

## **To Evaluate The Awareness of Infant Oral Health Care in Anganwadi Workers of Udaipur City.**

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**Abstract:** The American Academy of Pediatric Dentistry (AAPD) recognizes that infant oral health is one of the foundations upon which Preventive education and dental care must be built to enhance the opportunity for a lifetime free from preventable oral disease. Anganwadi workers in rural India are believed to be the first care givers to new mothers and infants. Hence, assessment of their knowledge and educating them regarding infant oral health care is of immense importance. One hundred sixteen AWW were selected for this study. An interviewer-administered questionnaire was prepared to assess the knowledge of AWW working in Udaipur city regarding infant oral health care and the study revealed that AWW had good knowledge about infant oral health care.

**Keywords:** Anganwadi workers, Dental caries, Infant, Oral hygiene.

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### **I. Introduction**

Oral health, as an essential aspect of general health, can be defined as “a standard of health of the oral and related tissues which enables an individual to eat, speak and socialize without active disease, discomfort or embarrassment and which contributes to general well-being.”<sup>1</sup> The American Academy of Pediatric Dentistry (AAPD) recognizes that infant oral health is one of the foundations upon which Preventive education and dental care must be built to enhance the opportunity for a lifetime free from preventable oral disease.<sup>2</sup> Anganwadi workers in rural India are believed to be the first care givers to new mothers and infants.

In pursuance of the National Policy for Children, the Government of India launched the Integrated Child Development Services (ICDS) Scheme, which was introduced on experimental basis on 2<sup>nd</sup> October 1975. Our Eleventh Five Year Plan (2007-2012) too relates to the importance of Anganwadi workers under the ICDS Scheme and their strategic position to deliver health related message and preliminary care to mothers and children.<sup>3</sup>

The Integrated Child Development Services (ICDS) Scheme which was launched in 1975 has been recognized as the world’s one of the largest and most unique community based outreach programme for the women and child development.<sup>4</sup> It provides an integrated package of early childhood services which consist of supplementary nutrition, immunization, health check-up, medical referral services, nutrition and health education for women and pregnant and nursing mothers and non-formal education of children upto the age of 6 years, in rural, urban, slums and tribal areas.<sup>5</sup>

Hence, assessment of their knowledge and educating them regarding infant oral health care is of immense importance.

### **II. Material And Methods**

The survey was conducted among the 116 AWW workers in Udaipur city of Rajasthan. An interviewer-administered questionnaire was prepared, pretested, piloted and necessary modifications were made. This was prepared to assess the knowledge of AWW working in Udaipur city regarding infant oral health care. The study was conducted in the month of January, 2016. A written consent was obtained from the authorities before the commencement of the study. The questionnaire contained 15 questions on infant oral health care both in Hindi and English languages.

The collected data was statistically tabulated and analysed. SPSS version --- was used. Chi square test was used to analyse the data.

### **III. Aims And Objective**

The aim of this study was to evaluate the awareness of infant oral health care in AWW of Udaipur city.

### **IV. Materials And Method**

#### **Inclusion criteria:**

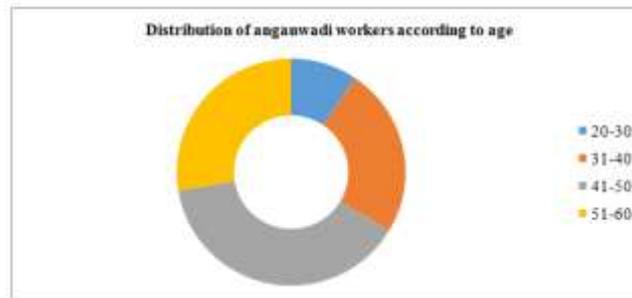
- All the AWW who were working in the city area of Udaipur and ready to participate in the study

**Exclusion criteria:**

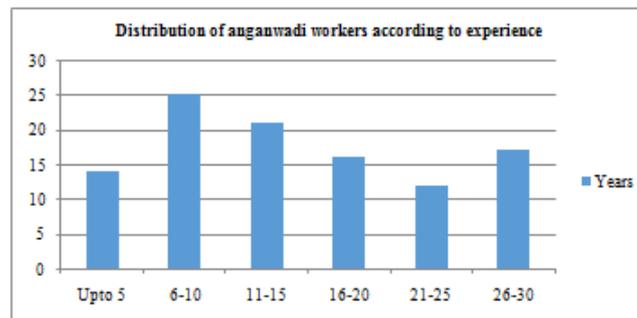
- Those who were not available on the day of questionnaire distribution
- These who were not ready to participate in the study
- Those who have been recruited and not have undergone the AWW training course.

