

Research

*Corresponding author

John E. Nathan, DDS, MDS

Associate Professor of Clinical
Otolaryngology
Department of Otolaryngology/Dentistry
Northwestern University
Feinberg School of Medicine, USA;
Adjunct Professor
Department of Pediatric Dentistry
University of Alabama
Birmingham and Case Western
Reserve University Cleveland, USA
E-mail: jnathands@gmail.com

Volume 2 : Issue 2

Article Ref. #: 1000PNNOJ2109

Article History

Received: April 2nd, 2015

Accepted: April 29th, 2015

Published: April 30th, 2015

Citation

Nathan JE, Rayman MS, Golden BE, Vargas KG. Discretionary parental presence in the dental operator: a survey of pediatric dentists and parents. *Pediatr Neonatal Nurs Open J*. 2015; 2(2): 50-61. doi: [10.17140/PNNOJ-2-109](https://doi.org/10.17140/PNNOJ-2-109)

Copyright

©2015 Nathan JE. This is an open access article distributed under the Creative Commons Attribution 4.0 International License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Discretionary Parental Presence in the Dental Operator: A Survey of Pediatric Dentists and Parents

John E. Nathan^{1*}, Martin S. Rayman², Bruce E. Golden³ and Kaaren G. Vargas⁴

¹Associate Professor, Department of Otolaryngology/Dentistry, Northwestern University, Feinberg School of Medicine, USA; Adjunct Professor, Department of Pediatric Dentistry, University of Alabama, Birmingham and Case Western Reserve University Cleveland, USA; Diplomate, American Board of Pediatric Dentistry

²Diplomate, American Board of Pediatric Dentistry: In Private Practice Limited to Pediatric Dentistry, San Rafael, CA, USA

³Clinical Associate Professor, Department of Pediatric Dentistry, New York University College of Dentistry; Diplomate, American Board of Pediatric Dentistry: In Private Practice Limited to Pediatric Dentistry, Vineyard Haven, MA, USA

⁴Diplomate, American Board of Pediatric Dentistry: In Private Practice Limited to Pediatric Dentistry, North Liberty, Iowa, USA

ABSTRACT

Background: The decision to include or exclude parent presence in the dental operator during a child's visit has long been a controversial issue in pediatric dentistry. The intent of this paper was to explore the contemporary views of pediatric dentists and parents with respect to the rationale for which including or excluding parents has impact on children's behavior and response to dental treatment.

Methods: A printed mailed randomized survey of 1000 nationwide pediatric dentists was distributed. A second survey of parents was requested from offices which both included and excluded parents from the operator to ascertain their opinions of how they anticipated their children would react and whether or not their inclusion in the dental operator would impact favorably or not on their child's acceptance of care.

Results: In contrast to previous decades increasing interest and willingness of pediatric dentists to permit parent presence was found significant for children 30 months of age or older. Regardless of whether parents were permitted to be present in various offices, interest to be present among parents was found to be significantly increased for examinations and treatment. Where parent presence was permissible significant differences ($p < 0.001$) were found between parents from pediatric dental practices that routinely allowed parents to be present compared to both dentists and parents from practices in which parents were excluded.

Conclusions: For pre-school children, children lacking in cooperative potential, and those with a history of fearful or unpleasant previous experience, arbitrary exclusion of parents from the dental operator appears increasingly perceived as unproductive and unwarranted. Trends appear to emerge in the direction of increasing willingness of pediatric dentists to permit parent presence for examination and treatment visits.

KEYWORDS: Parent presence; Behavior guidance; Childhood dental anxiety.

INTRODUCTION AND BACKGROUND

Because dental treatment is openly viewed as unpleasant in our society, it is not surprising that for some, dental visits are seen as a threatening event. This can be particularly true for young, timid, and apprehensive children of any age.¹

Few topics in pediatric dentistry generate more divergence of opinion than whether or not to include parents in the dental operator. For many, mandatory (or arbitrary) exclusion of a parent is considered essential to allow the dental team to establish a rapport with a child, regardless of his/her age. Others contend that arbitrary separation of a young child from his/her parent in the reception room unnecessarily can precipitate a behavior management problem before one either exists or would otherwise occur. While it seems likely that this may long remain a debate among pediatric specialists, interest nevertheless remains to attempt to sort out the basis for the diversity in behavior guidance philosophies. With few exceptions, there is a paucity of (controlled or otherwise) data that has attempted to elucidate the effect of parental presence on children's immediate as well as long-term responses to dental care.

Of the limited prospective data reported, indications have been in directions which support the beneficial nature of parent inclusion. However, there appears to be no disagreement among pediatric clinicians that instances exist in which some parents by virtue of personality, demeanor, attitude, and behavior, consider parent presence as counterproductive to the establishment of a favorable rapport, development of acceptance and coping behaviors of some children. Similarly, there are some children, by virtue of an ability to manipulate adult behavior, perform in the presence of their parents potentially nullifying any benefit of having a parent present.

This project has the global objective to examine the various points of view of clinicians and parents regarding the merit or detriment of parental inclusion in the dental operator. Survey instruments were developed to ascertain relevant variables which cause one to establish either a flexible or inflexible stance on this issue. Survey questions were intentionally not designed to be neutral in nature, but rather to "think out-of-the-box" to probe if not provoke discussion and offer illumination on why we do what we do. The paper examines limited existing data as to whether or not evidence-based support exists for differing practice approaches. This project stipulates that parent presence is not essential for children who possess or demonstrate more sophisticated coping skills and non-anxious behaviors.

This project further stipulates that there exists legitimate rationale by which some children do not respond favorably or reasonably in the presence of their parents; judgment of clinicians who elect to exclude parents in either a mandatory fashion, or selectively request parents to leave the operator based on patient behavioral cues that suggest child behavior and acceptance will be enhanced by their absence serves as a strong and appropriate justification for their protocols. It is not intent of this paper to show bias to policies which either include or exclude parental presence.

