BEHAVIOR MANAGEMENT IN DENTISTRY FOR CHILDREN
More than a century has elapsed since a dentist, writing in one of the professional journals of the day, voiced concern about the behavior of children in his practice (Raymond 1875). It was his opinion that “getting into the good graces of children is almost half the work to be accomplished.” This observation opened the gates to a flood of comments on a subject which hitherto had been unrecognized in the dental literature.

Much attention has been focused on shaping children’s behavior in the dental environment. Although some dentists have reacted intuitively to the needs of their child patients, others have been more systematic. They have tried to identify children’s behavior patterns and to find the best means of coping with them. Practitioners have adopted and adapted the techniques of their dental colleagues. The better methods have been passed from one generation of practitioners to the next. These procedures have stood the test of time. The cumulative effect of this knowledge and experience has been the gradual development of an area known as behavior management.

When planning the second edition of this book, the change in nomenclature was an initial stumbling block. Forty years ago the foremost national specialty organization in the world, the American Academy of Pedodontics, now known as the American Academy of Pediatric Dentistry (AAPD), used the term behavior management. The AAPD now prefers the term behavior guidance rather than behavior management. Checking with other organizations around the world, many of which were non-existent 40 years ago, we found that behavior management was the global term of choice. Therefore, at the risk of political incorrectness, the term behavior management will be used in this book.

The study of behavior management has undergone changes. Early writing on the subject was essentially subjective and anecdotal. Interest matured in the 1970s. The result has been a more scientific approach to behavior management.

The descriptive terms “subjective” and “anecdotal” might be interpreted as a criticism. This was not the intention. Earlier writers on the subject of behavior management were pioneers. They attempted to list the causes of uncooperativeness. They classified behavior patterns. They made accurate observations. They established guidelines for behavior management, some of which are incorporated into the foundation of contemporary practice.

Professional recognition that the behavior of the child patient is the most influential factor affecting treatment outcomes significantly heightened interest in behavior management. As a consequence, dentists began to confer on the subject the same respect and objectivity that they have accorded other areas of science in dentistry (Teuscher 1973). Collaborations with psychologists and psychiatrists have broadened the theoretical bases of behavior management. The current systematic approach has been referred to as behavioral science research in pediatric dentistry. The maturing interest has resulted in a healthy questioning of our earlier subjective considerations. Investigators have explored various hypotheses, new and old, in an attempt to further enhance our relationships with children.

As one would expect, the practice of behavior management has been a dynamic one. Differing treatment techniques have been recommended and debated by pediatric dentists. The choice and acceptability of technique is directly dependent on the societal norms of specific cultures. As a result, today’s practitioners have a wide selection of methods which can be used for managing children’s behavior.
Aims and Scope of the Second Edition

This book has two main purposes: (1) to introduce current information basic to the understanding of children’s behavior and (2) to describe and discuss many of the techniques and methods, new and old, used for promoting the cooperative behavior of children.

Despite the numerous clinical approaches, the increased research output by behavioral scientists and the growing awareness of the importance of this area, no longer is there one up-to-date source which the dentist or dental student could turn to for a comprehensive coverage of the subject. Books dealing with behavior management have come and gone. That is one reason for revising this book with a second edition. It is intended to integrate current pertinent information from research with current clinical practices.

Another aim has been to balance the practitioner’s need for some basic knowledge of child psychology with the requirement of practical clinical instruction. Dental teachers and clinicians have expressed the need for such a book provided that it is relevant to dental practice. Little psychological background on the part of the reader is therefore presumed, but an attempt is made to build a foundation on which a practicing dentist can develop an understanding of the dynamics of children’s behavior in the dental environment.

The volume begins by describing in some depth psychological, social and emotional development of children. What is normal behavior for a three-year-old may be unacceptable for a child of five. There are margins of normality which those treating children should understand.

When the first edition of this book was written, maternal anxiety was significantly related to children’s cooperative behavior and the primary focus of a chapter. But there are many types of families nowadays—single parent families, same sex families, blended families—to name a few, and they too will be discussed. While the nuclear family is still predominant in society, understanding family environments and how they influence child behaviors is much more complex than in the past. Therefore, much more emphasis has been placed on the study of families of dental patients and an entire chapter is devoted to this subject.

