Journal of Academy of Dental Education, *39–44*

ISSN (Print): 2348-1595
ISSN (Online) : 2348-2621

It's Lame to Tame-Children with Special Health Care Needs

B. Jenefa Vinodhini[1], Sharath Asokan[2*], P. R. Geetha Priya[3] and J. Baby John[4]

[1]Intern, Department of Pediatric Dentistry, KSR Institute of Dental Science and Research, Tiruchengode, Tamil Nadu, India; jenefavinodhini@gmail.com
[2]Reader, Department of Pediatric Dentistry, KSR Institute of Dental Science and Research, Tiruchengode, Tamil Nadu, India; asokansharath@yahoo.com; asokansharath@yahoo.com
[3]Reader, Department of Pediatric Dentistry, KSR Institute of Dental Science and Research, Tiruchengode, Tamil Nadu, India; drgp_pedo@rediffmail.com
[4]Professor and Head, Department of Pediatric Dentistry, KSR Institute of Dental Science and Research, Tiruchengode, Tamil Nadu, India; johnbjohn2005@yahoo.com

Abstract

Children with the special health care needs may often be a challenge to the dentist in their management. These children with the special needs often find themselves difficult to cooperate during treatment, creating a harmful situation. Many techniques have been implicated in modern pediatric dentistry for the management of these children. It is generally believed that the non pharmacological behavior management techniques cannot be used successfully with these children. Physical restraints and pharmacological management techniques are the most commonly used strategies. This paper highlights that the proper use of non-pharmacological behavior management techniques can be very effective to teach these children coping skills that may enable to receive a comprehensive dental care over their life time.

Keywords: Children with Special Health Care Needs, Special Needs Parent, Behavior Support, Behavior Guidance, Non Pharmacological Behavior Management

1. Introduction

"We have no special needs children. Just children…..with special needs."

– Uwe Maurer

Children with special health care needs have a greater than normal unmet needs for dental treatment. The lack of care reflects both the inability of the child to seek treatment and the attitudes and abilities of dentists. Majority of dentists have doubts regarding their own skill or feel inadequately trained in child's behavioral management especially when it is applied to children with special needs (Lyons, 2009). Careful assessment of dental needs of the children with special needs and their willingness to cooperate during treatment is necessary (Muthu & Sivakumar, 2011, 385–392). This article highlights the principles of basic behavioral support as the fundamental point and explains how to apply those principles in assisting children with special health care needs.

Behavior management is the means by which the dental health team effectively and efficiently performs the dental treatment and thereby instills a positive dental attitude in the child (Muthu & Sivakumar, 2011, 91–110). Behavior guidance is a continuum of individualized interaction involving the dentist and patient directed towards communication and education "which ultimately builds trust and allays fear and anxiety" (Muthu & Sivakumar, 2011, 91–110). The terminology behavior support is used for children with special needs. Behavior support is the term used to describe a collaborative philosophy that

*Author for correspondence

is person-centered in that it considers the individual, evaluates their environment and support resources, and attempts to plan how challenging behavior can best be moderated (Lyons, 2009). Successful treatment is one wherein the child comes back with a positive attitude towards dentistry in the successive appointments (Muthu & Sivakumar, 2011, 91–110). Effective treatment of child's dental problem often requires modification in their behavior. The basic principles of behavioral support act as the fundamental point and explain how to assist children with special health care needs (Lyons, 2009). It is essential to enhance the non pharmacological child management techniques as the key factor since the policies on sedation; pharmacological management and use of physical restrains have become more complex.

2. Developmental Psychopathology

Developmental psychopathology applies the knowledge about normal development to study and treat various disorders (Berger, 2005). There are 4 facts obtained as a result of research in developmental psychopathology. These facts can be applicable for all children. Dentists must understand these facts while treating children with special health care needs.

1. **Abnormality is normal**
   Normal children behave abnormal at times and abnormal children can also behave normal at times.
2. **Disability changes over time**
   Children with learning disability can be trained to do better and the disability changes over time.
3. **Adolescence and adulthood may be better or worse**
   Some disorders like Alzheimer's disease can become worse with age.
   Blind children use other sensory responses better with age.
4. **Diagnosis and prognosis depends on social context**
   The diagnosis and prognosis of children always depends on their immediate social environment and how they are taken care of.