Unlike pediatric medical practice, where most invasive and uncomfortable procedures are performed under general anesthesia or sedation, the dentist confronts on a daily basis separation

anxiety of young children for whom uncomfortable procedures are often undertaken with little or no pharmacological assistance.² Often the decision to include or exclude a parent is not altogether simple, and as such, remains a controversial area within the pediatric dental community. Efforts to establish and define guidelines based on the objective of creating an environment most conducive to gaining a child's attention and compliance are subject to specific limitations. In the development of such guidelines, for all intents and purposes, societies such as the American Academy of Pediatric Dentistry, acknowledge wide variation among practitioner philosophy, training, and experience in addition to a wide range of ever-evolving parental child-rearing practices, preferences, and attitudes. Guthrie² accurately points out from a historical perspective organized dentistry has long favored parent exclusion. The expertise of the dental team to best manipulate and manage non-compliant child behaviors was once widely accepted by parents and society.³⁻⁷ Belief among pediatric dentists as a whole in this line of thinking today, however, appears to be waning.²⁻⁴

Over time, instances have arisen in which the authority and methods employed by clinicians to shape non-compliant child behaviors have become the subject of scrutiny; some "old-time" and aversive communication and management strategies once considered reasonable and appropriate have been discredited and abandoned, or at the very least, discouraged.^{3,4} Parental preferences and parent acceptance of the practitioner's need to establish authority and in some cases provide discipline for certain behaviors has lessened. Progress and energies in the direction of demonstrating evidence based support for the methods employed to manage challenging behaviors of children appear to gradually replace old ways. Parents today appear to show increasing interest and involvement to witness the clinician's management style and participate in the decision process as to which techniques are to be instituted.³ Some parents require explanation at great length; some despite reasonable and adequate discussion remain skeptical, if not mistrusting. Still others, in particular where their presence is excluded, appear to have little or no difficulties in having the dentist determine the appropriateness of their presence. Regardless of whether a clinician chooses to include or deny parental access, his/her obligation to secure patient cooperation with informed consent remains intact.

While those claiming parental presence lessen child separation anxiety, resistance to parent presence is not limited to the dental profession. Many hospitals prohibit family or parent presence in emergency, operating, and recovery room settings. Reasons cited for separation include the relative invasive nature and painfulness of the procedures to be performed, space limitations, acute illness and life threatening situations.^{8,9}

Alternatively, trends observed by these authors over the last decade find some pediatric hospitals and surgical centers moving towards giving parents the option of their presence during induction of anesthesia; some claim need for pre-operative medication can be reduced or eliminated and recovery and dis-

charge times are lessened.¹⁰ Professionals who work with children on a daily basis understand and recognize separation anxiety in the context of each child's developmental framework. Vetter¹¹ in a study of children undergoing anesthesia found children 2-6 yrs of age were likely to exhibit more problematic behavior than older children when separated from their parents.

Separation anxiety is considered a normal component and necessary adaptation in development for 10-24 month children.² In the presence of anxiety, however, the interpretation of what constitutes age appropriate behaviors becomes ambiguous and no longer clear. Young children have limited cognitive skills, a restricted range of coping abilities, and limited experience coping with stress; they therefore can be expected to be especially prone to manifest maladaptive responses in anxiety provoking situations. Under these circumstances, there are no age limits at which one might consider separation anxiety from a parent to no longer be problematic.¹

There has been considerable theoretical and empirical work directed toward the definition and assessment of anxiety. Early simplistic notions have gradually been replaced with the recognition that anxiety is a multidimensional phenomenon involving complex cognitive, emotional, and motivational processes. Major theorists concur that anxiety is a state of un-directed arousal induced by the perception of threat.¹²⁻¹⁴ This arousal state mobilizes the child's defenses. When anxiety is mild, it promotes a constructive vigilance which can facilitate the child's ability to accurately assess his/her situation and the limit of stress imposed by dental stimuli. When severe, (when cognitive appraisal of threat is exaggerated) it can serve to focus the individual's attention onto a few situational cues and propel the individual into premature and maladaptive action.

Few dental studies have attempted to examine prospectively the merit of parent presence with regard to facilitating the development of coping skills among young children. Frankl et al.¹⁵ reported that separated children (41-49 mos) manifested more negative behavior during treatment than non-separated counterparts, while ages >4 displayed no statistical differences. Venham et al.¹⁶ reported no statistical differences to child behavioral and self-report measures for 4 year old subjects. Given the choice, however, 86% of parents chose to be present during exams; 82% at the first in a sequence of four restorative visits, 66% at the second, 70% at the third, and 56% at the fourth treatment visit. Child behavior, regardless of parent presence was found to improve as experience accrued across sequential visits, lessening the need or perceived benefit of parent presence.^{16,17}

Of the remaining reports, most are either anecdotal or subjective surveys. In a survey of the Association of Pedodontic Diplomates,¹⁸ 4% always allowed parents to be present, 81% in select cases, and 15% never allowed parents to be present.

Levy and Domoto¹⁹ surveyed Washington State pediatric dentists and reported 88% permitted parent presence, similar

to the findings of a follow-up Association of Pedodontic Diplomates and non-diplomates²⁰ who reported 84% and 80% respectively for select cases of 0-3 yr olds. 76 responders always permitted parents, 90 in select cases, and 125 refused to allow parent presence.

In a survey of 60 pediatric dentists in the state of Connecticut, Cipes and Miraglia²¹ reported 71% allowed parents during examinations of 3-5 yr olds while 55% would allow the same during treatment visits.

Nathan²² surveying 616 diplomates and non-diplomates found 60% allowed parents during examinations and 49% agreed somewhat to parent presence during restorative treatment.

Tilliss²³ described a general trend toward increased parental participation during visits, but speculated that the cause for such could not be explained by an increased awareness of developmental separation anxiety, societal pressure, or less use of aversive measures. Kamp²⁴ surveyed 79 parents; 66% wished to accompany their child. 85% of which said they would feel better and 92% of these felt their child would respond better. Certo et al.^{25,26} reported that 75 of 100 parents wanted to be present during all visits, and 90% indicated they would be willing to leave the room if asked. The mean age at which parents felt their presence became unnecessary was 8.2 years.

