



**“A COMPARATIVE STUDY TO ASSESS THE LEVEL OF KNOWLEDGE REGARDING EARLY CHILDHOOD CARIES AMONG WORKING AND NON WORKING MOTHERS OF 1-5 YEARS OF CHILDREN IN SELECTED AREAS, BANGALORE.**

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**ABSTRACT**

*Early childhood caries is the most common chronic disease in young children and may develop as soon as teeth erupt. Parents' literacy in oral health is an important factor contributing to the overall health of children. Parental knowledge about infant oral health was found to be lacking in the study. The factors associated with decreased knowledge among primary caregivers of children include low socioeconomic status, lack of further education, and high caries status in the children. However, oral health specific self-efficacy and knowledge measures are potentially modifiable cognitions and interventions can lead to healthy dental habits. **Objectives:** 1. to assess the level of knowledge of working and non-working mothers of 1-5 years of children. 2. To compare the level of knowledge of working and non-working mothers of 1-5 years of children. 3. To associate the level of knowledge of working and nonworking mothers of 1-5 years of children with their selected demographic variables. **Methods:** A descriptive design with quantitative approach was used for the study. Data were collected by structured questionnaire from 60 working and nonworking mothers. The collected data were analyzed by using descriptive and inferential statistics **Result:** 98.3% of working and non-working mothers have moderate knowledge about early childhood caries. 1.7% of working mothers have adequate knowledge where as 1.7% non-working mothers have inadequate knowledge. 57.82% of working mothers and 47.82% of non-working mothers have adequate knowledge about early childhood caries. The result shows that there is a significant association between the working mothers level of knowledge with selected demographic variables such as age  $\chi^2 = 5.00(s)$ ; type of family  $\chi^2 = 7.88$ ; monthly family income  $\chi^2 = 7.85$ ; limitation of sweet consumption  $\chi^2 = 5.65$  and there is no significant association between the non-working mothers level of knowledge with demographic variables. **Conclusion:** Finding of the study showed that working mothers have more knowledge than non-working mothers.*

**Keywords :** Early childhood caries, Working mothers, Non-working mothers

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**INTRODUCTION**

Pediatric oral health is steadily declining due to cognitive and environmental factors that create poor oral health behaviors. While the oral health of the nation as a whole is improving, tooth decay

among children between the ages of 1 to 5 is increasing. Early Childhood Caries (ECC), is the most common chronic disease of childhood, five times more likely than asthma and seven times more likely than hay fever (U.S. Department of Health and Human Services [USDHHS], 2007). Early childhood caries (ECC) is a syndrome characterized by severe decay in the teeth of an infants or young children which is also known as **baby bottle caries, baby bottle tooth decay and bottle rot**. Early childhood caries is a very common bacterial infections caused by frequent, long exposure to liquids containing sugars. More often, the upper four teeth are affected. This problem is caused by the baby or the child falling asleep while drinking a bottle or while breast feeding. The sugar liquid from the milk or juice pools around the teeth and reacts with the bacteria in the child's mouth causing tooth decay.

## **OBJECTIVES**

1. To assess the level of knowledge of working and non-working mothers of 1-5 years of children.
2. To compare the level of knowledge of working and non-working mothers of 1-5 years of children.
3. To associate the level of knowledge of working and nonworking mothers of 1-5 years of children with their selected demographic variables.

## **MATERIAL AND METHODS**

A descriptive design with quantitative approach was used for this study with the aim of assessing the level of knowledgeregarding early childhood caries among working and non-working mothers of 1-5 years of children.

Which helps to provide factual information about the existing phenomena. It is also helps to study the current status of mother's knowledge on ECC, thereby, the health care providers can focus on existing phenomena to bring changes in the under-five health.

The tool used in this study was closed ended questionnaire. Questionnaire consists of 2 sections; Section A and Section B. **Section A** includes 14 demographic variables such as age, education, working status, type of family, Area of residence, monthly family income, religion, age of the child, tooth brush habit of the child, parental assistance during tooth brushing, date of child's last dental appointment, limitation of sweet consumption, history of early childhood caries, previous knowledge about early childhood caries, source of information. **Section B**, consists of questions related to meaning, causes, types, signs and symptoms, complications, treatment and prevention of early childhood caries. It consists of 36 questions. Each question has one correct answer and it carries one mark. Question 1- 5 related to general questions, 6-9 is related to early childhood caries,10-13 is about the causes,14- 16 is related to types of early childhood caries, 17- 20 is about the symptoms, 21- 23 is related to complications, 24-25 is about the treatment and 26-36 is about the preventive measures.

