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Knowledge, awareness and attitude of parents on pulp therapy of primary teeth: A questionnaire study

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ABSTRACT

Background: Many of the parents are not aware that primary dentition should be maintained in the dental arch in a healthy state for the overall health of the child. They believe that the treatment of primary teeth is not necessary as they are replaced by permanent teeth.**Aim and Objectives:** This study aimed to evaluate the knowledge, awareness and attitude of parents towards primary tooth pulp therapy.**Materials and Methods:** Pretested questionnaire which included the demographics like age, gender and education level with further investigative questions on the need for pulp therapy in primary teeth, knowledge about pulp treatment, importance of pulp treatment, reason of dental visit, restoration of carious tooth and preference of pulp therapy was offered to the participants. Data was collected and compiled using Excel software. Descriptive statistical analysis was performed to obtain the results.**Results:** A total of 78 parents participated in the study. Out of which, 69 were female and 9 were men. Based on the education level, parents who studied below 10th standard felt that dental treatment was not needed for primary teeth and 62.5% of them felt that pulp therapy of primary teeth is not needed. On the other hand, parents who completed postgraduation knew that primary teeth are important and dental treatment is required for primary teeth. There is significant lack of awareness among parents regarding treatment of primary teeth.**Conclusion:** This present study has strived to gather vital information on parents' oral health awareness and attitudes towards their child's decayed teeth. While some of the responses were valid, it was clear that parents are still unaware of some important aspects of their child's oral health.This is an Open Access (OA) journal, and articles are distributed under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License](https://creativecommons.org/licenses/by-nc-sa/4.0/), which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.For reprints contact: reprint@ipinnovative.com

1. Introduction

Dental pulp is an important component of the tooth. It includes the soft tissues, blood vessels, and nerve supply. Dental pulp is important because it provides nutrition to the tooth through blood vessels.¹ Pulp therapy is a conservative treatment for carious teeth in pediatric dentistry. Pulp therapy removes either the coronal portion of the pulp or the coronal and radical portions of the pulp. However, this

treatment is done to preserve the tooth for normal function, rather than removing it. Primary teeth are just as important as permanent teeth. Once primary teeth start erupting, dental plaque, which is the main source of dental caries, begins to stick to the teeth. Therefore, regular dental care for your child becomes critical.^{2,3}

In developing countries, it is important to have a better understanding of the oral health of the infant and their parents. Oral health at a young age is very important to create a healthy foundation for permanent teeth. Guardian's knowledge and attitude, as well as their own habits, can help

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the child's oral health from a very early age. The better the parents' attitude and proper knowledge of oral health, the more beneficial it will be for the children's health.^{4,5} Some parents think that primary teeth will be replaced by permanent ones and do not need to be treated.⁶ They are not aware that even primary teeth may require pulp treatment, and they do not understand how important they are to their child's health. This study aims to determine the parents' knowledge, attitude and awareness of pulp therapy for primary teeth.

Many parents are not even aware that the primary tooth can be treated with pulp therapy and their knowledge about primary teeth is limited. They do not understand how important primary teeth are to their child and how detrimental it is to their child's health if they get infected. The aim of this study was to evaluate the knowledge, awareness and attitude of parents towards primary tooth pulp therapy.

2. Materials and Methods

The present study was conducted in the department of Pediatric and Preventive Dentistry of Yenepoya Dental Hospital, Mangalore after approval by the Institute Ethical Committee. A pretested questionnaire was offered to the parents of the child patients requiring pulp therapy for primary teeth and informed consent was obtained from them.

A printed questionnaire was distributed both in English and local languages (Kannada and Malayalam) to the parents. The respondents were asked to tick the most appropriate answer from the list of given answers. Respondents were assisted by clinical experts for better comprehension of questionnaire.

The survey included questions related to demographics, such as age, gender and educational level. Further investigative questions included the need of pulp therapy in primary teeth, knowledge about pulp treatment, importance of pulp treatment, reason of dental visit, restoration of carious tooth and preference of pulp therapy. The study was completed in 5 months (March 2023 – July 2023). Data was collected and compiled using Excel software. Descriptive statistical analysis was performed to obtain the results.

3. Results

A total of 78 parents participated in the study. Out of which, 69 were female and 9 were men. In terms of age group of parents who participated in the study, most of the parents belonged to 30-40 age group as given in Table 1. All the questions were answered by 78 parents.

It can be noted that significant number of parents who participated in the study were female.

The education level of parents who participated in the study is as given in Table 2.

Table 1: Distribution of age group of participants

Age group	No: of parents
20-30	14
30-40	60
40-50	4

Table 2: Distribution of education level of participants

Level of education	No: of parents
Below 10 th Std	8
Above 10 th Std	15
Undergraduates	46
Postgraduates	9

4. Discussion

This study aimed to evaluate the level of knowledge and attitude of parents regarding pulp therapy procedures in primary teeth.

