Parental Acceptance of Behavior Management Techniques in Pediatric Dental Patients and Associated Factors: A Cross-Sectional Study

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Abstract

Parent's perception of behavior management techniques (BMTs) plays a decisive role in BMTs use for children. This study aimed to investigate the acceptance of commonly used BMTs by parents of preschoolers in Vietnam.

All parents in 4 kindergartens in Hanoi were approached onsite, then data were collected through a web-based survey. Parents were asked to watch and rate their acceptance of 10 BMTs video clips using visual analogue scale (VAS). Mean VASs for BMT acceptance were analyzed using Wilcoxon Signed Ranks Test. Association between mean VAS and factors were tested using one-way ANOVA and independent t-test. The level of confidence was set at 95%.

There were 107 parents completed the survey. Most were mothers holding bachelor's degrees. The most accepted BMTs were positive reinforcement and distraction, followed by (2) Tell-Show-Do, voice control, (3) parent presence/absence, (4) active restraint, and (5) general anesthesia, passive restraint, oral sedation, nitrous oxide/oxygen. Acceptance of restraint and pharmacological techniques was higher in parents whose children attended public kindergarten. Tell-Show-Do was accepted significantly higher by parents of relatively older children. Oral sedation was accepted significantly higher by parents of girls.

Communicative techniques were much more accepted than pharmacological techniques and restraint by device among Vietnamese parents.

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Introduction

Prevalence and severity of caries have been very high among Vietnamese preschool children, which significantly impacts children's quality of life, particularly nutrition.[1-3] Unfortunately, preschool children possess the most dental fear and anxiety and pose a challenge for dentists when providing dental care.[4]

Therefore, one of the most important groundworks for the success of dental treatment in children has been identified as child behavior management [5, 6] and parental communication. Many behavior management techniques (BMTs) have been proved safe and effective, and embraced in the dental curriculum. Basic communicative approaches relying only on dentists and commonly employed by all practitioners include Tell show do (TSD), Positive reinforcement (PRI), Distraction (Dis), Voice Control (VC), Active restraint (AR), and Parental presence/ absence (PPA). Patient physical restraint (PR) by a device and pharmacological approaches are considered advanced techniques and taught in advanced study. However, effective implementation of BMTs, particularly advanced BMTs, necessitates not only advanced facilities and a well-trained dentist but also parental acceptance of these BMTs. Various studies have been conducted to examine the parental acceptance of BMTs; however, it varies over time and is influenced by cultures across the countries.[7-15] While basic communicative BMTs especially TSD and PRI are highly accepted regardless of

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time and culture, acceptance of aversive techniques such as VC, PPA, PR and pharmacological techniques varies. [7-20]

Parental perception of BMTs should be emphasized whereas no studies have been conducted on this aspect in Vietnam (VN). Dentists play an important role in determining what is best for the children and usually convincing the parents. However, ground knowledge of parental acceptance toward BMTs would reflect, if any, the lack of information and indirectly suggest the direction of BMTs development in VN.

In this context, this study aimed to evaluate the parental acceptance of various BMTs used in pediatric dentistry and associated factors among parents of preschool children in Hanoi, VN.

Materials and methods

This cross-sectional study was approved by Institution Review Board (IRB), Faculty of Dentistry/ Faculty of Pharmacy, Mahidol University (COA.No.MU–DT/PY–IRB 2021/018.1002). A sample size of at least 97 was required according to Cochran's formula, with a margin of error of 0.1, a confidence interval of 95 percent, and an estimated population proportion of 0.5. Due to the Covid-19 outbreak in VN from April to June 2021, an online survey was used with a 20% predicted response rate, implying a total of 500 parents.

Study information sheet and consent form were sent to 635 parents of preschool children attending one public and three private kindergartens in Hanoi to recruit participants according to inclusion criteria: over 18 years old; father or mother of healthy children aged 36-71 months old; Vietnamese literate; able to view videotape online and respond as instructed. The parent who did not live with their child, or whose child had a chronic illness or mental/ physical disabilities were excluded. After receiving 258 informed consent to participate, the data collection was continued with the online questionnaire.

A structured questionnaire was developed consisting of demographics and dental experience of parents and their children, and parents' acceptance rating with Visual Analogue Scale (VAS). Parents' dental fear was assessed by the validated Vietnamese version of Corah's Dental Anxiety Scale (DAS).[21]

The questionnaire's validity was tested by three pediatric dentists using the Content Validity Index (CVI). The Item-CVI of each question was 1.0. The test-retest reliability and face validity were conducted in ten parents one month after the initial completion. Intraclass correlation coefficient values ranged between 0.73 and 0.90 ($P < 0.05$).

