

Non-nutritive sucking associated with self-mutilating behavior

Hábito de sucção não-nutritiva associada à automutilação

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ABSTRACT

Although sucking activity has been considered an essential behavior of early childhood to satisfy nutritive and non-nutritive needs, digit and pacifier sucking are deleterious oral habits that may interfere with child development. Furthermore, this clinical picture may be compounded by other concerning habits, such as self-mutilating behavior. This article reports 4-year follow-up of a child in whom non-nutritive sucking was associated with an unusual self-mutilating behavior; namely, the child would pull out her own hair after wrapping it around her finger every time she sucked on the pacifier. This occurred specially at bedtime, while she was watching TV, or when she was somewhat anxious, and remitted and recurred throughout the follow-up period. In an attempt to address this behavior, pacifier use was discontinued and the child's head was shaved. Ultimately, the case was only solved through combined efforts involving the child, her family, and health professionals. Based on the parents' reports and clinical examination and follow-up findings, we emphasize the importance of investigating the origin of the problem and considering emotional aspects and its association with other habits in such cases.

Indexing terms: Child. Pacifiers. Self mutilation.

RESUMO

Apesar de a atividade de sucção ser considerada um comportamento essencial da primeira infância por satisfazer as necessidades nutritivas e não-nutritivas, a sucção do dedo e chupeta são hábitos deletérios ao desenvolvimento da criança. Além disso, esse quadro clínico pode ser ainda mais preocupante se houver associação com outros hábitos, como o da automutilação. Neste contexto, no presente artigo são relatados 4 anos de acompanhamento de uma criança que costumava arrancar seus cabelos depois de enrolá-los nos dedos enquanto estava com a chupeta na boca, sem demonstrar sinal algum de sintomatologia dolorosa. Tal fato ocorria especialmente próximo a períodos de sono, ansiedade ou quando assistia à televisão, havendo períodos de remissão e exacerbação. Na tentativa de solucionar o caso foi proposta, além da interrupção do uso da chupeta, a raspagem de todo o cabelo da criança. Contudo, a solução definitiva só foi possível quando houve o envolvimento coletivo, abrangendo criança, família e profissionais da saúde. Baseando-se no relato dos pais, no exame clínico e no acompanhamento do caso, enfatiza-se a importância de se investigar a origem do problema, considerando os aspectos emocionais e sua associação com outros hábitos..

Termos de Indexação: Criança. Chupetas. Automutilação.

INTRODUCTION

Sucking activity in the first years of life is considered an essential behavior of early childhood to meet nutritive and non-nutritive needs¹. However, habitual digit and pacifier sucking are considered extremely deleterious to normal child development².

Prolonged or chronic digit or pacifier sucking may predispose to dental conditions such as dental caries² and malocclusion³⁻⁵, and is associated with acute otitis media⁶ and with some psychological disorders, including depression, as well as colic⁷⁻⁹. Pacifier use has been

associated with development of latex allergy in infants¹⁰, and pacifiers may serve as fomites for dissemination of microorganisms among children, leading to bacterial and fungal infections and reinfections⁸, as in previous reports of increased *Candida albicans* colonization associated with pacifier use⁹. According to Kramer et al.¹¹, pacifier use discourages breastfeeding and contributes to early weaning. Furthermore, infants who are weaned early are more likely to use pacifiers than those who are breastfed for longer.

In view of the foregoing, digit and pacifier sucking are habits to be avoided. When complete avoidance is not possible, they should be kept to a minimum; neither habit

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should be encouraged beyond the first year of life. This article seeks to report the 4-year follow-up of a child who exhibited self-mutilating behavior (infant trichotillomania) associated with pacifier use.

CASE REPORT

A female infant was referred with a complaint of trichotillomania associated with pacifier use. While sucking her pacifier, the child would wrap her head hair around her fingers and pull it out without displaying any outward sign of pain (Figure 1). Both parents worked outside the home and the child had been in daycare since age 40 days.

The child had no medical conditions and no past medical history or family history of note. As soon as they noticed the child's hair loss, the parents sought the advice of their pediatrician, who attributed this behavior to pacifier use.

After a comprehensive assessment, the parents were informed of the risks and consequences of this self-mutilating habit and of the importance of terminating it as soon as possible. The pediatrician also recommended that the child's head be shaved completely. The child's parents followed all recommendations, but only head-shaving was successful, and temporarily so, as the child reverted to her previous behavior as soon as her hair had grown long enough to pull.

At age 18 months, the child was taken out of daycare because her mother had stopped working outside the home. Interestingly, as the child was able to spend more time with her mother, her hair-pulling behavior ceased completely and her pacifier use was rapidly and substantially reduced, until it was limited to bedtime.

At age 4 years, the child was sent to preschool as her mother had to return to work. Subsequently, the child reverted to occasional hair-pulling during pacifier use. The behavior was particularly pronounced at bedtime, while watching TV, or when the child was somewhat anxious, and was quickly curtailed by the mother, who warned the child and told her why she should not pull out her hair. Nevertheless, slight hair loss on the forehead and back of the neck was noticed.

In view of the persistence of this behavior and its manifest consequences, the parents sought advice from a pediatric dentistry specialist, who helped them along the encouragement process to assist the child in discontinuing pacifier use definitively. Within 1 year, both behaviors

(pacifier use and hair-pulling) had ceased completely. The child's understanding and cooperation were determining factors in the success of this intervention.