### **Descriptive statistics**

Frequency and percentage was used to assess the demographic characteristics of working and non-working mothers of 1-5 years of children.

Mean, standard deviation and range are used to assess the knowledge regarding early childhood caries in working and non-working mothers of 1-5 years of children.

**Inferential statistics:**

Unpaired t test are used to compare mean score of knowledge regarding early childhood caries among working and non-working mothers of 1-5 years of children

Chi-square test and correlation are used to find association between the level of knowledge of working and non-working mothers of 1-5 years of children with their selected demographic variables.

**Association of the level of knowledge of working mothers of 1-5 years children with demographic variables**

| Demographic variables       | No | %    | Level of Knowledge |      |              |          | Chi square                   |
|-----------------------------|----|------|--------------------|------|--------------|----------|------------------------------|
|                             |    |      | < Median (21)      |      | ≥ Median(21) |          |                              |
|                             |    |      | No                 | %    | No           | %        |                              |
| <b>Age (In Years)</b>       |    |      |                    |      |              |          |                              |
| a. 21-30 yrs                | 25 | 41.7 | 8                  | 32   | 17           | 68       | <b>5.004*</b><br>1df S       |
| b. 31-40 yrs                | 26 | 43.3 | 11                 | 42.3 | 15           | 57.7     |                              |
| c. 41-50 yrs                | 9  | 15   | 6                  | 66.7 | 3            | 33.3     |                              |
| <b>Education</b>            |    |      |                    |      |              |          |                              |
| a. Primary Education        | 9  | 15   | 4                  | 20   | 3            | 8.5      | 9.466891<br>4df<br>NS        |
| b. Secondary Education      | 8  | 13.3 | 3                  | 12   | 5            | 14.2     |                              |
| c. PUC                      | 14 | 23.3 | 2                  | 12   | 12           | 34.2     |                              |
| d. Under graduate           | 17 | 28.3 | 11                 | 44   | 6            | 17       |                              |
| e. Post graduate            | 12 | 20   | 3                  | 12   | 9            | 25.7     |                              |
| <b>Income</b>               |    |      |                    |      |              |          |                              |
| a. Less than 10,000         | 27 | 45   | 7                  | 28   | 20           | 57.14286 | <b>7.855926</b><br>3df<br>S* |
| b. 10000-150000             | 19 | 31.7 | 8                  | 32   | 11           | 31.42857 |                              |
| c. 15000-20000              | 14 | 23.3 | 10                 | 40   | 4            | 11.42857 |                              |
| <b>Limitation of Sweets</b> |    |      |                    |      |              |          |                              |
| Yes                         | 23 | 38.3 | 14                 | 60.9 | 9            | 39.1     | <b>5.659*</b><br>1df S       |
| No                          | 37 | 61.7 | 11                 | 29.7 | 26           | 70.3     |                              |
| <b>Child having ECC</b>     |    |      |                    |      |              |          |                              |
| Yes                         | 21 | 35   | 7                  | 33.3 | 14           | 66.7     | .923<br>1df NS               |
| No                          | 39 | 65   | 18                 | 46.2 | 21           | 53.8     |                              |
| <b>Previous Knowledge</b>   |    |      |                    |      |              |          |                              |
| Yes                         | 47 | 78.3 | 21                 | 44.7 | 26           | 55.3     | .339<br>1df NS               |
| No                          | 13 | 21.7 | 4                  | 30.8 | 9            | 69.2     |                              |