**V. Figures And Tables**

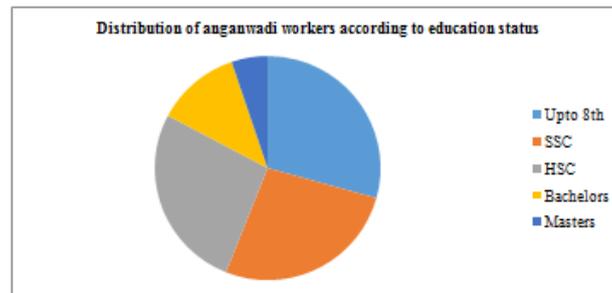
**Graph I**



**Graph II:**



**Graph III:**



**Table I**

	N	%
<b>1.Amount of toothpaste</b>		
a) Pea size	53	45.7%
b) full brush cover	57	49.1%
c) half brush cover	5	4.3%
d) should brush without toothpaste	1	0.9%
<b>2.what time is appropriate to start cleaning baby's mouth</b>		
a) before eruption of first milk tooth(gum pads)	28	24.1%
b) after eruption of first milk tooth	72	62.1%
c) after eruption of 5-6 tooth	2	1.7%
d) after eruption of all the teeth	14	12.1%
<b>3. Starting of tooth brushing habit in children</b>		
a) after all teeth erupt	25	21.6%
b) after 1 year	80	69.0%
c) after 2 year	8	2.6%
d) as soon as first tooth erupt	3	6.9%

<b>4. How many times brush in a day</b> a) never b) once in a day c) twice in a day d) more than twice in a day	2 5 102 7	1.7% 4.3% 87.9% 6.0%
<b>5. Number of visits to the dentist</b> a) once a year b) twice a year c) only when necessary d) never	71 37 7 1	61.2% 31.9% 6.0% 0.9%
<b>6. When does the first milk tooth erupt in oral cavity</b> a) 3 months b) 6 months c) 1 year d) 18 months	1 102 13 0	0.9% 87.9% 11.2% 0
<b>7. Age of complete eruption of milk teeth</b> a) 1.5 years b) 2 years c) 2.5 years d) 3 years e) 4 years	22 22 2 70 0	19.0% 19.0% 1.7% 60.3% 0
<b>8. Is conservation of milk teeth essential</b> a) yes b) no c) don't know	87 27 2	75.0% 23.3% 1.7%
<b>9. Reason for Conservation of milk teeth</b> a) mastication b) esthetics c) speech d) all the above.	5 20 0 91	4.3% 17.2% 0 78.4%
<b>10. Method of prevention of dental caries.</b> a) proper tooth brushing b) fluoride application c) good diet( non sticky food) d) all the above	79 2 3 32	68.1% 1.7% 2.6% 27.6%
<b>11. Causative factors of dental diseases</b> a) bottle feeding b) improper brushing habits c) sticky food d) All the above	0 37 2 77	0 31.9% 1.7% 66.4%
<b>12. Do you know about who is a pedodontist and what is the role in dentistry.</b> a) they deal with dental treatment of children b) they are concerned with the dental and general health. c) They build positive attitude towards dental treatment in children. d) all the above.	5 3 51 57	4.3% 2.6% 44.0% 49.1%
<b>13. can carious tooth be saved</b> A) yes b) no	105 11	90.5% 9.5%
<b>14. Do you believe Avulsed tooth can be saved?</b> a) yes b) No, c) may be	79 34 3	68.1% 29.3% 2.6%
<b>15. Will poor oral health with several decayed tooth in a child affect his / her growth and body weight.</b> a) yes b) no c) don't know	116 0 0	100.0% 0 0

Table II:

	P-value(age)	P-value(education)	P-value(work experience)
1.Amount of toothpaste	0.501	0.912	0.008
2. What time is appropriate to start cleaning baby's mouth	0.188	0.609	0.053
3. Starting of tooth brushing habit in children	0.380	0.368	0.360
4. How many times brush in a day	0.866	0.484	0.710
5.Number of visits to the dentist	0.104	0.887	0.100
6. When does the first milk tooth erupt in oral cavity	0.029	0.014	0.077
7. Age of complete eruption of milk teeth	0.350	0.840	0.327
8. Is conservation of milk teeth essential	0.383	0.220	0.497
9. Reason for Conservation of milk teeth	0.620	0.966	0.177

10. Method of prevention of dental caries.	0.250	0.260	0.499
11. Causative factors of dental diseases	0.425	0.674	0.331
12. Do you know about pedodontist and what is their role in dentistry.	0.041	0.909	0.007
13. Can carious tooth be saved	0.572	0.628	0.135
14. Do you believe Avulsed tooth can be saved?	0.215	0.701	0.203
15. Will poor oral health with several decayed tooth in a child affect his / her growth and body weight.	0	0	0

## VI. Result

A total of 116 AWW responded to the questionnaire. It can be seen from graph 1 that maximum number of respondents belonged to age group 41-50. The mean age was 44.2 years with an average range being 20-60. Graph 2 shows that most of the AWW had a work experience of 6-10 years. Graph 3 shows that all the AWW had minimum qualification upto 8<sup>th</sup> standard.

Table 1 shows percentage wise distribution of the answers given by the AWW. Table 2 shows that age of AWW had statistically significant effect on the first milk tooth eruption in the oral cavity and the role of pedodontist only. Education had no statistically significant effect on any of the answers except when the first milk tooth erupts in oral cavity. Work experience of the AWW had statistically significant effect on the amount of toothpaste to be used, appropriate time to start cleaning baby's tooth, when the first milk tooth erupts and the role of pedodontist. 100% AWW agreed that poor oral hygiene affects the general health of the child.

## VII. Discussion

With respect to amount of toothpaste to be used, only 45.7% of AWW were aware that pea sized toothpaste should be used to brush the teeth. In the study conducted by Vinayet al<sup>6</sup>, 57.3% of subjects indicated that using more than the recommended amount of toothpaste will not have any additional benefit on the child's teeth. Only 24.1% of AWW were aware that baby's mouth must be cleaned before the eruption of first milk tooth. Similar results were found by Chan et al<sup>7</sup> and Maniet al<sup>8</sup>. Only 31.9% of AWW knew that the child should be taken for dental visit twice a year. In a study done by Frazao and Marques<sup>9</sup> among community health workers, the frequency of brushing was 90% which was similar to the present study where 87.9% AWW were aware that brushing should be done twice a day. This shows the lack of knowledge about the oral hygiene practices in AWW.

In the present study 87.9% of AWW knew appropriate time of eruption of the first milk tooth and only 19.0% of them knew the age of complete eruption of milk tooth. In a study conducted by Mani et al<sup>8</sup> on caretakers of children, 91.2% of the subjects knew eruption of first baby tooth and 70.6% of the subjects were aware of the age of complete eruption of first tooth. Similar results were found to be Shilpaet al<sup>10</sup>.

75% of AWW agreed that milk teeth should be saved and 78.4% AWW gave mastication, esthetics and speech as the reasons of conservation of the milk teeth. This study was contradictory to the study conducted by Poornimaet al<sup>11</sup>. Majority of 68.1% didn't know that fluoride application and non sticky food can prevent dental caries. Therefore, the AWW need to be educated about the importance of fluoridated toothpaste. 66.4% AWW had awareness that bottle feeding, improper brushing and sticky food, all caused dental caries in children. In the study conducted by Mani et al<sup>8</sup>, most of the caretakers (97%) knew that sugary food can cause tooth decay and 71% and 56% of them also disagreed that dental caries is caused by frequent/prolonged feeding and nighttime feeding, respectively.

