

Prevalence of Oral Health Status and Oral Health Behaviour of Clinical Year Dental Students in a Private Institution in Chennai

D Khushi jain¹, 2Dr. Lalitha Rani Chellappa

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¹**D Khushi jain,**

Saveetha Dental college and Hospitals,
Saveetha Institute of Medical and Technical Sciences (SIMATS)
Saveetha University
Chennai - 600077.
E-mail: dkhushijain@gmail.com

Dr. Lalitha Rani Chellappa

Senior lecturer
Department of Public Health Dentistry ,
Saveetha Dental college and Hospitals,
Saveetha Institute of Medical and Technical Sciences (SIMATS)
Saveetha University
Chennai - 600077.
E-mail: lalithac.sdc.saveetha.com
Telephone: 8668052146

Corresponding author

Dr. Lalitha Rani Chellappa

Senior lecturer
Department of Public Health Dentistry ,
Saveetha Dental college and Hospitals,
Saveetha Institute of Medical and Technical Sciences (SIMATS)
Saveetha University
Chennai - 600077.
E-mail: lalithac.sdc.saveetha.com
Telephone: 8668052146

ABSTRACT:

BACKGROUND: Oral status that is free of disease which contributes to the normal functioning of the mouth. Oral health is an indispensable part of general health and plays an important role in overall health. Oral problems lead to the development of systematic disorders. Clinical year students have a virtue of their responsibility which plays a role in health promotion and preventive information. People's oral health is affected due to many factors including environment, social customs and health knowledge. The main aim of the study is to assess the oral health status and oral health behaviour of clinical year dental students.

MATERIALS AND METHODS: It is a cross sectional study which includes clinical year dental students. The data collection was done through a questionnaire survey and 110 responses in total were collected. A self administered

structured questionnaire consisting of 15 questions were asked. The questionnaire surveys were asked through google forms and statistical significance was set at 5%.

RESULTS: It is found that the clinical year dental students are aware about the oral health status and oral health behaviour. The dental students are the health professionals of the future, so they are expected to possess accurate oral health status and oral health behaviour. Majority of the dentist brushed twice a day and it was found statistically significant as p value <0.05. Also 60% of the dentists visit the dentist for regular checkups. Majority of the dental students replace their toothbrush within 2 months which is statistically significant as p value <0.05. This study was done to analyse the factors to develop the strategies which would improve students oral health status and behaviour. There is a positive outcome of oral health status and oral health behaviour among the dental students.

CONCLUSION: In this study, it is observed that oral health status and oral health behaviour among the dental students is positive but there is a lack of motivation among dental students to practise oral health habits. Thus the dental students are aware about the oral health status and oral health behaviour.

KEYWORDS: Oral health, oral behaviour, dental students, Innovative analysis.

RUNNING TITLE : Oral health status and oral health behaviour.

INTRODUCTION:

A good oral health is regarded as a fundamental human right and a healthy mouth is priceless and a unique treasure. Oral health status that is free of disease is traditionally defined as oral health which contributes to the normal functioning of the mouth (1). Oral health is an independent part of general health and plays an important role in overall health. It is said that there is a close association with the oral health disease and other diseases like diabetes, cardiovascular disease etc. oral problems also lead to the development of systematic disorders (2). The most prevalent problems that affect overall health are oral disease. The two major oral problems are dental caries and periodontitis which affects 60 and 36 percent of the people worldwide(3,4). Poor health behaviour, the risk for periodontal disease are the use of tobacco and diet. The clinical year students are more vulnerable to their oral health behaviour as they are the future role models and leaders in the society (5). The oral health attitudes and the oral health behaviour of the dental students is shaped by the interplay of the two major influencers. Societal norms and experience which are acquired before and after entering dental education(5,6).

It is said that oral health behaviour and attitude of the dental students is different in the pre clinical year and in the clinical year(7). The clinical year students have a virtue of their responsibility which plays a role in health promotion and preventive information. Therefore it is important for them to maintain their own health knowledge as it reflects their understanding(7,8). People's oral health behaviour is affected through many factors including environment, social customs and health knowledge. There is a trend towards standardization of oral health disease prevention in dentistry (9). Imparting knowledge about preventive and community dentistry has a strong influence on oral health behaviour and attitude (8).

