

KNOWLEDGE, ATTITUDE & BEHAVIOR ON CHILDREN'S ORAL HEALTH CARE AMONG NURSES



Dental Science

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ABSTRACT

INTRODUCTION- Oral health care provided at an early stage can ensure the maintenance of preventive and curative dental health in children. Nurses are easily accessible in providing oral health care among expecting mothers and children during their routine medical visits. **AIM-** To assess the knowledge, attitude and behaviour of nurses towards children's oral health care. **METHODS-** A questionnaire survey comprising of 15 questions was carried out among 200 nurses. The collected data and responses were voluntary and anonymous. The questions consisted of information and knowledge on Early Childhood Caries and infant's oral health amongst the nurses. **RESULTS-** About 59% of nurses reported adequate knowledge about oral health. Approximately 88% showed positive attitude towards obtaining more training in preventive care. **CONCLUSION-** Nurses showed adequate knowledge on oral health care. However, they were not acquainted with dental specialties. Their acceptance on delivery of oral health care indicates essential demand for proper training and encouragement on oral health promotion.

KEYWORDS

Attitude, knowledge, nurses, oral health care.

INTRODUCTION

Oral health care is an essential and integral part of general well-being but still it is often neglected.¹ Oral health care provided at an early stage can ensure the maintenance of preventive & curative dental health in children. Early prevention of dental diseases among children can prevent them from undergoing traumatic and painful procedures in future and to enhance their overall development.

Although the American Academy of Pediatric Dentistry (AAPD) emphasizes on first dental visit of infants by the time first tooth appears in the oral cavity and to have access to preventive dental care throughout childhood, but the reality is different.² Majority of young children stays unacquainted of dental check-up till the age of 3 years or less although they regularly visit primary health care workers for medical checkups.³ A large number of dental auxiliary personnel are required for providing primary oral health amenities.⁴

Nowadays, nurses constitutes major portion of primary health care providers.⁵ They are easily accessible in providing oral health care among expecting mothers and toddlers during their medical visits.⁶

Integrating oral health care with the present staff duties may help in generating cost effective preventive care. To improve health care providers' knowledge and attitudes, collaboration between regular health care and oral health care has to be included in health care education so as to provide appropriate guidance when necessary.⁷

The aim of the present study was to assess the knowledge, attitude & behaviour of nurses regarding oral health care. Therefore, the nurses can be effectively employed to promote dental & oral health awareness. This provides an opportunity to integrate oral health promotion and care.⁸

METHOD

Study design:- A cross sectional study was carried out among 200 nurses working in MM institutional hospital. The survey was voluntary and responses were kept anonymous.

Questionnaire design:- A questionnaire^{6,7} comprising of 15 questions were given to all nurses who were willing to participate. All the

questions were in both English and Hindi.

The questions consisted of information and knowledge on teeth eruption, their importance, Early Childhood Caries and infant's oral health amongst the nurses.

The questions regarding knowledge comprised of information attained by the participants through experience or education. The questions involving attitude was related by mind's predisposition to certain ideas and information, whereas the questions based on the behavior involved actual expression or action taken by the participants with respect to those ideas or information obtained.

Knowledge questions:- This domain consisted of questions concerning general information regarding teeth and oral health, dental caries and its prevention and scoring was based on true/don't know/false.

Attitude questions:- This domain consisted of 4 questions inquiring about their perception towards importance of deciduous teeth & oral health and prevention with the options of strongly agree, agree or disagree.

Behaviour questions:- It consisted of 4 questions inquiring about their practice of recommending their knowledge about oral health care to the parents with choice of always, sometimes & never.

STATISTICAL ANALYSIS

The entire data were analysed statistically using Statistical Package for Social Sciences version 17. The relationship between knowledge and attitude & knowledge and behavior was compared using Chi- square test. Correlation was significant at the 0.01 level.

RESULTS

The reliability of the questionnaire was checked using Cronbach's Alpha test. The overall coefficient was 0.82. A minimum coefficient between 0.65 and 0.8 (or higher in many cases) is recommended.