Marcum et al.²⁷ reported in survey of 90 practicing Florida pediatric dentists that 90% would allow parent presence during initial examinations of children younger than 4 yrs. 40% would never allow parents for restorative procedures on this age group. Carr et al.²⁷ found that 84% of respondents in the south-east allowed parents.

From a historical perspective, beginning in the 1950's, predominant thinking among pediatric dentists clearly pointed in the direction of the exclusion of all parents at all times.⁵⁻⁷ Such prominent and highly respected clinicians were regarded as the authorities to best manage the needs of children and that their training demanded they be the intermediary between parental supervision and the dental operator. Acceptance of the responsibility to navigate the waters between non-coping and coping behavior to best guide and teach children of all ages to accept the dental environment has been taken quite seriously by children's dentists.

Over the past several decades,^{3,4,28-31} the climate of parental childrearing and blanket approval for how the dental professional chooses to manage a child has changed. The litigious nature of society has caused, and in some cases justifiably, for many to become skeptical of the health care provider's advice and management choices. Greater parental involvement and interest to take a more active part in the decision process has become the norm rather than the exception.

Many dental training institutions, including the ADA,

were early advocates of child separation decades ago. Subtle and not so-subtle campaigns were promoted to encourage children to enter the operatory alone. Prospective data to examine the appropriateness of such approaches was needed and despite substantial demonstration that this was fundamentally unsound for apprehensive and pre-cooperative children, teaching philosophies were not dramatically altered to encourage and foster parental presence. During this period it was acknowledged that the public in general had little difficulty with the premise that the professional they had selected for their child's care was best-suited to determine how to go about shaping their child's attitude and acceptance of care.

Extrapolating on the works of Frankl (1962)¹⁵ and Venham (1978),¹⁶ Moss (1978),³² Rayman, (1987),³³ Weinstein and Nathan (1988),²⁹ discussion of the potential benefit (vs detriment) of parent presence on the facilitation of child acceptance of dental care began to emerge. It is noteworthy that not until 1996 the American Academy of Pediatric Dentistry formally recognized the usefulness of having a parent present as a specific management technique to gain patient's attention and compliance, avert negative or avoidance behaviors, and to enable the dentist to establish authority for treatment.³¹

Focusing on parental attitudes, Peretz and Zadik in 1998 reported over 70% of parents expressed interest to be present,³⁴ similarly, Fox in 2006 reported over 80% of parents wanting to accompany their children.³⁵ Looking at both dentist and parent preferences, Crossley and Joshi in 2002 reported similar findings.³⁶ Casamassimo et al.³⁷ in 2002 focused on attitudes of pediatric dentistry diplomates toward behavior management techniques while Eaton et al.³⁸ in 2005, discussed how parents viewed various behavior management techniques reporting concerns over aggressive physical management strategies and preferences for advanced pharmacological techniques.

Adair et al.³ reported increasing numbers of practitioners allowing parent presence for emergency, restorative, surgical and sedation procedures. For parents of special needs children, this trend toward parent presence was even higher. Also identified by this survey was the need to re-examine the relative appropriateness of previously accepted behavior management techniques. Use of hand-over-mouth (HOM) was subsequently challenged in 2005, and removed from approval status in 2006.⁴

Kotsanos et al.^{39,40} in 2005 and 2009 examined prospectively the relative effectiveness of the deliberate use of parent presence/absence as an intervention technique to manage uncooperative children,³⁹⁻⁴¹ a technique described and advocated by others.^{15,16,29,31,33}

Shroff et al.⁴² comparing parent responses at a university dental clinic and two private practices, reported that 78% of parents had a preference to be present in the dental operatory regardless of the particular dental treatment procedure being performed. More than one third (38%) did not want the dentist

to unilaterally determine parental involvement in a child's dental appointment. Lastly, they reported that parental desire to be present ranged from 70-78%, and that that frequency had been consistent over the previous twenty years. The study however, did not explore dentist or parent perception of the impact of their presence on child behavioral responses to treatment.

MATERIALS AND METHODS

Two surveys were developed for distribution. This project received institutional review board approval from Northwestern University Medical Center, Chicago. One thousand surveys were mailed to pediatric dentists, both diplomats and non-diplomates on a nationwide basis. 665 participants responded, representing 32 states.

A second survey of parent attitudes was distributed through the private practice settings of the authors as well as several offices in which parents were not welcome in the operatory. It was known that each of the authors' settings readily permit and encourage parents to be present during examinations and treatment. Parents were unaware, however, of such bias when asked to respond to the survey. It was also not known if parent presence or the opportunity to be present was a factor in their selecting the particular dental office for care for their child.

Three hundred thirty five parent surveys were returned from offices which excluded their presence and 150 surveys from parents from offices in which their presence was welcomed.

RESULTS

Response Rate

1000 were sent to pediatric dentists across the United States and 500 surveys were given to parents from both practices in which parents were permitted as well as excluded from the operatory. 665 surveys were returned from dentists (66.5% response rate). Thirty two states were represented in this survey, separated into three regions with data analysis presented in Table 1.

Region 1	Region 2	Region 3
NY, CT, PA, MA, NJ, DC, MD, KY, NC, FL, TN, SC, MS, VA, GA, AL	MO, MI, IN, IA, IL, OH, MN, LA, OK, AR, TX	CA, CO, WA, AZ, OR

Region 1 = Eastern Region 2 = Middle Region 3 = West
Table 1: Regional distribution of states surveyed.

Three hundred and thirty five surveys were returned from parents that attended offices that did not allow them back and 150 surveys were returned from parents in which their presence was permitted.

Parental Presence and the Age of the Child

The majority of dentists surveyed stated that they would

allow parents back for children < 18 months (85%), and 18-25 months (79%) and 24-30 months (63%). For children between 30-60 months, no significant differences were found in regard to preference for having the parent in the operatory. 53% of the dentists did feel that parents were helpful in the operatory when treating difficult 5-9 year old children and 40% felt that having parents present was a hindrance for the dentist (Table 2).