Attitude towards oral health determines the condition of the oral cavity. The oral health providers and their attitude towards their oral health can affect their capacity to deliver oral health care and might affect the oral health of the patients (10). There aren't many previous reports about oral health knowledge and behaviour among dental students from chennai.(11–19),(20),(21),(22,23),(24),(25),(26–30)

Hence, this preset study is conducted about oral health status and oral health behaviour among clinical year dental students in a private dental institution.

MATERIALS AND METHODS:

STUDY DESIGN:

This cross sectional study is a part of the survey about the oral health behaviour and oral health status among clinical year dental students.

SURVEY INSTRUMENT:

A validated questionnaire was used to measure the oral health status and oral health behaviour of clinical year dental students.

SAMPLE SIZE:

The data collection was done through a questionnaire survey. Through the survey 110 responses were collected. The data collection was asked through google forms.

A self administered structured questionnaire consisting of 15 questions was done. The questionnaire consisted of information on oral health status and their oral health behaviour of the dental students. Data collected was subjected to statistical analysis and a chi square test was applied to compare the data collected between the dental students.

The questionnaire which were included are:

Age, gender, Do you use fluoride toothpaste-yes/no, Do you consider flossing as important as brushing- yes/no , Have you ever avoided sugary food or drinks for your dental hygiene- yes/no, Do you rinse your mouth after meal- yes/no, How many times do you visit your dentist- frequently/regularly, Ever had caries before- yes/no, Are you aware of your oral health- yes/no, How many times do you change your toothbrush- once a day/twice a day/more than 2 times, Have you ever got toothache- yes/no , How many times do you use toothpicks- once a day/twice a day/more than twice, Oral hygiene methods besides tooth brushing- dental

floss/mouthwash/sugar free chewing gum, Methods of tooth brushing- horizontal scrub/vertical scrub/irregular/modified bass technique.

INCLUSION AND EXCLUSION CRITERIA:

All those who were willing to participate were included in the study. Incomplete submissions were excluded from the study.

STATISTICAL ANALYSIS:

The responses from the google sheet was transferred into excel and was then exported to SPSS software, version 25. The data collected was done by chi square test between the dental students and level of significance was set at 5%.

ETHICAL ASPECT:

This study included those who agreed to the terms and informed consent. Ethical approval was granted for the study by an institutional research ethical committee.

RESULTS:

In total 110 responses were collected. The gender and age were matched and had no significant differences. The oral health status and the oral health behaviour have a few significant differences. The age group was divided between 18-20, 21-24 and above 23.

The usage of fluoride toothpaste among all the age groups was high. The p value was found to be 0.085(p value>0.05) which is statistically not significant. Most of the dental students avoided sugary food or drinks for their dental hygiene which is statistically significant as p value<0.05. Most of the dental students considered flossing as important as brushing and it is statistically significant as p value <0.05. The clinical year dental students brush their teeth twice a day and replace their toothbrush every 2 months which is found statistically significant as p value <0.05. The dental students visited their

dentists regularly which is significant. Oral hygiene methods besides tooth brushing, clinical year students considered mouth wash which is also significant(p value<0.05). For the methods of tooth brushing the dental students followed vertical scrubs and horizontal scrub. The p value was found to be significant as p <0.05

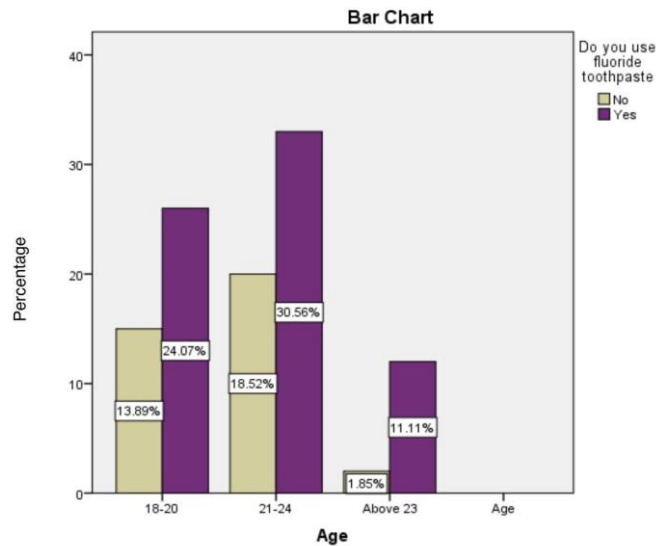


FIG 1 : The bar graph depicts the association between the age and the dental student who uses fluoride toothpaste. The X axis represents the age and the Y axis represents the percentage of responses. Purple represents the students who use fluoride toothpaste and yellow represents the students who do not use fluoride toothpaste. The age group 21-24 uses the highest fluoride toothpaste. Chi square test showed p value<0.05, it is statistically significant.

