



## Influence of parental authority in development of dental fear among adolescents



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### ABSTRACT

**Background and objectives:** Dental fear among adolescents may be associated with parenting style, however, there is little research of its effect in the Indian population. Hence, this study was planned to explore the association between dental fear and parental authority and to analyze the most common parenting style practiced in India.

**Methods:** 43 participants in the age group of 12–18 years were enrolled in the study after their parents informed consent. Data regarding: demographic details, number of visits to dental clinic, Modified version of Child Fear Survey Schedule-Dental Subscale, and Parental Authority Questionnaire scores were collected and analyzed.

**Results:** Dental fear score was most in males who had visited the dental clinic less than 5 times ( $53.4 \pm 11.04$ ). The dental fear reduced significantly with increase in number of visits in dental clinic. The dental fear was significantly more in 12–15 years of age group than in 16–18 years age group.

There was a direct co relation of dental fear with authoritarian parents and inversely related with authoritative and permissive parenting. Parenting style showed that most of the mothers were authoritarian (39.53%), authoritative (32.56%) and the least were permissive (23.26%) types. Similarly, fathers were authoritarian (36.58%), Authoritative (26.82%) and Permissive (17.07%).

**Conclusion:** Authoritarian parenting style is the most prevalent parenting style witnessed amongst both mothers and fathers in the Indian culture. High dental fear in children is directly associated with authoritarian parents while inversely with authoritative and permissive parenting style. The study recommends permissive parenting style for mothers and authoritative for fathers to reduce dental fear among their children.

## 1. Introduction

Different cultures have different beliefs, they inculcate different values and parents accordingly opt different practices to train their children. Each practice impacts heavily on child's perception to life, obstacles, and hardships. Our study aims to analyze the influence of different parenting styles in the development of dental fear in adolescents and compare with other studies undertaken in the western population, and to analyze the most common parenting style practiced in India.

Dental fear is one of the major concerns in paediatric patients and sets the stage for a fruitful or a lifelong dreaded experience with a dentist. Parents instigate development of such fear either by passing down their own apprehension to their offspring or by their child-rearing techniques. It is imperative to acknowledge the deep-rootedness of the

origin of such fear, to promote the most feasible parenting style and sculpt the child's future in a more positive and healthier direction.

## 2. Materials and methods

### 2.1. Study design

This cross-sectional study included 43 participants in the age group of 12–18 years, randomly selected from the waiting rooms of our orthodontic and pediatric outpatient clinics. Informed consent was obtained from their parents. The study included only those participants who had earlier visited the dental clinic, were intellectually sound and had no chronic health condition or neurological impairment.

This age group was selected to meet the minimum age requirements of both the questionnaires used. Participants' dental fear and parental

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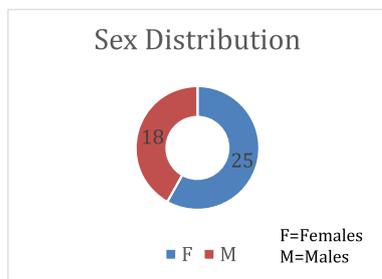


Fig. 1. Sex distribution.

style of 43 mothers and 41 alive fathers were measured.

2.2. Questionnaires

**Dental Fear:** The modified version of Child Fear Survey Schedule-Dental Subscale (CFSS-DS mod scale) was used as it has proven excellent reliability. It included 17 items, with answers ranging on a 5-point Likert scale from 1 (not afraid) to 5 (very afraid). The total CFSS-DS-mod scale score ranged from 17 to 85.<sup>1</sup> It was translated to Hindi and validated before its administration.

**Parenting Style:** Parental Authority questionnaire (PAQ) devised by Buri was employed. It was based on the parenting types described by Baumrind as *authoritative* (high control, high warmth), *authoritarian* (high control, low warmth) and *permissive* (low control, high warmth). The questionnaire comprised of 30 questions, 10 for each type.<sup>2</sup> It was shortened to fit the time frame to a total of 12 questions, 4 for each type, and translated to Hindi, the mother tongue of the target population and called PAQ-12. The answers ranged from strongly disagree (1) to strongly agree (5) on a 5 point scale. A total score for mothers or fathers parental technique was tabulated ranging from 4 to 20. The higher the score the more the parent practised that type of parenting.<sup>2</sup>

All adolescents were interviewed rather than their parents, to be more reliable as parents often perceive themselves as authoritative and not what they actually might be.<sup>3</sup> All crosstab data was analyzed by Chi-Square test to check for significance of results.

