

Study 3. To explore and analyze the oral health coaches' perceived barriers and facilitators of implementing an intervention targeting families with children at risk of developing S-ECC in a context of socioeconomically disadvantaged groups in Sweden. Special regard will be given to adherence to motivational interview (MI) techniques.









Study 4. To explore and analyze: The parents' experiences with the intervention and how does previous knowledge and experience of oral health shape their perception? What is the parents' perception of the outcomes in terms of importance of good oral health for the child and factors that influence these views?

## Project status

Ethical application under review at the Ethical review board, dnr 2022-05196-01

Exploratory pilot visit was carried out at local family center in Rinkeby to understand how collaboration and recruitment for the study can take place. The pilot visit was themed oral health and included professionals from pediatric dentistry, child health care nurses, social service parental adviser, open preschool personnel, parents and children. Another visit is planned during spring 2023.









Core group

PBFN

**Principal Investigator** 

Annika Julihn

**PhD student** Klicka eller tryck här för att ange text.

**Co-investigators** Maria Anderson

Georgios Tsilingaridis

Alfheidur Astvaldsdottir

Jessica Tarander

Management of deep carious lesions in primary molars

#### **Project overview**

Project start	2018		
Calculated end	2020	2024	
Grants awarded			
Source			
Year			

## Aim

5

The overall aim is to study the management of deep carious lesions in primary molars when performed in a Practice Based Research Network (PBRN) in Region Stockholm.

In a randomized controlled trial, test the hypothesis that partial excavation increases the sustainability of filling and tooth survival significantly compared with complete excavation of deep carious lesions in primary molars.

## **Project description**

#### Study design:

This study has a prospective, two arms randomized controlled clinical trial design.

Population:

Children in the age of 3-8 years, with one or more primary molar teeth in a need of a restoration due to a deep carious lesion on proximal and/or occlusal surfaces were invited to participate in the study.

The participating dental clinics are situated in areas with low, middle and high socio-economic profile within Region Stockholm. Four clinics belonged to Folktandvården Stockholm AB and one clinic consisted of private practitioners. In addition, ten dentists from Region Östergötland were invited to participate in the study.

#### Intervention:

Patients were randomly assigned to either intervention group or to the control group and the allocation into the treatment groups were performed digitally. The treatment was performed after applying local anesthetic according to individual needs. The intervention group received the treatment method; partial removal of the carious lesion, that is, total caries removal in the periphery including the dentino-enamel junction. In the inner part of the lesion, the caries removal was limited to reach leathery or slightly soft dentin by probing. Photographs was used as benchmark. The restorations were placed according









to evidence-based methods and the material used according to the dentist's material of choice.

Control:

The control group received the same treatment procedure as the intervention group, but the excavation procedure was complete removal of the carious tissue throughout the cavity. The total caries removal was ensured with hardness on probing and the visual examination. Photographs was used as benchmark. *Outcome:* 

Both in the intervention and the control group the recall visits are scheduled based on individual treatment needs according to the caries prevention program in the county council of Stockholm. Outcomes will be assessed by the treating dentist/dental hygienist at the patient's regular dental visits and finally 24 months after performed treatment.

Primary outcomes:

the restoration lost/the restoration in place, tooth lost/the tooth in place Secondary outcomes: with or without secondary caries in the case of lost restoration, symptoms from the pulp/no symptoms from the pulp

The data will be collected from the data collection sheet and from dental records.

## Project status

Inclusion of partcipants ended. Ongoing collection of data from dental records.









Core group SCS

Principal Investigator Maria Anderson

**PhD student** Klicka eller tryck här för att ange text.

#### **Co-investigators** Aron Naomi Akbar

Anna Warnqvist

Maria Chamoun

Gunilla Klingberg

Difference in caries development depending on language spoken at home and income level in country of origin of immigrants

## **Project overview**

Project start	2011	
Calculated end	2024 specific study	2014 intervention
Grants awarded		
Source		
Year		

## Aim

6

The overall aim of this study was to study the caries risk factor immigrant background more in depth and by using the data about language spoken at home, investigate if language spoken at home and income level in the country of origin, operationalized as low-, middle-, and high-income countries, would be determinants for the development of dental caries.