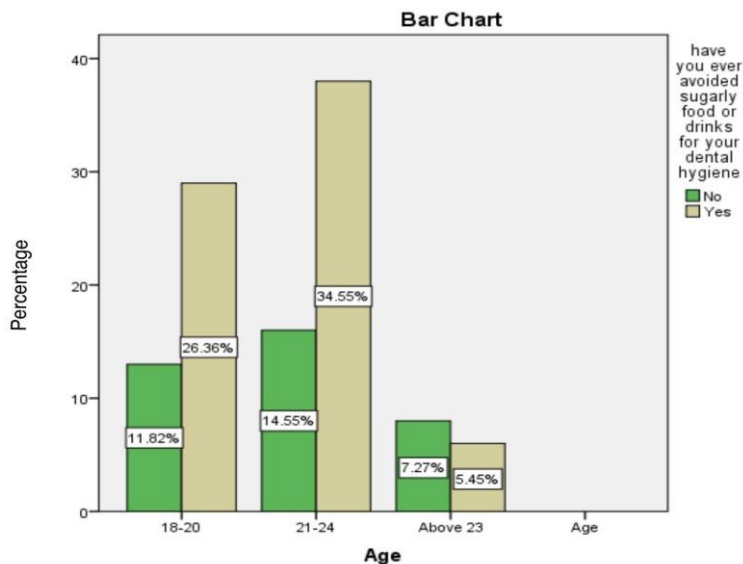


FIG 2 : The bar graph depicts the association between the age and the dental student who avoided sugary food or drinks for oral hygiene. The X axis represents the age and the Y axis represents the percentage of responses. yellow represents the students who avoided sugary drinks or food for oral hygiene and green represents the students who did not avoid sugary drinks. The age group 21-24 had avoided sugary drinks or food for their dental hygiene. Chi square test showed p value<0.05, it is statistically significant.

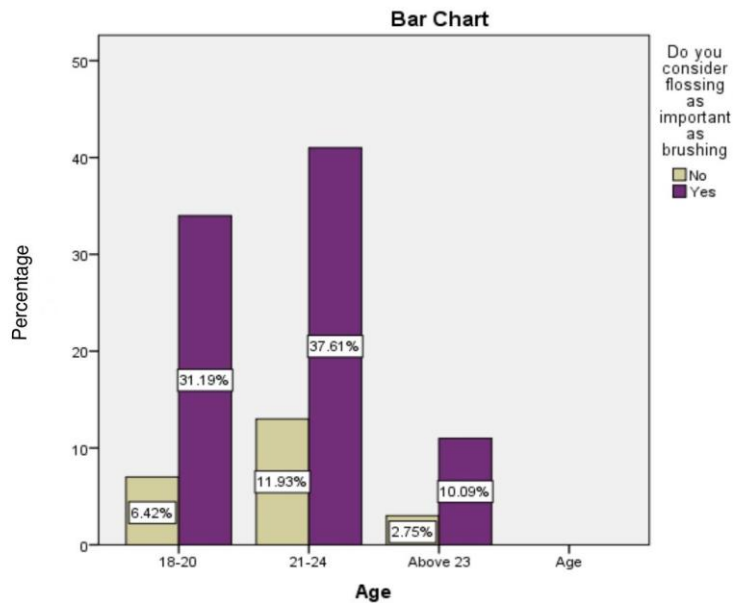


FIG 3 : The bar graph depicts the association between the age and the dental student who considered flossing as important as brushing. The X axis represents the age and the Y axis represents the percentage of responses. purple represents the students who considered flossing as important as brushing and yellow represents the students who did not consider flossing as important as brushing . The age group 21-24 has considered that flossing is as important as brushing. Chi square test showed p value<0.05, it is statistically significant.

