

**Colors are the real emotions: A short review on the relation between colors and the anxiety level of children**

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**Abstract**

Every child deserves a happy and a healthy smile and Pediatric dentistry is fully devoted towards making it true. The major issue that comes while treating the little ones is that 90% of the child are uncooperative and are difficult to manage. The difficulty is not only because of the machines or drills associated with the treatment but also related to emotional distress the child suffers with the thought of dental treatment. It is said that colors are a beautiful tool in uplifting a child mood. By knowing the color preference of a child pediatric dentist can evaluate the emotional state of the child, identify their fears thereby can take necessary steps to reduce the anxiety level. This will not only improve the patient management but can also enhance the overall quality of the dental treatment. So the purpose of this short communication is to provide an insightful knowledge about the correlation of colors with the anxiety level of children.

**Keywords:** Anxiety, dental management, colors, emotions, child dentistry

**Introduction**

Children are our upcoming generation. Their past experiences can affect their future personality as well. Most of the children are very uncooperative and are difficult to manage. These difficulties are not only because of the thought of getting an injection or having pain but emotional distress associated with the young child during the treatment phase. Anxiety in children during dental procedures is one of the most regular things to encounter in routine practice.

In spite of the advancement in technologies, oral health awareness, dental materials, dental anxiety is still a very common problem with the little ones. It is fourth most common fears and ranked at ninth among the intense fears. Approximately, 5-20% of children show dental anxiety and fear among which few are cases of dental phobia too. Root cause of anxiety in children is indirectly by modeling and information from various sources or by an unpleasant past dental experience.

It is seen that an anxious child failed to cooperate during the treatment, hence result in non-success of the

procedure, thereby compromising the dental health of the child as well as the quality of the dental treatment. With the increment in these cases dealing with anxious child become stressful for the pediatric dentist too. Early identification of the dental fear in child will help to manage the patient likely thereby saving time as well as helpful in building a trusted relationship with the child patient.

It the duty of pediatric dentist to address the young child's worries and the best way to achieve it is through non-pharmacological techniques. Children like colourful objects, colourful toys etc. colors are an inextricable part of everyone's life especially the little ones. It has been proved that colors are associated with emotional well-being. Medicinal value of colors has been identified long before in Egyptian mythology. Colored minerals, stones, crystals, salves, and dyes were used as remedies from ancient era. Colors build an instant subconscious judgement.

Recently colors have been used as an important therapeutic tool in medical field. It has been found that children behaviour, anxiety and cooperation are influenced by the dental environment in which it is being carried out. Therefore making an environment full of colors and positivity will reduces the anxiety level in children. So, the purpose of this short communication is to provide an insightful knowledge about the association of colors and dental anxiety in children.

### **Emotional aspects of colors**

Colors have a strong impact in our lives. It has the power of changing one's perception and decision instantly. It is an inseparable part of our everyday life. It affects our emotions and feelings strongly. From ancient times colors are used for medicinal purpose in Greek and Egypt. Their treatment areas were painted with various shades of color. Colors establish an instant subconscious judgement.

Around 60-90% of the decisions were taken on the basis of products color alone. It is considered as a basic tool of communication with children as they reflect their true thought and feelings. The impact of colors on human psychology influences their decision the most and helps us to know their color preferences better.

In routine dental practice it is seen that dental environment influences the child's behaviour and cooperation the most. According to recent study it has been found that a physiologic reaction occurs when brain perceives colors.

Hence, by keeping dental environment colourful and attractive will eventually reduce the dental anxiety and vice versa. Addition of colourful wall stickers, chairs and other elements will generate a positive impact on the little one's mind. Thus an efficient treatment can be delivered to the younglings by having them calm, composed and happy.

### **Happy colors and sad colors: from a child perspective**

A lot of research in the field of non-pharmacological behaviour management has been done so far. By changing the presumption and comfort zone of children would help the pediatric dentist to build a child-friendly atmosphere for treatment especially for the uncooperative ones. According to a recent study children associate some colors like – Orange, yellow, blue, green as happy colors that means combination of these colors in dental environment will have a positive and cheerful impact on the child's mind and reduce the procedure related dental anxiety and fears. While other colors like black, red, brown persuade sadness and fear in them. so should be avoided in dental settings. According to a study done by **Matsouka (2000)** it has been observed that warm colors like red generate genial, positive, active feelings while neutral colors like green promote calm and moderate

feelings. Cool colors like blue produces cold and quiet feelings.

### Conclusion

By understanding a child preference and likings, pediatric dentist can assess the emotional state; identify fear based on which steps would be taken to reduce the anxiety level. This will increase the quality of the dental treatment and benefit with the patient management.

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