In this study, the majority of the parents who participated were female. This is mainly due to the fact that in majority of the households mothers are primary caregivers for the child. Hence, educating the mothers on the importance of primary teeth is very important.

In a study conducted by Setty JV et al. in 2016 wherein they assessed the knowledge of primary teeth and their importance among parents with children below 12 years and found that the parents of Bangalore city had superficial knowledge of primary teeth and that there is a need to improve this awareness.⁷

In the present study, 64% had parents visited the dental clinic only after their child had complains of pain or decayed teeth.

Similarly, in a study conducted by Al Batayneh et al. in 2019 found that parental knowledge and acceptance about dental treatment options for primary dentition was generally low.⁸

Part of the reason for parent's ignorance and low opinion of primary teeth may be cultural opinions or because primary teeth are temporary and will eventually fall out and be replaced with new primary teeth. According to some authors, certain cultures place little value on primary teeth and that caries and early loss of the primary dentition is an accepted occurrence.⁹

As mentioned in Table 3, although 56% of the parents were aware that pulp therapy can be done on primary teeth, 44% of the parents were not even aware that pulp therapy procedure can be done in primary teeth.

When questioned about treating primary teeth, 60% of parents wanted to treat primary teeth, 13% did not want to treat children's carious teeth while 26% were not sure.

When asked about reason for not treating primary teeth, 65% of parents felt that the child is too young whereas 32% felt that it was not needed and rest of 3% gave the cost factor as reason for not treating primary teeth.

Table 3: Survey questionnaire

Questions	Percentage
1). Do you visit dental clinic?	a) Yes: 96% b) No: 4%
2). Do you think regular dental check up is important in child?	a) Yes: 92% b) No: 0% c) Not sure: 8%
3). Are you aware that there is a speciality in dentistry called pediatric dentistry?	a) Yes: 95% b) No: 5% c) Not sure: 0%
4). Reason for child's dental visit?	a) Pain: 23% b) Decay: 41% c) Routine dental check up: 36%
5). Do you know there are 2 types of dentition?	a) Yes: 50% b) No: 19% c) Not sure: 31%
6). Do you think primary teeth are important?	a) Yes: 60% b) No: 26% c) Not sure: 14%
7). Do you think dental treatment is required for primary teeth?	a) Yes: 60% b) No: 13% c) Not sure: 27%
8). Do you want to treat decayed primary teeth?	a) Yes: 73% b) No: 8% c) Not sure: 29%
9). If not why?	a) Not needed: 32% b) Waste of time: 0% c) Child is too young: 65% d) Cost: 3%
10). Do you know root canal procedure can be done in primary teeth?	a) Yes: 56% b) No: 26% c) Not sure: 18%
11). What treatment would you opt for your child's carious primary teeth ?	a) Root canal of primary teeth (pulpectomy): 56% b) Extraction: 13% c) Neither of the above: 31%
12). Has your child ever undergone pulp therapy?	a) Yes: 26% b) No: 73% c) Not sure: 1%
11). Why do you think pulp therapy is important in primary teeth?	a) Relieve pain: 45% b) Maintain space and function: 13% c) Preserve esthetics: 6% d) All the above: 36%
12). Can the primary teeth be saved using pulp therapy?	a) Yes: 81% b) No: 6% c) Not sure: 13%
13). Do you think root canal therapy of primary teeth is injurious ?	a) Yes: 5% b) No: 51% c) Not sure: 43%
14). Will the pulp therapy of upper teeth affect the eyes?	a) Yes: 2% b) No: 40% c) Not sure: 58%
15). Do you think pulp therapy of primary teeth can increase the life of primary teeth?	a) Yes: 58% b) No: 6% c) Not sure: 36%

Table 4: Survey questionnaire comparison based on education level of participants

