IJNRD.ORG ISSN : 2456-4184
INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT (IJNRD) | IJNRD.ORG
An International Open Access, Peer-reviewed, Refereed Journal

TITLE - AN INNOVATION ON BAMBOO - PILOT STUDY

[1] Dr Sreepreeti Champatyray,[2]Dr. Saurjya Ranjan Das 2nd

[1] Associate Professor department of Oral pathology & Microbiology ,[2] Professor Department of Anatomy

[1]Siksya O Anusandhan , Bhubaneswar, odisha , India

Background: The present study intended to investigate about the antibacterial efficacy of Bamboo salt on cariogenic oral bacteria.

Methods: The present study was conducted on 100 dental students (age range: 18–30). Following the baseline saliva sampling, the participants were randomly assigned into various groups, for oral hygiene check up in bamboo mouth mirror respectively. They were instructed to brush their teeth twice a day using the Bass technique. Saliva sampling was repeated after four weeks. The salivary counts of Streptococcus mutans and Lactobacillus at baseline and 4-week follow-up were determined and presented as the logarithm of colony-forming units per milliliter (log CFU/mL). Results: A signifcant decrease in salivary Streptococcus mutans and Lactobacillus was observed using both toothpastes.

CONTENTS:

Introduction

Dentistry, the profession concerned with the prevention and treatment of oral disease, including diseases of the teeth and supporting structures and diseases of the soft tissues of the mouth. In1723, **Pierre Fauchard**, a French surgeon credited as the Father of Modern Dentistry. It is important for maintaining the health of your smile as well as your overall health. Unaddressed tooth decay or any gum disease can lead to infections. Here in today's scenario how bamboo acts in dentistry as a product. Bamboo is a raw material has an beautiful aesthetic ,good mechanical strength and harvested in short rotation period. They are found rich in fibre

content, low fat content,high protein content . They are found in fast growing woody grass plants. Here we had conducted a pilot study for bamboo mouth mirror.which provides more enthuasiasm for dentistry field .

Mouthmirror : It is divided into 2 parts.

HANDLE: It is part used to hold mouth mirror to reflect light and provide indirect vision for easy viewing of patient's teeth and for retraction of soft tissue.

HEAD: It is the part of the mirror attached with a circular glass(mirror) which shows reflection.

Bamboo mouth mirror

- Usage of bamboo doesn't involve any mechanical process in production of mouth mirror.
- Cost of bamboo is very less as compared to steel which is presently used in the process of producing mouth mirror.
- Very less investment required for preparation of mouth mirror inducting usage of steel or plastic.
- Although plastic is also used in place of wood or steel yet bamboo is a natural product having merit will respect to hygienic and eco-friendly.

Material Method

Each participant was included in the study .

100 dental students (18–30 years old) were screened by routine dental examination and fnally, 60 participants were recruited for the study during a 2-week period.

All participants had a history of routine daily toothbrushing with fluoride-containing toothpastes.

exclusion criteria included the following: having a periodontal pocket depth of more than three millimeters, receiving antibiotic or anti-infammatory drugs during the past month prior to the study, history of systemic diseases, allergic reaction to the toothpaste, smoking, having orthodontic appliances or presence of untreated dental caries.