The ten BMTs videotapes used included TSD, PRI, Dis, VC, PPA, AR, PR, Oral sedation (OS), General anesthesia (GA), and Nitrous oxide/ Oxygen (N2O). Consent for video recording and use for research purposes was obtained from the child model's parent. Each video was reviewed and approved by three pediatric dentists. Each technique was 40 - 60 seconds in length, shown with a title, captions, and a Vietnamese simple spoken explanation of what each BMTs involved. The question "how acceptable is this technique?" appeared at the end of each video asking the participants to rate their acceptance. The ten BMT videotapes were randomly sequenced into three different patterns by Random.org (Randomness and Integrity Services Ltd., Ireland) and then randomly assigned to each school.

Survey Monkey platform (Survey Monkey Inc., California, USA) was used to conduct the electronic questionnaire with ten videos. A 100 mm electronic VAS horizontal line was generated from "completely unacceptable" (0) to "completely acceptable" (100). The parent was instructed to move an indicating button along the horizontal line to a point that corresponds to their level of acceptance for each technique. The VAS numeric scores that appeared on the screen accordingly were used for analyses.

Statistical Analysis: Data analysis was performed using statistical software SPSS (Statistical Package for the Social Sciences) software program 18.0 (SPSS Inc., IBM, Chicago, IL, USA) with a level of significance of $p<0.05$. An annual family income for parents of less than 6,000 US Dollars was classified as low, 6,000 - 12,000 US Dollars was classified as average and that of over 12,000 US Dollars was considered high. Descriptive statistics was used to describe the sample as well as parental acceptance toward BMT (VAS score). BMTs were ranked by mean VAS using Wilcoxon Signed Ranks Test.

The association between mean VASs and

education of parents, family income, parental dental anxiety, children's age, and child behavior was analyzed using one-way ANOVA. The type of kindergarten, parents' gender, children's gender, and children's experience with BMTs associated with mean VASs were analyzed using independent t-test.

Results

A total of 113 completed the survey, six were excluded because two were not parents and four had children under 36 months or over 72 months. Only 107 parents were included in the analysis. Most parents were mothers (86%) with a mean age of 34.8 years (range 25-46 years) and had a bachelor's degree or higher (88%). More than 80 percent of parents were from low to average income families. The DAS demonstrated that 57% of parents had some levels of dental anxiety.

The participants had children with a mean age of 58.7 months old (range 36-71 months). Only 60 percent of children had dental experience, and 75 percent of those never experienced any advanced BMT.

BMTs	Mean ± SD	Rank	Range
Positive Reinforcement	87.5 ± 17.0	1	37 – 100
Distraction	84.2 ± 22.3		0 – 100
Tell Show Do	78.9 ± 25.1	2	0 – 100
Voice Control	78.4 ± 23.3		0 – 100
Parent Presence/Absence	60.9 ± 33.7	3	0 – 100
Active Restraint	54.5 ± 31.1	4	0 – 100
General Anesthesia	44.2 ± 35.5		0 – 100
Passive Restraint	43.5 ± 32.8	5	0 – 100
Oral Sedation	41.2 ± 33.5		0 – 100
Nitrous Oxide/Oxygen	38.7 ± 32.1		0 – 100

Table 1. Mean VAS score rated for parental acceptance for each of behavior management technique (BMT).
The same vertical lines indicate no significant difference among BMTs. Group comparisons between each BMTs by using Wilcoxon Signed Ranks Test with a 95% confidence interval.

BMTs were ranked by level of parental acceptance described by mean VAS as shown in Table 1. Mean VAS toward PRI, Dis, TSD, VC, PPA and AR were higher than 50 implying being accepted by most parents, while the ones for GA, PR, OS and N2O were lower than 50 reflecting being potentially rejected by the parents. Mean VAS scores of PRI and Dis were comparably highest in the rank. Mean VAS scores of GA, PR, OS, and N2O were not different from each other and were the lowest in rank.

