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Mini Review

Early Preventive Intervention is Needed; The Age of Two is Too Late!

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Abstract

Children's dental care begins at an embryonic age and mothers should think about children's oral health at this time, hence, child dental care is one of the important factors in the health of baby teeth. Like all adult teeth, the baby teeth need care too.

Researchers have recently come to this conclusion that when it comes to preventive interventions to deal with premature tooth decay in childhood, ages of 2 may be too late. A new study found that the oral health of 3-year-old children who received dental care from infancy was significantly better than children who began dental care at age 2.

Keywords: *Preventive; Intervention; Age*

Introduction

Primary teeth start to form between the sixth and eighth week of pregnancy, and permanent teeth begin to form in the twentieth week of prenatal development [1]. If teeth do not start to develop near these times, the formation will not happen at all which resulting in Hypodontia or Anodontia [2,3]. Hence, when the baby is in the mother's womb, the mother must be aware of her nutrition and her health because factors such as malnutrition, infectious diseases or drug's use can affect the structure of the tooth. Teeth care should start at the fetal stage. The temporality of the primary teeth and the eruption of the permanent teeth do not mean that parents neglect to consider them. In fact, these teeth prepare the growth environment of permanent teeth and early tooth loss undermines and affects the optimum growth of all parts of the mouth. That's why mothers should take care of the baby's oral health from the infancy.

"Ignoring the oral health of children would cause problems such as: teeth decays, gum problems, anomalies of the teeth, and increasing the dental expenses" [4].

In a study conducted by professor Jamieson and her colleagues, they looked for the effects of early childhood caries on Indigenous Australian children. They tried to investigate the usefulness of the long-term effectiveness of intervention among children aged three [5].

Regarding this study, Paul Casamassimo and Arthur Nowak, they believe that the findings of the study highlighted the inclusion of dental care in infancy and early childhood health program [6]. Two findings can be drawn from this article: the beneficiary of the early interference and the necessity of periodic measures.

What can be the effect of early interference?

In children's oral health, supervision, protection and preventing injuries is more important than to treat them. As mentioned earlier, the best time for a first dental appointment is at an early age [4,7,8] which is best the age of one, also known as the golden age [4]. Accord-

ingly, going to the dentist early on can prevent some serious problems in children. Early detection is essential for maintaining oral health which makes the dentist correct abnormal habits and performs the treatment in a short time and at the least cost.

A researcher and her colleagues (at the University of Adelaide) examined the impact of early interventions on preventing dental caries in indigenous and resident children who experience almost twice as many dental caries as their peers [5]. Professor Jamieson and her colleagues divided these participating children in this research into two groups.

1. The first group was called the group of immediate intervention. In this group, all children received fluoride varnish at ages of 6, 12 and 18 months, respectively. On the other side, their mothers were also given dental care and motivational interviews by a trained specialist during pregnancy [5].

2. In the second group that we can refer to them as the group of delayed intervention, both children and mothers received the same intervention as the immediate intervention group, but with the difference, these interventions began for children in this group from the age of two [5].

Overall, Professor Jamieson and his colleagues have done two studies in this area. In her first study, she examined children's oral health until the age of two. In the second study, which was the follow-up study of the first study, they compared the results after one year when the children (all previous participants) were three years old [5].

In the original study, the oral health of participant's children in the immediate intervention group was better than the delayed intervention group, and this was also observed in this study. On the other side, children who involved in preventive interventions program from the infancy had less untreated dental caries, fewer decayed teeth, and less extraction and even less restoration compared to those participants in this care program two years later.

Casamassimo and Nowak indicated that more attention needs to be paid to the health of newborns' teeth; cumulative studies support the long-term benefits of these early interventions [6].

A step towards the progression of oral health from infancy

Evaluation of this study shows that although important information has been gained from this survey and it is believed that early intervention is necessary for the prevention of early childhood caries, it seems that some factors affecting children's oral health including trauma, poor family and social situations, the limitation of this study due to its geographical location, and the inability to perform this study in various areas have been missed.

On the other hand, these findings suggest that caries interventions in childhood are likely to have a positive effect even if they do not begin at the beginning of the infancy. As a result, more attention should be paid to the oral health of infants, even if interventions start at older age than this study [6].

Oral health of the children is associated with oral health knowledge of their parents/caregivers, consequently, oral health-related habits (for instance, oral habits, diet and etc.) should be established during infancy, maintained, and followed throughout adolescence [9].

In the future, we should expect a better perspective regarding the matter of high priority in the development and implementation of a long-term program of health education, and promotion for expectant new mothers.

Conclusion

Since the baby is born and the teeth are growing and developing, the mother must have the duty of his baby's oral health. Although primary teeth are temporarily in the baby's mouth, their health is essential for the baby's gums and permanent teeth. Therefore, this should be reminded to the mothers that shortly after birth, the baby's oral health should be started as soon as possible.

Regarding this study, two findings can be drawn from this article: the beneficiary of the early interference and the necessity of periodic measures.

Oral health is a fundamental part of the overall health and general condition of the children. Since dental caries is such a very common disease process among the children (due to poor oral hygiene or eating junk foods and etc), it is essential that the oral health programs start as early as infancy in the daily practice of pediatrics.

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