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EFFECTIVENESS OF AWARENESS PROGRAM ON THE ETIOLOGY OF EARLYCHILDHOOD CARIES AMONG THE MULTIDISCIPLINARY CAREGIVERS OF CHILDREN IN SULLIA.

Dental Science

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ABSTRACT

Introduction: Early childhood caries is one of the most prevalent, infectious, biofilm-mediated, and transmissible childhood diseases with long-term progression and developmental implications that affect children worldwide. also Also known as baby bottle caries, baby bottle tooth decay, nursing bottle caries, nursing caries or rampant caries. , describes dental caries affecting children aged 0–71 months. For an effective prevention of early childhood caries, conducting a caries risk assessment and providing parental education within 6 months (but no longer than 12 months) of the child's first tooth eruption is recommended and the theme of this project was to form a multidisciplinary team collaboration and create awareness to work in collaboration to prevent early childhood caries.

Methods: All the multiple stakeholders in the care giving of infants and toddlers children are were involved in this awareness program, . . questionnaires Questionnaires relevant to the awareness were customized after validation to include all the proven etiologic factors that are proven to be etiologic to for early childhood caries in children. A total of 300 participants including mothers of infants, dental and medical students, gynecologist, pediatricians, pedodontist and asha ASHA workers were all evaluated assessed for awareness of etiologic factors and they were then educated with powerpoint presentations and video presentations on the etiologic factors and how to prevent early childhood caries. The post lecture sensitization was evaluated & compared by the post session questionnaires.Post test questionnaire was used to assess effectiveness of intervention.

Results: A statistically significant improvement ($p < 0.05$) was observed in the post awareness test scores for knowledge, attitude& practices of participantsthan the pre awareness test score. Compared to the pre awareness group results 75 (25%) there was significant improvement in the post awareness group 269 (89.7%) was noted.The overall distribution of the post awareness session excellentscores were 89.7% and results were statistically significant.

Conclusion: Awareness is he mainstay in prevention of any diseases and early childhood caries being one of the devastating diseases that burdens the child and the parents physically, mentally, semotionally and financially along with tooth pain, dental abscess, cellulitis and tooth loss leading to psychological impact ,speech disorders and spread of dental cries to permanent tooth needs to be stopped.

As prevention is better than cure this kind of workshopscomprehensive interventetnions like these involving all the stakeholders of a child health will definitely empower them with more knowledge and skill to educate the mother and child to take precautions to prevent the diseases like early childhood caries.

KEYWORDS

Early childhood caries, multidisciplinary team, awareness, children

INTRODUCTION

Early childhood caries is the presence of one or more decayed (cavitated or non-cavitated lesions), missing (due to caries) or filled tooth surface in any of the primary teeth in a preschool aged child 71 months of age or younger (AAPD, 2005). Known by several other names like baby bottle tooth decay syndrome/Maternally Derived Streptococcal Mutans Disease/Nursing bottle caries/Nursing bottle syndrome/ Night bottle mouth/ Nocturnal bottle caries etc and the names are given depending on the etiologyic, Early early childhood caries is a widespread disease involving almost all the milk teeth as early as it erupts in the oral cavity.cavity. Early childhood caries is a devastating diseases that affects children of all race and worldwide with a prevalence of In India, a prevalence of 49.6% has been reported among 8 to 48 month old children.[1, 2, 3] In rural south South India, the prevalence of early childhood caries has been reported as 40.6% among 0- to 3 year old children, of whom 50.3% had non-cavitated surfaces and 49.7% had cavitated surfaces.[4] Initial primary incisor caries before 4 years of age is also a deterrent for the risk factor for future dental caries lesion. The pathognomonic feature is that it has a typical etiologic factors and even typical progressing pattern which makes it easy to intercept, treat and eventually prevent it. If left untreated may lead to consequences including malnourishment and anaemia due to difficulty in consuming food, speech problems, malocclusion due to early loss of teeth. The most devastating aftermath is the pain and anxiety of procedures which makes the child aversive to dentistry as the paediatric dentist cannot use much behaviour management strategies to manage the child's anxiety as he reacts with a flight or fight situation during injections and cellulitis pain. Early childhood caries spreads to the other teeth and also to the permanent dentition. Apart from these psychological problems results from mocking and peer pressure as the child is cornered and side-lined. All these aftermath can be prevented provided awareness is created with the involvement of multidisciplinary fraternity including stakeholders who need to work hand in gloves with each other mainly the mothers. Anticipatory guidance is the process of providing practical developmentally appropriate information on children's health to prepare parents for significant physical, emotional and psychological milestones .

