

COMICS IN PEDIATRIC DENTISTRY: A NARRATIVE REVIEW

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NARRATIVE REVIEW

ABSTRACT

Comics are an illustrative mode of communication whose objectives are achieved through attractive pictorial art forms. In healthcare, comics have been used to evoke emotional responses within the reader (the patient) by illustrating those scenarios which he or she can relate to. A dental setting can often be stressful for the pediatric patient, making the application of behavior guidance of their maladaptive behaviors an absolute necessity. Comics represent a small portion of non-pharmacological behavior guidance techniques in pediatric dentistry. However, the extent of their use in dental education and promotion of oral hygiene is seldom talked about. A thorough literature search was performed across search engines and databases in order to understand the relationship between dental anxiety, comics and pediatric dentistry. All the included studies were considered for a full-text screening before laying out a narrative of the chosen topic. This narrative review highlights the need for long-term studies in order to establish comics as a reliable behavior guidance technique in pediatric dentistry.

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INTRODUCTION

Comic is a medium used to express ideas, or information with images. Comic books, also called comics, are defined as a language structure that uses a combination of texts and drawings to tell a story that is commonly attractive to children and adolescents.⁽¹⁾

An educational comic is the one that “transmits information or communicates concepts, rather than telling a story or entertaining the reader.”^(2,3) In healthcare, educational comics may allow patients and their families to better understand the concerned health condition. The emotional surge that readers experiences while reading a comic helps them to relate to the events and characters in the story and connects these to their experiences.⁽³⁾

Oral Health related Quality of Life (OHRQoL) is a multidimensional construct in dentistry which explains how oral health can directly influence an individual's emotional and functional well-being. In the field of pediatric dentistry, one such influencer is the chronic condition called dental caries. It can negatively impact the child's quality of life due to the varied nature of pain, reduced dietary intake, improper mastication, malocclusion and aesthetic concerns.⁽⁴⁾ In school children, this can further extend to psychosocial consequences which results in low school performance.⁽⁵⁾

In order to improve the OHRQoL of children suffering from dental conditions, educating them about oral hygiene through innovative means like comics can prove to be fruitful. Since children and pre-adolescents between the age of 6 to 12 years are in that phase of cognitive development where self-knowledge and intellectual growth is better acquired through materials, people and environment, this age group is apt for a "comical" intervention.⁽⁶⁾

The objective of the review is to understand the importance of educational comics in pediatric dentistry pertaining to oral health information and oral hygiene.

METHODOLOGY

The guidelines published by Green et al. and the SANRA (Scale for the Assessment of Narrative Review Articles) guidelines were followed for the reporting of this review. A thorough literature search was done in the following databases: PubMed/Medline, Scopus, Cochrane Database, Google Scholar, LILACS, MedNar and TRIP. The search strategy included the following keywords: "comic", "educational comic", "story book", "dental anxiety", "oral health", "pediatric" [Limits: Species (Humans), Language (English)]. Necessary Boolean operators and truncation symbols were used for a refined search.

DISCUSSION

Understanding dental fear and anxiety in young children helps in managing their maladaptive behaviors.⁽⁷⁾ The role of comics as one such non-pharmacological behavior guidance technique is discussed in this review. Since comics are illustrative, short, concise, they are easy to re-read. This also constantly reinforces the message that the illustration attempts to convey.⁽⁸⁾ Moreover,

the literal tone of comics is light and spontaneous, making them ideal for pedagogical purposes.⁽⁹⁾

The Psychology of Comics

Behavioural management of child can be explained through Bandura's social learning theory. According to the theory, people learn by observation, imitation, and modelling.⁽¹⁰⁾ This includes giving preparatory information regarding the procedure to the pediatric patient, which can decrease the discomfort and pain perception.⁽¹¹⁾ Moreover, self-regulation theory (SRT) can explain the viability of preparatory information. An important aspect of SRT assumes that knowing what will happen makes the situation less stressful.⁽¹²⁾ Given both theories, exposing children to positive information regarding dentistry, such as images or storybooks of enjoyable dental activities, can reassure them and psychologically prepare them for their dental visits.⁽¹³⁾

Comics in Pediatric Dentistry

The use of comics in pediatric dentistry has been used for educating patients and parents about the importance of oral health.⁽¹⁴⁾ Comics have also been used as an illustrative tool to reduce anxiety in the dental setting. The manner in which comics have been implemented as a behavior guidance technique has varied with only a handful of studies reporting the validation of their designed educative comic model.

As discussed above, comics take the cushion of psychology to showcase themselves as an effective learning tool. Storytelling and storybook reading are two methods that have been empirically linked to a child's cognitive development. Both these techniques have been used to demonstrate their effectiveness in reducing a child's anxiety during dental treatments.⁽¹⁵⁻¹⁷⁾

Modifications have been made in the manner in which comics have been used as a dental educational tool. Comics have been a part of audio-visual books that children read before their dental appointments which lead to a significant decrease in their anxiety levels.⁽¹⁸⁾ Playful educational comics have also been designed. These contain a dental kit containing a toothbrush, floss and toothpaste in addition to the comic. This active medium of learning is widely accepted by parents and also resulted in an increased frequency of flossing among children.⁽¹⁹⁾

Comics can also be designed to convey a cause-and-effect relationship which can be advantageous to dental and other aspects of health. An epidemiological study conducted in Surabaya (Indonesia) involved both teachers and students while employing an intervention consisting of dental health educational comics. Post-intervention analysis revealed that students had learnt that oral health affects physical activities.⁽²⁰⁾

CONCLUSION

Comics can be a valuable tool for pediatric dentists, helping to educate and engage children in oral health and promote positive attitudes towards dental care. However, long-term studies conducted in a larger sample with validated tools in the form of comics are needed to establish it as a substantial behavior guidance technique.

SUMMARY

- Comics can be an effective way to engage children in pediatric dentistry and teach them about oral health. Comic books can use relatable characters and engaging storylines to make dental education fun and easy to understand.
- Pediatric dentists can use comic books to introduce children to important topics, such as the importance of brushing and flossing, healthy eating habits, and the role of dentists in keeping teeth healthy. They can also use comics to teach children about dental procedures, such as scaling and fillings, and what to expect during a dental visit.
- In addition, comic books can help children overcome dental anxiety and fear by presenting dental procedures in a positive light. Additionally, they can teach children how going to the dentist can be a fun and rewarding experience.

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