



## UvA-DARE (Digital Academic Repository)

### Biopsychosocial aspects of sleep bruxism in children

Restrepo Serna, C.C.

**Publication date**

2018

**Document Version**

Other version

**License**

Other

[Link to publication](#)

**Citation for published version (APA):**

Restrepo Serna, C. C. (2018). *Biopsychosocial aspects of sleep bruxism in children*.

**General rights**

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

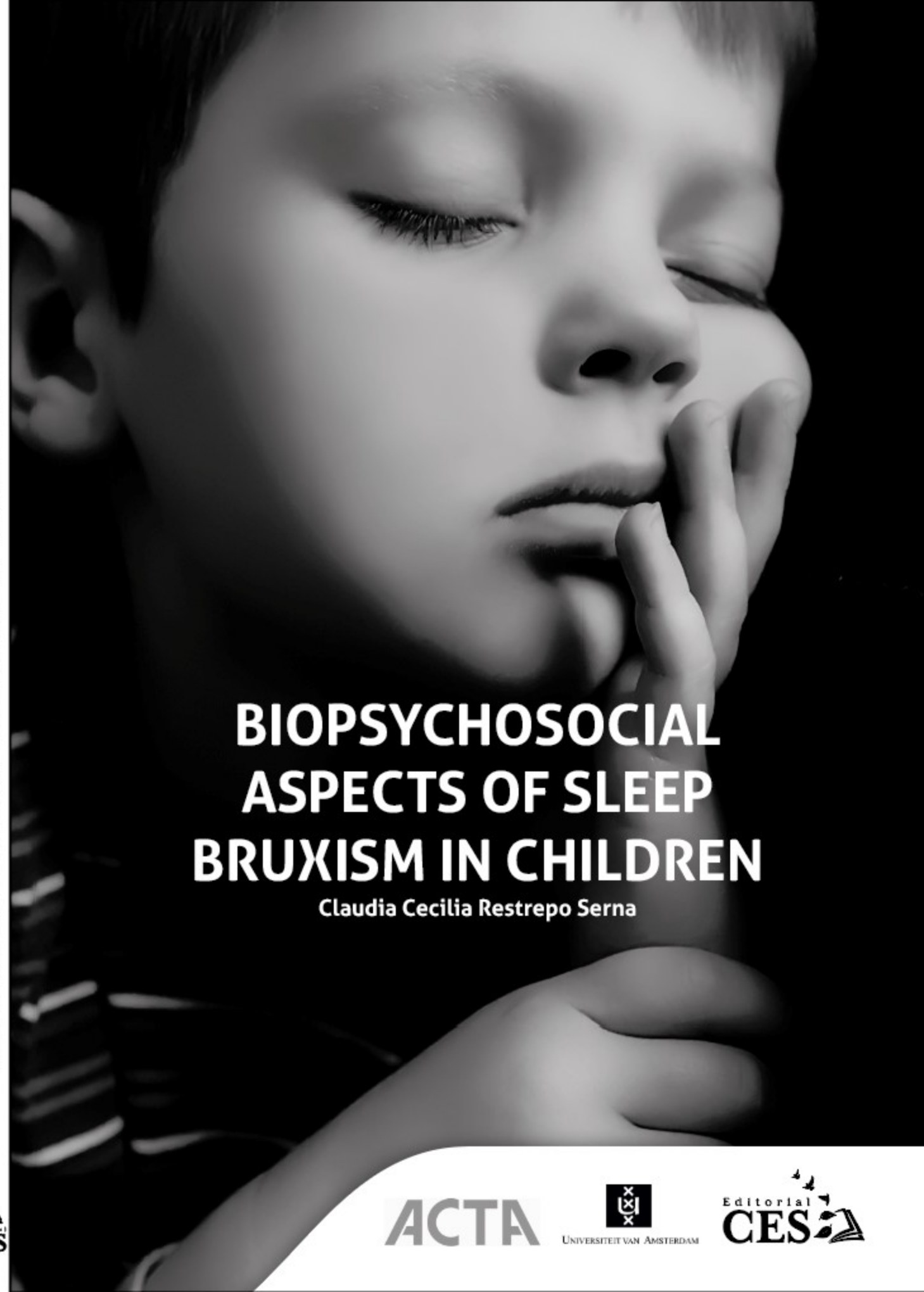
**Disclaimer/Complaints regulations**

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.