3. Result

43 adolescents (25 girls and 18 boys) participated in the study, with a mean age of 15.6 ± 1.9 years (range 12–18). Fig. 1. The participants were divided into two groups on the basis of the number of times they had earlier visited any dental clinic. The average number of times these 43 participants earlier visited any dental clinic was 12.9 ± 13.62, ranging from 1 to 48. There were 22 participants (10 boys and 12 girls), who had earlier visited any dental clinic less than 5 times and presented mean dental fear score of 50.68 ± 12.56, ranging from 28 to 72, while 21 (8 boys and 13 girls) had visited more than 5 times presented mean dental fear score of 43.9 ± 14.57 ranging from 19 to 66. Table 1. Dental fear score was most in males who had visited the dental clinic less than 5 times (53.4 ± 11.04).

Authoritarian parenting style was more common amongst both mother and father than the authoritative, and permissive style being the least common. Table 2 The relation between mothers' parenting style and fathers' parenting style with child's dental fear is as given in Fig. 2.

Table 1  
Number of prior visits, gender and dental fear score.

	≤ 5 Visits		> 5 Visits	
	Male	Female	Male	Female
Fear (Mean ± SD)	53.4 ± 11.04	48.42 ± 13.74	41.38 ± 17.13	45.46 ± 13.26
Total Fear	50.68 ± 12.56		43.9 ± 14.57	

Table 2  
Prevalence of parenting style.

Parenting Style	Prevalence	
	Mothers	Fathers
Permissive	23.26%	17.07%
Authoritative	32.56%	26.82%
Authoritarian	39.53%	36.58%
Authoritative + Permissive	0.02%	0.05%
Authoritative + Authoritarian	–	0.15%

The result was significantly different among Authoritarian fathers and mothers who showed highest score for dental fear in their children, and permissive parents who showed the least score.

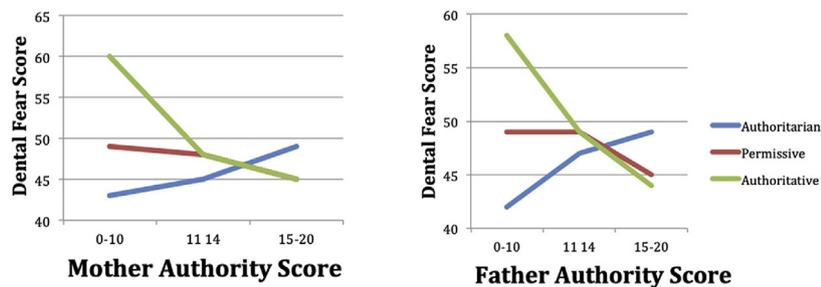
There was a significant difference in dental fear score with respect to age. Age group of 12–15 years, reported fear score of 48 and between 16 and 18 years reported a score of 45 as shown in Fig. 3. Fear score was not significantly different among girls and boys who reported a mean fear score of 47 and 48 respectively as shown in Fig. 4. A correlation was also seen in the amount of visits and dental fear Fig. 5, with dental fear subsiding with increasing visits to the clinic.

4. Discussion

Dental fear for a long time has served as an immutable hurdle in achieving proper dental treatment inflicting poorer oral health, sub-standard quality of life and even affecting the social and emotional welfare of the child as compared to other children without dental fear.<sup>4</sup> Dental fear coerces them to show poor cooperation with the dentist, hindering a proper treatment. Their tempestuous behavior may lead to increased work stress and may also effectively mar the relation between dentists and parents.<sup>5</sup>

Baumrind recognized three main types of parenting styles, namely authoritative, authoritarian, and permissive.<sup>6</sup> Authoritative parents are reckoned as supportive, highly responsive, they allow autonomy and encourage independence and communication. They tend to reason with their child rather than forcing their decision. The style depicts positive academic outcomes and increased competence. Authoritarian parenting profile is viewed as dictatorial, using fear to elicit obedience. These parents use power and control to produce desired behaviors in their children.<sup>7</sup> These methods are related with increased depressive symptoms, increased aggression, poor academic achievement, and lower self-esteem.<sup>8</sup> Children having authoritarian parents who do not grant autonomy are more likely to interpret their environment as more threatening, and out of their control<sup>9</sup> and have more anxiety.<sup>10</sup> The permissive parents are more responsive, less controlling, more lenient, less punishing, and low in demandingness.<sup>11</sup>

One study measured the parents' child rearing technique and its association with children's dental fear.<sup>12</sup> However, another study found no such association.<sup>13</sup> Other study stipulated that permissive and authoritarian parenting had children exhibiting more negative behavior in the clinic.<sup>14</sup> While others disregarded such relation.<sup>15</sup> One study tallied a positive relationship between parenting style and dental anxiety but only in preschool children with no dental experience and not in school-aged children.<sup>16</sup> With limited evidence garnered from the very few studies, the association between parenting styles and children's dental