BMTs	Types of kindergarten		
	Public N = 84	Private N = 23	P value
Positive Reinforcement	86.4 ± 17.6	91.5 ± 14.1	0.208
Distraction	84.8 ± 21.5	82.0 ± 25.4	0.601
Tell Show Do	79.5 ± 25.2	76.9 ± 25.0	0.661
Voice Control	78.5 ± 22.3	78.2 ± 26.9	0.955
Parent Presence/Absence	64.6 ± 32.5	47.5 ± 35.2	0.031*
Active Restraint	58.5 ± 31.1	40.2 ± 27.4	0.012*
General Anesthesia	48.2 ± 35.4	29.4 ± 32.4	0.023*
Passive Restraint	47.3 ± 32.8	29.3 ± 29.3	0.019*
Oral Sedation	44.4 ± 33.5	29.6 ± 31.4	0.060
Nitrous Oxide/Oxygen	42.43 ± 32.0	25.1 ± 29.4	0.021*

Table 2. Mean VAS for parental acceptance of each behavior management technique (BMT) by type of kindergarten.
Independent T-test, with a 95% confidence interval.

BMT	Family income			
	Low N = 50	Average N = 37	High N = 20	P value
Positive Reinforcement	83.3 ± 19.2*	89.8 ± 15.3	93.8 ± 10.8*	0.021*
Distraction	79.5 ± 27.1*	86.5 ± 18.3	91.4 ± 11.2*	0.042*
Tell Show Do	75.2 ± 26.2	80.0 ± 25.5	86.2 ± 20.3	0.248
Voice Control	73.3 ± 26.3	82.6 ± 20.4	83.7 ± 17.8	0.097
Parent Presence/Absence	64.2 ± 34.0	60.9 ± 33.2	52.8 ± 34.0	0.443
Active Restraint	50.4 ± 35.4	62.6 ± 24.6	50.0 ± 29.0	0.103
General Anesthesia	44.6 ± 37.5	49.4 ± 33.6	33.5 ± 32.9	0.274
Passive Restraint	44.6 ± 34.7	45.0 ± 31.2	37.8 ± 32.0	0.697
Oral Sedation	45.0 ± 35.5	40.2 ± 31.9	33.6 ± 31.4	0.427
Nitrous Oxide/Oxygen	42.2 ± 34.0	40.0 ± 29.7	27.5 ± 30.5	0.215

Table 3. Mean VAS rating for parental acceptance of each behavior management technique (BMT) by family income.
One-way ANOVA test, with a 95% confidence interval. Except AR, Dis and PRI: Welch's Test and Games-Howell's Post hoc test, with a 95% confidence interval.

Mean VAS given by parents for each BMTs was not associated with parents' gender, education, dental anxiety, child's cooperation in the past dental care, or experience with advanced BMTs.

Parents of children in public kindergarten showed significantly higher acceptance of PPA, AR, GA, PR, and N2O than those of children in private kindergarten as shown in Table 2. Parents with high family income showed significantly more acceptance of PRI and Dis than those with lower family income as demonstrated in Table 3. Parents of 3-years-old children showed significantly lower acceptance of TSD than parents of older children. Parents of

girls showed significantly higher acceptance of OS than those of boys.

Discussion

Appropriate use of BMTs is important to prevent a vicious cycle of dental fear that could pose threat to long-term oral health.[22] Children need some management no matter how they behave, either to promote or maintain good behavior or prevent or stop disruptive behavior. This was the first study to investigate Vietnamese parental attitudes toward BMTs commonly used in preschool children. The study was conducted among preschoolers' parents who were not seeking dental care for their children to control a bias of being in need of dental care. The participants represented sample from both public and private kindergartens with a ratio of 3.7:1 maintaining the proportion of the preschool population of Hanoi, reported in the document No. 07/QD-HDND of People's Council of Hanoi. Parents who live with children, mostly mothers, not only have significant influence on their children's oral health care,[23] but also usually accompany children to dental visits and take part in the decision-making of BMTs use. Therefore, their acceptance of BMTs would influence the trend of BMTs practice by dental practitioners in VN.

Most preschoolers can be managed by communicative approaches as they begin to communicate their feeling and thought similar to adults.[24] These approaches are similar to the ways parents use with their children. It is worth noting that some parents rated zero for every technique except PRI. PRI, Dis, and TSD were the most favored by parents in studies worldwide, in fact, they have been proven effective in reducing dental fear and anxiety clinically.[19,20,25,26] This study found VC was as highly accepted as TSD which contradicts the downward trend of parental acceptance toward VC due to the negative perception of the operator's aggressive tone in recent studies.[9, 20] However, its effectiveness in gaining patients' attention, establishing adult-child roles by sudden and firm commands to averting negative behavior especially when disruptive behavior arises, could be appreciated.[6,27,28]

PPA was found least acceptable among basic BMTs. Negative responses to PPA have been seen in a recent study among Thai parents[8]. Parents prefer staying with their children, especially young children, during dental treatment taking their protecting and supporting roles to their child.[6,29] Therefore, PPA should be utilized cautiously only when necessary and not before careful evaluation of parents' attitudes and understandings.