## **Project description**

Study design and setting

This is a prospective cohort study based on data from children that participated in the Swedish prospective cluster-randomized intervention trial "Stop Caries Stockholm" (SCS). The study was conducted 23 dental clinics in multicultural areas in Stockholm with medium to low socioeconomic status between March 2011 and March 2014. In this study the subjects were followed between 1 and 3 years of age, with annual examinations regarding caries development. Data collection

The study included longitudinal data collected through a clinical examination and a questionnaire at the 1-, 2-, and 3-year annual examinations. Outcome measures

The number of tooth surfaces with an ICDAS score of 1 or higher (ICDAS>1), and the other one was number of tooth surfaces with an ICDAS-score of 3 or higher (ICDAS> 3).

#### Exposure variables

The main exposure variable was based on the parental country of origin in seven categories. The parental country of origin was based on the information on language spoken at home, from the questionnaires. If only Swedish was spoken at home, the child was considered to belong to the category Sweden. If Swedish and a second language was spoken at home, the child was considered to belong to the category mixed. If only a foreign language not including Swedish was spoken at home, the language of the child was first linked to a









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country and then each country of origin was classified into region (European or non-European countries) and income (low, middle- or high-income countries) based on the gross national income per capita (https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-

bank-country-and-lending-groups).

## **Project status**

Analysis of results and manuscript

## **Publications**

Anderson M., Dahllöf G., Warnqvist A., Grindefjord M. Development of dental caries and risk factors between 1 and 7 years of age in areas of high risk for dental caries in Stockholm, Sweden. Eur Arch Paediatr Dent. 2021 Oct;22(5):947-957

Anderson M, Davidson T, Dahllöf G, Grindefjord M. Economic evaluation of an expanded caries-preventive program targeting toddlers in high-risk areas in Sweden. Acta Odontol Scand. 2019 May;77(4):303-309.

Anderson M., Dahllöf G., Soares FC., Grindefjord M. Impact of biannual treatment with fluoride varnish on tooth-surface-level caries progression in children aged 1-3 years. J Dent. 2017 Oct;65:83-88

Anderson M., Dahllöf, G., Twetman, S., Jansson, L., Bergenlid, A.-C., and Grindefjord, M. (2016). Effectiveness of Early Preventive Intervention with Semiannual Fluoride Varnish Application in Toddlers Living in High-Risk Areas: A Stratified Cluster-Randomized Controlled Trial. Caries Research, 50(1), 17–23.









Core group

AutoTx

**Principal Investigator** Georgios Tsilingaridis

**PhD student** Klicka eller tryck här för att ange text.

**Co-investigators** Åsa Alvinge

Maria Anderson

Barbro Malmgren

Olle Malmgren

Longterm survival of autotransplanted premolars to the maxillary incisor region - A retrospective cohort study

#### **Project overview**

Project start	2017	
Calculated end	2024	
Grants awarded		
Source		
Year		

#### Aim

7

To investigate at the long-term survival and success rate of premolars with an immature root development that have been autotransplanted to the maxillary incisor region at the Eastman Institute in Stockholm from 1975 until today. Furthermore, to study the oral health related quality of life of patients treated with autotransplantation.

## **Project description**

A retrospective cohort study is performed in accordance with the STROBE. (Statement for reporting on observational studies).

Retrospective data are collected from the medical records and x-rays of patients who have undergone tooth autotransplantations from premolar to anterior sites at the Oral and maxillofacial department at the Eastman Institute in Stockholm from January 1975 to December 2020. Data will be collected from both analogue as well as digital records (T4 Practice Management Software, Carestream Dental AB). The analogue records consist of structured forms completed by the operating oral surgeon at each follow up session. All patients between 1975 until 2020 that have been treated with autotransplantation of a premolar to the maxillary incisor region will be included.

Patients that still have their autotransplanted teeth will be offered a clinical and radiographical examination. At that follow-up, PPD (periodontal pocket depth), CAL (clinical attachment loss), color changes of the tooth as well as postoperative outcomes including pulp necrosis, inflammatory root resorption, marginal bone loss, ankyloses and survival rate will be evaluated.