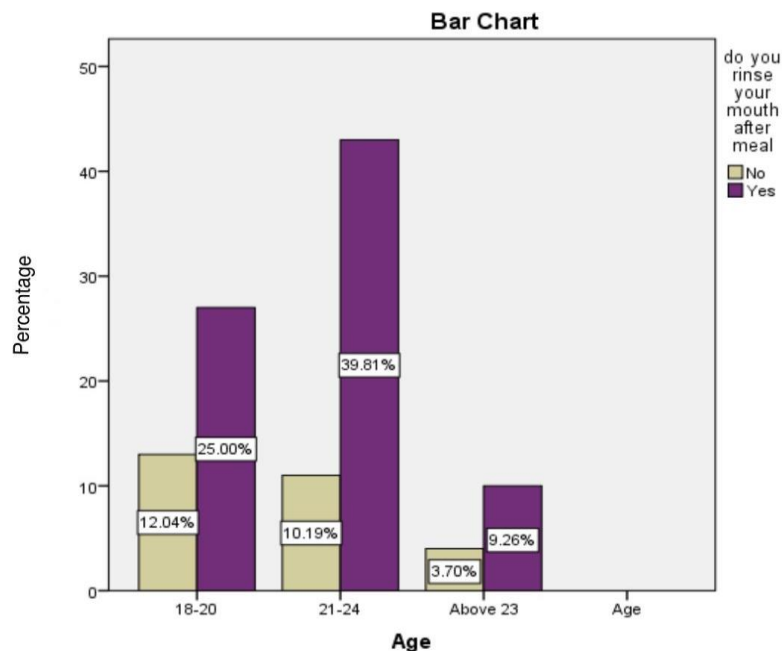


FIG 4 : The bar graph depicts the association between the age and the dental student who rinses their mouth after a meal . The X axis represents the age and the Y axis represents the percentage of responses. purple represents the students who rinse their mouth after meal and yellow represents the students who did not rinse their mouth after meal. The age group 21-24 has considered rinsing after a meal . Chi square test showed p value<0.05, it is statistically significant.

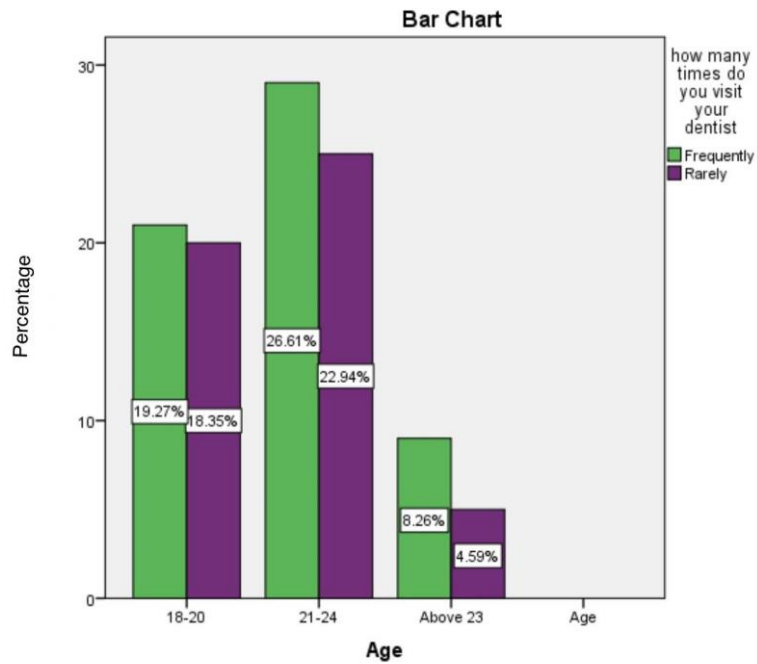


FIG 5 : The bar graph depicts the association between the age and the dental student who visits the dentist . The X axis represents the age and the Y axis represents the percentage of responses. purple represents the students who rarely visit the dentist and green represents the students who frequently visits the dentist . The age group 21-24 visits the dentist frequently . Chi square test showed p value<0.05, it is statistically significant.