So this FAIMER project is done to evaluate how the ECC can be prevented by creating awareness can help in prevention of ECC by avoidance of etiologic factors like wrong feeding practices by mother with feeding fruit juices in bottle or putting child to sleep with bottle and prescription of sticky syrups by doctors.which is given to the parents by the pedodontist. KVG dental college is a highly established institution in the field of dental education since 26 years. The department of paediatric dentistry, is well reputed for its excellence in training in the specialty with a good patient flow. Large number of early childhood caries cases are reported with severe after effects to the children. Besides this, there is collaboration with KVG Medical College and many more integrated medical services like Nursing school and also institutions involving children like Anganwadi and Montessori in the same campus and nearby for the program to be implemented with other stakeholders who are mentioned in the project.

A The project is new as it is one of its kind trying to create awareness among all the stake holders to evaluate the result of the

interdisciplinary integrated work in eradicating the major devastating disease of childhood, the early childhood caries; the multiple etiologic factors which are responsible for this dental disease including use of baby bottles during the night; associated with the reduction in salivary flow thus decreasing salivary neutralization capacity would cause stagnation in the mouth and prolonged exposure to fermentable carbohydrates lead to dental plaque and increase in salivary microorganisms. Also, infant formulas acting as an ingredient of sugar, horizontal transmission of streptococcus mutans from mothers and care givers, fruit juices fed in bottle or sugar added to milk or wrong bottle feeding practices dipped in honey perinatal factors such as low birth weight and gestational prematurity of developmental defects of enamel, poor nutritional health: low vitamin D calcium, and albumin elevated ph [h]levels. The presence of dental caries in children was significantly associated with the frequency of sports drink consumption. Children with severe early childhood caries appear to have significantly greater odds for iron deficiency, low ferritin status and significantly lower haemoglobin including infant obesity, systemic diseases. This project aimed at prevention of early childhood caries by timely intervention of different caregivers of child which includes right from prenatal caregivers till the child is having complete set of primary dentition .So it includes gynaecologist who provides proper nutrition for strong teeth as enamel hypoplasia due to deficiency predisposes to ECC and preterm babies are more prone to ECC.The paediatrician at birth and postnatal follow up will educate the parent by anticipatory guidance on importance of right feeding practice skill & knowledge to mothers and also avoid prescription of sticky syrup and syrups like antibiotic syrups, and to clean the baby's teeth after every feed and dilute the last feed with water.

Mothers plays a major role in prevention so she will be taught the right way of feeding & preventing pooling of milk in child's oral cavity due to the wrong feeding practice of putting child to sleep with bottle in the mouth. She is counselled for cleaning gum pads with soft cloth or soft brush put on her finger and report to the paediatric dentist on observing the white spot lesion and start weaning as soon as teeth erupt.

Pediatric dentist should start emphasize on first dental visit as soon as tooth erupts & follows the dentition for white spot lesion and its reversal at the initial stage by promoting remineralisation by different ant cariogenic protocol, fluoride varnish and silver diamine fluoride.

Aim:
To evaluate the effectiveness of awareness program on prevention of early childhood caries among multidisciplinary caregivers.

OBJECTIVES:
1) To evaluate the role of inter professional collaboration in prevention of early childhood caries.
2) Organizing an effective multi-disciplinary prevention team against early childhood caries.
3) Creating awareness among the general population of coastal Karnataka to reduce the prevalence of early childhood caries.
4) Find out the effectiveness of training program regarding knowledge, attitude and practices regarding early childhood caries among multi-disciplinary team.

METHODOLOGY
a. Study design: Interventional study using pre & post design.
b. Definitions: Multidisciplinary team: Population age group 20-40 years
- Multi-disciplinary team comprises of pediatrician, gynecologists, pediatric dentist, medical, dental &nursing students, accredited social health activist & mothers. Sensitizing the participants of the multidisciplinary team using awareness program for prevention of early childhood caries based on etiologic factors identified.

c. Study Tools:
- A pre-validated questionnaire for testing the knowledge, attitude and behavior of the study participants towards etiology of early childhood caries.

d. Study Duration: Two (02) years

E. INCLUSION CRITERIA:
i. Healthcare professionals involved in multidisciplinary team and taking care of children aged 1 to 3 years
ii. Mothers taking care of children aged 1 to 3 years

F. EXCLUSION CRITERIA
i. Health care professionals not part of multidisciplinary team.

g. Sampling method: Convenience sampling
h. Study Population: Single center study with a population of 300 participants comprising of healthcare professionals who are part of multidisciplinary team were taken for the study.

