European Journal of Molecular & Clinical Medicine
ISSN 2515-8260 Volume 7, Issue 07, 2020

Relationship of Parenting Styles and dental operatory behavior in children.

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Financial Disclosure: Nil
Conflict of Interest: Nil
Patient Declaration of Consent: Informed consent was filled by each study participant before filling the study questionnaire

Abstract

Background: Parental factors have an important role in the behavior of the child in the dental clinic. These factors include parent-child relationship, parental dental anxiety, attitudes and perceptions regarding child's behavior in the dental clinic, past dental experiences, presence in the dental operatory during treatment. Understanding the ways in which parents influence behavior will help the dentist in behavior guidance of the child during dental treatment. Aim: To investigate the relationship of the child's behavior and parenting styles during simple dental treatment. Study design: A cross-sectional observational study was conducted in a private dental college. Parents of seventy seven children aged 4-12 years visiting a dental setting for restorative visits were asked to fill the questionnaire. The questionnaire consisted of demographic details (age, gender) and a Parenting Styles and Dimensions Questionnaire (PSDQ) followed by

Frankl behaviour rating scale. The actual behaviour of the child was also recorded during the treatment session by a silent observer. Descriptive statistics along with chi square test were done to analyze the data and to know the level of significance of determinate which was set at less than 0.05. Results: There were 29 (37.66%), 22 (28.57%) and 23 (29.87%) children who had authoritative, authoritarian and permissive parents respectively. We observed significant differences in children's behavior, according to the parenting styles. The authoritative parents had 2 and 14 children with definitely positive and positive behavior respectively while the authoritarian and permissive parenting styles had same number of children with definitely positive and positive behavior (n=1 and 10, respectively, in each) Conclusion: The evidence supports a relationship between parenting style and children's dental behavior. However, this association was limited to children with no dental experience. Overall, regarding children's behavior, we found that children with authoritative parents exhibited slightly more positive behavior compared to other parenting styles.

Key words: Behavior guidance, parenting style, pediatric dentistry.

Introduction:

Oral health is an integral part of general health and quality of life.[1] All children have distinctive health considerations including oral health.[2] The behaviour of child can act as an obstacle in providing appropriate treatment.[3] Each child differs in their reaction to the first dental episode which can be attributed to numerous constituents like health status, age of child, influence of cultural environment, fear, response to unknown individual and child's outlook and parental factors such as parent-child relationship, parental dental anxiety, attitudes, past dental experiences, etc.[4,5] Parents and parenting styles have profound impact on the development of their child's temperament and personality.[6] Therefore, if parenting styles are identified in advance, the behaviour of the child in dental operatory can be predicated and the behaviour management for the required treatment plan can be tailored according to the needs of the child.[7]

With the increasing changes in parenting styles in the recent years, there is an increase in number of children who need self-control and the aptitudes necessary to respond positively to the dental treatment.[8] The current trends depict that a family is becoming a more democratic unit and a child can out-maneuver his/her parents with the advancement in parenting styles.[9] Studies have shown that parent-child bonding and their inter-linkage with each other can predict their child's behaviour and this behaviour can bring change in dentist-patient relationship.[10,11]

Baumrind categorized parenting styles in 1966 which is one of the most frequently used classification till date. Baumrind defined three specific parenting styles, which are authoritative, authoritarian, and permissive.[12] Robinson introduced Parenting Styles and Dimensions Questionnaire (PSDQ) to measure the dimension of a parent's parenting style based on the Baumrind's parenting style typologies.[13,14]

The cultural and environmental factors vary from place to place and have impact on the parenting styles thus affecting the child's behaviour in dental settings as well. Therefore, this study was conducted with the aim to investigate the relationship of the child's behavior and parenting styles during simple dental treatment. It was hypothesized that the

parenting styles influenced children's behavior amid dental procedures.

Methodology:

A cross-sectional observational study was conducted in a Private Dental College for exploring relationship of parenting styles and dental operatory behavior in children. Investigation was authorized by institutional ethical committee (DMIMS/IEC/2018-2019/7684). The study sample initially included 90 children. However, 13 children were not accompanied by parents and therefore excluded. Thus, the final sample included 77 parent who fulfilled all the inclusion criteria within the specified time period. Inclusion criteria for selection of participants were – children aged between 4-12 years, no past history of systemic or mental illness and no history of recent injury. Children visiting first time to the dental hospital were only selected for the study. Informed consent was taken from the parents of children who agreed to be the part of the study. Information from the parents was collected with the help of a questionnaire which included demographic details (gender and age of the child), parenting style dimension questionnaire (PSDQ) and child's behaviour prediction by parents using Frankl Behaviour Rating Scale. The child's actual behavior in the dental operatory was recorded by a specialist who was observing the behaviour of the child from a distance. The questionnaire was translated in Marathi (Regional language) and back translated to English by a bilingual expert. A single investigator collected the data by providing instructions regarding filling the questionnaire along with clearing the doubts in Marathi. The time allotted for filling the proforma was approximately 35-40 minutes.