3. Understanding Children with Special Needs and their Parents

Families and health care providers assume the role of teacher in the effort to assist children with special needs to gain skills that allow them to participate in activities and adapt to stressful situations. The children's mental age of 30 to 36 months is in the process of developing coping skills to deal with stressful situations (Festa, Ferguson & Hauk, 1993). The children with the special health care needs have the developmental delays to deal with these stressful situations. A child with special needs does not have the cognition of a 30 month old normal child. Fear of unknown, fear of pain, lack of trust, fear of loss of control and fear of intrusion are the five major reasons for dental fear (Figure 1) (Chapman & Kirby-Turner, 1999). It is normal for a child to be fearful. Some children are scared of unknown whereas others are afraid of being separated from their parents. These fears are exaggerated in children with special health care needs.

A child with special needs implies that there is a family with special needs. Emotions common to parents are varied. Some may be in a shock, depressed, frustrated, anger, guilt and unable to accept the uncertainties related to disability (Lyons, 2009). As soon as they know about their child they experience trauma and live with the loss. This leads to stress in their lives and experiences a fear regarding the future of the child that leads to social isolation. Figure 2 depicts the influence of maternal attitude on the behavior of a child (Muthu & Sivakumar, 2011, 91–110). This Schafer Berkley model holds good for children with special needs. These children are considered as an unwanted family member and isolated, to take care of the normal child. The love, care and concern shown to these children are important for their prognosis on a day-to-day basis. Some parents really take care of these children; spend a lot of time and energy to help these children. Parents need time to tell their stories; these are often suppressed in order to maintain the daily rhythm of care. The dentist must earn a family's trust by demonstrating a sincere and caring approach to the child (Lyons, 2009).

4. Behavior Support for Children with Special Needs

Fear and anxiety are purely psychological. They are learned from either the previous medical or dental treatment or from observed parental anxiety. Children with special health care needs will have increased needs for medical treatment and may have experienced the fear and anxiety prior to any dental procedures (Lyons, 2009). The primary aim of behavioral support in pediatric dentistry is to create effective communication, allay patient anxiety and build a trusting attitude towards dentistry. The basic concepts

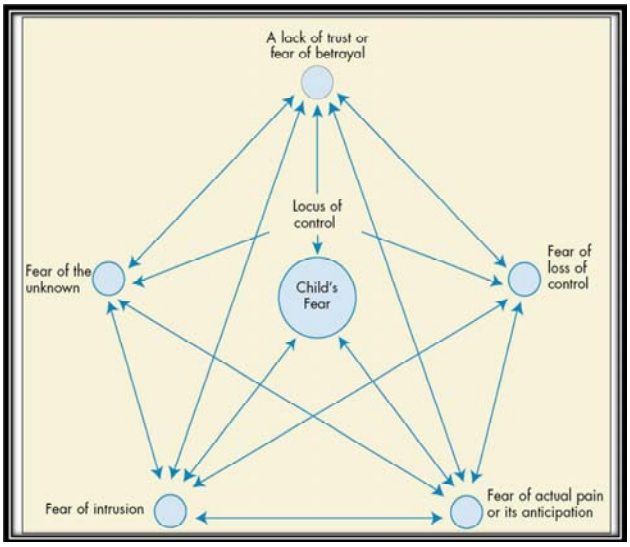

Figure 1. Factors causing dental fear. (Courtesy: From "Dental fear in children-a proposed model," by H. R. Chapman and N. C. Kirby-Turner, British Dental Journal, 187, 408–412.)