Knowledge

Data collected regarding knowledge among the nurses gave a mixed

review. About 59% of nurses reported adequate knowledge about oral health. Only 46% of nurses had knowledge that proper maintenances of deciduous dentition is as important as permanent dentition. Only 44% of nurses had knowledge that drinking milk from glass is less risk for caries development. (Table 1)

Attitude

Majority of the nurses showed positive attitude towards their role in preventive OHC and 88% of nurses agreed on obtaining more training in oral health & its prevention. However, there were few answers

which need to be observed. About 67% feel that milk teeth does not require care as they will fall out.(Table 1)

Behaviour

98% of the nurses recommended pregnant mothers & child patients for dental visits. 89% counselled patients regarding importance of milk tooth.(Table1)

The study revealed there was positive correlation between both knowledge attitude & knowledge behavior.(Table 2)

Table 1

Knowledge questions	True	Don't know	False
1.The first baby tooth appear in the child's mouth by 6 months.	152(76%)	38(19%)	10(5%)
2. Putting child to sleep immediately after giving milk or juice increases the risk for caries.	108(54%)	66(33%)	26(13%)
3. Consuming sugar-containing food & Poor oral hygiene are most important reasons for dental caries.	162(81%)	32(16%)	6(3%)
4. Fluoride in toothpaste is important for preventing tooth decay.	104(52%)	48(24%)	48(24%)
5.Cleaning the baby's mouth after each food should begin even before teeth erupt.	122(61%)	48(24%)	30(15%)
6. Proper maintenance of deciduous dentition is as important as the permanent dentition.	92(46%)	72(36%)	36(18%)
7. Drinking milk from glass is less risk for developing caries than drinking from bottle with nipple.	88(44%)	66(33%)	46(23%)
Nurses' attitude towards oral health care	Strongly agree	Agree	Disagree
1. Milk teeth does not require care because they will fall out.	100(50%)	34(17%)	66(33%)
2. Educating parents is important in preventing caries in children.	108(54%)	82(41%)	10(5%)
3. Do you consider treatment in the oral cavity as much important as treatment in other parts of the body?	126(63%)	52(26%)	22(11%)
4. I would like to obtain more training in oral health and its prevention.	98(49%)	78(39%)	24(12%)
Respondents behavior toward oral health care	Always	Sometimes	Never
1.Do you recommend pregnant mothers and child patients for dental visits?	132(66%)	64(32%)	14(7%)
2.Do you counsel the patients regarding importance of milk tooth?	96(48%)	82(41%)	22(11%)
3.Do you inform about the dental ill effects of formula milk to your patients?	106(53%)	58(29%)	36(18%)
4.Do you visit dentist every 6 months?	112(56%)	34(17%)	54(27%)

Table 2

CORRELATION					
Speaman's rho	Knowledge	Correlation coefficient	100	205	270
		sig.(2-tailed)	-	.004	.000
		N	200	200	200
	Attitude	Correlation coefficient	0.205**	1.000	.454**
		sig.(2-tailed)	.004	.	.000
		N	200	200	200
	Behaviour	Correlation coefficient	.270**	.454**	1.000
		sig.(2-tailed)	.000	.000	.
		N	200	200	200

** Correlation is Significant at the 0.01 level (2- tiles)

DISCUSSION

Medical and paramedical faculty including Physicians, Nurses, nurse practitioners(NPs), and health educators are far more likely to come across under served and vulnerable populations including expectant mothers, infants and toddlers than dental practitioners.⁹ Children often visits hospitals and primary health care centres during early phase of life for vaccinations and routine medical check-ups. Therefore, increasing nurses' awareness and knowledge regarding oral health care in general can increase their skills in providing oral health care among children and parents.¹⁰

The present study revealed that about 59% of nurses reported adequate knowledge about oral health. But, their knowledge in terms of details was lacking. However, according to Ahmed F et al in 2018 only 30% of nurses had knowledge regarding dental caries among children.⁷

Majority of nurses(88%) are interested in obtaining more training in Oral health care regarding children, thus the same needs to be added in their curriculum to enhance their ability to provide oral health care. Similar attitude(80%) towards introducing oral health teaching among nursing students was showed by a study conducted by Mohamed N et al in 2015.¹¹

Also, Rwakatemala DS et al in 2015 reported that 69 % of nurses showed willingness towards accepting more knowledge regarding oral health.¹¹ Another study by Rabiei S et al in 2014 showed that 69% of nurses were willing to learn more about Oral health care.⁶

Golinveaux J et al in 2013 reported that 83% of Pediatric nurses incorporated oral examinations into their routine well-child visits in the post-intervention survey.¹³

Similarly, Wardh I et al in 2012 showed that 89% individuals reported oral health care as an important part of good nursing and 35% said that they had no proper learning regarding oral health care.¹⁴

The results in the present study showed that there was a positive correlation between knowledge and attitude & knowledge and behaviour.