Although both AR and PR are intended to limit conscious child's movement to enhance the safety and quality of dental treatment. AR is less effective in preventing movement and has been linked to more injuries than PR.[8, 24] PR has been blamed for some serious consequences of physical or psychological harm, violation of patient's rights and banned in many countries.[6, 30] This study found PR much less acceptable than AR, similar to most parents in the US and Middle East.[11-14, 16-18] In contrast, parents in some Asian countries showed high acceptance of PR.[7, 8] In 1991, Frankel demonstrated that after PR use in uncooperative children, parents gained a positive perception and 90% of mothers approved its use.[31] Additionally, PR was found well accepted by parents for emergency or urgent care [32, 33] and special patients.[18]

Over the past decade, parental acceptance of GA and OS has been increased in many studies and the increasing number of outpatient surgical centers with simpler, safer, and efficient delivery was postulated as a contributor. [9, 13, 15, 17] However, in this study, pharmacological means shared the bottom rank of parental acceptance consistent with the findings from earlier Asian studies in the 21st century.[8,9,19,34] The fact that outpatient surgery for dental treatment in healthy children has not been widely available in VN does not support the familiarity. The concern of possible complications makes the risks of pharmacological techniques seem to outweigh the benefits of saving primary teeth which will "fall out anyway" for parents.[8, 35] This attitude might limit the chance of children in VN to receive these effective techniques when they are indicated.

N2O, a basic BMT according to AAPD guidelines, while having been widely accepted by parents in Western countries,[6,12-14,16] its acceptance in Asian studies including this study was relatively low compared with other pharmacological techniques.[8,10,19] This may be due to the technique involving drug and substance use. This technique has been helpful and recommended for fearful, anxious patients

and needs to make its way to Asian parents' attention.[6]

The diverse type of kindergarten demonstrated some influences on acceptance of aversive techniques and pharmacological approaches. Parents of children in public kindergarten in this study showed a similar trend to low-to-moderate socioeconomic parents in other study.[17] This could be postulated by the relationship we found between the type of kindergarten and family income in this study ($\chi 2$ (2, N = 107) = 11.91, p = 0.003). Parents with high income showed higher acceptance of positive and psychological approaches of PRI and Dis which is in common with positive discipline in child upbringing. However, further qualitative study is needed to be able to explain its rationale.

Association between children's age or gender and their parents' acceptance of BMTs has never been demonstrated.[8,11,16,19] However, this study suggested that parents of the older child would think that a communicative technique TSD suits their child better. Although the language expression of preschoolers becomes more advanced similar to adults, the receptive language skill in understanding and comprehending what they hear is developed better in the older.[24,36] It is also possible that parents might concern that the younger child would be scared of seeing the dental instruments. In a meta-analysis on child temperament as well as a study in VN by Son et al., the authors pointed out that girls showed higher fear and discomfort than boys.[37,38] This might be a reason why parents of daughters in this study accepted advanced BMTs, OS, better.

The study had faced the limitation of an online survey that the participation and quality of obtained information are highly dependent on the digital competency of parents with a low response rate of 43.8% yet maintaining the proportion of diverse backgrounds. The majority of parents were from public kindergarten group with low and middle income. Therefore, a study with a larger sample size will provide more power for analysis and a greater range of social status.

The study site, Hanoi is a capital, modernized, and second-largest city in VN. While the availability of pharmacological BMTs could be an index of modern technology in pediatric dentistry and ensure significant improvements in treatment outcome and effectively suits the emotional needs of young children in the dental setting, they have not been well accepted by this group of Vietnamese parents. Effective communicative BMTs are expected by the majority of parents. To be able to extend the research results to help direct the development of behavior management in dental practice, relevant knowledge and current practice of Vietnamese dentists on BMTs should be explored. Dynamic changes in dentist BMTs usage and parental acceptance have been demonstrated in numerous studies conducted in both developing and developed countries.[7,8,11-14] Few studies also demonstrated that parental acceptance of BMTs increased by a good prior explanation by dentists[12, 14] and familiarity with the techniques. It is possible that the benefits of these techniques if they are well introduced to parents, will change parental perspectives. Raising awareness and acceptance of both dentists and parents are important to the safety and quality of care for young children and the renovation of pediatric dentistry.

