# FACULTY OF MEDICAL SCIENCE, "GOCE DELCEV" UNIVERSITY, STIP, R. MACEDONIA

## USAGE OF INTERDENTAL BRUSHES IN EVERYDAY STUDENTS' ORAL HYGIENE

**CENA DIMOVA** 



#### **INTRODUCTION:**

• THE INTERDENTAL SPACES ARE THE AREAS THAT ARE MOST FREQUENTLY ACCUMULATED WITH DENTAL PLAQUE. THE TOOTHBRUSH, WHICH IS SUCCESSFUL IN REMOVING PLAQUE AT BUCCAL, LINGUAL AND OCCLUSAL SURFACES, SEEMS NOT TO BE COMPLETELY SUCCESSFUL IN REMOVING PLAQUE AT INTERDENTAL SITES. INTERDENTAL DEVICES FOR ORAL HYGIENE ARE FREQUENTLY RECOMMENDED BY DENTAL PROFESSIONALS TO PATIENTS IN ORDER TO ACHIEVE A GOOD DENTAL AND PERIODONTAL HEALTH. AN INTERDENTAL BRUSH IS A SMALL BRUSH, TYPICALLY DISPOSABLE, EITHER SUPPLIED WITH A REUSABLE ANGLED PLASTIC HANDLE OR AN INTEGRAL HANDLE, USED FOR CLEANING BETWEEN TEETH AND BETWEEN THE WIRE OF DENTAL BRACES AND THE TEETH.





### AIM:

 THE AIM OF THIS STUDY WAS TO DETERMINATE THE MAINTENANCE OF ORAL HYGIENE AND THE USE OF INTERDENTAL BRUSH AND TO COMPARE THE USE OF AN INTERDENTAL BRUSH AND DENTAL FLOSS FOR CONTROLLING THE DENTAL BIOFILM AROUND TEETH OF THE DENTAL MEDICINE'S STUDENTS.



## MATERIAL AND METHOD:

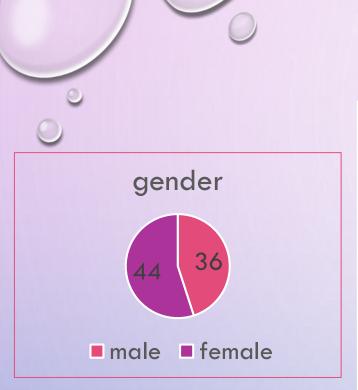
- EIGHTY STUDENTS OF DENTAL MEDICINE AGED 19
  TO 22 YEAR WERE INCLUDED IN THE STUDY. THE
  EXAMINATIONS WERE MADE TWICE: BEFORE
  ENROLLING THE SUBJECT PROPHYLAXIS OF ORAL
  DISEASE AND AFTER, IN FOURTH SEMESTER AND
  AFTER IN THE NEXT SEMESTER.
- DURING THE FIRST THIRTY DAYS, STUDENTS USED THE CONVENTIONAL BASS METHOD OF BRUSHING ASSOCIATED WITH CLEANING THE INTERPROXIMAL SPACE ONLY WITH DENTAL TAPE. AT THE END OF THE SEMESTER, A NEW PLAQUE INDEX WAS MEASURED. AT THE BEGINNING OF THE NEXT SEMESTER, THE STUDENTS WERE INSTRUCTED TO USE CONVENTIONAL BRUSHING, AND THEN ONLY INTERPROXIMAL CLEANING WITH INTERDENTAL BRUSHES. AT THE END OF THIS SEMESTER, A NEW PLAQUE INDEX WAS MEASURED.



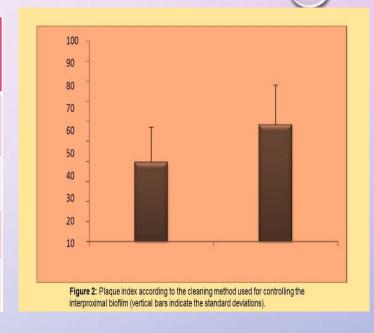
### **RESULTS:**

• THE ANALYSIS REVEALED A SIGNIFICANT DIFFERENCE IN THE EFFECTIVENESS OF THE TWO CLEANING METHODS USED FOR CONTROLLING THE INTERPROXIMAL BIOFILM, SHOWING THAT THE PLAQUE INDEX WAS SIGNIFICANTLY LOWER (24.3%) WITH THE INTERDENTAL BRUSH THAN WHEN DENTAL FLOSS WAS USED. EVALUATION WAS MADE HOW THEIR ATTITUDE HAS BEEN CHANGED IN MAINTAINING ORAL HYGIENE AFTER LEARNING ABOUT PROPHYLAXIS OF ORAL DISEASE AND ORAL HEALTH.

### RESULTS



index according to the cleaning method used to control the interproximal biofilm				
Interproxim	Mean	Standard	Maximum	Minimum
al biofilm		Deviation	value	value
Cleaning				
method				
Interdental	44%	17%	8.5%	63%
brush				
Dental	63%	20%	24%	98.1%
floss				



• THE ANALYSIS REVEALED A SIGNIFICANT DIFFERENCE IN THE EFFECTIVENESS OF THE TWO CLEANING METHODS USED FOR CONTROLLING THE INTERPROXIMAL BIOFILM, SHOWING THAT THE PLAQUE INDEX WAS SIGNIFICANTLY LOWER (24.3%) WITH THE INTERDENTAL BRUSH THAN WHEN DENTAL FLOSS WAS USED. EVALUATION WAS MADE HOW THEIR ATTITUDE HAS BEEN CHANGED IN MAINTAINING ORAL HYGIENE AFTER LEARNING ABOUT PROPHYLAXIS OF ORAL DISEASE AND ORAL HEALTH.



### **CONCLUSION:**

• BASED ON THE AVAILABLE LITERATURE WITH RESPECT TO INTERDENTAL CLEANING, THE BEST AVAILABLE DATA SUGGEST THE USE OF INTERDENTAL BRUSHES. THESE BRUSHES SHOULD THEREFORE BE THE FIRST CHOICE IN ATIENTS WITH OPEN INTERDENTAL SPACES. THE FINDINGS FROM THIS STUDY WAS SHOWED THAT A SIGNIFICANT PERCENTAGE OF DENTAL STUDENTS RECOGNIZE DENTAL FLOSSING AND DENTAL BRUSHING AS AN ESSENTIAL INTERDENTAL AID AND AGREE THAT ITS ROUTINE USE IS NECESSARY. THE RESULTS SHOWED THAT THE USAGE OF INTERDENTAL BRUSHES IS MORE EFFECTIVE AT CONTROLLING THE INTERPROXIMAL DENTAL BIOFILM AROUND TEETH COMPARED WITH USING DENTAL FLOSS. KNOWLEDGE AND TRAINING HOW TO USAGE INTERDENTAL CLEANING PRODUCTS AND DEVICES FOR BETTER ORAL HEALTH HAS IMPORTANT ROLE IN MAINTAINS ORAL HYGIENE AND REDUCE THE LEVEL OF PLAQUE AROUND THE TEETH.



### **ACKNOWLEDGEMENTS**

• THE STUDY IS FUNDED BY "GOCE DELCEV" UNIVERSITY, STIP (AS A PART OF THE NATIONAL UNIVERSITY PROJECT NAMED "SIGNIFICANCE OF PROPER ORAL HYGIENE FOR ORAL HEALTH CONDITION OF MEDICAL SCIENCE STUDENTS" AT THE FACULTY OF MEDICAL SCIENCE).