The PSDQ is a 32-item scale to assess the regular conduct of parents while dealing with their youngster which categorizes them as authoritative, authoritarian, and permissive. The authoritative behaviour was evaluated by 15 items, including warmth and involvement (5 items), reasoning/induction (5 items), democratic participation (5 items). Authoritarian scale had 12 items which included verbal hostility (4 items), corporeal punishment (4 items), and non-reasoning policy (4 items). The permissive scale consisted of 5 items on indulgent dimension. The options were estimated on a Likert scale extending from 'never' to 'always' which were scored as 1-5, respectively. A summed score was calculated for each parent for all three scales of parenting styles. The highest score on any given scale placed the parent in that corresponding parent category. The Frankl Behaviour Rating Scale was used to evaluate child's behaviour. This scale categorizes the child's behavior in different situations as either definitely positive (1), positive (2), negative (3), definitely negative (4). The parents were explained about the Frankl Behaviour Rating Scale and were asked to predict their child's behavior before the beginning of the procedure. The behaviour of child during the dental procedure was observed by a pre- calibrated specialist in pediatric dentistry who was not a part of the study and just observed the child from a distance. To match the parent's exactness predicting their child's behavior with that of specialist's rating, a simple subtraction was done between their Frankl scale classifications resulting in a number. The number could range from 3 to -3. For example, if the parent gave a child Frankl 3 rating and the specialist gave Frankl 2 rating, the subtraction resulted into a +1.00. The prediction was recorded as accurate when the result was 0 after subtraction and the rest of the answers were considered as inaccurate. The data was entered in an Excel spreadsheet and analyzed using SPSS version 21. Descriptive statistics along with chi square test were used to analyze the data . The 'p' value

< 0.05 was taken as significant.

Results:

Table 1: Demographic details of study participants.

Variables		Frequency	Percent
Age	(4-6) year	13	16.8 %
	(7-9) year	29	37.6 %
	(10-12) year	35	45.4 %
Gender	Boy	49	63.6 %
	Girl	28	36.4 %

Table 1 shows the sample distribution according to the age and gender. The study included 77 parents with their children. Children were divided in age group: 4-6 years (16.8%), 7-9 years (37.6%), 10-12 years (45.4%). There were 49 boys (63.6%) and 28 girls (36.4%).

Table 2: Frequency distribution of Parenting Style given by Baumrind.

Parenting style	Frequency	Percent
Authoritative	29	37.66%
Authoritarian	22	28.57%
Permissive	23	29.87%

Table 3: Association of parenting style with the child's behavior.

Parenting style	Definitely positive	Positive	Negative	Definitely negative
Authoritative	2(6.89%)	14(48.27 %)	12(41.37%)	1(3.44%)
Authoritarian	1(4.54%)	10(45.45%)	9(40.90%)	2(9.09%)
Permissive	1(4.34%)	10(43.47%)	10(43.47%)	2(8.69%)

Table 2 shows that there were 29 (37.66%), 22 (28.57%) and 23 (29.87%) children who had authoritative, authoritarian and permissive parents respectively. The authoritative parenting style is the most exhibited parenting style and is more effective for children as it encourages better behaviour pattern among pre-adolescents. Table 3 shows that the distribution of positive and negative behaviour in all the three parenting styles was approximately similar. The authoritative parents had 2 and 14 children with definitely

positive and positive behavior respectively while the authoritarian and permissive parenting styles had same number of children with definitely positive and positive behavior (n=1 and 10, respectively, in each).

Table 4: Distribution of parental prediction of child's behavior, the actual behavior of child, and accuracy of parent's predicted behavior.

Variables	Parental prediction of behavior	Actual Behavior
Definitely positive	3(3.8%)	3(3.8%)
Positive	53(68.8%)	42(54.5%)
Negative	11(14.2%)	9(11.6%)
Definitely negative	10(12.9%)	23(29.8 %)
Correct prediction	45(58.44%)	

Table 4 shows that most of the parents predicted their ward would be having positive behavior and only

12.9 % and 14.2 % children were predicted as definitely negative and negative respectively. In terms of accuracy of parental prediction of child's behavior, 45 (58.44%) of parents were accurate in their predictions of behavior.