According to Hahn et al in 2012, courses regarding oral health care proved efficacy both on undergraduate or postgraduate training.¹⁵ Thus, oral dental health knowledge and structured training must be recommended in the curriculum of nursing students to enhance preventive and curative health care.

CONCLUSION

The present study revealed adequate knowledge among nurses on children's oral health care. However, the nurses were not acquainted with dental specialties. Though, their acceptance on delivery of oral health care indicates essential demand for proper training and encouragement on oral health promotion.

REFERENCES

- Bradbury-Jones C, Innes N, Evans D, Ballantyne F, Taylor J. Dental neglect as a marker of broader neglect: a qualitative investigation of public health nurses' assessments of oral health in preschool children. BMC Public Health. 2013 Apr 19;13:370.
- Kumari NR1, Sheela S, Sarada PN. Knowledge and attitude on infant oral health among graduating medical students in Kerala. J Indian Soc Pedod Prev Dent. 2006 Dec;24(4):173-6.

3. Wendt LK, Carlsson E, Hallonsten AL, Birkhed D: Early dental caries risk assessment and prevention in pre-school children: evaluation of a new strategy for dental care in a field study. *Acta Odontol Scand*. 2001 Oct;59(5):261-6.
4. Tandon S. Challenges to the oral health workforce in India. *J Dent Educ*. 2004 Jul;68(7 Suppl):28-33.
5. Institute of Medicine, *The Future of Nursing: Leading Change, Advancing Health*, vol. The National Academies Press, Washington, DC, USA, 2011.
6. Rabiei S, Mohebbi SZ, Yazdani R, Virtanen JI. Primary care nurses' awareness of and willingness to perform children's oral health care. *BMC Oral Health*. 2014 Mar 26;14:26.
7. Ahmed F, Rao A, Shenoy R, Suprabha BS. Knowledge, attitude, and behavior of nurses toward delivery of Primary Oral Health Care in Dakshina Kannada, India. *J Indian Soc Pedod Prev Dent*. 2018 Jan-Mar;36(1):21-25.
8. Oyetola EO, Oyewole T, Adedigba M, Aregbesola ST, Umezudike K, Adewale A. Knowledge and awareness of medical doctors, medical students and nurses about dentistry in Nigeria. *Pan Afr Med J*. 2016 Apr 7;23:172.
9. Fawcett-Henesy A. *Community Health Needs Assessment—An Introductory Guide for the Family Health Nurse in Europe—Part 1: A Pack for Practitioners—Part 2: A Pack for Trainers*, World Health Organization Regional Office for Europe, Copenhagen, Denmark, 2001.
10. American Association of Colleges of Nursing (AACN), *Nurse Practitioners: The Growing Solution in Health Care Delivery*.
11. Mohamed N, Barnes J. Knowledge, Attitudes and Practices (Kap) Regarding Early Childhood Caries among Nurses Working in a Low Socio-Economic Area. *Arch Community Med Public Health*. 2015 1(1), 1-5.
12. Rwakatema DS, Ananduni KN, Katiti VW, Msuya M, Chugulu J, Kapanda G. Oral health in nursing students at Kilimanjaro Christian Medical Centre teaching hospital in Moshi, Tanzania. *BMC Oral Health*. 2015 Feb 20;15:23.
13. Golinveaux J, Gerbert B, Cheng J, Duderstadt K, Alkon A, Mullen S. Oral health education for pediatric nurse practitioner students. *J Dent Educ*. 2013 May;77(5).
14. Wardh I, Jonsson M, Wikstrom M. Attitudes to and knowledge about oral health care among nursing home personnel—an area in need of improvement. *Gerodontology*. 2012 Jun;29(2):e787-92.
15. Hahn JE, Fitzgerald L, Markham YK, Glassman P, Guenther N. Infusing Oral Health Care into Nursing Curriculum: Addressing Preventive Health in Aging and Disability. *Nurs Res Pract*. 2012;2012:157874.