

ABSTRACT

Congenital heart disease (CHD) is one of the most common developmental anomalies present at birth. It occurs in approximately 8 of 1000 live births. In recent years, with the advances in medical and surgical fields, there is an increase in survival of these children and most of them live until adulthood. The affected children need special care in dentistry as they are susceptible to dental diseases and infective endocarditis. Therefore, good oral health knowledge and practices should be maintained from childhood and appropriate utilization of oral health care is very important in this special group of children with CHD.

The main purpose of this study was to describe the knowledge, practices and utilization pattern of oral healthcare services among parents of 2-6 year old children with congenital heart diseases, attending the Cardiology Clinic at Lady Ridgeway Hospital.

This is a cross sectional, descriptive, hospital based study on parents having children with congenital heart disease who are presented to the cardiology clinic at Lady Ridgeway Hospital in Sri Lanka. A sample of 422 parent-child pairs with CHD who were attending the cardiology clinic at LRH was selected as the study population. The study was carried out for 2 months at the cardiology clinic, on all consecutive clinic days. All the members of the study population who fulfilled the inclusion criteria were studied instead of a particular "selective" sample. Only the patients who came under the exclusion criteria and non-consenters were excluded from the study. A pre-tested interviewer administered questionnaire was used to collect data.

It was revealed that children from all over the country are presented to the clinic at LRH. However, the majority was from the Western Province and the mean age of the children with CHD was 4.3 yrs. The parents of the concerned majority had an income less than Rs20, 000/-. More than 70% of fathers and more than 80% of mothers were educated up to O/L or above. Around 70% of the fathers were in the skilled worker, or lower, occupational category. Eighty four percent of the mothers were unemployed.

Among respondents, 109 (25.8%) had poor knowledge with regard to basic oral health care. However, 92% of the parents knew the harmful effects of sugar, 92% thought that poor oral hygiene may induce tooth decay, 65% knew the correct initiation time of brushing and 79% of the respondents were knowledgeable on protective effects of fluoride. Only 40% of the mothers had knowledge of early identification of tooth decay.

The specific knowledge of the relationship of oral health and CHD was assessed. Out of the total respondents, 53.1% (n= 224) did not know that there is a relationship between poor oral hygiene and complications of CHD. Among those who knew the relationship between poor oral health and CHD, 48% have received information from the doctor at the cardiology clinic. Most importantly, in the present study, only 29.1% out of 422 respondents have received instructions on the necessity of disclosing their child's heart problem prior to any dental procedure.

There was a statistically significant association between basic oral health knowledge and ethnicity (P=0.002), parental education (P=0.000) and monthly income (p=0.002).

Where the oral health related practices are concerned, more than 95% of children with CHD brush their teeth two or more times a day using a tooth brush and 75% use fluoridated tooth paste. Where sugar consumption is concerned, a majority of 91% add less sugar to their child's feeds. The proportion of parents who give sweets very often is around 16 %.

There was a statistically significant association between parental knowledge and the use of fluoridated tooth paste. (P=0.02) and also the income with tooth pastes used (P=0.034). A similar statistically significant association was seen between the frequency of sugar consumption and ethnicity. (P=0.007).

Out of the total respondents n=422, 51%, had visited a dentist and 49 % had never visited a dentist with their children. A majority of 69%, who have not attended oral health care services thought their child's oral health was good. From the respondents who have visited a dental clinic, 56 % have done so following an oral health problem of their child. Only 19% has visited following advice given by a doctor. Seventy three percent of the attendances have utilized oral health services within the last year. The Government sector was the most popular oral health care service utilized to get dental treatment (55%). An important finding is that among those who utilized the services, only 58.3% had informed the dentist that their child was having a heart problem. According to the results, there are gaps in basic and specific oral health related knowledge related to CHD among the parents, thereby resulting in poor oral health of these children which can give rise to frequent bacteraemia under physiological conditions. Therefore the main focus should be on oral hygiene instructions, dietary counseling, appropriate use of fluoride and creating awareness of infective endocarditis. Also proper dental referral and periodic follow up of these children is important.

Key words: Congenital heart disease, Oral health, Parental knowledge and practices, Utilization