I. Source of Data:
Primary data
The primary data was collected through structured self-administered questionnaire. The questionnaire consisted of questions in context with the objectives of the research.

Secondary data
The secondary data was obtained from journals, articles & internet.

J. METHODS: The study was conducted by organizing an awareness program which involved all the multidisciplinary stake holders. Self-administered questionnaire were developed based on the etiology of early childhood caries by the technique of conceptualization and operationalization. The questionnaire were developed and validated

Focused Group discussion (FGD) involving 5 different participant groups (Doctors/nurses/allied health professionals/patients) in groups of 5-10 individuals was carried and the questionnaire schemes was planned.

↓

Questionnaire scheme was planned and list of variables for evaluation were charted out. Mode of data collection was selected as paper and pencil interview.

↓

The questionnaire were framed by taking into consideration context effect, memory effect, sensitivity effect, social desirability effect and fatigue effect. The questions for assessing knowledge were fact based questions, attitude were opinion based questions and practices were closed ended questions.

↓

The questionnaire were evaluated for ease of readability using Flesch–Kincaid readability tests. For this questionnaire the Flesch Kincaid readability score was 50.8, fairly difficult to read but can be understood by college graduates and Flesch Kincaid grade level was 9.8, questionnaire can be easily understood by all college graduates.

↓

The questionnaire were pre field tested & evaluated for the validity & reliability in a pilot study conducted among 5 health care professionals.

↓

To ensure the interexaminer reliability of the awareness of early childhood caries in children after pilot testing, the inter examiner reliability was approved by Cronbach's alpha value of 0.8.

k. Data Collection:
1) **For Knowledge:** 17 MCQ's based on the pre-validated questionnaire. The highest score being 17, and the lowest possible score being 0
2) **For Attitude:** 10 questions based on a 5 point Likert scale. The highest possible score a candidate could achieve being 50, and the lowest being 10
3) **For Practices**: 5 closed ended questions were used. The highest possible score a candidate could achieve 5, while the lowest being 0

Data Analysis:
The analysis of data was done using the SPSS software Version 21.

Statistical tests used:
The statistical test used for the study were Chi square test, Wilcoxon signed rank test and Correlation coefficient analysis.

RESULTS
The questionnaire consists of three sections:- knowledge, attitude and practices of the participant about etiologic factors of early childhood caries in multidisciplinary caregivers. A total of 300 participants participated in all the awareness programmes conducted. They were categorized into 5 groups who are the multidisciplinary stake holders

of the aetiology of early childhood caries.

Knowledge of the stakeholders

Table1: shows the total number of participants in each group, percentage & cumulative percentage.

Groups	Frequency	Percentage	Cumulative Percentage
1	60	20	20
2	60	20	40
3	60	20	60
4	60	20	80
5	60	20	100
Total n	300	100	

Table 1

In the Table 1 mentioned above; group 1 represents pediatrician, group 2 represent gynaecologist, group 3 represents paediatric dentist, medical, dental and nursing students; group 4 represents accredited social health activist and group 5 represents mothers.

Compared to the pre awareness group results 75 (25%) there was significant improvement in in the post awareness group results 269 (89.7%) of the no of participants in the excellent category.

In the pre awareness group the number f participants in the good category were 161 (53.7%) and in the post awareness group the number of participants in the excellent category were 30 (10%).

In the pre awareness group the number of participants in the unsatisfactory category were 64 (21.3%) and in the post awareness group the no of participants in the unsatisfactory category were 1.(0.3%)

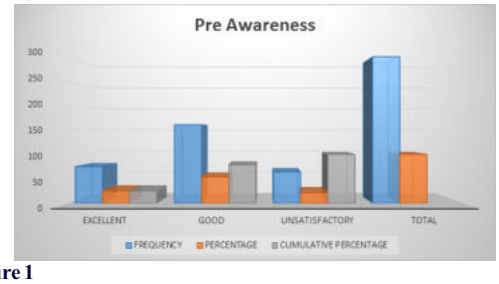

Figure 1

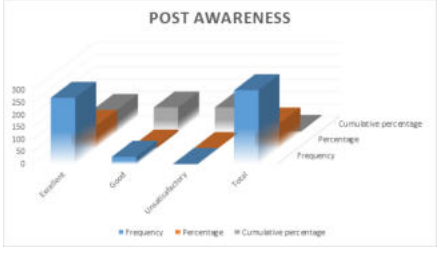

Figure 2

In the figure 3&4 the distribution of pre and post awareness frequency and percentage are given, in the pre awareness the total number of participants who got all the questions correct was around 0.3 % and in the post awareness the total number of participants who got all the questions correct was 55.7 %. The overall distribution of the pre awareness session scores were excellent - 25%,good - 53.7% and unsatisfactory - 21.3 %. The overall distribution of the post awareness session scores were excellent – 89.7%, good –10.7% and unsatisfactory -0.3 %.The was significant improvement in the pre and post awareness scores.