49.1% of AWW knew who the pedodontist are. They agreed with the fact that pedodontists give dental treatment to children, are concerned with the dental as well as general health of children and create positive attitude in children and parents for the dental treatment. 90.5% of AWW agreed that a carious tooth can be saved. In a study conducted by Poornimaet al<sup>11</sup>, 64.7% of AWW agreed that there is no need to take care of the milk teeth because they will fall after sometime.

68.1% AWW agreed that avulsed tooth can be saved. This was contradictory to the study conducted by Ramroopet al<sup>12</sup> who found knowledge about avulsed tooth to be low among school teachers. 100% of AWW agreed that poor oral health will affect the general health of the child. It was similar to study by Scrothet al<sup>34</sup> who found 87.5% of the care givers knew that rotten tooth would affect child health.

## VIII. Conclusion

Overall knowledge of the anganwadi workers about oral health was fair. The AWW play a pivotal role in promoting general health of women and children. This force can also become a vital link in communicating oral health awareness in children and parents. For this, topic of oral health should be included in the curriculum of AWW and proper training and skills should be developed through effective program on oral health by the government with the help of dentists.

### References

- [1]. Carneiro L, Kabulwa M, Makyao M, Mrosso G, and Choum R. Oral Health Knowledge and Practices of Secondary School Students, Tanga, Tanzania. *International Journal of Dentistry* : 2011 ; 6.
- [2]. Guideline on Infant Oral Health Care. Originating Committee Clinical Affairs Committee – Infant Oral Health Subcommittee. 2012
- [3]. Planning commission, Government of India .Eleventh Five year plan 2007- 2012. Agriculture, Rural development, Industry, Services and Physical Infrastructures. Oxford University Press; New Delhi; Volume 3:p.134. Available from: URL: [http://planningcommission.gov.in/plans/planrel/fiveyr/11th/11\\_v3/11th\\_vol3.pdf](http://planningcommission.gov.in/plans/planrel/fiveyr/11th/11_v3/11th_vol3.pdf)
- [4]. Lal S, Paul D. Towards the universalization of ICDS. *Indian Journal of Community Medicine* 2003; 27: 147-52.
- [5]. The Integrated Childhood Development Services Scheme (ICDS). Department, of the Social Welfare Ministry of Education and Social Welfare, Govt. of India, New Delhi-1976.
- [6]. Vinay S, Naveen N, Naganandini N. Feeding and oral hygiene habits of children attending daycare centres in Bangalore and their caretakers oral health knowledge, attitude and practices. *Indian J Dent Res* 2011;22:561-6.
- [7]. Chan SC, Tsai JS, King NM. Feeding and oral hygiene habits of preschool children in Hong Kong and their caregivers' dental knowledge and attitudes. *Int J Paediatr Dent* 2002;12:322-31.
- [8]. Mani SA, Aziz AA, John J, Ismail NM. Knowledge, attitude and practice of oral health promoting factors among caretakers of children attending day-care centers in Kubang Kerian, Malaysia: A preliminary study. *J Indian Soc Pedod Prev Dent* 2010;28:78-83.
- [9]. Frazão P, Marques D. Effectiveness of a community health worker program on oral health promotion. *Revista Saúde Pública* 2009;43(3):463-471.
- [10]. Shilpa M., Jithesh Jain, Ananda S.R., Mahesh Hiregoudar, Abhishek K.N., Sneha C.K. Knowledge, Attitude, and Practices of Anganwadi Workers Regarding Oral Health of Children in Virajpet Taluk . *Journal of Advanced Oral Research* / Sep-Dec 2014 / Vol. 5 No.3.
- [11]. Poornima K, Reddy CV, Shivakumar BN, Vidya M. A study to assess the knowledge, attitude and practices towards oral health among anganwadi workers of Mysore city. *J Indian Assoc Public Health Dent*. 2011;18:167-70.
- [12]. Ramroop V, Wright D, Naidu R. Dental health knowledge and attitudes of primary school teachers toward developing dental health education. *West Indian Med J* 2011;60:576-80.
- [13]. Schroth RJ, Brothwell DJ, Moffatt ME. Caregiver knowledge and attitudes of preschool oral health and early childhood caries (ECC). *Int J Circumpolar Health*. 2007;66:153-67.