**Note:** S- significant at 5% level (ie.,  $p < 0.05$ ); NS- not significant at 5% level (ie.,  $p > 0.05$ ).

**Association of the level of knowledge of nonworking mothers of 1-5 years children with demographic variables.**

| Demographic variables | No | % | Level of Knowledge |   |              |   | Chi square |
|-----------------------|----|---|--------------------|---|--------------|---|------------|
|                       |    |   | < Median (21)      |   | ≥ Median(21) |   |            |
|                       |    |   | No                 | % | No           | % |            |

|                                     |    |      |    |        |    |        |                               |
|-------------------------------------|----|------|----|--------|----|--------|-------------------------------|
| <b>1. Age (In Years)</b>            |    |      |    |        |    |        |                               |
| a. 21-30 yrs                        | 26 | 43.3 | 9  | 34.6   | 17 | 65.4   | .448<br>2df Ns                |
| b. 31-40 yrs                        | 23 | 38.3 | 8  | 34.8   | 15 | 65.2   |                               |
| c. 41-50 yrs                        | 11 | 18.3 | 5  | 45.5   | 6  | 65.2   |                               |
| <b>Education</b>                    |    |      |    |        |    |        |                               |
| a. Primary Education                | 14 | 23.3 | 5  | 22.727 | 9  | 23.684 | <b>0.82</b><br>3df NS         |
| b. Secondary Education              | 23 | 38.3 | 7  | 31.818 | 16 | 42.105 |                               |
| c. PUC                              | 15 | 25   | 6  | 31.818 | 9  | 23.684 |                               |
| d. Under graduate                   | 8  | 13.3 | 4  | 13.636 | 4  | 10.526 |                               |
| e. Post graduate                    | 0  | 0    | 0  | 0      | 0  | 0      |                               |
| <b>Area of residence</b>            |    |      |    |        |    |        |                               |
| a. Rural                            | 0  | 0    | 0  | 0      | 0  | 0      | 0                             |
| b. Urban                            | 60 | 100  | 22 | 100    | 38 | 100    | 1df Ns                        |
| <b>Limitation of Sweets</b>         |    |      |    |        |    |        |                               |
| Yes                                 | 20 | 33.3 | 6  | 30     | 14 | 70     | <b>0.574</b><br><b>1df Ns</b> |
| No                                  | 40 | 66.7 | 16 | 40     | 24 | 60     |                               |
| <b>Child having ECC</b>             |    |      |    |        |    |        |                               |
| Yes                                 | 34 | 56.7 | 13 | 38.2   | 21 | 61.8   | 0.083                         |
| No                                  | 26 | 43.3 | 9  | 34.6   | 17 | 65.4   | 1df Ns                        |
| <b>Previous Knowledge about ECC</b> |    |      |    |        |    |        |                               |
| Yes                                 | 44 | 73.3 | 16 | 36.4   | 28 | 63.6   | 0.007                         |
| No                                  | 16 | 26.7 | 6  | 37.5   | 10 | 62.5   | 1df Ns                        |

**Note:** S- significant at 5% level (ie.,  $p < 0.05$ ); NS- not significant at 5% level (ie.,  $p > 0.05$ ).

## RESULTS AND DISCUSSION

The result shows that there is a significant association between the working mothers level of knowledge with selected demographic variables such as age  $\chi^2 = 5.00$ (s); type of family  $\chi^2 = 7.88$ ; monthly family income  $\chi^2 = 7.85$ ; limitation of sweet consumption  $\chi^2 = 5.65$  at 0.001 level and there is no significant association between the non-working mothers level of knowledge with demographic variables

The above findings was supported by a study conducted on the prevalence of early childhood caries among preschool children Hubli, Karnataka. A sample of 1500 children between the age group of 3-5 years was taken. Result shows that the prevalence was 54.1%. The difference in the carious prevalence was significant ( $< 0.05$ ) between the age groups of 3-4 years and 4 and 5 years, and highly significant ( $< 0.001$ ) between the age groups of 3 and 5 years. The confidence interval for the surveyed group with respect to prevalence of caries varied from 38-48%, 45-57% and 57-64% for age groups 3, 4 and 5 years respectively. The attitude of mothers towards children's oral health made a statistical difference in the mean level.

## CONCLUSION

This study is mainly aimed to find out the level of knowledge on ECC among working and nonworking mothers of 1-5 years of age children, since the parents are primary care giver and majority of the health issues are preventable in nature, the mothers are given primary focus, thereby, aimed to uplift the level of knowledge by providing information booklets and awareness creation among risk group.

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