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Original Research

To find the prevalence and distribution of the incidence of dental caries according to GV Black classification in MBBS & BDS students of Universal College of Medical Sciences, Nepal

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***ABSTRACT*:**
Background: Dental caries is a common public health problem associated with poor oral hygiene, dietary and dental visit habits. The aim of the present study was conducted to find the prevalence and distribution of the incidence of dental caries according to GV Black classification in MBBS & BDS students of Universal College of Medical Sciences, Nepal. **Material and methods:** A cross-sectional study was conducted among 80 MBBS and 80 BDS students according to GV Black classification to describe the site of caries was conducted during june 2019 among preschool children. in Universal College of Medical Sciences, Bhairahawa, Nepal.All the student of UCMS (MBBS and BDS) were selected on the basis of complete enumeration system.Participant of age group 18-30 years were included in the study.Participants above 30 years, who are not interested to participate in the survey, edentulous arch and student absent during the survey were excluded from the study.A diagnostic criteria for clinical examination was followed in which caries was detected according to WHO criteria. GV Black classification was used to describe the site of caries.Data was analysed using SPSS 20 & descriptive statistics. **Results:** In our study a total sample of 80 MBBS and 80 BDS student were included of age group 18-30 years.In MBBS students 50 were male and 30 were female. In BDS students 45 were male and 35 were female. MBBS students of age group 18-24 years were 56(70%) and 25-30 years were 24(30%). In MBBS students Class 1 lesions were present in 32(40%), class 2 were present in 25(31.25%), class 3 were present in 15(18.75%), class 4 were present in 7(8.75%) and class 5 were present in 1(1.25%). BDS students age group of 18-24 were 43(53.75%) and 25-30 years were 37(46.25%). In BDS students Class 1 lesions were present in 27 (33.75%), class 2 were present in 33(41.25%), class 3 were present in 11(13.75%), class 4 were present in 9(11.25%) and class 5 were present in 0(0%). **Conclusion:** Our study concluded that there is a need to increase the knowledge of medical and students on dental caries especially in the etiology and prevention of dental caries. We recommend that undergraduate medical curriculum should also emphasize on oral health topics of public health importance like dental caries and its prevention.
Key words:dental caries, GV Black classification, lesions.

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INTRODUCTION:

Dental diseases have afflicted humanity since the dawn of recorded history. Dental caries is one of the most common of all chronic diseases. It may be considered a disease of modern civilization since prehistoric man was rarely affected from dental caries. The changing lifestyle and dietary patterns are markedly increasing the caries incidence. Although sucrose has been indicated as the "arch criminal" in the etiology of caries, the concept of multifactorial disease became more acceptable.[1,2] Dental caries is a widely prevalent disease world-wide. According to Global Oral Health Data Bank, prevalence varies from 49% to 83% across different countries.[3] Dental caries is still a smoldering disease in the developing countries like India that has engrossed its tentacles deep into the regions where the resources are inadequate for dental treatment, lack of public awareness, and motivation with increased intake of carbohydrates.[4,5] Low income, poor oral hygiene, mother's schooling and fluorosis, enamel defects, various measures of low socioeconomic status, low level of parental education and cariogenic diet, all affect caries risk.[6,7] The aim of the present study was conducted to find the prevalence and distribution of the incidence of dental caries according to GV Black classification in MBBS & BDS students of Universal College of Medical Sciences, Nepal.

MATERIAL AND METHODS:

Type of study: A cross-sectional study was conducted among 80 MBBS and 80 BDS students according to GV Black classification to describe the site of caries was conducted during june 2019 among preschool childrenin Universal College of Medical Sciences, Bhairahawa, Nepal. Before the commencement of study approval was taken from Ethical Committee. All the student of UCMS (MBBS and BDS) were selected on the basis of complete enumeration system.Participant of age group 18-30 years were included in the study.Students above 30 years, who were not interested to participate in the study, edentulous arch and student absent during the study was excluded from the study.A diagnostic criteria for clinical examination was followed in which caries was detected according to WHO criteria. GV Black classification was used to describe the site of caries.

