

The significance of emotional intelligence in pediatric dentistry

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Abstract

Emotional intelligence (EI) is defined as a person's ability to express and manage feelings appropriately while respecting the feelings of others. It's a set of skills that children can begin learning at any age. Children with higher emotional intelligence are better able to pay attention, are more engaged in school, have more positive relationships, and are more empathic. Emotional intelligence promotes successful adaptation across life's diverse social arenas. Emotions are essential for dental care because there is a link between the emotion children feel and the success of the dental treatment that the dentist will give.

Keywords: *emotional intelligence, child development, dental care*

Introduction

Children's emotions are unique and complicated to understand because one of the characteristics of children's emotions is that the same behavior shows several types of emotions. A child can express his feelings, but sometimes it takes time and helps to identify what emotions he is feeling. The role of parents is needed here to help children find appropriate emotions so that children can recognize the emotions they are feeling and understand the four basic emotions, namely, fear, anger, sadness and joy (1).

The learning of emotional skills begins at home from the time of infancy. This occurs through the processes of parental modeling and parent-child interactions. Through their own responses to life situations, parents teach their children how to identify and label their emotions, appropriately, or otherwise. However, parents vary in the amount and type of emotional information that they provide to their children. It is unfortunate that many children enter the school system unequipped with the very basic of these skills rudimentary to emotional intelligence. A key period for emotional development is from 4 to 8 years old. The ability to explain others' emotions by considering "multiple sources of information" emerges around ages 7 or 8 (2).

Knowledge of the meaning of other emotions will develop in a stable order that seems to be determined by several factors. The early under development of emotional intelligence standing of basic emotions is probably related to the fact that these emotions are characterized by a unique facial expression that makes them easy to identify. There is difference how children detecting emotions from the whole face and especially eyes and mouth comparing to adults. Children recognize better neutral expression from the mouth and sadness from the eyes (3). Although emotion theorists all have to confront the problem that emotions are hard to study empirically because they are unobservable, subjective, and ill-defined, there are some observable and measurable phenomena—certain prototypical behavioral expressions, especially facial expressions—that are generally taken to be indicative of the occurrence of emotions. The modern empirical approach to the study of emotions began with studies that focused on facial expressions (4).

During childhood some emotions are recognized earlier than the others. There are enjoyment, distress, anger and fear in comparison to shame, disgust and contempt, which develop later (5). Piaget described the child's mental development as involving progressive differentiation of the cognitive categories. Thus, complex emotional-cognitive processes cannot occur in the infant or in the very young child prior to the development of certain cognitive facilities just as the acquisition of language skills is dependent on the child's cognitive development (6).

The emotions most often inferred by parents are dental fear (DF) and dental anxiety. DF is one of the normal emotional reactions to one or more certain stimuli while doing the dental treatment because of fear of dentists, dental nurses, noise and vibrations from dental drills, and pressure from hand instruments during dental treatment (7).

EI consists of two components in pediatric dentistry. One is self-awareness, which is the ability to recognize and understand others' emotions. The other component is self-regulation, which is the ability to control disruptive behaviour and think before taking action (8).

Stronger relationships

With increasing age, however, emotion regulation becomes an increasingly relational activity. Using social referencing the infant learns to evaluate a potentially dangerous situation, and regulate emotion accordingly, by looking at the parent and reading her/his facial expression and vocal tone (9). Still later in development, a child who has developed a secure attachment to her/his caregiver will be able to use that person as "haven of safety" in potentially dangerous situations. The securely attached child regulates emotions flexibly and can react to a "friendly stranger" (the dentist or dental nurse) with concerned curiosity rather than with fear, aggression or indiscriminate friendliness (10).

The type and degree of emotional dysregulation seen in pediatric dentistry will, therefore, be the product of a complex interplay between genetically influenced temperamental traits and the child's relational history with her/his caregivers. To evaluate the parent-child relationship is especially important for children with emotional regulation problems. Some children will be able to use the parent as a "haven of safety" to overcome, or at least reduce, emotion regulation problems. For other children the parent is more part of the problem than part of the solution. Children may be reared in an environment that provides emotional information that is more confusing than helpful (11).