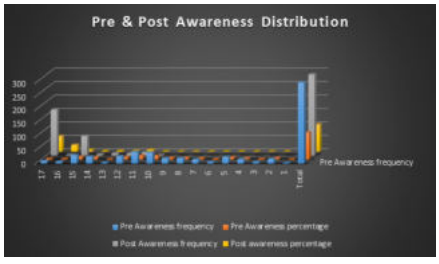

Figure 3

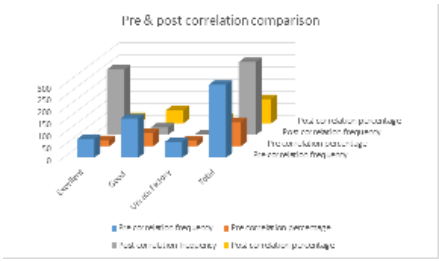

Figure 4

In the figure 5&6 mentioned below, knowledge section of stake holders containing a total of 17 factual questions were evaluated with responses like yes, no or I don't know; for each right answer a score of 1 was given and wrong answer a score 0 was given and scores obtained were divided into:- Excellent - scored when participants have scored 12 or more questions right, Good - scored when participants scored more than 6 and equal to or less than 11 questions right and unsatisfactory - scored when participants have scored 5 or less than 5 questions right

Compared to the pre awareness group results 75 (25%) there was significant improvement in in the post awareness group results 269 (89.7%) of the no of participants in the excellent category.

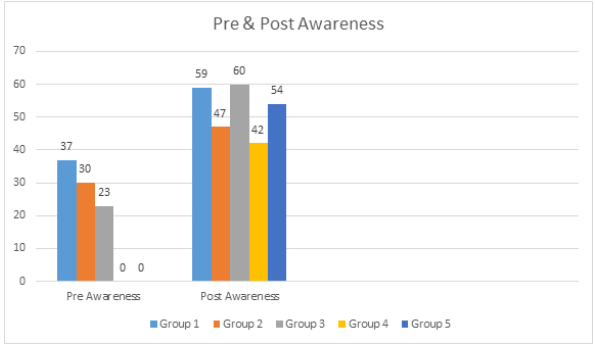

Figure 5

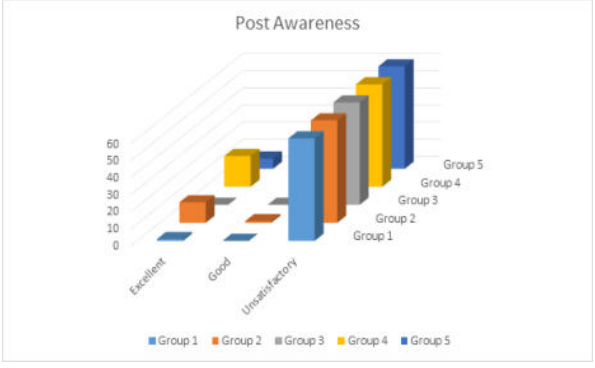

Figure 6

In the Table 2, **Wilcoxon signed rank test** result are given; the mean rank of all the group doesn't vary much and show that there is a statistically significant difference is seen between the pre awareness and post awareness groups($P<0.05$).

Table 2

Group	Mean Rank	Sum of Ranks	N	Z	P
Paediatrician	29.47	1650	60	-6.572	.000
Gynaecologist	29.97	1708	60	-6.629	.000
Paediatric Dentist	29.09	1512	60	-6.241	.000
ASHA worker	30.00	1770	60	-6.693	.000
Mother	30.50	1830	60	-6.753	.000

In the Table 3 below **Spearman's correlation coefficient** values are given, there is strong correlation seen between the pre and the post awareness groups. The overall correlation coefficient for the pre and post awareness knowledge for the is 0.477.