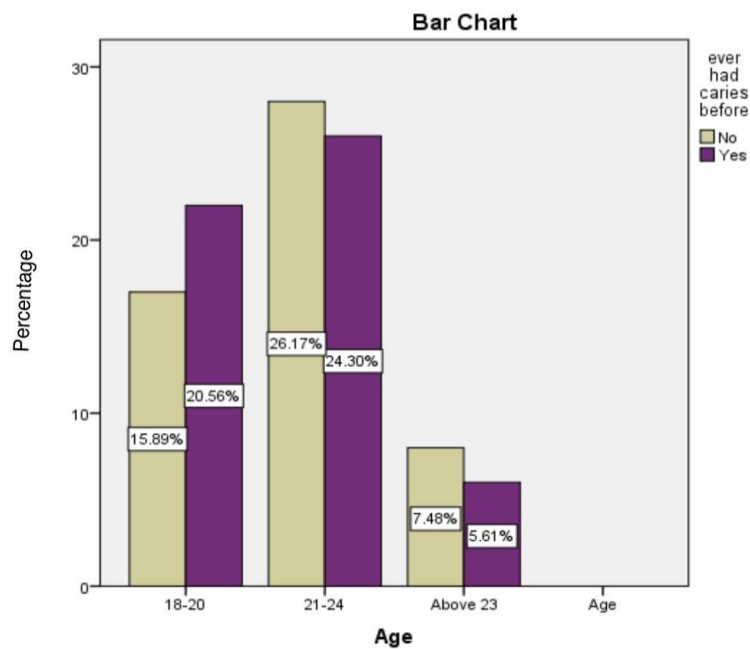


FIG 6 : The bar graph depicts the association between the age and the dental student who had caries before. The X axis represents the age and the Y axis represents the percentage of responses. Purple represents the students who had caries before and yellow represents the students who didn't have caries before . The age group 21-24 did not have caries . Chi square test showed p value<0.05, it is statistically significant.

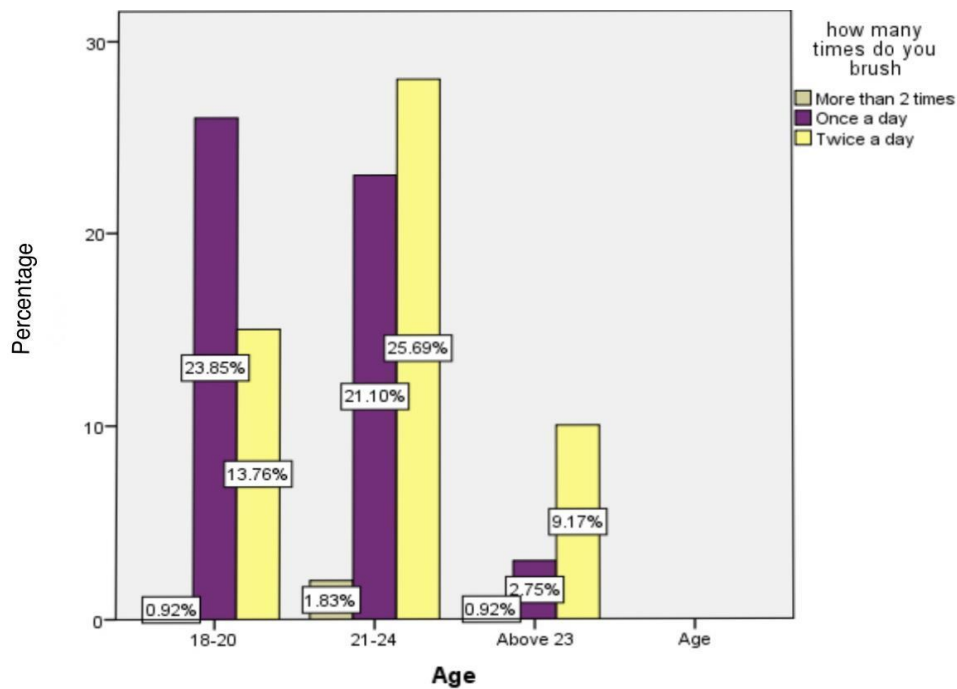


FIG 7: The bar graph depicts the association between the age and the how many times the students brush their teeth. The X axis represents the age and the Y axis represents the percentage of responses. Purple represents the students brushed once a day and yellow represents the students who brushed twice a day and dark yellow represents the students who brushed more than twice. The age group 21-24 brushed twice a day. Chi square test showed $p < 0.05$, it is statistically significant.