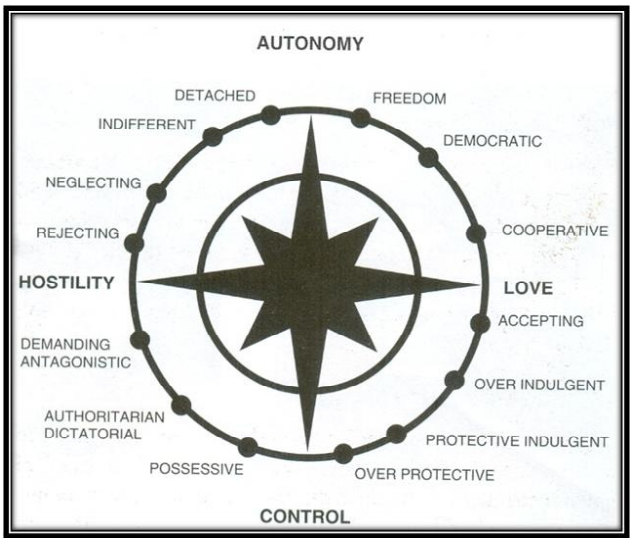

Figure 2. Influence of maternal attitude on child behavior. (Courtesy: Muthu, M. S. & Sivakumar, N. (2011). Dental care for children with special needs. In: Pediatric Dentistry Principles and Practice, (pp. 385–392). New Delhi: Elsevier-A division of Reed Elsevier India Private Limited.

of behavioral support are: nonverbal communication, tell-show-do, positive reinforcement, distraction, parental presence/absence and voice control (Lyons, 2009).

4.1 Non Verbal Communication

It is the effective means of communicating a child through physical contact, posture, facial expression and eye movements. For the children with special health care needs it is the primary means of sensing and reading the intentions of others. Confident behavior of dental operatory will help in successful behavior support. It is also important to recognize that children with special health care needs may themselves use nonverbal techniques to communicate with the surrounding environment. The dentist must not only use non verbal techniques but must be able to pick up the non verbal cues given by the child (Lyons, 2009).

4.2 Desensitization

It is accomplished by teaching the child a competing response such as relaxation and then introducing progressively more threatening stimuli (Tandon, 2008, 142–155). Kemp suggested that desensitization is effective. It increases compliance or reduce the need for restraint (Kemp, 2005). The popular method used nowadays for reducing the maladaptive behavior in children by desensitization is the Tell-Show-Do technique. It is the concept introduced by H. K. Addleston (1959) (Tandon, 2008, 142–155). It is the method explaining the child what is going to be done. Foreshadowing and Visualization are very effective in these children (Feigal, 2001). Foreshadowing is a sign of what is to come in future and visualization is a technique of creating images or animation to communicate with the child. Parents must be informed prior to the procedure so that they are positive about it (Lawrence, McTigue, Wilson, Odom, Waggoner & Fields, 1991).

4.3 Modeling

It is learning by imitation. It is similar to the observational learning theory by Albert Bandura, 1969 (MS Muthu, N Sivakumar, 2011). Any child is capable of acquiring the behavior that they closely observe and that is not too hard for them to perform. This will facilitate the behavior of a child in more appropriate manner (Muthu & Sivakumar, 2011, 91–110). There is evidence that modeling can be effective in children with special health care needs provided they have the adequate cognition (Lyons, 2009).

4.4 Positive Reinforcement

It is the presentation or reinforcement of appreciation after the successful completion of dental procedure. This will increase the frequency of positive attitude of child's behavior in future appointments. It can be in the form of a pat on the shoulder, shaking hands, hugging the child or praise him/her in the presence of his/her parents (Muthu

& Sivakumar, 2011, 91–110). This will encourage and make the child happy. It can also be in the form of gifts like stickers or toys. Verbal praise, a high five, or even a smile can make the children with special needs feel very exceptional. Consequently this will serve to create self esteem that will almost transfer to the next appointment (Lyons, 2009).

4.5 Retraining

It is a technique used similar to that of behavior shaping. It is designed to replace the negative attitude of the child. The three main approaches for retraining procedures are: avoidance, substitution and distraction (Muthu & Sivakumar, 2011, 91–110).

4.6 Distraction

Distraction is the technique of diverting the child's attention from an unpleasant procedure. Giving him/her short break during stressful situation is effective. It is one of the forms of coping mechanisms. It is thought to relive anxiety and pain during dental procedures. It can also be done in the form of storytelling, counting the number of teeth loudly, or recollecting any favorite joke (Muthu & Sivakumar, 2011, 91–110). This will keep his/her mind busy. In case of children with special needs a non stimulating environment is ideal. Loud music, excessive conversation should be eliminated to support behavior[1].