Table 5: Co-relation among the parenting styles.

Areas of Interest	Associated items	r	Probability
Parenting styles	Authoritative with Authoritarian	0.636	<0.001
	Authoritarian with Permissive	0.843	<0.001
	Authoritative with Permissive	0.547	<0.001

Table 5 showed that statistically significant positive association was seen between Authoritative and Authoritarian ($r = 0.636$, $p<0.001$), Authoritarian and Permissive ($r = 0.843$, $p<0.001$) and Permissive and Authoritative ($r=0.547$, $p<0.001$) parenting styles.

Discussion: This study included mother/father of children who were present in our dental facility for treatment visits. As explained by Wright in 1975, the relationship between dentist and child is not linear but triangular including parents with the child at apex called as 'Pedodontic Treatment Triangle'. [15] We investigated the relationship between the parenting styles and the behaviour of child in the dental operatory.

It was found in our study that all the parenting styles had approximately similar number of children with desirable behavior in dental operatory thus stating no clear association between parenting style and child's behaviour during dental treatment. This is in consensus with study conducted by Krikken JB et al who concluded that there was no clear association between parenting styles and child's operatory behaviour.[16] The results are in contrast to the study conducted by K Ashok et al, Tsoi

A et al, Aminabadi et al and Lee DW et al wherein they found that children of authoritative parents showed desired behaviour as compared to other two parenting styles.[4,17-19] The reason for this varied findings could be that the behaviour of child during dental treatment is a complex phenomenon and could be an end result of a long dynamic process of interaction between child and parents, rather than some static property that parents possess.

We also investigated how precisely the parents could predict the child's behaviour in dental operatory. There were 45 (58.44%) parents who could correctly forecast about their child's behaviour utilizing the Frankl Behaviour Rating Scale. Our research is consistent with the study done by Tsoi A et al where the correct prediction of child's behaviour by the parents was 57.5%.[17] It is expected that parents should be able to predict the exact behaviour of their wards in any given scenario.[20] But the results of our study state otherwise. This could be attributed to the fact that the parents were approached to predict behaviour on a scale called Frankl Behaviour Rating Scale which was unknown to them before participating in the study. On the other hand, the Frankl Behaviour Rating Scale may be too wide to capture more details of behaviour sensitively.[21] Still, the parents should be asked to predict their ward's behaviour in dental settings in an attempt to get an insight about the conduct to be expected from the child.[22]

In our study it was found that all the three parenting styles showed positive association with each other. As described by Baumrind, authoritative parents tend to be high control and high warmth, authoritarian parents tend to be high control and low warmth,while permissive parents tend to be low control and high warmth. The results are in contrast with the study conducted by Tsoi A et al which showed that positive associations were observed in authoritarian with permissive and authoritative with authoritarian parenting styles.[17] These results could be interpreted that this association may be a function of inconsistency in parenting. We did not measure stress levels and socioeconomic status of parents which may have contributed to this inconsistency.

Limitations:

There were confinements in our examination that may have affected the result of the investigation. Our limitation is that parents occupational, educational and marital status were not recorded and these demographic characteristics have been shown to be associated with change in behavioral responses in the child. Single parents have more problems to face in upbringing of the child as compared to child with both parents. Also, occupational status will change the atmosphere the child gets at home due to many things such as time given and hence love and warmth may differ and if the parents are not well to do, change in the nutrition status of the child will be present which will affect the child's behaviour. And, educational status of parents will also in some way determine their way of answering to the questions. A future report to make a shortened variant of the PSDQ would be useful since the best inhibitor of this examination was the quantity of inquiries in the PSDQ.

Conclusion:

Most parents had Authoritative parenting style followed by Permissive and Authoritarian respectively. The distribution of children in negative and definitely negative behavior was almost similar in all the three parenting styles. Overall, regarding children's

behavior problems, we found that children with authoritative parents exhibited slightly more positive behavior compared to children with authoritarian and permissive parents. No clear associations between parenting style and child's behaviour were found. The parent's prediction of their child's behaviour in a dental setting might prove beneficial in managing the patient in dental visits as in our research parents were 58.44% correct in their behaviour prediction. Further investigation is important to unwind definite strings of relationship between refined parts of parenting styles in foreseeing child's conduct in the dental setting.

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