AGE (MOS)	HELPFUL N(%)	NEUTRAL N(%)	HINDRANCE N(%)	NR N(%)
<18	546(85)*	53(8)	34(5)	12(2)
18-24	509(79)*	76(12)	47(7)	13(2)
24-30**	408(63)*	124(19)	100(16)	13(2)
30-36**	301(47)	172(27)	158(24)	14(2)
36-48**	187(29)	191(31)	248(38)	19(3)
48-60**	149(23)	183(28)	291(45)	22(3)
5-9 YRS**	345(53)	119(18)	142(22)	39(6)
IN GENERAL	152(24)	146(23)	258(40)	89(14)

**=Statistical significance at p<0.001 using ANOVA on ranks when comparisons were made among age groups
 *=Statistical significance at p<0.001 using ANOVA on ranks when comparisons were made for individual age groups

Table 2: Dentists' attitudes towards parental presence and age of the child.

Regional analysis showed that dentists in region 2 (Midwest and Central U.S.) felt that parents were either neutral in helping with the child or were a hindrance when compared to dentists from regions 1 and 3 that generally felt parent presence was helpful (p<0.05). When parents were asked how their child would respond to the dental visit, 62% of those from offices that allowed them back said their child would react favorably. 23% said their child would be reluctant, 7% thought they would be timid, and 7% thought they would be uncooperative. In contrast, only 23% of the parents from offices in which they were excluded felt their child would respond favorably. Nineteen percent said their child would be reluctant, 21% timid, and 37% uncooperative (p<0.001, Table 3). These differences, however, are most likely due to the fact that the median age of those patients attending offices which allowed parents presence was 79 months in comparison to offices which exclude parents of only 33.5 months (p<0.05).

Parental Presence and Procedure

Both dentists and parents were asked questions regarding their preference for parental presence during various dental procedures (Table 4). In general, dentists responded favorably to allowing parents during initial exam, recall, restorative, and extractions (76%, 66%, 51%, and 50%, respectively (p<0.05). However, no statistically different differences were found for procedures using nitrous oxide or other sedative agents. In general it was found that 44% of the dentists allowed parents and 29% did not routinely allow parents to be present (Table 4). Regional comparisons were made regarding dentists' preferences for having parents present for certain procedures. These data showed that for all situations, dentists from region 2 were much less inclined to have parents present compared to regions 1 and 3 (p< 0.05). The same questions were asked of parents from offices that either allowed or refused their presence. Table 5 presents the results of this analysis. Eighty six percent of the parents from offices that allowed parents responded they would like to be present during the initial exam. Similarly, 79% said this for the recall, 84% for restorations, 87% for extractions, and 87% for sedation. Alternatively, only 44% of the parents from offices that do not permit parents stated they would like to be present for recall exams. For restorative, extractions, and sedation, 54%, 51%, and 54% respectively said they would like to be present (p<0.001). Table 6 shows a composite of the results from both dentists and parents in regard to their preference for being present. As might be expected, parents from dental offices where parents are allowed responded yes significantly more than either dentists or parents from practices that do not allow them (p< 0.001).

Parental Presence and Communication between Dentist, Child and Parent

Overall, (Table 7) 52% of the dentists agreed that parents generally expect to be present, 70% felt parent presence helps with parent rapport, 62% said it helped facilitate treatment acceptance, and 57% felt it was appreciated by the child. Nevertheless, only 34% stated they thought parent presence helped with the rapport of the child. When regional comparisons were made, overall those dentists from region 2 felt that under no circumstances was parental presence a positive experience. In contrast, 85% of those parents surveyed from offices that allowed

Parental Presence	N	Age* (mos)			Response to Dental Visit			
		Med	25%	75%	Favorably N(%)	Reluctant N(%)	Timid N(%)	Uncoop N(%)
Allowed	335	79**	49	109	208(62)**	77(23)	22(7)	25(7)
Not Allowed	150	33.5	26	41	35(23)	29(19)	31(21)**	55(37)**

**=Statistical significance at p<0.001 using Mann-Whitney Rank Sum Test
 *=Age is represented in months (mos) with the median age (Med), 25 percentile and 75 percentile

Table 3: Parents' perception on how their children will react to their dental visit.

	YES N(%)	NO N(%)	SOMETIMES N(%)	NR N(%)
INITIAL EXAM	489(76)*	31(5)	122(19)	3(0.5)
RECALL	424(66)*	64(10)	153*24)	4(0.6)
INJECT/** FILLING	330(51)*	129(20)	182(28)	4(0.6)
EXTRACT**	324(50)*	149(23)	166(26)	7(1)
NITROUS**	292(45)	144(22)	156(24)	53(8)
OTHER SEDATION**	180(28)	244(38)	119(18)	102(16)
IN GENERAL**	284(44)	185(29)	118(18)	58(9)

**=Significant differences were found at p<0.05 using ANOVA on Ranks when procedure types were compared
 *=Significant difference were found at p<0.05 using ANOVA on Ranks when responses for individual procedures were compared

Table 4: Dentists' responses on allowing parental presence in the dental operator during various procedures.

	PARENTAL PRESENCE									
	Initial Exam		Recall		Injection/Filling		Extractions		Sedation	
	Allow N(%)	Not Allow N(%)	Allow** N(%)	Not Allow N(%)	Allow** N(%)	Not Allow N(%)	Allow** N(%)	Not Allow N(%)	Allow** N(%)	Not Allow N(%)
Yes	290(86)*	112(75)*	263(79)*	66(44)	289(84)*	81(54)	292(87)*	76(51)	293(87)	81(54)
No	13(4)	35(23)	26(8)	74(49)	22(7)	59(39)	16(5)	64(43)	15(5)	59(39)
Neutral	29(9)	3(2)	42(13)	10(7)	22(7)	10(7)	26(8)	10(7)	25(7)	10(7)
NR	2(0.6)	0	4(1)	0	1(0.3)	0	1(0.3)	0	2(0.6)	0

**=Using Mann-Whitney rank sum test, statistical differences were found at p<0.001 between perceptions of parents survey in dental offices that allow them back vs. those parents from dental offices that do not allow them back.
 *=using ANOVA on ranks, statistical differences were found at p<0.01 in individual parental groups regarding preference for being present during certain procedures
 NR=Non responders

Table 5: Parents' perceptions on presence in the dental operator during various procedures.