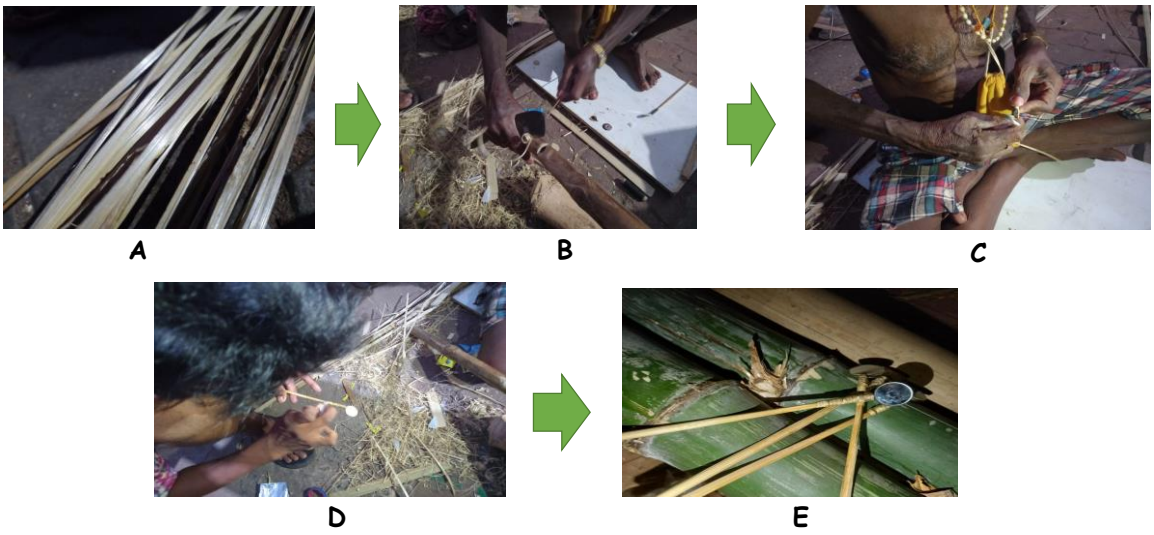
Sample size ;

sample size was calculated based on a previous study to be 23 in each group, which was increased to 30 to improve the validity of the study and compensate for possible sample loss during the follow-up period.

How bamboo mouth mirror is made ?

Collection of sticks to prepare mouth mirror

How bamboo mouth mirror is made ?



ANCIENT USE OF BAMBOO..

- ✓ Bamboos are fast-growing woody grass plants, it has indisputable potential as a sustainable resource for a wide range of utilizations.
- ✓ Bamboo is a raw material has an beautiful aesthetic, good mechanical strength and harvested in short rotation periods.
- ✓ They are found rich in protein and fiber content and low in fat content.
- ✓ They are found to contain vitamins and minerals like selenium(an antioxidant), and potassium, a healthy heart mineral in amounts that would sustain a healthy human body.

- **Most research showed densification of bamboo regarded as state of the art .**

Significance OF BAMBOO MOUTH MIRROR

Bamboo has a numerous uses like in manufacturing of products ,carpenting, forestry, hunting, domestic uses ,etc

Apart from that it has many medical uses like it can be used as an abortifacient for kidney troubles patients .

Used to treat many inflammatory conditions.

As an attempt as BAMBOO MOUTH MIRROR,

It is used to have a indirect vision,retraction ,reflection, tissue protection of oral cavity.

It is biodegradable thus eco-friendly for the environment.

It is cost efficient; doesn't rust.

BAMBOO MOUTH MIROR

Future prospective:

More number of sample of bamboo mouth mirror to be collected in proper designated way. Apart from stainless steel mouth mirror and plastic mouth mirror every dental surgeon should be aware of bamboo mouth mirror that can be used in dentistry also. Further studies is needed to design an effective parameter for the processing and densification of bamboo.

Conclusion

In this new era , the development of bamboo mouth mirror recently introduced.The efficiency of densified bamboo can vary depending on the process parameters. Bamboo species,moisture content, hot-press temperature, pressing time, and pressure are the main factors that affect the densification process. Though several aspects of these modifications are known, the fundamental influence of the process on the performance of bamboo has yet to be explored.

References

1. Marzieh Kadivar Christian Gauss , Khosrow Ghavami, et al densification of bamboo: State of the art materials 2020, 13, 4346; doi:10.3390/ma13194346 www.mdpi.com/journal/materials

2. Poonam Singhal , Lalit Mohan Bal et al Bamboo Shoots: A Novel Source of Nutrition and Medicine ISSN: 1040-8398 (Print) 1549-7852 (Online) Journal homepage:Critical Reviews in Food Science and Nutrition.

3. Chen, R. Y., Liu, M. S., Chang, T. C., and Tsai, M. J. (1989). Post harvest handling and storage of bamboo shoots (Bambusa oldhami Munro). Acta Hortic. 258:309–316

4. Yuming, Y., Kanglin, W., Shengji, P., and Jiming, H. (2004). Bamboo diversity and traditional uses in Yunnan, China. Mt. Res. Dev. 24(2):157– 165.