Table 3

Group	Correlation coefficient value, r
Pediatrician	0.545
Gynaecologist	0.888
Pediatric dentist	0.985
Asha worker	0.833
Mother	0.526
Overall	0.477

Attitude of stakeholders

In the figure7&8, attitude section the total no of questions were 10, scoring was based on 5 point likert scale and for each right question the scores10 was given and wrong question score 0 was given and were divided into:- Excellent - scored when participants have scored in the range of 41 to 50, Good - when participants have scored in range of 21 to 40 and unsatisfactory - when participants have scored in the range of 0 to 20. In the post awareness result there was a significant improvement in the result in all the groups.

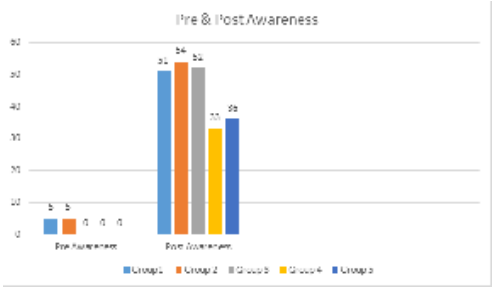

Figure 7

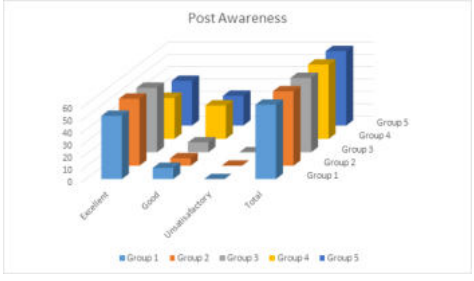

Figure 8

In the Table 4 given below, **Wilcoxon signed rank test** result are given; the mean rank of all the group doesn't vary much and show that there is a statistically significant difference is seen between the pre awareness and post awareness groups(P<0.05)

Table 4

Group	Mean Rank	Sum of Rank	N	Z	P
Paediatrician	30.77	1815	60	-6.643	.000
Gynaecologist	31.00	1829	60	-6.752	.000
Paediatric Dentist	30.00	1770	60	-6.706	.000
ASHA worker	30.50	1830	60	-6.742	.000
Mother	30.50	1830	60	-6.741	.000

In the Table 5 given below **chi square test** results are given, the pre and post awareness comparison results show that the results are statistically significant (P<0.05).

Chi-square test		
	Chi square value	P Value
Pearson chi square test	51.987	0.000

In the Table 6 below **Spearman's correlation coefficient** values are given, there is moderate correlation seen between the pre and the post awareness groups. The overall correlation coefficient for pre and post awareness attitude of the participants is 0.477.

Group	Correlation coefficient value, r
Pediatrician	0.480
Gynaecologist	0.512
Pediatric dentist	0.328
Asha worker	0.339
Mother	0.328
Overall	0.477

Practices of stake holders

In the figure 9 & 10, practices of the stakeholders are evaluated, the total no of questions were 5, closed ended questions were scored for each right question the score 1 was given and wrong question score 0 was given and were divided into:- Excellent – scored when participants have scored in the range of 4 to 6, Good – when participants have scored in range of 2 to 3 and unsatisfactory – when participants have scored in the range of 0 to 1. In the post awareness result there was a significant improvement in the result in all the groups.

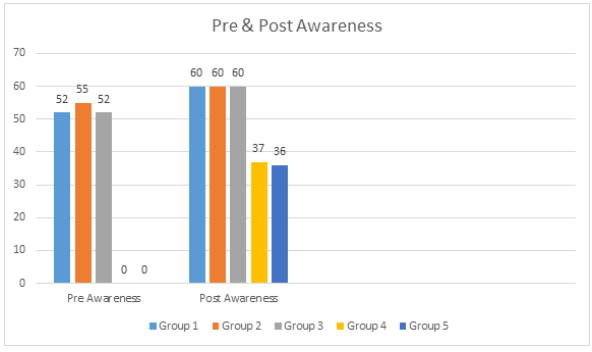

Figure 9

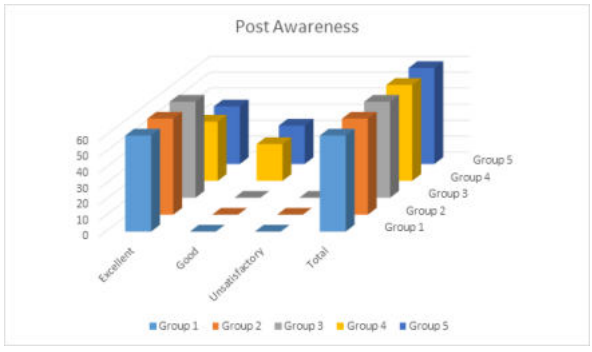

Figure 10

In the Table 7, **Wilcoxon signed rank test** result are given; the mean rank of all the group doesn't vary much and show that there is a statistically significant difference is seen between the pre awareness and post awareness groups (P<0.05).