Group	New Exam			Recall			Restorative			Extraction			Sedation		
	Med	25%	75%	Med	25%	75%	Med	25%	75%	Med	25%	75%	Med	25%	75%
Dentist	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Some	Yes	Yes	Some	Yes	Yes	No
Parents Not Allowed Back	Yes	Yes	No	No*	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No
Parents Allowed Back	Yes	Yes	Yes	Yes	Yes	Yes	Yes*	Yes	Yes	Yes*	Yes	Yes	Yes*	Yes	Yes

Some= sometimes; *=Kruskal Wallis ANOVA on Ranks, p<0.001

Table 6: Perceived expectations of parental presence during different dental procedures as viewed by dentists and parents that are allowed in the dental operator and those that are not.

their presence, stated they thought the child preferred having them back and 62% believed their child did not behave better when they were excluded (Table 8). Similarly, only 51% agreed that the dentist should decide if they should be present or not (Table 8). Alternatively, only 64% of the parents from offices that exclude all parents thought that their child preferred them there and 34%stated their child behaved better with them in the

operator. Along with this, 71% said that the dentist should decide whether or not they should be present.

Parent Presence and the Quality of Care, Productivity, and Behavior Management

Dentists were asked regarding their views on paren-

	SA/A N(%)	N N(%)	SD/D N(%)	NR N(%)
Parents Generally expect to be present	338(52)**	91(14)	210(32)	6(1)
Parental presence helps rapport with child	219(34)	144(22)	278(43)	4(1)
Parental presence helps rapport with parent	453(70)**	94(15)	96(15)	2(0.3)
Parental presence facilitates treatment acceptance	401(62)**	116(18)	125(19)	3(0.5)
Parental presence appreciated by parents	506(78)**	85(13)	42(6)	12(2)
Parental presence appreciated by child	367(57)**	178(28)	84(9)	16(2)

SA/A=Strongly agree/agree; N=Neutral; SD/D=Strongly disagree/disagree
 **=Statistical significance at p<0.001; ANOVA on rank was used as the data points were ranked using a Likert type scale

Table 7: Dentists perceptions on parental presence associated with communication between dentist, child and parent.

	Parental Presence							
	DDS Decides		Child Prefers		Child Behaves Better With Us Not There		Other DDS Have Not Allowed Us	
	Allow N(%)	Not Allow** N(%)	Allow** N(%)	Not Allow N(%)	Allow N(%)	Not Allow N(%)	Allow** N(%)	Not Allow N(%)
Yes	172(51)*	106(71)*	284(85)*	96(64)*	51(15)	48(32)	83(25)	4(3)
No	98(29)	20(13)	23(7)	19(13)	298(62)*	51(34)	113(34)	14(9)
Neutral	54(16)	24(16)	25(7)	35(23)	70(21)	51(34)	41(12)	132(88)*
NR	11(3)	0	3(1)	0	5(1)	0	98(29)	0

**=Statistically significant difference at p<0.05 using Mann-Whitney Rank Sum Test between perceptions of parents surveyed in dental offices that allow them back vs. those parents from dental offices that do not allow them back

*=using ANOVA on Ranks, statistical differences were found at p<0.05 in individual groups regarding parental presence and child behavior, presence and dentists' decision making

Table 8: Parents' perceptions on child behavior, preference and dentists' decision making regarding their presence.

tal presence and the quality of care, productivity, appointment length, recognition of behavior management skills, parental observation of different treatments, and general enjoyment when parents were present (Table 9). Sixty nine percent agreed that their behavior management skills were more appreciated (p<0.05) and 55% felt that parents should not observe all interactions between the child and dentist (p<0.05). In general dentists thought that neither their quality of care, productivity or visit length were affected by a parent being present.

Importance of Parental Presence in regard to Past Medical and Dental Experience

When asked if it was important for the dentist to allow them back, 87% of the parents surveyed from offices that allow

parent presence responded yes in contrast to only 23% of those parents from offices that do not allow their presence (p<0.001, Table 10). Similarly, 69% of the parents where they are permitted, selected the office because of this ability, compared to 1% of the parents from those offices where their presence is prohibited (p<0.001). An interesting finding was that 49% of the parents that took their children to offices, in which they were allowed back, had had a negative dental experience. This compared to 87% of the parents from offices that did not allow parents back who had not had a bad dental experience (p<0.05).

DISCUSSION

When confronting young, timid, and apprehensive children during their initial dental experiences adoption of a proto-

	SA/A N(%)	N N(%)	SD/D N(%)	NR N(%)
Quality of care increases	233(36)	130(20)	272(42)	10(2)
Productivity inhibited	281(44)	145(22)	214(33)	5(1)
Visit prolonged	304(47)	147(23)	190(30)	4(1)
Behavior management skills appreciated more	445(69)**	113(17)	82(12)	5(1)
I enjoy parental presence	218(34)	172(27)	250(39)	5(1)
Parents shouldn't observe all interactions	497(55)**	142(22)	143(22)	5(1)

SA/A= strongly agree/agree; N=neutral, SD/D=strongly disagree/disagree
 **=ANOVA on Ranks; statistical significance at p<0.05. Data points were ranked using a Likert type scale
Table 9: Dentists' perceptions on parental presence and quality of care, productivity and behavior management.

	PARENTAL PRESENCE									
	Important for DDS to Allow Us		We Selected this Office Because Allow us Back		Child Had Prev Bad Experience		Child Had Prev Bad Medical Experience		Parent Had Prev Bad Experience	
	Allow** N(%)	Not Allow N(%)	Allow** N(%)	Not Allow N(%)	Allow N(%)	Not Allow N(%)	Allow** N(%)	Not Allow N(%)	Allow** N(%)	Not Allow N(%)
Yes	291(87)*	35(23)	232(69)*	1(1)	58(17)	36(24)	64(19)	13(9)	163(49)	19(13)
No	9(3)	44(29)	33(10)	138(92)	263(79)*	112(75)*	254(76)*	136(90)*	158(47)	131(87)*
Neutral	32(10)	71(47)	55(16)	11(7)	3(1)	2(1)	3(1)	1(1)	8(2)	0
NR	3(1)	0	15(4)	0	11(3)	0	14(4)	0	6(2)	0

**Statistical significance at p<0.05 using Mann-Whitney Rank Sum Test were found between parents surveyed in dental offices that allow them back vs. those parents from dental offices that do not allow them back.
 *Using ANOVA on Ranks, statistical differences were found at p<0.001 in individual parental groups regarding importance of presence in operatory and past medical/dental experiences
 NR=Non responders

Table 10: Parents' perceptions on importance of presence in operatory and past medical/dental experiences.

col which mandates separation of parent from child before sufficient coping behaviors have developed may questionably be expected to facilitate patient communication and acceptance of care. However, given variation in experience, training, and disposition of clinicians, it is not surprising that disparity among pediatric dentists perceptions regarding the merit or detriment to parent presence continues to exist, although to a lesser extent than in previous decades.