Throughout the follow-up period, the child exhibited recurring episodes of severe otitis media. Furthermore, due to her pacifier use, she had maxillary constriction and a mild acquired deformity of the hard palate. Orthodontic treatment was planned to address these conditions.

The authors stress that all procedures were conducted in accordance with the ethical principles of the Declaration of Helsinki (2000) and with current Brazilian legislation. The child's legal guardians provided written informed consent for the publication of this report.



Figure 1. Clinical aspect of the child showing hair loss due to self-mutilating behavior.

DISCUSSION

Sucking is an important reflex in the first weeks of life. Breastfeeding confers benefits both in terms of its nutritive aspect and by satisfying the child's sucking instinct¹². The World Health Organization¹³ recommends exclusive breastfeeding in the first 6 months of life and mixed feeding (supplemented by other foods) thereafter until age 2. Children who are not breastfed, for a variety of reasons, usually meet their sucking needs by using a dummy or pacifier. There is strong evidence that pacifier use reduced motivation for breastfeeding and contributes to early weaning and other non-nutritive sucking habits^{1,3,11}. According to Juberg et al.¹, pacifier use is among the most common oral habits in the first 36 months of life. This is because the decision to use a pacifier rests entirely with the child's parents or guardians, who provide it. Pacifiers are a common item in layette sets, and their use is often widely encouraged by family members.

The most serious hazards of this non-nutritive sucking habit are interference with breastfeeding, dental deformities, and the risk of accidents. Latex allergy, tooth loss, oral ulcers, and sleep disorders are also associated with

pacifier use¹⁴, which also increases fungal colonization and proliferation in the oral cavity¹⁰. Furthermore, this habit has been associated with acute otitis media; the incidence and severity of infection were found to decrease after a reduction in daily pacifier use, which suggests that pacifier sucking is a risk factor for ear infection⁶. The child described in this report also had recurrent episodes of otitis media, which led to several doctor's appointments and courses of pharmacological therapy. The child's ear infections only improved after her pacifier sucking habit was reduced.

With continuous pacifier sucking, the child developed dental–skeletal alterations over time, including anterior open bite and posterior crossbite. These changes are commonly observed in children with a pacifier sucking habit, and depend on the frequency, duration, and intensity of pacifier use, as well as on the position of the teeth, on heredity, and on the child's age and overall health^{12,15-17}. Likewise, spontaneous correction after cessation of the habit depends on the aforementioned variables and on the severity of malocclusion. Therefore, it is imperative that parents be informed and instructed as to the consequences of pacifier use so they can intervene at the proper age. Parental intervention notwithstanding, the child's cooperation is essential to the success of any therapy.

Juberg et al.¹ stress that sucking habits decrease with advancing age, following the pattern of normal child development. Indeed, this child's pacifier use decreased over time, to the point where it was eventually restricted to bedtime or to times of particular anxiety. According to several authors^{11-12,15,18-21}, some children engage in pacifier sucking more intensely than others. This fact may be explained by emotional aspects, as well as by social, domestic, cultural, and economic influences. Pacifier use is known to temporarily curtail crying or fussing in certain situations, but when used regularly, it may encourage or induce deleterious behaviors instead¹¹.

During the course of follow-up, we observed that the child's most severe pacifier sucking and hair-pulling behaviors coincided with the hours she spent in daycare. Therefore, her behaviors were probably an attempt to secure attention, particularly parental attention, with pacifier use serving as something of a self-comforting habit. We believe that development of this habit was directly related to early weaning of the child and to the absence of her parents, both of whom worked outside the home. The child appeared somewhat emotionally needy. Nevertheless, no psychological care or counseling was provided, despite our recommendations.

The literature stresses that the essential purpose of breastfeeding is to ensure frequent physical contact between the mother and child. The reciprocal psychological and physiological benefits of breastfeeding to the mother–child pair in this symbiotic relationship play a vital role in normal child development. Touch is a basic behavioral need, just as breathing is a basic physical necessity; infants are destined to grow and develop socially by means of contact with others, and this need for contact will persist throughout the life course. If children are to develop properly, they must be touched, held, carried, caressed, embraced, and lovingly spoken to, even when breastfeeding is lacking. The emphasis is on the care and embracement provided by touch from the hands, arms, and lap; it appears that, even in the absence of many other stimuli, these are essential calming experiences that infants require to survive with at least some health. Humans are able to survive extreme deprivation of other senses, including deprivation of visual and auditory stimuli, as long as the sensory experience of skin contact is provided²².

Within this context, we stress the importance of multidisciplinary guidance and monitoring of child development in these cases. As far as the role of the dental practitioner is concerned, it is recommended that children first see a pediatric dentist between the ages of 4 and 6 months¹⁹. This is a crucial age in which the professional can provide guidance and help prevent certain habits. Pacifiers can be a helpful childcare tool in some situations, but they should not be used as a source of emotional support.

CONCLUSION

We conclude that parental unavailability (particularly on the part of the mother) and early weaning played a key role in the development of deleterious habits (pacifier use and self-mutilating behavior) in this child. The child's emotional habits and lifestyle were modified in an attempt to induce cessation of these habits. This strategy was ultimately successful, but a multidisciplinary approach was required.

Collaborators

RC SILVA, F JEREMIAS, L SANTOS-PINTO, and ACC ZUANON all contributed to the drafting of the manuscript.

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