Knowledge and attitude of anganwadi workers regarding oral health of children in ICDS project Dansal, Jammu and Kashmir

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Abstract
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. The aim of this study was to assess knowledge, attitude and practices (KAP) regarding oral health, oral hygiene and dental caries among anganwadi workers (AWWs) of ICDS project Dansal.

Keywords: Oral health, Oral hygiene, Anganwadi workers.

Introduction
In young children, one of the most serious health conditions is poor oral health in early childhood. Oral health is an essential and leading component of children’s overall health. Due to their developmental dependency, young children constitute a special population requiring attention and consideration of society and its governmental policymakers.

Globally, in the children aged 3-6 years dental caries is categorized as a major public health issue. The lack of availability and affordability of oral health services especially in developing countries like India not only results in aggravation of the disease but also enhances the cost of treatment and care. It has been observed across various countries that the basic health care workers and parents have limited knowledge about causes and prevention of the most common oral diseases. Control of oral diseases is only possible if services are oriented towards primary health care and prevention.

Anganwadi workers (AWW), the grass root workers (serves around 1000 population per AWW) have successfully demonstrated their useful role in developing healthy habits in early childhood viz. correct brushing techniques and hand washing through non-formal education methods (learning by play way method). At the anganwadis, monthly meeting of mothers serve a platforms for imparting health education to mothers regarding immunization, breast feeding, institutional delivery, postnatal care etc. Empowering community workers like AWW in oral health, and providing basic oral health awareness to the mothers through them can be feasible model for a developing country like India; where oral health is not a priority in the primary health care as yet.

Materials and Methods
All the AWWs who were working in ICDS project Dansal and ready to participate in the study were included. The study was a descriptive, cross-sectional questionnaire survey. The study population included all the 203 AWWs of Dansal project. Necessary data and permission were obtained from the child development project officer, Dansal and the concerned department after explaining the procedure clearly. Informed consent was obtained from all the AWWs.

A specially designed questionnaire consisting of 18 questions was put together. It was designed for recording all the relevant data pertaining to general information, as well as contained questions related to knowledge and attitude regarding the oral health of children aged 0-6 years. The questionnaire was first prepared in English using simple layman language. It was later translated to the Hindi language for easy comprehension of the AWW. Further, the questionnaire was back-translated into English to check for any inconsistencies between the translated forms.

The data were entered into an Excel worksheet and analysis was done by using the Statistical Software SPSS version 17.0 (SPSS Statistics for Windows, Version 17.0. Chicago SPSS Inc. Released 2008). Descriptive statistics was used to summarize the results.

Results
A total of 203 AWWs responded to the questionnaire. It can be seen from Graph 1, a majority, i.e. 92.38% had an education level up to high school whereas about 7.7% of AWWs were graduates. It can be appreciated from Table 1 that 17.24% of the AWWs knew the appropriate eruption time for the first milk tooth, whereas only 12.80% AWWs were aware that baby’s mouth must be cleaned even before the eruption of first milk tooth. Only 0.03% AWWs knew that the child should be taken for first dental visit before or...
within 1 year of age. About 48% of the AWW discuss the child’s oral health with parents during home visits. 52% of AWWs were of the opinion that milk teeth are not important.

Table 1:

| Questions related to knowledge | Questions related to attitude |
|--------------------------------|--------------------------------|
| How many times in a day teeth should be cleaned? | 10. Will poor oral health with several decayed teeth in a child affect his/her growth and body weight? |
| a. Once- 147 (72.41%) | a. Strongly agree-54 (26.6%) |
| b. Twice- 56 (27.58%) | b. Agree-42 (20.68%) |
| c. Never-0 (0%) | c. Uncertain-89 (43.84%) |
| 1. Regular tooth brushing results in reduction of? | d. Disagree-10 (0.049%) |
| a. Dental cavities- 193 (95.07%) | e. Strongly disagree-8 (0.039%) |
| b. Oral mucosal ulceration- 3 (0.01%) | 11. Putting a child to bed with sweetened milk in a bottle is okay for child’s teeth |
| c. Swelling-6 (0.02%) | a. Strongly agree-75 (36.94%) |
| d. Oral cancer-1 (0.004%) | b. Agree-98 (48.27%) |
| 2. What cleaning aids do you suggest for use with the toothbrush to clean teeth? | c. Uncertain-19 (0.093%) |
| a. Toothpaste- 134 (66%) | d. Disagree-7 (0.03%) |
| b. Toothpowder-51 (25.12%) | e. Strongly disagree-4 (0.019%) |
| c. Others- 18 (0.08%) | 12. Do you feel you need more information/training to create more awareness regarding oral health among children and parents? |
| 3. For how much time should teeth be cleaned? | a. Strongly agree-12 (0.059%) |
| a. 0-1 minute -99 (48.76%) | b. Agree-66 (32.51%) |
| b. 1-2 minutes -83 (40.885%) | c. Uncertain-23 (11.33%) |
| c. 3-5 minutes -2 (10.34%) | d. Disagree-45 (22.16%) |
| 4. Foods causing tooth decay | e. Strongly disagree-57 (28.07%) |
| a. Sweets/Chocolates/Toffees- 134 (66%) | 13. AWW has an important role to play in the maintenance of the child’s oral health |
| b. Milk-9 (0.045%) | a. Strongly agree-39 (19.21%) |
| c. Biscuits-57 (20.07%) | b. Agree-78 (38.42%) |
| d. Fruits-3 (0.01%) | c. Uncertain-45 (22.16%) |
| 5. When does the first milk tooth erupt in a child’s oral cavity? | d. Disagree-40 (19.70%) |
| a. 3 months-5 (0.02%) | e. Strongly disagree-1 (0.004%) |
| b. 6 months-110 (54.18%) | 14. Dental checkups must be integrated with the general health checkups for the anganwadi children |
| c. 1 year-84 (41.37%) | a. Strongly agree-96 (47.29%) |
| d. 18 months- 4 (0.019%) | b. Agree-45 (22.16%) |
| 6. Age of complete eruption of milk teeth | c. Uncertain-37 (18.22%) |
| a. 1.5 years- 34 (16.74%) | d. Disagree-25 (12.31%) |
| b. 2 years-67 (33%) | e. Strongly disagree-0 (0%) |
| c. 2.5 years-56 (27.58%) | 15. Do you advise the children to brush their teeth twice daily? |
| d. 3 years-35 (17.24%) | a. Yes-45 (22.16%) |
| e. 4 years- 11 (0.05%) | b. No-158 (77.83%) |
| 7. What time is appropriate to start cleaning baby’s mouth? | 16. Do you check whether the child gargles his/her mouth with water after meals/snacks? |
| a. Before eruption of 1milk tooth-26 (12.80%) | a. No -9 (0.044%) |
| b. After eruption of 1milk tooth-34 (16.74%) | b. Yes-194 (95.56%) |
| c. After eruption of 5-6 teeth-67 (33%) | 17. Do you discuss about the child’s oral health with |
b. Between 3 and 5 years of age-157 (77.33%)
9. The role of milk teeth
a. As permanent teeth erupt subsequently, milk teeth are not important-106 (52.21%)
b. Unhealthy milk teeth will have adverse effect on permanent teeth that will erupt later-34 (16.74%)
c. Don’t know- 63 (31.03%)

parents during home visits?
a. Yes, always-18 (0.088%)
b. Sometimes-96 (47.29%)
c. No-89 (43.84%)

16.74% of the caregivers knew that rotten teeth could affect a child’s health.

Responding to the question assessing knowledge about the role of milk teeth, 16.74% of the AWW said that unhealthy milk teeth will have an adverse effect on permanent teeth that will erupt later. On the contrary, in the study by Poornima et al., 64.7% of the AWW agreed that there is no need to take care of milk teeth, because they will fall after some time.

A majority, about 19.21% AWW agreed that they have an important role to play when it comes to the oral health of children. This finding is similar to the study by Dawani et al., where almost all preschool teachers (98%) realized their responsibility towards assessing student’s oral hygiene. Around 72.41% AWW reported to have advised the children to brush their teeth once daily and 95.56% of the workers checked whether the child gargles his/her mouth with water after meals/snacks. In a study by Vinay et al., only 51.36% of caretakers frequently made children rinse their mouth with water after every meal and Mani et al. reported that only 42% the subjects who were caretakers encouraged drinking plain water after every feed at all times.

Only 48% of the AWW reported having discussed the child’s oral health with parents during home visits. Similarly, according to a study by Kranz et al., only 15-35% of the EHS teachers reported of routinely engaging in any of the listed parent activities related to oral health.

One of the limitations of the study could be that there was an unequal distribution of AWWs in the education and experience groups. Furthermore, there could be scope for recall bias, where the respondent’s older experiences would have influenced her memory. One of the main strengths of this study was that it succeeded in turning the attention of AWWs of Dansal toward the oral health of children, and a large amount of information was collected through the close-ended questionnaire, which can be of immense use in planning an oral health programme for the AWWs.

Conclusion
Overall knowledge of the anganwadi workers about oral health was fair. The AWWs 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 AWWs and proper training and skills should be developed through effective program on oral health by the government with the help of dentists.

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