Conclusions

Communicative techniques are widely accepted for preschool children. Less aversive BMTs are more accepted by parents. Pharmacological and restraint techniques are less accepted by parents. Parental acceptance of ten BMTs in a group of Vietnamese parents was ranked (1) PRI and Dis, (2) TSD and VC, (3) PPA, (4) AR, and (5) unacceptable BMTs GA, PR, OS, and N2O.

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Declaration of interest

The authors report no conflict of interest.

References

1. Nguyen YHT, Ueno M, Zaitsu T, Nguyen T, Kawaguchi Y. Early Childhood Caries and Risk Factors in Vietnam. Journal of Clinical Pediatric Dentistry 2018;42(3):173-81.
2. Hung HV, Ngoc VTN, Vu Thi H, Chu DT. Early Childhood Caries in Obese Children: The Status and Associated Factors in the Suburban Areas in Hanoi, Vietnam. Int J Environ Res Public Health 2021;18(16).
3. Yani RWE, Ma'rufi I, Rahayu T. Dental Caries Status and Dietary Characteristics During the Covid-19 Pandemic Towards Increased Risk of Stunting among Preschool Children. Journal of International Dental and Medical Research 2022;15(1):151-7.
4. Raj S, Agarwal M, Aradhya K, Konde S, Nagakishore V. Evaluation of Dental Fear in Children during Dental Visit using Children's Fear Survey Schedule-Dental Subscale. International journal of clinical pediatric dentistry 2013;6(1):12-5.
5. Campbell C, Soldani F, Busuttil-Naudi A, Chadwick B. Update of Non-pharmacological behaviour management guideline. Clinical Guidelines in Paediatric Dentistry. British Society of Paediatric Dentistry 2011.
6. American Academy of Pediatric Dentistry. The reference manual of pediatric dentistry. American Academy of Pediatric Dentistry 2020:243-7.
7. Jearaphasuk S PA. The attitudes of parents toward behavior management techniques used at Mahidol Pediatric Dental Clinic. J Dental Assoc Thai 1998 1998;4:208-18.
8. Seangpadsa K, Smutkeeree A, Leelataweewud P. Parental acceptance of behavior management techniques for preschool children in dental practice: Revisited. Journal of Indian Society of Pedodontics and Preventive Dentistry 2020;38(3):274-9.
9. Elango I, Baweja DK, Shivaprakash PK. Parental acceptance of pediatric behavior management techniques: a comparative study. J Indian Soc Pedod Prev Dent 2012;30(3):195-200.
10. Venkataraghavan K, Shah J, Kaur M, et al. Pro-Activeness of Parents in Accepting Behavior Management Techniques: A Cross-Sectional Evaluative Study. J Clin Diagn Res 2016;10(7):46-9.
11. Murphy MG, Fields HW, Jr., Machen JB. Parental acceptance of pediatric dentistry behavior management techniques. Pediatr Dent 1984;6(4):193-8.
12. Lawrence SM, McTigue DJ, Wilson S, et al. Parental attitudes toward behavior management techniques used in pediatric dentistry. Pediatr Dent 1991;13(3):151-5.
13. Eaton JJ, McTigue DJ, Fields HW, Jr., Beck M. Attitudes of contemporary parents toward behavior management techniques used in pediatric dentistry. Pediatr Dent 2005;27(2):107-13.
14. Havelka C, McTigue D, Wilson S, Odom J. The influence of social status and prior explanation on parental attitudes toward behavior management techniques. Pediatr Dent 1992;14(6):376-81.
15. Desai S, Shah P, Jajoo S, Smita P. Assessment of parental attitude toward different behavior management techniques used in pediatric dentistry. Journal of Indian Society of Pedodontics and Preventive Dentistry 2019;37(4):350-9.
16. Boka V, Arapostathis K, Vretos N, Kotsanos N. Parental acceptance of behaviour-management techniques used in paediatric dentistry and its relation to parental dental anxiety and experience. Eur Arch Paediatr Dent 2014;15(5):333-9.
17. Luis de Leon J, Guinot Jimeno F, Bellet Dalmau LJ. Acceptance by Spanish parents of behaviour-management techniques used in paediatric dentistry. Eur Arch Paediatr Dent 2010;11(4):175-8.