Parent presence or absence, is not an issue when dealing with cooperative, non-apprehensive children. Children whose cooperative potential readily permits exposure to novel situations, even potentially noxious stimuli, and/or strangers are not the subject of this debate.

Age alone may not be a factor or criterion upon which

to base decisions whether or not a parent should be included. Where an assessment is made that the child possesses a disposition (regardless of age) that readily permits entrance into the dental situation without fear or trepidation seems among the most pertinent of variables upon which to set office policy regarding parent presence.^{1,29} While many children readily encounter their first and subsequent dental experiences with minimal or no anxiety, such responses and the capacity to cope with dental treatment is by no means universal. Regardless of age, there are those young or older who lack an ability to accurately appraise the limit of threat imposed by dental stimuli either during their initial exposures, or secondary to a previous unpleasant experience. Apprehension and a lack of successful coping experience contribute to a child's maladaptive response when confronting novel situations and result in a distortion of their perceptual and cognitive interpretations. Anxious children require lengthier pe-

riods in which to develop coping skills.

Alternatively, there is virtually no disagreement among pediatric dentists that there indeed exists reasons and appropriate indications to exclude some parents from the operator. Parents generally have the best intentions when visiting the dental office with their child. No one has motive to derail a positive experience for their child. There are some parents, however, whose entry characteristics, biases, personal experiences and anxieties preclude them from responding favorably to advice and counseling as to how they may most benefit their child. Unfavorable body language, facial expressions, verbal inquiries and conjecture of pain and discomfort compromise one's best efforts to establish rapport with the child. These parents can be particularly challenging despite even the most subtle (or not so subtle), sympathetic and conciliatory gestures to identify how their presence can be optimized. Alternatively, assessment of children who behave in one manner which contradicts cooperation and would otherwise not occur if a parent was excluded is at best judgmental and difficult to either predict or explain. Nevertheless, this intuitive assumption and integral component of clinician judgment plays a significant role for those who mandate or request parent exclusion. This is elaborated below.

Justifiable Parent Exclusion - Dentist Considerations

In addition to parental factors which impact on whether or not to include parents in the operator, the style of the dentist no doubt plays a role. There are some who, simply put, are uncomfortable with a parent present. Their training, experience, personal disposition, preference and comfort level make inclusion of parents a distraction and source of irritation.

Alternately, to deny there are instances in which some children simply will misbehave or manifest non-coping behaviors as a show for their parent, which might not otherwise manifest, supports the contention of practitioners who choose either an arbitrary manner to exclude parents, or, based on specific cues they receive from the child, have legitimate reasons to exclude or ask a parent to leave the operator.

In some offices, space designs do not readily permit additional chairside presence of a parent. For such individuals, referral of the parent insisting to be present is a viable option. These factors appear as reasonable justification for identifying an office policy of exclusion.

Unjustifiable Basis for Exclusion

For others, however, the rationale for arbitrary parent exclusion may not be credible or valid. Some indicate they believe child rapport cannot be established with a parent present. Some contend parent presence inhibits their productivity and slows the dental team from achieving their treatment objectives in timely fashion. The data obtained in this study do not support this contention.

More contemporary arguments to the contrary appear to prevail. For the introduction of children below the age of reason, children whose cooperative potential can at best be described as volatile, and those who report unpleasant prior medical or dental experiences, parent presence, in almost every instance, may be believed to facilitate establishment of a rapport as well as productivity.

First, parent child-separation for those lacking in cooperative potential can more often than not be expected to initiate a negative child response simply on entry. From a practice management perspective there can be little benefit derived when a behavior management problem is precipitated before a problem need occur. Having a known and friendly person present to assure the child of the safety of a new environment might be sufficient to allow the child to adapt over the next several minutes, more effortlessly and less traumatically to the dental operator. Allowing the parent to maintain physical contact with their child allows time, before the examination is initiated, to establish a dialogue with both parent and child. Such opportunity offers dentist, parent, and patient opportunity to become acquainted, explore relevant concerns, such as medical history, child developmental and behavioral issues, and specific parental concerns and queries. Opportunity for observation of the physical attachment of parent and child, the child's relative responsiveness to his/her new environment, can only facilitate the clinician's judgment as to how to best determine the modality to pursue. Opportunity to elicit valuable insight from the parent, inclusive of securing informed consent at this early moment, may be lost when a parent is not included in the operator. The impact of such is magnified when circumstances deteriorate in which the parent is excluded at the outset and behavioral resistance is encountered by separation, only later to require the dentist explain what took place, and why the child is or became upset, and the measures taken to address the situation. In addition to avoiding such occurrences by having the parent present might also enhance rather than inhibit productivity.

Secondly, it might be hypothesized that for some who arbitrarily exclude all parents, there is in reality, an underlying reluctance to have parents witness how a child, ("out of control" or responding negatively at the outset) is spoken to or physically managed by the dentist or the dental team. In every instance conceivable, it would be the hope and expectation that such is not representative of what occurs in the dental office. Literature, media, and alleged anecdotal reports of misbehavior have been reported. Inappropriate application of obsolete and discouraged aversive techniques of behavior management have appeared. It suffices to say that nothing is said or done to a child, regardless of the severity or potentially harmful nature of the child behavior, should occur without the parent's presence and consent. Reports of the application of physical restraints without parent presence or consent raise serious and legitimate public concerns. Parent presence without exception, offers opportunity to ensure that consent is (or is not) granted on an ongoing basis.