Table 7

Group	Mean Rank	Sum of Rank	N	Z	P
Paediatrician	29.50	1711	60	-6.855	.000
Gynaecologist	29.50	1711	60	-6.876	.000
Paediatric Dentist	30.00	1770	60	-6.919	.000
ASHA worker	29.00	1653	60	-6.635	.000
Mother	28.50	1596	60	-6.597	.000

In the Table 8, mentioned below **chi square test** results are given, the pre and post awareness comparison results show that the results are statistically significant (P<0.05).

Table 8

Chi-square test		
	Chi square value	P Value
Pearson chi square test	61.342	0.000

In the Table 9mentioned below Spearman's correlation coefficient values are given, there is weak correlation seen between the pre and the post awareness groups. The overall correlation coefficient for pre and post awareness attitude of the participants is 0.279.

Table 9

Groups	Correlation coefficient value, r
Group 1	0.304
Group 2	0.173
Group 3	0.148
Group 4	0.640
Group 5	0.130
Overall	0.279

DISCUSSION

Early childhood caries is the most common chronic disease among young children who are less than 71 months of age and is currently represented as a public health problem in various countries worldwide. Dental caries continues to be a major health problem in developing nations because of lack of education, awareness, and poor socioeconomic status. It begins with white-spot lesions on upper primary incisors along the margin of the gingiva and leads to complete destruction of the crown. The potential impact of early childhood caries on the general health and development has been widely reported in the literature Evidences for effective early childhood caries prevention suggest prenatal and immediate postnatal interventions. Population-based early childhood health systems hold great potential to reduce the burden of early childhood caries Early childhood caries is one of the most prevalent, infectious, biofilm-mediated, and transmissible childhood diseases with long-term progression and caused developmental implications that affect children worldwide especially in developing countries. Those dental decays in infants and toddlers are also known as baby bottle caries, baby bottle tooth decay, nursing bottle caries, nursing caries or rampant caries. Today, the more commonly used terms are early childhood caries and severe early childhood caries in severe cases. Early childhood caries describes dental caries affecting children aged 0–71 months. "According to the American Academy of Pediatric Dentistry (AAPD), Early child hood caries is defined as the presence of 1 or more decayed (non-cavitated or cavitated lesions), missing (due to caries), or filled tooth surfaces in any primary tooth in a child 71 months old or younger." AAPD confirms that any sign of smooth-surface caries in children younger than 3 years of age is indicative of severe early childhood caries ECC has important etiological basis during the first year of life. Current research suggests that gaps in the knowledge about that disease's progression which prohibit effective and early identification of "at-risk" children. The prevalence of early childhood caries varies from 2.1% in Sweden to 85.5% in rural Chinese children.[7] Some of the highest prevalence of ECC have been reported in some Middle Eastern countries, such as Palestine (76%) and the United Arab Emirates (83%). Increase in caries prevalence among 2–5-year-olds are reported, respectively, from children in Brazil, North America, China, Australia, and Korea, with the prevalence rates of 27, 60, 67, 80, and 83.3%.[8]

Inappropriate feeding practices, such as bottle feeding with sweetened milk or fruit juice, night-time bottle feeding, and sleeping with honey-soaked dummies, have been associated with the initiation and development of caries in children. Inappropriate feeding practices can prolong the exposure of teeth to fermentable carbohydrates; Streptococcus mutans converts fermentable carbohydrates into acids, and demineralization starts.[8,9]

According to the European Academy of PeditaricPaediatric Dentistry guidelines on the prevention of ECC, frequent intake of sweet drinks and feeding with sweetened baby bottles on demand should be discouraged, especially at night time. It is recommended with the evidence level grade C.

According to SIGN recommendations (grade D), when developing community preventive programs, children from low socioeconomic status groups should be considered to have increased risk for early childhood caries. The most effective approach for controlling ECC is based on prevention, not on restorative treatment through the epidemiological data. Primary prevention must start in the prenatal stage during pregnancy. The prevention process should progress through the perinatal period and continue with the mother and infant within the context of the family and then proceed during preschool programs.