	Authoritative Mother	Authoritarian Mother	Permissive Mother	Authoritative Father	Authoritarian Father	Permissive Father
Pearson Chi-Square	347.683 <sup>a</sup>	352.361 <sup>a</sup>	394.615 <sup>a</sup>	368.829 <sup>a</sup>	336.456 <sup>a</sup>	386.083 <sup>a</sup>
Likelihood Ratio	164.808	173.010	172.871	156.188	161.192	163.424
Asym. Sig.(2sided)	0.319	0.660	0.129	0.043	0.305	0.096

Fig. 2. Relation between mother & father authority score and child's dental fear score.

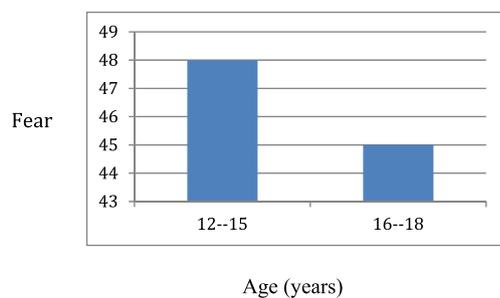


Fig. 3. Relation between age and dental fear (p value = 0.02).

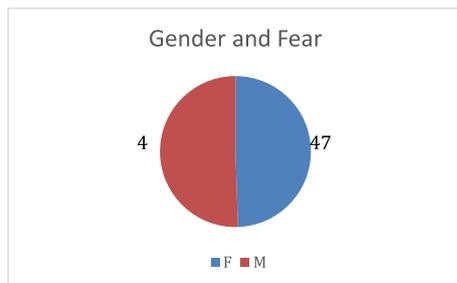


Fig. 4. Relationship between Dental fear and gender (p value = 0.42, not significant).

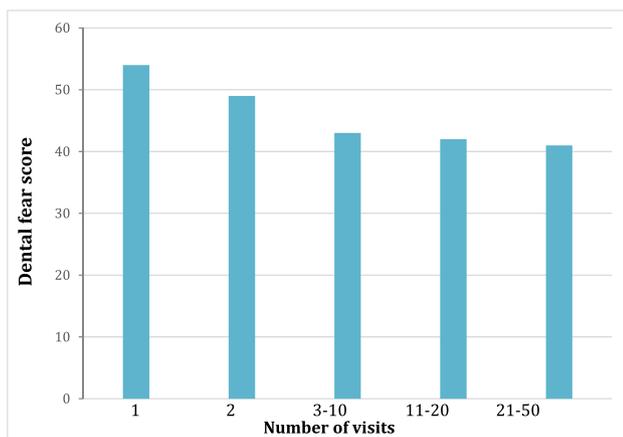


Fig. 5. Correlation between number of visits to dental clinic and dental fear, (p value = 0.02).

fear remains ambiguous.

The results of the present study indicate that the authoritarian parenting style is the most common technique practiced by both mothers and fathers in India, as it is within Brahmanical faith to show utmost respect and duty towards ones' parents.<sup>17</sup> The authoritarian parenting is also directly associated with high dental fear in their offsprings. High dental fear was also experienced in children with fathers practicing a combination of authoritative and authoritarian styles, the style described as Tiger Parenting. Participants of age 12–15years were more fearful to the dental setting than 16–18 years old. Previous studies presented female predilection to dental fear but the present study showcased no such relation between participant's gender and fear.<sup>18</sup> It was also witnessed that fear seemed to dissipate with increasing visits to dental clinic possibly because of familiarization and habituation.

The present study depended on participants perception of their parents, that may be erroneous as children may regard their parents more permissive and more authoritarian than parents viewed themselves.<sup>3</sup> The participants scoring for their parents might also have been influenced by social desirability. Participants had not undergone all types of dental procedures, hence may report fear imagining the procedure may be painful, thereby giving inaccurate results. Also the present study is dental fear is influenced by factors namely parental authority, and frequency of visits to dental clinic and the dental fear scores may fluctuate with increasing visits. Therefore if the number of visits could be kept constant, result might have been more vivid. Also the sample size was small, hence a long term study with larger database can be planned in future.

### 5. Conclusion

Authoritarian parenting style is the most prevalent parenting style witnessed amongst both mothers and fathers in the Indian culture. High dental fear in children is directly associated with authoritarian parents while inversely with authoritative and permissive parenting style. The study recommends permissive parenting style for mothers and authoritative for fathers to reduce dental fear among their children.

### Declaration of competing interest

There is no conflict of interest.

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