#### Significance

If autotransplantation from premolar to incisor site is an effective treatment alternative to fixed prosthodontic restorations and dental implants there is much to be gained, both in total treatment time for the patient as well as a









lower economic cost for the Dental care in total. Considering the fact that the patient keeps his/her own tooth should also be seen as a strong positive factor and even if the transplant would fail at a later stage, an intact alveolar bone ridge preserved by the transplant could facilitate future implant therapy.

## **Project status**

Data analysis and collection of clinical data









#### **Core group** Pulp revitalisation

**Principal Investigator** Georgios Tsilingaridis

## PhD student

Alina Wikström

#### **Co-investigators** Malin Brundin

Maria Anderson

Nelly Romani

Vestman, Olena Rakhimova

David Lazaro Gimeno

# No Project title

Regenerative treatment of traumatized immature permanent incisors with pulp necrosis: A prospective multicenter study.

## **Project overview**

Project start	2018	
Calculated end	2026	
Grants awarded	SOF 2022-2024	
Source		
Year		

## Aim

8

The overall aim of this research program is to evaluate if revascularization is an effective treatment method that can be recommended as the first-choice alternative in treatment of traumatized immature teeth with pulp necrosis and open apices in school children. Furthermore, we aim to investigate if all types of root canal dressings have equal disinfection effect in revascularization procedures. We also aim to study if the revascularization technique has a positive impact on oral health related quality of life through shorter treatment time and preservation of the entire tooth.

# **Project description**

Endodontic management of traumatized immature permanent teeth with pulp necrosis is both a clinical challenge for the dental practitioners and a public health care problem. Even though there are feasible treatment procedures (such as apexification with calcium hydroxide and with Mineral Trioxide Aggregate (MTA)), the long-term survival of these teeth is questionable because none of these techniques can provide continuation of root formation and thickening of

the dentin walls. As a result, the immature tooth is weak and prone to fracture. Recently, regenerative endodontic treatment (RET) have gained much attention as biologically based treatment alternative to the techniques described above, but the scientific evidence is insufficient. These procedures aim to remove necrotic and damaged tissues and replace those with healthy functioning pulpdentin complex.

We plan to invite 120 patients to participate in this randomized control study. The inclusion criteria will be children between the ages of 7-19 years with traumatized permanent incisors with immature roots and open apices and pulp necrosis. The patients will be treated by specialists in endodontics with regenerative endodontics. Patients will be recruited from specialist clinics in Stockholm, Västerbotten and Norrbotten and will be randomized into two









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groups treated with two different root canal dressings: Group 1 – Calciumhydroxide and Group 2 – Chlorhexidine gluconate gel. During a 5-year follow-up period the most important outcomes are continuous root development, dentinal wall thickness and healing of pulp necrosis. Severe traumatic dental injuries leading to severe complication that could result in early tooth loss can have a severe impact on oral health related quality of life.

Therefore, regenerative endodontics can have beneficial effect treating these teeth.

## Project status

A retrospective longitudinal database from Folktandvården Stockholm on patients aged 7-19 years who have previously undergone root canal treatment in the years 2003-2020. The material consists of 2400 patient records where data has been collected retrospectively from patient records. The outcome measures are tooth loss (tooth extraction), cause of tooth loss and complications.

A total of 679 teeth in 575 individuals have been identified for further analyses. Compilation of the results and preparation of the manuscript are currently ongoing and are expected to be completed during FY 2023. The manuscript is revised and then sent to the journal.

## Publications

Wikström A, Brundin M, Romani Vestman N, Rakhimova O, Tsilingaridis G. Endodontic pulp revitalization in traumatized necrotic immature permanent incisors: Early failures and long-term outcomes – a longitudinal cohort study. Accepted in International Endodontic Journal in March 2022

Wikström A, Brundin M, Lopes Ferreira M, El Sayed M, Tsilingaridis G. What is the best treatment modality for immature permanent teeth with pulp necrosis and apical periodontitis? A systematic review. Eur Arch Paediatr Dent. 2021 Jan 8. doi: 10.1007/s40368-020-00575-1. Epub ahead of print

Submitted manuscript:

Alina Wikström, Nelly Romani Vestman, Olena Rakhimova, David Lazaro Gimeno, Georgios Tsilingaridis, Malin Brundin. Microbiological assessment of success and failure in pulp revitalization: A randomized clinical trial using calcium hydroxide and chlorhexidine gluconate in traumatized immature teeth. J of Oral Microbiology.