As the reader progresses through the book, a spectrum of techniques for managing the behavior of children is offered. The approach is characterized by eclecticism. It includes clinical management of children using many non-pharmacologic and pharmacologic methods.

The non-pharmacologic techniques generally are those which have been time-tested over generations. They still form the basis of behavior management. However, there has been an increase in the use of sedation and it is obvious that many new pharmacologic methods need to be highlighted. Sedation usage has led to numerous changes in dental practice: new sedation agents along with optimum drug dosages and new drug combinations, guidelines for patient monitoring, and emergency measures are only some of these changes.

An entire chapter is devoted to the management of children with disabilities. Most writings on this topic have been technique-oriented. The present chapter takes a broader approach. A disabled child creates special problems in a family and alters the dynamics of that family. Since the trend today is to maintain the special patient in the community, rather than in an institution, it is apparent that a greater knowledge and understanding of the management of these patients is required.

Additionally, much more is known today about communicating with these children than was known when the first edition of this book was created. Some of these communication methods will be addressed in this chapter.

In the last two chapters the book covers practical considerations in the office, discussing a myriad of strategies. The dentist plans and has ultimate responsibility for these strategies, while the office personnel carries them out. There is abundant evidence that successful behavior management is facilitated by a well-run office, the employment of personnel well-trained in relating to children, and the design and appearance of the dental office. The final chapter is devoted to the office environment. Having an office that appeals to children makes management much easier. An appealing office might be considered a starting point in behavior management.

By now it should be apparent that this book has been organized to present an overview of an extremely broad field, rather than an investigation of a few topics. It was designed for all members of the dental health team who deal with children. These team members combine their efforts in the management of children’s behaviors. Each makes their own unique contribution as a dental professional. Consequently, certain aspects of this book will be more appealing, or more germane, to one or the other of the team members. It is the sum total of the children’s experiences in the dental environment which ultimately determines their cooperative behaviors. All team members have a stake in determining the nature of those experiences: each of the team members should have a mastery of their own profession and an understanding of the roles of office associates.

This book also has a major difference when compared to the original book. To elucidate some of the key points in the writings, cases are presented. The cases provide examples that make the book more clinically relevant. Some of these cases are from the book Managing Children’s Behavior in the Dental Office by Wright, Starkey and Gardner (1983).
The Pediatric Dentistry Treatment Triangle

The concept of the pediatric dentistry treatment triangle (Figure 1-1), to some extent, has provided the framework for this entire volume. It is not possible to view any single corner of this triangle in isolation. The child is at the apex of the triangle and is the focus of attention of both the family and the dental team.

The two lines of communication emanating from the dentist's corner emphasize a major difference between children's dentistry and adult dentistry. These lines show that treating children is at least a 1:2 relationship (i.e., dentist:child and parent). Adult dentistry tends to be a 1:1 situation (i.e., dentist:patient). It is extremely important for all dental personnel to communicate in both directions.

The arrows at the end of the lines indicate that communication is reciprocal. They also signify that the dental treatment of the child patient is a dynamic relationship between the corners of the triangle—the child, the family, and the dentist. The importance of this unifying concept will become evident as techniques are described in subsequent chapters.

Note the difference in Figure 1-1 between the triangular illustrations in 1975 and 2013. In 2013, societal expectations have greatly impacted the practice of pediatric dentistry. The pediatric triangle does not represent an isolated environment, but rather exists within and is influenced by the surrounding society, hence the addition of the circle.

Perhaps the greatest societal impact on pediatric dentistry was the law of informed consent. Informing the parent about the nature, risk, and benefits of the technique to be used and any professionally recognized or evidence-based alternative is essential to obtaining informed consent. The impact upon professionals became more widespread in the 1980s. Pediatric dentists became aware that it was far more difficult to obtain legal consent from a parent on behalf of a child than it was to have consent when dealing with an adult on a dentist-patient (1:1) relationship.