18. de Castro AM, de Oliveira FS, de Paiva Novaes MS, Araujo Ferreira DC. Behavior guidance techniques in Pediatric Dentistry: attitudes of parents of children with disabilities and without disabilities. Spec Care Dentist 2013;33(5):213-7.
19. Muhammad S, Shyama M, Al-Mutawa SA. Parental Attitude toward Behavioral Management Techniques in Dental Practice with Schoolchildren in Kuwait. Medical Principles and Practice 2011;20(4):350-5.
20. Chang CT, Badger GR, Acharya B, et al. Influence of Ethnicity on Parental Preference for Pediatric Dental Behavioral Management Techniques. Pediatr Dent 2018;40(4):265-72.
21. Olak J, Saag M, Honkala S, et al. Children's dental fear in relation to dental health and parental dental fear. Stomatologija 2013;15(1):26-31.
22. Armfield JM, Stewart JF, Spencer AJ. The vicious cycle of dental fear: exploring the interplay between oral health, service utilization and dental fear. BMC Oral Health 2007;7(1):1-15.
23. Badruddin IA, Zhafarina AR, Rahardjo A, Prabawanti C, Adiatman M. The Correlation between a Mother's Behavior Regarding Her Child's Dietary Habits and Early Childhood Caries (Based on the Theory of Planned Behavior). Journal of International Dental and Medical Research 2017;10(Specialissue):574-82.
24. Townsend JA, Wells MH. Behavior guidance of the pediatric dental patient. Pediatric Dentistry: Elsevier 2019:352-70.
25. Setiawan AS, Elsari L, Agustiani H. Intervention program on dental fear in Sekeloa Kindergarten Bandung Indonesia. Journal of International Dental and Medical Research 2018;11(2):602-6.
26. Suresh LR, George C. Virtual reality distraction on dental anxiety and behavior in children with autism spectrum disorder. Journal of International Dental and Medical Research 2019;12(3):1004-10.
27. Chambers DW. Communicating with the young dental patient. The Journal of the American Dental Association 1976;93(4):793-9.
28. Greenbaum PE, Turner C, Cook EW, Melamed BG. Dentists' voice control: Effects on children's disruptive and affective behavior. Health Psychology 1990;9(5):546-58.
29. Sheller B. Influence of the Family. Behavior Management in Dentistry for Children 2014:35-52.
30. Roberts JF, Curzon ME, Koch G, Martens LC. Review: behaviour management techniques in paediatric dentistry. Eur Arch Paediatr Dent 2010;11(4):166-74.
31. Frankel RI. The Papoose Board and mothers' attitudes following its use. Pediatr Dent 1991;13(5):284-8.
32. Patel M, McTigue DJ, Thikkurissy S, Fields HW. Parental Attitudes Toward Advanced Behavior Guidance Techniques Used in Pediatric Dentistry. Pediatr Dent 2016;38(1):30-6.
33. Al Zoubi L, Schmoeckel J, Mustafa Ali M, Alkilzy M, Splieth CH. Parental acceptance of advanced behaviour management techniques in normal treatment and in emergency situations used in paediatric dentistry. Eur Arch Paediatr Dent 2019;20(4):319-23.
34. Taran PK, Kaya MS, Bakkal M, Özalp Ş. The Effect of Parenting Styles on Behavior Management Technique Preferences in a Turkish Population. Pediatric dentistry 2018;40(5):360-4.
35. Vittoba Setty J, Srinivasan I. Knowledge and Awareness of Primary Teeth and Their Importance among Parents in Bengaluru City, India. International journal of clinical pediatric dentistry 2016;9(1):56-61.
36. Wright GZ, Stigers JI. Nonpharmacologic management of children's behaviors. McDonald and Avery's Dentistry for the Child and Adolescent. 9th ed. Maryland Heights 2010:27-40.
37. Else-Quest NM, Hyde JS, Goldsmith HH, Van Hulle CA. Gender differences in temperament: a meta-analysis. Psychological bulletin 2006;132(1):33-72.
38. Son TM, Nhu Ngoc VT, Tran PT, et al. Prevalence of dental fear and its relationship with primary dental caries in 7-year-old-children. Pediatric Dental Journal 2019;29(2):84-9.