There are increasing evidences which suggest that the preventive interventions within the first year of life are critical. For an effective prevention of early child hood caries, conducting a caries risk assessment and providing parental education within 6 months (but no longer than 12 months) of the child's first tooth eruption is recommended.

For reducing mother–child (vertical) mutans streptococci transmission, clinical and educational interventions should start during pregnancy. For this reason, oral health screening, dental treatment, education on oral health hygiene, and supporting a non-cariogenic diet during pregnancy and perinatal period are the most important strategies that can assist in the prevention of early childhood caries. Awareness wasthe first step in change and prevention is better than cure was the main goal of this project.To promote maternal and infant oral health, anticipatory guidance should be a part of standard prenatal health care.

This project aimed at prevention of early childhood caries by timely intervention of different caregivers of child which includes right from prenatal caregivers till the child is having complete set of primary dentition .So it includes gynaecologist who provides proper nutrition for strong teeth as enamel hypoplasia due to deficiency predisposes to ECC and preterm babies are more prone to ECC.The paediatrician at birth and postnatal follow up will educate the parent by anticipatory guidance on importance of right feeding practice skill & knowledge to mothers and also avoid prescription of sticky syrup and syrups like antibiotic syrups, and to clean the baby's teeth after every feed and dilute the last feed with water.

Mothers plays a major role in prevention so she will be taught the right way of feeding & preventing pooling of milk in child's oral cavity due to the wrong feeding practice of putting child to sleep with bottle in the mouth. She is counselled for cleaning gum pads with soft cloth or soft brush put on her finger and report to the paediatric dentist on observing the white spot lesion and start weaning as soon as teeth erupt.

Pediatric dentist should start emphasize on first dental visit as soon as tooth erupts & follows the dentition for white spot lesion and its reversal at the initial stage by promoting remineralisation by different ant cariogenic protocol, fluoride varnish and silver diamine fluoride.

The project is new as it is one of its kind trying to create awareness among all the stake holders to evaluate the result of the interdisciplinary integrated work in eradicating the major devastating disease of childhood, the early childhood caries; the multiple etiologic factors which are responsible for this dental disease including use of baby bottles during the night; associated with the reduction in salivary flow thus decreasing salivary neutralization capacity would cause stagnation in the mouth and prolonged exposure to fermentable carbohydrates lead to dental plaque and increase in salivary microorganisms. Also, infant formulas acting as an ingredient of sugar, horizontal transmission of streptococcus mutans from mothers and care givers, fruit juices fed in bottle or sugar added to milk or wrong bottle feeding practices dipped in honey perinatal factors such as low birth weight and gestational prematurity of developmental defects of enamel, poor nutritional health: low vitamin D calcium, and albumin elevated ph levels. The presence of dental caries in children was significantly associated with the frequency of sports drink consumption. Children with severe early childhood caries appear to have significantly greater odds for iron deficiency, low ferritin status and significantly lower haemoglobin including infant obesity, systemic diseases.

CONCLUSION

Awareness is the mainstay in prevention of any diseases and early childhood caries being one of the devastating diseases that burdens the child and the parents physically ,mentally ,emotionally ,and financially along with tooth pain ,dental abscess ,cellulitis and tooth loss leading to psychological impact ,speech disorders and spread of dental cries to permanent tooth needs to be stopped.

As prevention is better than cure this kind of workshops involving all the stakeholders of a child health will definitely empower them with more knowledge and skill to educate the mother and child to take precautions to prevent the diseases like early childhood caries.

1. The cohort of multi disciplinary stake holders included in this study were sensitized through awareness about the etiologic factors of early childhood caries, are therefore competent for future prevention of early childhood caries.
2. Change in the attitude of the multi disciplinary stake holders towards early childhood caries indicates that multi disciplinary approach among all the stake holders through interdisciplinary integrated work helps in eradicating the major devastating disease of childhood, the early childhood caries

ACKNOWLEDGEMENT

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ANNEXURES

ANNEXURE I

DATE:_____

DEMOGRAPHIC INFORMATION

Name of the care giver/child :
Age of the child :
Sex of the child :
Father's name :
Occupation :
Socioeconomic status :
Mother's name :
Address :
Contact number :
Attended awareness programme :
Your child is under the care of
NAME OF THE GYNAECOLOGIST :
NAME OF THE PEDIATRICIAN :
NAME OF THE PEDODONTIST :
NAME OF THE ASHA WORKER :