The term informed consent first appeared in the United States in court documents in 1957. It was in a civil court ruling for a patient who underwent anesthesia for what he thought was a routine procedure. He woke up permanently paralyzed from the waist down. The doctor had not told him that the procedure carried risks. In a subsequent civil suit, the judge in the case ruled that “a physician violates his duty to his patient and subjects himself to liability if he withholds any facts which are necessary to form the basis for an intelligent consent by the patient to the proposed treatment.” Obtaining informed consent for all procedures is now mandatory, and it is an example as to why society has to be considered when illustrating the pediatric treatment triangle.

For those interested in the subject of informed consent, consider reading the book *The Immortal Life of Henrietta Lacks* by Rebecca Skloot (2010). The book relates the story of how doctors at Johns Hopkins Hospital in Baltimore, Maryland took Lacks’ cancer cells without asking. Until that time, harvested cancer cells always died. Lacks’ cells never died and they launched a medical revolution. They provided researchers with an avenue to investigate cancer. The cells became known as the HeLa cells and they launched a multi-million dollar industry. Cells were produced and sold for research. The Lacks family was totally unaware of this and they did not profit at all.

Societal norms affect all corners of the triangle individually, as well as the interactions between all three.
components. The intimate relationship between parent and child has been changed by society. The professional relationships between dentist and child and dentist and parent have also evolved, dictated by societal changes. In 1975, it was widely accepted that a mother’s attitude significantly affected her offspring’s behavior in the dental office. Roles in families are changing and now the total family environment has to be considered. A father bringing a child for treatment is not unusual. Not infrequently, both parents are working and the child presents at the dental office with a caregiver. Hence, the new triangular illustration recognizes the change that has occurred in the last 40 years. This book will highlight some of these changes and identify how they have influenced the practice of pediatric dentistry.

What is Behavior Management?

McElroy (1895) inadvertently provided a definition for behavior management near the beginning of this century. She wrote, “although the operative dentistry may be perfect, the appointment is a failure if the child departs in tears.” This was the first mention in the dental literature of measuring the success or failure of a child’s appointment on anything other than a technical basis.

The term behavior management, or its synonym child management, has been used repeatedly in dentistry for children. Generally, it has referred to methods used to obtain a child’s acceptance of treatment in the dental chair. Considering the frequency with which these terms have been applied, it was somewhat surprising that a precise definition was non-existent when the first edition of this book was produced. For the purpose of that monograph, the term behavior management was defined as follows:

It is the means by which the dental health team effectively and efficiently performs treatment for a child patient and at the same time instills a positive dental attitude.

Note that this definition makes no mention of any specific techniques or modalities of treatment. Years ago discussions with colleagues led to the belief that behavior management was absolutely non-pharmacologic. Some stated that behavior management was not truly practiced when drugs were employed to allay apprehension.

Drugs are an adjunct to behavior management. Their use depends upon the philosophy and attitudes of the dentist. Personalities and educational backgrounds tend to influence clinical practice (Wright and McAulay 1973). However, as long as the proposed definition has been satisfied, it is behavior management. Not all techniques advocated in this book will be the reader’s personal choice. But they are the means by which some dentists successfully practice behavior management with children.

Reasonable cooperation between child and operator is implicit in the proposed definition of behavior management. What is meant by “reasonable” varies from operator to operator. This will be discussed at length in Chapter Three. Meanwhile, consider the meaning of two key words in the proposed definition: effectively and efficiently. They are important to a contemporary definition.

Effective service is the provision of high quality treatment. Treatment should not be modified to the detriment of a child’s oral health. For example, totally untreated dental caries exposed to the oral environment until a patient gets older is unacceptable. It is not behavior management, and it is not good dentistry.

Efficient service has to be considered in private practice today. The day is past when the dentist plans to “give a child a ride in the chair” over a series of appointments without accomplishing any treatment objectives. Neither the parent nor the dentist can usually afford this unnecessary expenditure of time. Quadrant dentistry or half-mouth dentistry using auxiliary personnel is the rule when one considers an efficient practice. Introduction to dentistry should be accomplished gently and with the greatest facility.