4.7 Parental Presence/Absence

Parental presence/absence may sometimes be useful to gain cooperation of the child during dental treatment (Muthu & Sivakumar, 2011, 91–110). It may also give the child a psychological comfort. Their presence will make them a part of decision making during dental procedures. Most of the parental attitudes reflect in their interest in being with the child during stressful procedures[1]. It is helpful to gain attention of the child and also minimize anxiety and achieve a positive dental experience (Muthu & Sivakumar, 2011, 91–110). Parents of children with special health care needs presents with a number of emotions that will affect how the dentist interacts and treats their child (Lyons, 2009).

4.8 Voice Control

In order to gain attention of a child, it is necessary to remind a child that dentist is the authority to be obeyed. Change in tone from soft to firm may be effective. It is the modification of one's own pitch of voice to gain attention towards the dentist (Tandon, 2008, 142–155). Children with special health care needs may have unpredictable ability to comprehend language, but most are quite adept at sensing the mood of others during interactions (Lyons, 2009).

4.9 Repetition

Message, situation, reinforcers should be the same and should be repeated. If a particular dental chair, assistant and a soft toy has been used in the first visit, it is better to use the same in the subsequent visits (Lyons, 2009).

5. Dental Care for Children with Special Needs

Mental disability, Learning disability, Cerebral palsy, Autism, Visual impairment, Hearing loss, Attention Deficit Hyperactive Disorder are some of the conditions where the children are considered to be the special children. In general, compared to normal children, children with special health care needs have poor plaque control that results in poor oral hygiene and increased prevalence of dental caries. The first acquaintance should be preferably in a calm friendly examination room (Lyons, 2009). Attempt to share a smile, pat on shoulder should be done while conversing with the parents. These children need a little more attention as they are unable to take care of their basic oral health care needs. The dentist has to be flexible with the child with increased time during dental care with additional staff. The dentist needs to understand there are no rituals or rules to be adhered. The messages must be repeated until the child learns to co-operate the situation. Management techniques must be Tender, Loving, Care. Empathy is necessary and not sympathy (Tandon, 2008, 628–638). Empathy is to feel how the other person feels. Sympathy is showing pity. Dental patients never need sympathy.

5.1 Mental Disability

Mental sub-normality has been defined by the American Association of Mental Deficiency (AAMD), as 'sub average general intellectual functioning which originates during the developmental period and is associated with impairment in adaptive behavior' (Damle, 2012). Some of

the cause may be malnutrition, prenatal unknown cause, genetic disorder, cerebral trauma, birth injuries, cerebral hypoxia.

Management: Assessment of the child must be done and according to the level of cooperation the treatment plan is formulated. Tell-show-do and Tender, Loving, Care must be followed[11]. The appointment time and duration for such children must be short and should be scheduled to visit early in the day. Since these children present with multiple anomalies, such as altered teeth eruption, malocclusion, enamel hypoplasia and increased dental caries and periodontal disease, they must be treated in regular dental visit. A proper home care advice must be given to the parents of such children. An electric tooth brush may be advised. Oral prophylaxis, pit and fissure sealants, fluoride application can be carried out at subsequent appointments (Damle, 2012). Before the treatment the child must be made familiarized to the dental office. The dentist must speak slowly and the speech must be repetitive. One instruction must be given at a time. Such an environment may be necessary for the child to cooperate (Muthu & Sivakumar, 2011, 385–392).

5.2 Cerebral Palsy

It is a heterogeneous disorder that may result from congenital defects, mechanical or chemical injury and infection. It is a collection of disabling disorders, leaving the child with the neurological problems. It is characterized by muscular weakness, stiffness and uncoordinated movements. The major cause for cerebral palsy may be decreased oxygenation to the developing brain causing brain damage (Muthu & Sivakumar, 2011, 385–392). Some other causes include complications during delivery, trauma, heavy metal and drug poisoning, encephalitis or cerebrovascular accidents (Tandon, 2008, 628–638).