Less anxiety and stress

Emotional intelligence encompasses the ability to regulate emotions to "effectively cope with daily demands" as well as the ability to "generate positive affect" to motivate oneself to achieve personal goals. Emotional Quotient (EQ) is a self-report measure of emotionally and socially intelligent behavior, which provides an

estimate of one's underlying emotional and social intelligence. Previous research has shown a strong correlation between total EQ score and children's behavior in the dental setting (12). The authors suggested that those who have higher scores of total EQ may exhibit better cooperation and less anxiety in the dental setting. EQ has four empirical subscales including intrapersonal, interpersonal, stress management and adaptability. Intrapersonal EQ represents the ability to be in touch with one's own feelings and understand one's own emotional experiences. Interpersonal EQ involves the ability to understand and interact well with others, and to be sensitive to non-verbal communication. In this context, adaptability entails the ability to be realistic and to be effective in understanding difficult situations and problem-solving. Stress management involves the ability to work under pressure and withstand stress without losing emotional control (13).

Sex differences

Sex differences in emotional experience have been explained by referring to both biological and social factors. The reason for many boys and men being less inclined to share their emotions with others probably stems from education and culture (1,14). This style increases with age: on the other hand, almost in all culture's boys are expected, even as children, to be less sensitive than girls. Boys are expected not to cry, not to show or share emotions and to follow reason. On the contrary, girls are expected to follow feelings and to talk about emotions, and this expectation probably turn in a real lifelong "exercise of emotions" (15).

Maternal emotional intelligence

Parents' behavior constitutes the most powerful and potentially alterable influence on the developing child. Included in this parental influence is the construct of emotional intelligence, or more specifically, how parents initiate and shape a child's emotional knowledge base. Parents facilitate their children's emotional competence through the model they provide about expression and regulation of emotions; their reactions to children's emotions; their discussion and coaching about emotions with their children; and the emotional contexts they put their children in (16). Parents with a high EI may handle their emotions when they are faced with a stressful situation in a more appropriate manner and thus their children may develop their EI by observing and learning from such role models. Outside of modeling behavior, how a parent responds to a child's emotions under stress also contributes to how the child will adjust to the situation. Parental attribution of the child's behavior mediates how and what parents respond. Therefore, it could be suggested that parents' emotional intelligence i.e. interpersonal relationship, impulse control, problem solving, assertiveness and other component of emotional intelligence is most likely transferred to their children through daily interactions (17). Therefore, children of emotionally intelligent mothers are also emotionally intelligent and can handle their emotions appropriately in stressful conditions such as dental setting (18). Emotional intelligence can be measured in one of three ways; the first approach takes the form of a self-report measure, second approach to measuring emotional intelligence involves informant measures like how others perceive an individual and third approach involves ability or performance measures (19). Ability and performance measures are preferred by some researchers (20,21). The subject of EI has only recently received worldwide interest and assessments are still in an early stage of development. Although there are some effective, valid and reliable tools, much more research needs to be conducted in order to develop new assessments as well as, evaluate and improve existing ones (22).

Conclusion

An assessment of emotional intelligence with a focus on its subscales could indicate problematic areas of emotional regulation in children, which may help in building emotionally based behavioral management strategies. These are suited to take advantage of emotion-related regulation of children's behavior during dental treatments and possibly early interventions that could potentially shift children away from the emergence of some behavioral problems.