The final part of the proposed definition of behavior management stresses the importance of creating positive attitudes in children. That attitude may become positive after a single appointment or over a series of appointments. Indeed, the positive attitude sometimes takes years to develop. Many practitioners have believed that getting the job done without taking into consideration their child patients crying is behavior management. This is not good enough.

Since the introduction of this definition, the AAPD guidelines have stated (AAPD Reference Manual, 2011):

The goals of behavior guidance are to establish communication, alleviate fear and anxiety, deliver quality dental care, build a trusting relationship between dentist and child, and promote the child’s positive attitude toward oral/dental health and oral health care.

As the reader can see, these goals are very similar to the definition proposed for this book.

Importance of Behavior Management

If a generalization can be made about dental curricula of the past, it is that the study of human behavior has played a secondary role to the scientific and technical
learning. Recognizing this in academia, behavioral sciences now are included as an integral part of a modern curriculum, and behavior management has been a part of this newly developing course of study. It is taught using a multimedia approach. Educators have an array of literature, films and videotapes to call upon as effective teaching aids.

Concomitant with expanded teaching in behavior management, there was a surge in behavior management research. It was spurred on by educators like McDonald, (1969) who wrote, “Until recently little research has been undertaken to provide answers to even the common problems associated with the guidance of the child’s behavior in the dental office.” The emphasis on the humanistic aspect in teaching and research has led to many fine studies published in the 1970s into the 1980s. Unfortunately, this research productivity has slowed (Wilson and Cody 2005). This is probably due to practical reasons, such as lack of funding and a greater emphasis on other aspects of pediatric dentistry. Funding has a great impact on research, and behavioral science research primarily is dependent upon government funding.

Considerable effort has been directed toward the question, “Why do people not attend a dentist regularly?” No simple answer has emerged. Indeed, there are so many related variables that it boggles the mind to think of them. Does public opinion vary geographically? Does ethnic background affect viewpoints? What bearing would socioeconomic status have upon the question? Dentists have been aware of the jibes of humorists, artists and authors in the past. Have these reflected or shaped the public attitude? When studying individual behaviors, there are exceptions to cause-effect relationships. When dealing with large population groups with an increased number of variables, the difficulty in establishing relationships becomes more complex. Despite the difficulties, however, certain variables have cropped up repeatedly as sources of the public’s negative attitude. The major variables are economics and dental anxiety or fear.

Investigations into dental utilization have repeatedly demonstrated that many children lack care. Most utilization rates are determined through questionnaires, and the data can be skewed depending on the data collection methodology. Nonetheless, there is sufficient information to pay heed to the issue.

In Iowa, utilization rates ranged from 18% for children newly enrolled in a Medicaid program to 58% for children in the State Children’s Insurance Program (Damiano et al. 2006). Focusing on adolescents, McBroome et al. (2005) studied the impact of the Iowa State Children’s Health Insurance Program on dental care access. They determined that adolescents were least likely to have an annual dental visit and one in six had unmet dental needs. They concluded that non-financial barriers existed for many adolescents. Relative to other services, dental care was reported to have the highest in unmet needs.

The California Health Care Foundation’s Step by Step program investigated utilization in eight California Healthy Kids programs. Once more, low utilization was found ranging from 14% in Fresno County to 48.4% in Santa Cruz County with an average of 32.6% (Phipps and Diringer 2006).

Similar findings have been reported in Alberta, Canada (Amin 2011). Using data gathered from telephone interviews of 820 clients selected from the Alberta Child Health Benefit Program, it was found that only 33.7% of children two to four years of age had received dental services in the previous year. Better results were achieved for children five to nine years of age as 83.5% had received one or more dental services.

It is important to point out that progress is being made in the United States. Some locales have found an increase in utilization rates. Wall’s dental Medicaid report (2012) compared data from several years of Medicaid children’s dental visits. The report showed a steady increase of access to dental care. Approximately 40% of children enrolled in the Medicaid program received a dental service in the previous year. This reflected a 50% increase over the 27% of children who received a dental service in 2000.