Questions	Answer option	Below 10th	Above 10th to Below UG	UG	PG
1). Do you visit dental clinic?	a) Yes	75%	93.33%	100%	100%
	b) No	25%	6.67%	0%	0%
2). Do you think regular dental check up is important in child?	a) Yes	50%	87%	100%	100%
	b) No	50%	13%	0%	0%
3). Are you aware that there is a speciality in dentistry called pediatric dentistry?	a) Yes	50%	100%	100%	100%
	b) No	50%	0%	0%	0%
	c) Not sure	0%	0%	0%	0%
4). Reason for child's dental visit?	a) Pain	87.50%	46.67%	8.70%	0%
	b) Decay	12.50%	46.66%	47.80%	22.20%
	c) Routine Dental Check up	0%	6.67%	43.50%	77.80%
5). Do you know there are 2 types of dentition?	a) Yes	12.50%	40%	82.60%	100%
	b) No	75%	33.30%	4.30%	0%
	c) Not sure	12.50%	26.70%	13.10%	0%
6). Do you think primary teeth are important?	a) Yes	0%	20%	82.6%	100%
	b) No	100%	66.70%	4.30%	0%
	c) Not sure	0%	13.30%	13.10%	0%
7). Do you think dental treatment is required for primary teeth?	a) Yes	0%	33.4%	80.40%	88.90%
	b) No	100%	13.3%	0%	0%
	c) Not sure	0%	53.30%	19.60%	11.10%
8). Do you want to treat decayed primary teeth?	a) Yes	12.50%	46.70%	86.90%	100%
	b) No	75%	0%	0%	0%
	c) Not sure	12.50%	53.30%	13.10%	0%
9). If not why	a) Not Needed	62.50%	66.70%	17.40%	22.20%
	b) Waste of time	0%	0%	0%	0%
	c) Child is too Young	12.50%	13.30%	82.60%	77.80%
	d) Cost	25%	0%	0%	0%
Questions	Answer option	Below 10th	10th standard to below UG	UG	PG
10). Do you know root canal procedure can be done in primary teeth?	a) Yes	0%	20%	76.10%	66.70%
	b) No	100%	53.30%	8.70%	0%
	c) Not sure	0%	26.70%	15.20%	33.30%
11). What treatment would you opt for your child's carious primary teeth ?	a) Extraction	75%	60%	56.50%	33.30%
	b) Root Canal	0%	13.30%	34.80%	66.70%
	c) None of the Above	25%	26.70%	8.70%	0%
12). Has your child ever undergone pulp therapy ?	a) Yes	12.50%	13.30%	19.60%	88.90%
	b) No	75%	86.70%	80.40%	11.10%
	c) Not sure	12.50%	0%	0%	0%
13). Why do you think pulp therapy is important in primary teeth?	a) Relieve pain	75%	33.40%	47.80%	0%
	b) Maintain Space and function	0%	13.30%	17.40%	11.10%
	c) Preserve aesthetics	12.50%	0%	8.70%	11.10%
	d) All of the Above	12.50%	53.30%	26.10%	77.80%
14). Can the primary teeth be saved using pulp therapy?	a) Yes	12.50%	60%	95.60%	100%
	b) No	37.50%	13.30%	0%	0%
	c) Not sure	50%	26.70%	4.40%	0%
15). Do you think root canal therapy of primary teeth is injurious?	a) Yes	25%	13.30%	0%	0%
	b) No	12.50%	53.40%	50%	88.90%
	c) Not sure	62.50%	33.30%	50%	11.10%
16). Will the pulp therapy of upper teeth affect the eyes?	a) Yes	25%	0%	0%	0%
	b) No	25%	46.70%	30.40%	88.90%
	c) Not sure	50%	53.30%	69.60%	11.10%
17). Do you think pulp therapy of primary teeth can increase the life of the primary teeth?	a) Yes	12.50%	47%	63.00%	88.90%
	b) No	25%	13.30%	2.20%	0%
	c) Not sure	62.50%	40%	34.80%	11.10%

UG: Undergraduation, PG: Postgraduation

This can be attributed to the lack of knowledge among parents regarding various treatment options available for the child.

In this study, 45% of parents felt that pulp therapy is to relieve the pain and were not aware of all the functions of primary teeth.

Based on the education level as given in Table 4, parents who studied below 10th felt that dental treatment was not needed for primary teeth and 62.5% of them felt that pulp therapy of primary teeth is not needed. On the other hand, parents who completed postgraduates knew that primary teeth are important and dental treatment is required for primary teeth.

We can infer from this study that education plays a pivotal role in shaping the opinions of parents regarding their child's oral health.

Parents need to be educated about pulp therapy and how it helps prevent future dental issues in permanent dentitions. Caretakers, especially parents, are seen as the key to a good future for a child's oral health and how they achieve good results to ensure their better future.¹⁰ Parents are usually not focused on pediatric dental service and neglect the importance of the child's primary tooth and its role in the development of proper oral health. Since they are unaware of its importance, they often ask questions about why maintenance and treatment is necessary to save a milk tooth while it is still functioning.¹¹ Dentists say there is no rational reason to leave a child's primary tooth untreated in their mouth. No department of medicine would allow a tooth to remain untreated and decayed in a child's mouth. There's no good reason to leave primary teeth untreated and decayed in child's mouth.¹²

Parents need to be informed that their child needs to have a dental check-up before the first tooth shows up in the cavity and then follow up with a regular dental check-up, which saves both the child and the parents a lot of hassle.¹³ On the contrary, you get to see the child when the disease has progressed to a stage where either function or aesthetics or both are impaired. One reason for delayed intervention may be that some children rarely complain of pain as the carious lesions progress.

It is important for pediatric dentists to educate the general public of our country, especially mothers and caregivers on the importance of primary dentition and the consequences of not maintaining it.

5. Conclusion

This present study has strived to gather vital information on parents' oral health awareness and attitudes towards their child's decayed teeth. While some of the responses were valid, it was clear that parents are still unaware of some important aspects of their child's oral health.


6. Source of Funding & Conflict of Interest


None.


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