GV Back classification as follows:

1. Class I- including occlusal surface, buccal & lingual pits of posterior teeth & lingual pits of posterior teeth and lingual surface of anterior teeth.
2. Class II: include proximal surface of posterior teeth that do not include the incisal edge.
3. Class III- proximal surface of anterior teeth that do not include the incisal edge.
4. Class IV- involving the proximal surface of anterior teeth that include the incisal edge.
5. Class V-involving the gingival third of facial or lingual surface of all the teeth.

Data was analysed using SPSS 20 & descriptive statistics.

RESULTS:

In our study a total sample of 80 MBBS and 80 BDS student were included of age group 18-30 years.In MBBS students 50 were male and 30 were female. In BDS students 45 were male and 35 were female. MBBS students of age group 18-24 years were 56(70%) and 25-30 years were 24(30%). In MBBS students Class 1 lesions were present in 32(40%), class 2 were present in 25(31.25%), class 3 were present in 15(18.75%), class 4 were present in 7(8.75%) and class 5 were present in 1(1.25%). BDS students age group of 18-24 were 43(53.75%) and 25-30 years were 37(46.25%). In BDS students Class 1 lesions were present in 27 (33.75%), class 2 were present in 33(41.25%), class 3 were present in 11(13.75%), class 4 were present in 9(11.25%) and class 5 were present in 0(0%).