References

1. Chen I J. Children's emotion and behavior in painting activities. *J Coll Teach Learn*. 2012;10(01):89–100.
2. Tracy J L, Randles D. Four models of basic emotions: a review of Ekman and Cordaro, Izard, Levenson, and Panksepp and Watt. *Emot Rev*. 2011;3(04):397–405.
3. Gagnon M., Gosselin P., Maassarani R. (2014). Children's ability to recognize emotions from partial and complete facial expressions. *The Journal of Genetic Psychology*, 175(5), 416–430.
4. Ekman P, Friesen WV. Constants across cultures in the face and emotion. *J Pers Soc Psychol*. 1971 Feb;17(2):124-9.
5. Daya Srinivasan and Vijayabanu. U. Emotions in pedodontics. *Int. J. of Adv. Res*. 6 2018. 191-193.
6. Wood, K. "Piaget's Stages of Cognitive Development," in Orey, M. *Emerging Perspectives on Learning, Teaching, and Technology*, Association for Educational Communications and Technology, 2001.
7. Wadji DRN, Despriliani R, Setiawan AS. Exploring Preschoolers' Emotions in Pediatric Dentistry. *Eur J Dent*. 2023 Oct;17(4):1294-1299.
8. Divya Gupta, Shalini Garg, Sarang Khajuria, Vasit Khajura, Sarbjeet Singh, Bhavneet Kaur. Intelligence - Emotional or Cognitive; Which needs more attention in Children – A short term study, *Research Paper, Dental Science, India*, 2019 (8), 896-899.
9. Roque, Lisa & Verissimo, Manuela & Fernandes, Marília & Rebelo, Ana. Emotion regulation and attachment: Relationships with children's secure base, during different situational and social contexts in naturalistic settings. *Infant behavior & development*. 2013,36. 298-306.
10. Setiawan AS, Despriliani R, Herdiyati Y. Recognition of emotions through cartoon facial expressions in preschoolers. *J Pediatr Dent* 2021; 7 (03) 121-127.
11. Annrup, Kristina & Broberg, Anders & Berggren, Ulf & Bodin, Lennart. Lack of cooperation in pediatric density – The role of child personality characteristics. *Pediatric dentistry*.2001, 24. 119-28.
12. Aminabadi NA, Adhami ZE, Oskouei SG, Najafpour E, Jamali Z. Emotional intelligence subscales: are they correlated with child anxiety and behavior in the dental setting? *J Clin Pediatr Dent*. 2013 Fall;38(1):61-6.
13. Aminabadi NA, Erfanparast L, Adhami ZE, Maljaji E, Ranjbar F, Jamali Z. The impact of emotional intelligence and intelligence quotient (IQ) on child anxiety and behavior in the dental setting. *Acta Odontol Scand*. 2011 Sep;69(5):292-8.
14. Chaplin T M, Aldao A. Gender differences in emotion expression in children: a meta-analytic review. *Psychol Bull*. 2013;139(04):735–765.
15. Wadji DRN, Despriliani R, Setiawan AS. Exploring Preschoolers' Emotions in Pediatric Dentistry. *Eur J Dent*. 2023 Oct;17(4):1294-1299.
16. Rogers M L, Halberstadt A G, Castro V L, MacCormack J K, Garrett-Peters P. Maternal emotion socialization differentially predicts third-grade children's emotion regulation and lability. *Emotion*. 2016;16(02):280–291.

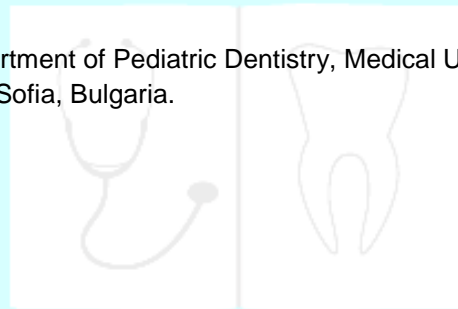
17. Miguel Romero González, Mireia Primé-Tous, Eva Varela Bondelle, Antonio Vázquez-Morejón, Pilar Santamarina, Astrid Morer et al. Parents' Emotional Intelligence and their Children's Mental Health: A Systematic Review. *Journal of Psychiatry and Psychiatric Disorders* 5 (2021): 58-75.
18. Setiawan A SAS, Kendhawati L, Agustiani H. Relational model between parental dental belief and formation of dental fear among preschool children in Indonesia. *Eur J Dent.* 2019;13(03):426–431.
19. Mayer, J.D., Salovey, P., & Caruso, D. Models of emotional intelligence. In J.R. Sternburg (Ed.), *Handbook of Intelligence 2000*, Cambridge, UK: Cambridge University Press
20. Gayathri. N, Meenakshi. K.A Literature Review of Emotional Intelligence. *International Journal of Humanities and Social Science Invention.*2013 2(3), 45-44.
21. Wendorf-Heldt, K. K. *Emotional Intelligence: The Link to School leadership Practices that increase Student Achievement.* Milwaukee: 2007, Cardinal Stritch University.
22. Van Rooy, D. L., & Viswesvaran, C. Assessing emotional intelligence in adults: A Review of existing instruments and their application to increase human performance. In R. Bar-On, J. G. Maree, & M. J. Elias (Eds.). *Educating People to be Emotionally Intelligent: Scientific Guidelines for Enhancing Human Performance.*2007 Heinemann Publishers, Portsmouth, NH.

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*Journal of Medical
and Dental Practice
www.medinform.bg*

Georgieva M, Bakardjiev P. The significance of emotional intelligence in pediatric dentistry. *Medinform* 2024; 11(1):1768-1772.