**Core group** EAPD

**Principal Investigator** Georgios Tsilingaridis

**PhD student** Klicka eller tryck här för att ange text.

**Co-investigators** Göran Dahllöf

Korina. Seremidi

Gizani Sortira

Dimitrios Kloukos

Monica Barr

## Dental management of long-term childhood cancer survivors: a systematic review.

### **Project overview**

Due to a ford a st	2022	
Project start	2023	
Calculated end	2023	
Grants awarded		
Source		
Year		

#### Aim

9

Critically review and summarize existing knowledge on prevalence of oral, dental, and craniofacial side-effects of antineoplastic treatment in childhood cancer survivors (CCS).

## **Project description**

Methods: A literature search was conducted for studies reporting on children aged 4-19 years treated for any type of malignancy up to the age of 15 years and for whom, at the day of the examination, more than 8 months have elapsed since the end of treatment. Data regarding dental late effects on teeth and craniofacial complex were collected and mean prevalence of each defect was reported.

Results:

From the 800 articles identified, 17 studies fulfilled inclusion criteria and were included. A total of 983 CCS were examined, with the total number of healthy controls being 1266 children. Haematological malignancy was the most prevalent diagnosis with the age at diagnosis ranging between 0-15 years. Multiple antineoplastic protocols were implemented with the elapsed time being 8 months up to 17 years. One third of CCS experienced at least one late effect, with corresponding value for the control group being below 25%. Among the defects identified clinically, microdontia, hypodontia and enamel developmental defects were recorded in <sup>1</sup>/<sub>4</sub> of CCS. Impaired root growth and agenesis were the two defects mostly recorded radiographically. The effect on dental maturity and on salivary glands was unclear.

Conclusion: CCS are at risk of developing dental late effects as a result of their disease and its treatment and therefore, routine periodic examinations are essential to record their development and provide comprehensive oral healthcare.









# Project status

Submitted manuscript









Core group TVR

**Principal Investigator** Göran Dahllöf

PhD student Robert Schibbye

**Co-investigators** Shervin Shanavaz,

Erik Hedman-Lagerlöf

# 10 Internet-based cognitive behavioral therapy for children and adolescents with dental phobia.

#### **Project overview**

Project start	2017	
Calculated end	2025	
Grants awarded		
Source		
Year		

#### Aim

To develop and scientifically evaluate Internet-based psychological aids for screening and treatment of dental phobia in children and adolescents

## **Project description**

Development of an internet-based cognitive behavioral therapy for children and adolescents. In a number of studies the aim is to evaluate and develop the treatment for implementation and of use in dentistry.

## **Project status**

We have conducted a pilot of the treatment (published), a RCT of the treatment (submitted), a long term evaluation of the treatment (in manuscript) and we aim to further develop the treatment so it can be better implemented in dentistry (future project)

## **Publications**

Shahnavaz, Shervin & Hedman, Erik & Hasselblad, Tove & Reuterskiöld, Lena (Lotta) & Kaldo, Viktor & Dahllöf, Göran. (2018). Internet-Based Cognitive Behavioral Therapy for Children and Adolescents With Dental Anxiety: Open Trial. Journal of Medical Internet Research. 20. e12. 10.2196/jmir.7803.











#### Core group

Klicka eller tryck här för att ange text.

**Principal Investigator** 

Klicka eller tryck här för att ange text.

#### PhD student

Klicka eller tryck här för att ange text.

#### **Co-investigators**

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## **Project overview**

Project start	
Calculated end	
Grants awarded	
Source	
Year	

## Aim

## **Project description**

#### **Project status**











#### Core group

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**Principal Investigator** 

Klicka eller tryck här för att ange text.

#### PhD student

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#### **Co-investigators**

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## **Project overview**

Project start	
Calculated end	
Grants awarded	
Source	
Year	

### Aim

## **Project description**

#### **Project status**