Thirdly, this report explored the relative frequency with which parents are permitted to be present during treatment, inclusive of when sedation techniques are employed. During such visits, the dentist is obligated to follow specific and expected guidelines to assure patient safety. As per the survey, 75% prefer to exclude parents from such visits, in large part due to the complexity of care and the extent to which interruptions are less likely to facilitate efficient and safe care.

Effect of Arbitrary Parent Exclusion

With or without parent presence, it is not uncommon that some young children may be refractory to any and all conventional communication strategies during initial contacts. Under these circumstances, the dentist faces a dilemma. If the origin of the child's non-compliance is initiated or exacerbated by parent exclusion and the dentist is determined to proceed without the benefit of the parent, what options and techniques become available to elicit cooperation? How does one establish communication lines when behaviors are so resistant? The extremely skillful communicator may eventually succeed in taming such behaviors and successfully manipulate a disruptive child's responses. Those less skilled, some out of frustration, may give way to aversive methods and deploy physical methods to redirect non-compliant behaviors. Without parental consent, this has potential to create additional problems, practical or legal, if the parent and dentist are not in agreement with how to address the misbehavior.

Use of Parent Presence as a Positive Reinforcement Tool

Alternately, where parent presence is permitted, opportunity exists for parent and dentist to witness the behavioral management challenge ahead, engage in a productive dialogue to optimally establish a mutually accepted plan how to proceed. After having exhausted all reasonable verbal attempts to secure the child's attention and elicit desirable behavior, the dentist may consider a technique which makes use of the parent's presence as a reward and positive reinforcement. This technique^{31,32,36} first involves explanation to the parent on how he/she wishes to use the parent's presence to shape their child's behavior. Failing to acknowledge the parent as an expert on their child's disposition and capabilities may serve to compromise development of a favorable rapport at the outset.

While this may be time-consuming, energies to describe the technique has the potential to rapidly re-direct a child's lack of cooperative ability to one of compliance and acceptance. At the very least, a reticent parent may be inclined to become a strong advocate and referral source for the dentist's expertise and compassionate management skills. Comments frequently expressed afterwards by parents indicate an appreciation for the tact, calm demeanor, and patience of the dentist who shows no alarm to initial displays of their child's negative behavior, and for their systematic and soft-spoken approach.

In some instances, mention of Mommy being asked to leave the treatment area is sufficient to induce acceptable child behavior; other times, the sight of the parent getting up to leave will induce a change in behavior for the better. Sometimes, the parent may have to leave the area, return, leave and return several times before the child realizes he/she will have to mind the dentist if he/she wants the parent to stay. In almost all instances, behavior can be expected to improve after two to three trials of having the parent enter or leave. If this continues 2-3 times to no avail, the dentist and parent may wish to reassess the situation. Recalcitrant children may require a non-mainstream modality if urgent treatment needs are identified. Regardless, all efforts are expended to give the child a choice and that their feelings are being considered meaningful. In this manner, the child has some control, but similarly, the options given remain acceptable to the dentist. At this juncture, opportunity for parent and dentist to collectively review future exploits can remain healthy and intact.

CONCLUSIONS

1. There appears to be general agreement among pediatric dentists that there are legitimate reasons to include and exclude parents from the dental operatory.
2. Regardless of whether parents are permitted by office policies of pediatric dentists, there is a tendency of parents to prefer to be present for examinations and in many cases for various forms of treatment, particularly for children who are below the age of reason, manifest non-coping and apprehensive behaviors, or have a history of unpleasant previous medical or dental experiences.
3. General belief appears among dentists that parent presence is not a hindrance to establishment of a favorable child rapport, improved patient cooperation, and office productivity.
4. Arbitrary parent exclusion denies an opportunity for the dentist to make use of the parent's presence as a positive reinforcement tool to re-direct initial or uncooperative child behaviors. Those who mandate parent exclusion from the outset for all children may wish to re-assess their office policies when encountering initial negative and non-coping behaviors.

SUMMARY

While not universal, pediatric dentists report more parents expressing a desire to be present and that parents believe their presence will be helpful to their children. The majority of pediatric dentist's today report that neither quality of care, productivity, nor visit length was adversely affected by a parent's presence. The opportunity for a parent to be present to witness their child's behavior brings numerous possible advantages. If parent presence is indeed important to the child, their selective presence can be used as positive reinforcement to replace disruptive behaviors with desirable ones. Mandatory parent exclusion serves to remove this potentially useful and effective technique from a clinician's conventional behavior shaping arsenal.

Lastly, additional potential benefits to parent presence,

when mutually agreed upon, include opportunity for the dentist to be assured of ongoing parental consent. This enables the dentist to remain alert for changes in parental expression, verbal or body language to indicate a disapproval of the direction approaches is being taken. From a practice management vantage, permitting parents in the dental operator has potential to allow parents opportunity to not miss what the dentist is able to accomplish with their child.

CONFLICTS OF INTEREST: None.

FINANCIAL SUPPORT

This project was supported by the Research Foundation of the American Society of Dentistry for Children, IL, USA.