BIOPSYCHOSOCIAL  
ASPECTS OF SLEEP  
BRUXISM IN CHILDREN

BIOPSYCHOSOCIAL ASPECTS OF SLEEP BRUXISM IN CHILDREN



BIOPSYCHOSOCIAL  
ASPECTS OF SLEEP  
BRUXISM IN CHILDREN

Claudia Cecilia Restrepo Serna



Claudia Cecilia Restrepo-Serna received her degree as a Dentist in 1997 and as a Pediatric Dentist in 2001 at Universidad CES in Medellín, Colombia. She has worked in sleep bruxism in children since 1995, when she was in her undergraduate program of Dentistry. She started her PhD in 2013. Nowadays, she is working as Professor at Universidad CES and is directing the CES-LPH Research group. She has been a speaker at international meetings and published her investigations in scientific peer reviewed journals. She is an active member of the International Association of Pediatric Dentistry and International Association of Dental Research.

**Biopsychosocial aspects of sleep  
bruxism in children**

**Claudia Cecilia Restrepo Serna**

Biopsychosocial aspects of sleep bruxism in children  
© Claudia Cecilia Restrepo Serna 2018

ISBN 978-958-8674-66-7 (PRINT)  
ISBN 978-958-8674-67-4 (PDF)

Printed by Francisco Vélez

The studies in this thesis were conducted at the department of Oral Kinesiology of the Academic Centre for Dentistry Amsterdam (ACTA) of the University of Amsterdam (UvA), Amsterdam, the Netherlands and Universidad CES in Medellín, Colombia.

**ACTA**



UNIVERSITEIT VAN AMSTERDAM



**UNIVERSIDAD CES**

*Un compromiso con la excelencia*

Resolución del Ministerio de Educación Nacional No. 1371 del 22 de marzo de 2007

VERBAZOK MINISTREUCACION



# Biopsychosocial aspects of sleep bruxism in children

Academisch Proefschrift

ter verkrijging van de graad van doctor  
aan de Universiteit van Amsterdam  
op gezag van de Rector Magnificus

ten overstaan van een door het College voor Promoties ingestelde  
commissie,  
in het openbaar te verdedigen in de Agnietenkapel  
op woensdag 16 mei 2018, te 10:00 uur

door

Claudia Cecilia Restrepo-Serna  
geboren te Medellín, Colombia





## **Promotiecommissie:**

### **Promotoren:**

Prof. dr. F. Lobbezoo	Universiteit van Amsterda
Prof. dr. D. Manfredini	Università degli Studi di Siena

### **Overige leden:**

Prof. dr. J.J.M Bruers	Universiteit van Amsterdam
Prof. dr. C.J. Kleverlaan	Universiteit van Amsterdam
Prof. dr. B.G. Loos	Universiteit van Amsterdam
Prof. dr. C. van Loveren	Universiteit van Amsterdam
Prof. dr. N. de Vries	Universiteit van Amsterdam
Prof. dr. A. Zentner	Vrije Universiteit Amsterdam

## **Faculteit der Tandheelkunde**



“The only limit to the height of your achievements is the reach of your dreams and your willingness to work for them.”

**Michelle Obama**

*To Felipe  
To Gregorio and Cristobal  
To my parents and brother*



## CONTENTS

<b>Chapter 1</b>	Introduction	13
<b>Chapter 2</b>	Prevalence of sleep bruxism in children: a systematic review of the literature.	21
<b>Chapter 3</b>	Diagnostic accuracy of the use of parental-reported sleep bruxism in a polysomnographic study in children.	37
<b>Chapter 4</b>	Agreement between jaw-muscle activity measurement with portable single channel electromyography and polysomnography in children.	49
<b>Chapter 5</b>	Association between proxy-reported sleep bruxism and quality of life aspects in Colombian children of different social layers	63
<b>Chapter 6</b>	Sleep behaviors in children with different frequencies of parental-reported sleep bruxism	75
<b>Chapter 7</b>	Association of dietary habits and parental-reported sleep tooth grinding with tooth wear in children with mixed dentition	87
<b>Chapter 8</b>	Discussion	99
<b>Chapter 9</b>	Summary	115
	Samenvatting	121
	Resumen	127
	List of publications and presentations	133
	Financial disclosure summary	141
	Acknowledgment	143