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Silvia Caruso graduated on the 24th of July, 2012 in Dentistry with “110/110 cum laude” from the University of L'Aquila

She graduated on the 14th of April, 2016 with a post-graduate degree in Orthodontics, with “50/50 cum laude”.

In 2013, she completed her Masters in Paediatric Dentistry and Interceptive Orthodontics, at the University of Pisa. In 2015, she completed “Training Post-Graduate Course” in Orthodontics: “Guidelines

to Orthodontics from scientific evidence to clinical reality”, at the University of Pisa.

She is currently study for her PhD in Paediatric Dentistry at the University of L'Aquila. She is an active member of Italian society of Paediatric Dentistry (SIOI), European Organization of Paediatric Dentistry. She is now managing research projects in Paediatric Dentistry and, in particular, in non nutritive suction.

# Non-nutritive sucking and importance of pacifier use in the first year of life: a retrospective study

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**AIM:** the aim of this study is to evaluate the effect of the use of several commercial pacifiers, selected among many of the product parents usually choose for their children, and their eventual relation with malocclusion as a non-nutritive sucking habit.

**MATERIAL AND METHODS:** a retrospective study has been conducted on a population of 200 children, aged 2-5 years old, recruited at the dental clinic at the University of l'Aquila. A questionnaire was handed to the parents of the children, in order to evaluate age, history of the patient, presence of primary teeth, oral habits, and breastfeeding. After the end of the study, a second questionnaire was filled in by parents of patients, in order to evaluate the use of pacifiers, after been regularly used by children. Dental visits were done after 1,3, and 6 months from the first use.

**RESULTS AND CONCLUSION:** Malocclusion is a deviation of growth and development and involves muscular and skeletal structures during childhood and adolescence and development in early childhood is related.

Malocclusion represents an increasing trend and can be multifactorial: there is an interaction between genetic and environmental factors. It is the most frequent defect in the development of craniofacial structures, affecting about 65% of the American population.

The results of the study show that only 7% of the studied population (14 children/200) had an abnormal development of bone basis, 1% (1 child/200) could not continue the study due to personal problem, 92,5% (185 children/200) did not show any kind of bone alteration.

Even if non-nutritional sucking inevitably leads to the movement of perioral and lingual muscles, thus affecting the shape and growth of the dental arches, this study shows how Philips Avent pacifier does not interfere with the normal development of bone basis, since 7% is extremely lower than the 65% of subjects affected by malocclusion. Due to its shape, dimension and material, Philips Avent pacifiers resulted to be better than the other commercial ones.

Further studies needed to confirm the results of this study.