Chart 1: Distribution of MBBS students according to gender

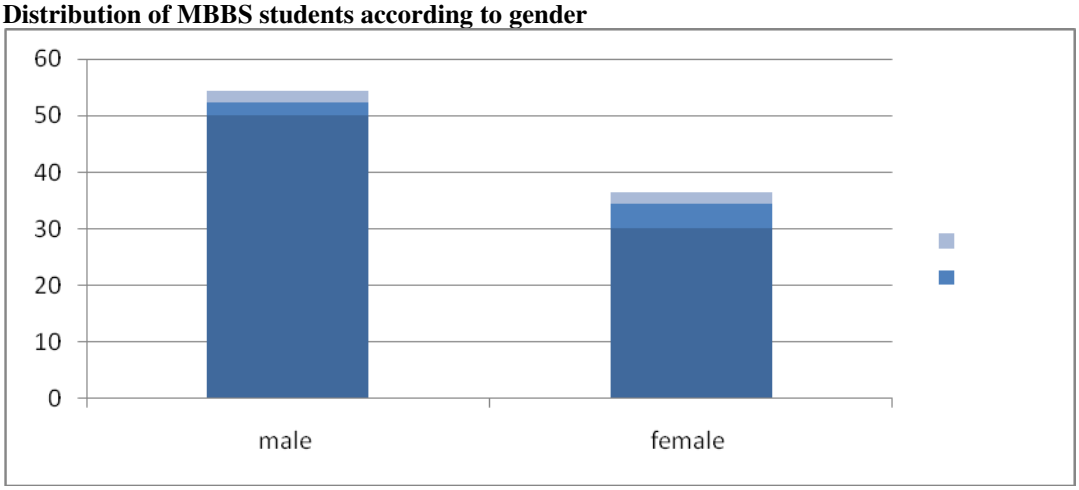

Chart2: Distribution of BDS students according to gender

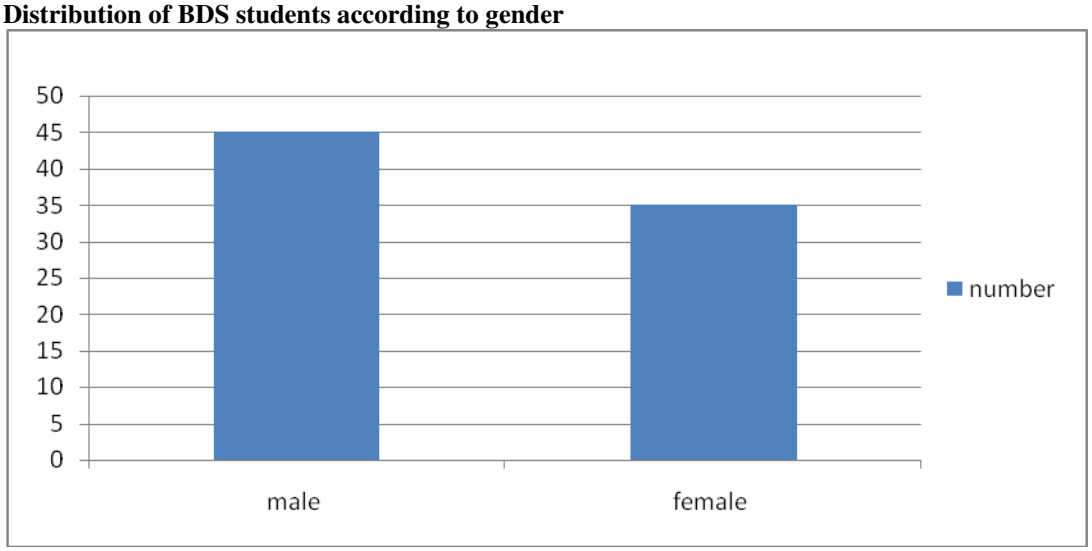

Table 1: Prevalence of dental caries according to age group among MBBS students

Age group	No. Of MBBS students (%)
18-24	**56(70%)**
25-30	**24(30%)**

Table 2: Prevelance and distribution of incidence of dental caries among MBBS students.

GV Black classification	No. of MBBS students (%)
Class 1	**32(40%)**
Class 2	**25(31.25%)**
Class 3	**15(18.75%)**
Class 4	**7(8.75%)**
Class 5	**1(1.25%)**

Table 3: Prevalence of dental caries according to age group among BDS students

Age group	No. Of BDS students (%)
18-24	43 (53.75%)
25-30	37(46.25%)

Table 4: Prevelance and distribution of incidence of dental caries among BDS students.

GV Black classification	No. of BDS students (%)
Class 1	27(33.75%)
Class 2	33(41.25%)
Class 3	11(13.75%)
Class 4	9(11.25%)
Class 5	0(0%)

DISCUSSION:

The prevalence of dental caries was higher in primary dentition when compared to permanent dentition, respectively.[8,9] This could be attributed to the fact permanent teeth have a lower susceptibility to dental caries. It may also be because children of 12 years of age had just finished to change dentition. It could also be due to the lower calcium content of deciduous teeth and structural differences that may increase caries susceptibility in deciduous teeth.[10]

In our study a total sample of 80 MBBS and 80 BDS student were included of age group 18-30 years. In MBBS students 50 were male and 30 were female. In BDS students 45 were male and 35 were female.MBBS students of age group 18-24 years were 56(70%) and 25-30 years were 24(30%). In MBBS students Class 1 lesions were present in 32(40%), class 2 were present in 25(31.25%), class 3 were present in 15(18.75%), class 4 were present in 7(8.75%) and class 5 were present in 1(1.25%). BDS student's age group of 18-24 were 43(53.75%) and 25-30 years were 37(46.25%). In BDS students Class 1 lesions were present in 27 (33.75%), class 2 were present in 33(41.25%), class 3 were present in 11(13.75%), class 4 were present in 9(11.25%) and class 5 were present in 0(0%).

In oral health behavior, even in the freshmen, approximately 90% of students brushed their teeth at least twice a day, which was much higher than the ratio of 36.1% of middle-aged people revealed in the fourth national survey of China[11] and even higher than those of dental students in other four Asian countries[12] indicating that, to some extent, the oral health behavior of China's new generation was improving compared to their elders. We also found that dental participants performed better than the medical in oral health knowledge, such as questions with regard to the influence of plaque, measures that prevent oral diseases and systemic diseases that may be related to oral diseases, and the result was similar to previous studies, which suggested that dental students had more knowledge about oral health than others including medical student.[13,14]

CONCLUSION:

Our study concluded that there is a need to increase the knowledge of medical and students on dental caries especially in the etiology and prevention of dental caries. We recommend that undergraduate medical curriculum should also emphasize on oral health topics of public health importance like dental caries and its prevention.

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