Further evidence of improved access to dental care was reported by Isong et al. (2012). These investigators referred to previous studies that repeatedly documented marked racial /ethnic disparities in American children’s receipt of dental care. They analyzed data, gathered between 1964 and 2010, on race and dental care utilization for children two to seventeen years of age and were able to demonstrate a dramatic narrowing of African American/white disparities. The disparities in children’s dental utilization rates were significantly different in 1964 but were non-significant in 2012. Considering all children, regardless of race, those without a dental visit in the previous 12 months declined significantly from 52.4% in 1964 to 21.7% in 2010.

In a perfect world, every child would receive routine dental care. However, as the foregoing clearly demonstrates, it is not a perfect world and many children go uncared for. Why? Many have attempted to answer the question. It is complex and no single variable can provide the answer. Numerous practical barriers to care have been described, such as a limited availability of dental providers, low reimbursement, and transportation difficulties. The cost of dental care has also been suggested as a chief reason why many do not attend to their dental needs on a regular basis. While this may be a good reason for some, poor attendance at low-income,
government-sponsored dental programs discounts the economic factor as a chief barrier. It is apparent that the reasons many people do not seek regular dental care go well beyond the simplistic contention of some that if the economic impediment were removed, then demand and dental care standards would improve. Other factors obviously affect public attitude and utilization.

The importance of behavior management becomes more important when assessing the effects of dental anxiety. It completely limits, or partially limits, utilization of health care (Berggren and Meynert, 1984; Locker, 2003). A more recent French national cross-sectional survey of dental anxiety found farmers and low-skilled workers significantly more anxious than shopkeepers and executives. Anxiety was also associated with avoidance of care and lack of regular dental visits (Nicholas et al. 2007).

Evidence for the role of conditioning in dental anxiety, through either aversive experiences or family influences, has been provided by Berggren and Meynert (1984) and Shoben and Borland (1954). The latter, working with adults, studied fear and its relationship to dentistry. Using the paper-and-pencil questionnaire method, they found that a significant factor in the population’s background appeared to be the attitude of the patient’s family toward dentistry. Their widely quoted finding points to the origin of fears in childhood.

While dental anxiety has been studied to determine its effect on dental care, little attention has been given to the age of onset of dental anxiety, even though it may have a bearing on the origins of dental fear. Locker et al. (1999) studied this variable by means of mail surveys. Based upon 1420 responses, 50% of those who replied identified that the onset of their anxiety was in childhood and 22% reported their anxiety stemmed from adolescence. Considering the variables leading to childhood anxiety, there was a strong association with an aversive incident. Interestingly, half who had child anxiety onset also reported that they had a mother, father or sibling who was anxious about dental treatment.

Dental anxiety or fear is not inherited. It is acquired, and it is commonly accepted that genesis occurs in childhood. A reasonable speculation is that these early dental fears shape a patient’s attitude in adulthood. Research has demonstrated that adults holding negative dental attitudes can and do convey their feelings to their offspring. Therefore, it can be concluded that negative attitudes tend to be self-perpetuating (Figure 1-2).

The early part of this book focuses on the family and the home environment. If the circular pattern is to be interrupted, that is where we must begin. Since dental anxiety and fears are acquired, the most logical place to interrupt these sequential events is in childhood. It is far simpler to start patients with proper dental attitudes than to attempt to change deeply rooted negative ones.

The establishment of a dental home as early as the first year of life will be expanded upon in Chapter Five. The early development of a positive relationship with the dentist will help shape the future behavior of both child and parent. It is obvious that in order to accomplish this, early dental exposures must occur with a minimum of psychological trauma. Thus, the need for continually improving behavior management becomes obvious and extremely important.

To recapitulate, this section has attempted to explain the importance of behavior management. It has provided an overview of the question, “why do people avoid dentistry?” The problem is multidimensional. Two major factors were discussed: economics and dental anxiety or fear. Both are important. However, dental anxiety or fear seems to be most consistently related to negative attitudes toward dentistry.

Considerable effort has been expended by organized dentistry over the years to improve its image. If we are to promote positive dental attitudes and improve the dental health of the public, then children are logically the keys to the future. No greater compliment can be paid to the dentist than when the parent of a young patient says, “I can’t understand it, but my kids really look forward to going to the dentist.” That is another reason for this book.

References
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