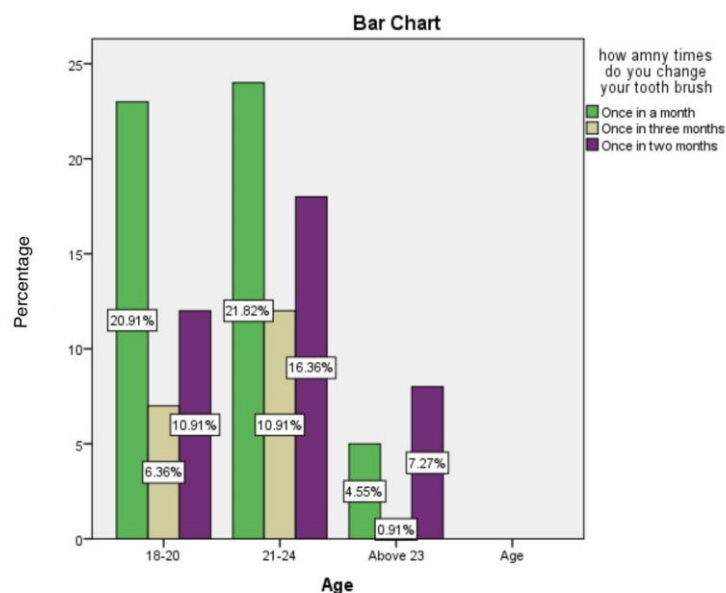


FIG 8: The bar graph depicts the association between the age and the how many times the students change their brush. The X axis represents the age and the Y axis represents the percentage of responses. Purple represents the students who changed their brush once in two months and yellow represents the students who changed their brush once in three months and green represents the students who changed their brush once in a month. The age group 21-24 changed their brush once a month. Chi square test showed $p < 0.05$, it is statistically significant.

DISCUSSION:

The clinical year dental students are the health students who are the health professionals of the future, so they are expected to possess accurate oral health status and oral health behaviour. The oral health status and oral health behaviour is significantly important for themselves and the patients (31). There is evidence to consider brushing 2 times to maximise the effect of using fluoridated toothpaste. In the present study, brushing twice a day is found similar in the previous study done by (32). Among the dental students there is an improvement in their oral health status and behaviour.

In our study, the majority of the dental students brush their teeth using a vertical scrub followed by a horizontal scrub method (33). From our study it was found that most of the dental students replace their toothbrush within 2 months which is statistically significant. All the students from the clinical year routinely examined their oral cavity which is found similar to the other study done by (33,34).

Approximately 60% of the dental students have visited the dentist for regular checkup. This is much higher in our study when compared to the other study done by (3). This study is done to analyse the factors to develop the strategies which would improve students oral health status and behaviour.

Baseline information on oral health, related to adequate preventive procedures, is prime to market self preventive behaviour. A crucial task of oral health professionals is to instill their patients the right oral habit to stop oral disease. For educating and motivating the general public, it's of great importance that the longer term dental surgeons should themselves be particularly conscious, educated and motivated of the pathological effects of poor oral hygiene (35).

It is recommended to brush the teeth twice daily with fluoride toothpaste, flossing daily, limiting between meal snacking, avoiding high sugar consumption and consuming drinks without added sugar, and regular dental preventive care(36). During a recent survey among university students in 26 countries, 32.8% reported not brushing their teeth twice or more daily, and 33.9% rarely and 24.3% never went for a dental check. During a previous review, (37) identified the subsequent factors with suboptimal tooth brushing among emerging adults: being male, lower socioeconomic status, poor oral health attitudes, substance use like smoking and alcohol use, lack of exercises, inadequate fruit and/or vegetables consumption, frequent servings of chocolate, candy or chips per day, and poor psychological stress or psychological distress. Moreover, annual or no dental visits have been found to be related to being male, lower socioeconomic status, younger age, poor oral health attitudes, infrequent tooth brushing, smoking and anticipation of painful treatment (38).

CONCLUSION:

In this study it is observed that oral health status and oral health behaviour among dental students is positive but there is a lack of motivation among the dental students to practise oral health habits. So thus it is concluded that the dental students are aware about the oral health status and oral health behaviour.

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