

TRIANGLES AND CIRCLES IN PEDIATRIC DENTAL CONCEPTS: A VISUAL JOURNEY

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EDUCATION

Abstract: *The conceptual understanding of a topic is best understood by a schematic representation that is as simple as possible. Some of the most essential concepts of pediatric dentists are defined through shapes. This article describes the variants of two basic shapes that have been used to explain some fundamental topics pertaining to pediatric dentistry.*

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Shapes are geometric forms with distinct properties that can convey different meanings or concepts. In pediatric dentistry, circles and triangles are commonly used to visually represent dental and oral health concepts and procedures.^{1 2}

Triangles: They represent the relationship and interaction between a triad of dental concepts or concepts that are presented in a hierarchical manner.

a) Pedodontic Treatment Triangle (Gerald Wright, 1975)

It highlights the importance of communication and collaboration between the dentist, parent and child during dental treatment. It emphasizes the need for all three entities to work together for the success of the treatment with the child being at the apex and parents and the dentist forming the strong base.

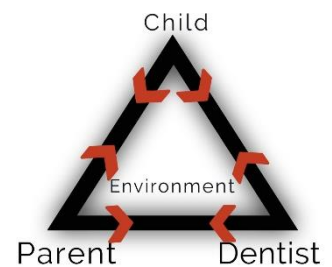


Figure 1 Pedodontic Treatment Triangle

b) Psychic Triad (Sigmund Freud, 1920s)

It refers to the three key elements of personality: the id, ego and superego. It explains how these three components interact with each other to shape an individual's behavior, thoughts, and emotions.

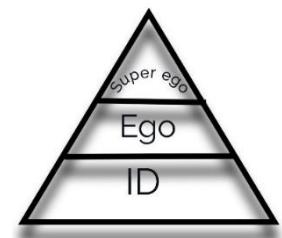


Figure 2 Psychic Triad

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c) Hierarchy of needs (Abraham Maslow, 1943)

It explains how human motivation is driven by a set of basic needs that must be fulfilled in a hierarchial order. The theory proposes that individuals must satisfy their physiological needs before they can fulfill their safety needs, then move on to social esteem, and finally self-actualization needs.

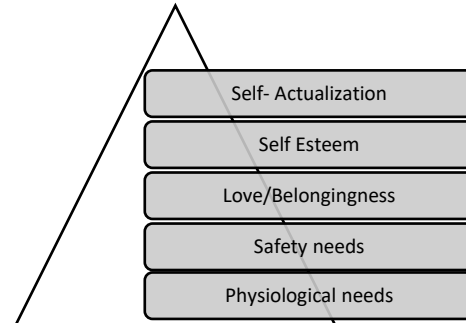


Figure 3 Hierarchy of Needs

Circles: Circles, in the form of Venn diagrams are often used in pediatric dentistry as a visual tool to explain complex dental and oral health concepts, leading to improved communication and better decision making regarding the dental care of young children.

a) Keye’s Triad (Gustav Keyes, 1960s)

The effective management of these three components is essential for maintaining good oral health and preventing dental caries in children. The Keye’s triad approach focuses on communication, behavior management and prevention strategies to improve the quality of dental care for children.

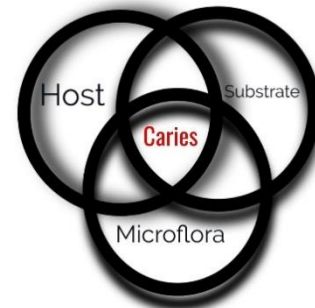


Figure 4 Keye’s Triad

b) Newbrun’s Tetrad (1978)

It emphasizes the importance of addressing each of these factors in caries prevention strategies. This concept has led to the development of various preventive measures, including fluoride use, diet modification and regular dental visists to reduce the risk of dental caires.

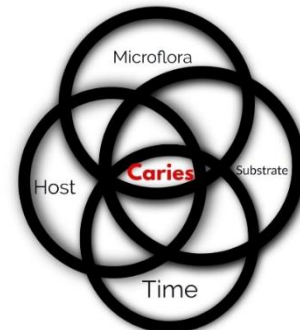


Figure 5 Newbrun’s Tetrad

c) Regenerative Endodontic Triad (Dr. Peter Murray and Dr. Kenneth Hargreaves, 2007)

This has shown promising results in treating immature teeth with pulp necrosis and could potentially lead to the development of new regenerative therapies for dental pulp regeneration.

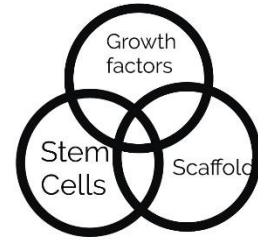


Figure 6 Regenerative Endodontic Triad

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