REFERENCES

- Nathan JE. Management of pre-cooperative children in dental clinics of north america. Johnsen and Tinanoff (eds). 1995; 39: 781-816.
- Guthrie A. Separation anxiety: an overview. *Ped Dent*. 1997; 19: 486-490.
- Adair S, Waller J, Schafer TE, Rockman RA. A survey of members of the AAPD on their use of behavior management techniques, behavior management consensus conference: special issue. *Pediatr Dent*. 2004; 26: 159-166.
- American Academy of Pediatric Dentistry. Behavior guidance for the pediatric dental patient. Reference Manual, 2006-07. *Pediatr Dent*. 2007; 28: 97.
- Wright GZ, Starkey PE, Gardner DE. Parent-child separation, Chapter 6, in *Managing children's behavior in the dental office*, (Mosby: St.Louis) 1975; 57-63.
- Lenchner V, Wright GZ. Non-pharmacotherapeutic approaches to behavior management in behavior management in dentistry for children, Chapter 5, Wright, GZ (ed), WB Saunders: Philadelphia, USA. 1975; 91-114.
- Starkey PE. Training office personnel to manage children, in *behavior management in dentistry for children*, Chapter 12, Wright GZ (ed), WB Saunders: Philadelphia, USA. 1975; 225-227.
- Merritt KA, Sargent JR, Osborn LM. Attitudes regarding parental presence during medical procedures. *Am J Dis Child*. 1990; 144: 270.
- Baucher H, Waring C, Vinci R. Parental presence during procedures in an emergency room: results from fifty observations. *Pediatrics*. 1991; 87: 544-548.
- Zuckerberg AL. Peri-operative approach to children. *Pediatr Clin North Am*. 1994; 41: 15-29.
- Vetter TR. The epidemiology and selective identification of children at risk for pre-operative anxiety reactions. *Anesth Analg*. 1993; 77: 96-99.
- Epstein S. Anxiety, Arousal, and the Self-concept, in Sarason, IG and Spielberger, CD (eds) in *Stress and Anxiety*, Vol 3, Halsted Press, New York, 1976.
- Lazarus RS, Averill JR. Emotion and cognition: with special reference to anxiety, In Spielberger CD (ed), *Anxiety: Current Trends in Theory and Research*, Vol 2, Academic Press, New York, 1972.
- Spielberger CD. Anxiety as an emotional state in anxiety, in current trends in theory and research, Spielberger, CD (ed), Academic Press, New York, 1972.
- Frankl SN, Shiere FR, Fogels HR. Should the parent be present in the dental operator? *J Dent Child*. 1962; 29: 150.
- Venham LL, Bengston D, Cipes M. Parent presence and the child's response to dental stress. *ASDC J Dent Child*. 1978; 45: 213-217.
- Venham LL, Murray P, Gaulin-Kremer E. Personality factors affecting the pre-school child's response to dental stress. *J Dent Res*. 1981; 58: 2046-2051.
- Association of Pedodontic Diplomates. Techniques for behavior management - a survey. *J Dent Child*. 1978; 39: 3368-3372.
- Levy RL, Domoto PK. Current techniques for behavior management: a survey. *Pediatr Dent*. 1979; 1: 160.
- Association of Pedodontic Diplomates. Survey of attitudes and practices in behavior management. *Ped Dent*. 1981; 3: 246-249.
- Cipes MH, Miraglia M. Pedodontists' attitudes toward parent presence during dental visits. *J Dent Child*. 1985; 52: 341-343.
- Nathan JE. Management of the difficult child: s Survey of pediatric dentists' use of restraints, sedation, and general anesthesia. *J Dent Child*. 1989; 56: 293-301.
- Tilliss TS. Behavioral management techniques in predoctoral and postdoctoral pediatric dentistry programs. *J Dent Educ*. 1993; 57: 232-238.
- Kamp AA. Parent-child separation during dental care: a survey of parent's preference. *Pediatr Dent*. 1992; 14: 231-235.

25. Certo MA, Bernat JE, Creighton PR. Parental views about accompanying their child into the operator. *J Dent Res.* 1992; 71: 236.
26. Certo MA, Bernat JE. Parents in the operator. *N Y State Dent J.* 1995; 61: 34-38.
27. Marcum BK, Turner C, Courts FJ. Pediatric dentist's attitudes regarding parental presence during children's dental procedures. *Ped Dent.* 1995; 17: 432-436.
28. Carr KR, Wilson S, Nimer S, Thornton JB. Behavior management techniques among pediatric dentists practicing in the southeastern United States. *Pediatr Dent.* 1999; 21: 347.
29. Weinstein P, Nathan JE. The challenge of Fearful and Phobic Children in Dent Cl of North Am, Rubin and Kaplan (eds). 1988; 32: 667-692.
30. Pinkham JR. An analysis of the phenomenon of increased parental participation during the child's dental experience. *J Dent Child.* 1991; 58: 458-463.
31. American Academy of Pediatric Dentistry. Parental presence/absence, guidelines for behavior management. Reference Manual, 1996-1997. *Pediatr Dent.* 1996; 18: 42.
32. Moss SJ. Your child's teeth: a parent's guide to making and keeping them perfect. Boston: Houghton Mifflin, USA. 1978; 119-120.
33. Rayman MS. Parent observation. *Calif Dent Assn J.* 1987; 20-24.
34. Peretz B, Zadik D. Attitudes of parents toward their presence in the operator during dental treatment to their children. *J Clin Pediatr Dent.* 1998; 23: 27-30.
35. Fox SM. Attitudes of Contemporary parents toward parental presence in the dental operator, Thesis dissertation, Ohio State Columbus Children's Hospital Dental Clinic, Ohio State University Press, USA, 2006.
36. Crossley ML, Joshi G. An investigation of paediatric dentists' attitudes toward parental accompaniment and behavioral management techniques in the UK. *Br Dent J.* 2002; 192: 517-521.
37. Casamassimo PS, Wilson S, Gross L. Effects of changing U.S. parenting styles on dental practice: perceptions of diplomats of the American Board of Pediatric Dentistry. *Pediatr Dent.* 2002; 24: 18-22.
38. Eaton JJ, McTigue DJ, Fields HW, Beck FM. Attitudes of contemporary parents toward behavior management techniques used in pediatric dentistry. *Pediatr Dent.* 2005; 27: 107-113.
39. Kotsanos N, Arhakis A, Coolidge T. Parental presence vs absence in the dental operator: a technique to manage the uncooperative child dental patient. *Eur J Paediatr Dent.* 2005; 6: 144-148.
40. Kotsanos N, Coolidge T, Velonis D, Arapostathis KN. Parental presence vs absence: a technique to manage the uncooperative child. *Eur Archives Paediatr Dent.* 2009; 10: 90-92.
41. Kim JS, Boynton JR, Inglehart MR. Parents' presence in the dental operator during their child's first dental visit: a person-environmental fit analysis of parents' responses. *Pediatr Dent.* 2012; 34: 407-413.
42. Shroff S, Hughes C, Mobley C. Attitudes and preferences of parents about being present in the dental operator. *Pediatr Dent.* 2015; 37: 51-55.