Management: Dental treatment for such children must be carried out by maintaining a calm, friendly and professional environment. Many of these children prefer to get treated in the wheelchair tipped back into the dentist's lap (Tandon, 2008, 628–638). It is necessary to keep short appointment time. These children may present with gingival and periodontal problems due to involuntary muscular activity that contribute to increased incidence. Other dental problems may be malocclusion, dental caries, bruxism and traumatic injuries to anterior teeth. They must be treated on basis of a regular dental visit. Powered tooth brushes may be recommended. Oral prophylaxis, pit and fissure sealants, fluoride application should be given along with the routine restorative and corrective procedures (Damle, 2012).

5.3 Autism

It is one of the developmental disorders with deficit in social interaction, impaired communication and restricted interests. Features of autism are: No eye contact, smile, response to vocalization, Echolalia (repetitive speech), Pronoun reversal, Stereotyped, Obsessive behavior, focus on small details (Muthu & Sivakumar, 2011, 385–392). Asperger Syndrome (where there is deficits in social interaction alone), a variant of autism where they find it difficult to understand others intentions.

Management: Dentist must have a slow approach to these children since they exhibit wide variation in understanding ability to cooperate during treatment. Behavioral management like Tell-Show-Do, positive and negative verbal reinforcement may be effective in some children. Long term care may be necessary for these children with the frequent preventive recall appointments (Damle, 2012).

5.4 Attention Deficit Hyperactive Disorder

It is a disorder wherein the child finds difficulty to concentrate for more than few moments. Features of attention deficit disorder may be inattentive, impulsive and overactive. These children may be associated with learning disability. Dyslexia is common and is the difficulty with reading (Muthu & Sivakumar, 2011, 385–392).

Management: The children present with the short attention spans that may complicate or prolongs any treatment. Their hyperactive character causes management problems and their nervousness makes long procedures difficult. Non pharmacological behavior management techniques have been found to be effective in children with attention deficit hyperactive disorder (Muthu & Sivakumar, 2011, 385–392).

6. Conclusion

There are a few things to remember about children with special needs.

- Respect the child for who he his – he is a child too.
- Don't plan to strap or drug the child.
- Extend behavior support.
- Empathize and never sympathize.

7. References

1. Berger, K. S. (2005). The school years. In: The developing person–through the life span (pp. 276–278). New York: Worth Publishers.
2. Chapman, H. R. & Kirby-Turner, N. C. (1999). Dental fear in children-a proposed model. *British Dental Journal, 187*, 408–412.
3. Damle, S. G. (2012). Management of special children. In: Text book of Pediatric Dentistry. (pp. 776–790). New Delhi: Arya Medi Publishing House Private Limited.
4. Feigal, R. J. (2001). Guiding and managing the child dental patient: a fresh look at old pedagogy. *Journal of Dental Education, 65,* 1369–1377.
5. Festa, S. A., Ferguson, F. S., & Hauk, M. (1993). Behavior management techniques in pediatric dentistry. *The New York State Dental Journal*, *59,* 35–38.
6. Kemp, F (2005). Alternatives: a review of nonpharmacologic approaches to increasing the cooperation of patients with special needs to inherently unpleasant dental procedures. *Behav Anal Today, 6*, 88–108.
7. Lawrence, S. M. & McTigue, D. J., Wilson, S., Odom, J. G., Waggoner, W. F. & Fields, H. W. (1991). Parental attitudes toward behavior management techniques used in pediatric dentistry. *Pediatric Dentistry, 13*, 151–155.
8. Lyons, R. A. (2009). Understanding basic behavioral support techniques as an alternative to sedation and anesthesia. *Special Care in Dentistry, 29*, 39–50.
9. Muthu, M. S. & Sivakumar, N. (2011). Dental care for children with special needs. In: Pediatric Dentistry Principles and Practice (pp. 385–392). New Delhi: Elsevier-A division of Reed Elsevier India Private Limited.
10. Muthu, M. S., & Sivakumar, N. (2011). Behavior Guidance. In: Pediatric Dentistry Principles and Practice (2nd ed., pp. 91–110). New Delhi: Elsevier-A division of Reed Elsevier India Private Limited.
11. Tandon, S. (2008). Behavioral science and its application in pediatric dentistry. In: Text book of Pedodontics (pp. 142–155). Hyderabad: Paras Medical Publisher.
12. Tandon, S. (2008). Dental care for the special child. In: Text book of Pedodontics. (pp. 628–638). Hyderabad: Paras Medical Publisher.