KNOWLEDGE & AWARENESS OF EARLY CHILDHOOD CARIES

SL NO		PRE TEST	POST TEST
1	Do you know about early childhood caries in young children?	yes/ no/ don't know	yes/ no/ don't know
2	Do you know that early childhood caries affect milk teeth in young children?	yes/ no/ don't know	yes/ no/ don't know
3.	Do you know that early childhood caries also called as baby bottle syndrome?	yes/ no/ don't know	yes/ no/ don't know
4	Do you know the importance of first dental visit in young children?	yes/ no/ don't know	yes/ no/ don't know
5	Do you know preventive dental programmes for early childhood caries?	yes/ no/ don't know	yes/ no/ don't know
6	Do you know that cleaning of gums and newly erupted teeth is necessary in young children?	yes/ no/ don't know	yes/ no/ don't know
7	Are you aware that early childhood caries affect mental well being of child?	yes/ no/ don't know	yes/ no/ don't know
8	Do you think that the main reason for early childhood caries in children is prolonged feeding at night containing sugar	yes/ no/ don't know	yes/ no/ don't know
9	Do you know that putting your child with bottle to sleep causes early childhood caries because of stagnation of milk?	yes/ no/ don't know	yes/ no/ don't know
10	Are you aware that teeth in children put to sleep with sweetened pacifiers predispose to early childhood caries due to high sugar content?	yes/ no/ don't know	yes/ no/ don't know
11	Are you aware that early childhood caries affect the overall development of the child?	yes/ no/ don't know	yes/ no/ don't know
12	Are you aware that early childhood caries spread from mother to child?	yes/ no/ don't know	yes/ no/ don't know
13	Are you aware that prolonged night time bottle feeding predisposes to early childhood caries?	yes/ no/ don't know	yes/ no/ don't know
14	Are you aware that preterm low birth weight babies and vitamin deficiencies predisposes to early childhood caries?	yes/ no/ don't know	yes/ no/ don't know
15	Are you aware that sweetened medications predisposes to early childhood caries?	yes/ no/ don't know	yes/ no/ don't know
16	Are you aware that white spot lesion are early signs of decay which if not prevented will result in severe ECC?	yes/ no/ don't know	yes/ no/ don't know
17	Do you think it is inevitable to get early treatment for children suffering from early childhood caries?	yes/ no/ don't know	yes/ no/ don't know

ATTITUDE OF STAKEHOLDERS TOWARDS EARLY CHILDHOOD CARIES

Score your answers according to Likert scale mentioned below

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
(1)	(2)	(3)	(4)	(5)

	their child wellbeing?	3.undecided 4.agree 5.strongly agree	3.undecided 4.agree 5.strongly agree
27	Do you think that regular visit to pediatric dentist is necessary in prevention of early childhood caries?	1.strongly disagree 2. disagree 3.undecided 4.agree 5.strongly agree	1.strongly disagree 2. disagree 3.undecided 4.agree 5.strongly agree

PRACTICES OF STAKEHOLDERS IN CHILDREN EARLY CHILDHOOD CARIES

28. How often do you check for changes in your child's teeth in a day?

Pre test	Post test
1/2/3/none	1/2/3/none

29. How often do you emphasize on dental examination of children by lifting the lips?

Pre test	Post test
a) Once a week	Once a week
b) Once in a month	Once in a month
c) Once in 6 months	Once in 6 months
d) Once a year	Once a year

30. What age you started oral examination of children with early childhood caries?

Pre test	Post test
a) 6 months	6 months
b) 1 year	1 year
c) 2-3 years	2-3 years
d) > 3 years	> 3 years

31. How often do you emphasize on improving feeding practices in children with early childhood caries?

Pre test	Post test
a) Once	Once
b) Twice	Twice
c) Biweekly	Biweekly
d) Monthly	Monthly

32. In your opinion which oral health regime is most effective in prevention of early childhood caries?

Pre test	Post test
a) Wiping the oral cavity of child with moist cotton & use of xylitol wipes	a) Wiping the oral cavity of child wit moist cotton & use of xylitol wipes
b) Nutritional and preventional oral health counselling	b) Nutritional and preventional or health counselling
c) Brushing and flossing	c) Brushing and flossing
	d) Fluoride supplementations

	their child wellbeing?	3.undecided 4.agree 5.strongly agree	3.undecided 4.agree 5.strongly agree
27	Do you think that regular visit to pediatric dentist is necessary in prevention of early childhood caries?	1.strongly disagree 2. disagree 3.undecided 4.agree 5.strongly agree	1.strongly disagree 2. disagree 3.undecided 4.agree 5.strongly agree

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