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Correlation Between Gender And Lip Length

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Abstract

Introduction: Lips and smile provides beautiful appearance for our face and also helps in many special fields of study. In case of forensic investigation lip prints are the one which helps the most to the crime studying for identifying the frauds and even terrorists
Aim: correlate between gender and lip length is our aim here
Materials and methods: For this study students from Saveetha Dental College were taken , total of 86 students 32 were males and 54 were female The digital vernier caliper was used to take measurement of lip length lip length is measured from one chelion to another chelion
Results: Lip length range varies form 21.2 +or -2.3 mm in vain and 19.4 -or+ 1mm in female
Conclusion: From our study we found no correlation between the lip length and gender

KEYWORDS: lip length, Gender determination, anthropology, Innovative study

INTRODUCTION

Anthropometry is concerned with taking measurements of the human body and recording them. The anthropometric measurements of face differ with gender,age and race. Various Anthropometric studies have been done using measurements of mandible (Padmapriya, Prathap and Lakshmanan, 2022), (Liversidge, 2008; Varshan and Prathap, 2022) and anthropometric measurements of skull for clinical correlations has also been done (Arun Ganesh and Mohanraj, 2022), (Krishna and Mohanraj, 2022). Stature estimation can also be done using anthropometric measurements of head circumference (Prenetha and Babu, 2022),
The dento facial lip length determination is considered to be the most important in forensic studies.This study of lip and dental to relation, enhance. acceptance. This plays a major role in personal identification (Sapkota and Rimal, 2021). Identification of an individual is of importance in forensic investigation. This identification is very unique in the technology of field of forensic research conditions (Sapkota and Rimal, 2021). Identification of a deceased or a live person can be crucial due to social, legal, or forensic reasons. This can provide tangible proof of death, identification of criminal/victim, mass disasters, and cases of identity fraud (Rao, 2010). Queiloscopy is the other name of Cheiloscopy. It is the lip study of individuals.(Parajuli *et al.*, 2021).gender is different from body type and shape. Gender is mainly determined by their reproductive

part.(Sapkota and Rimal, 2021). The place of birth, climate and weather conditions doesn't alter or helps in determining the gender of the individuals. For our study gender place huge role to relate with the length of lips (Kumar *et al.*, 2016). Lip is the most important feature in the human face that provides aesthetic to face .Lip prints are more like fingerprints and used in crime investigations in forensic fields and studies .(Larson, no date; Sapkota and Rimal, 2021). The aim of this study is to find the correlation between gender and lip length..

MATERIALS AND METHODS

For this study students from Saveetha Dental College were taken, among the 86 students 32 were males and 54 were female. The study was approved by SRB of the college. After getting informed consent a digital vernier caliper was used to take measurements of lip length. lip length is measured from one chelion to another chelion (Figure 1). All data were tabulated and SPSS version 23 was used to analyse the data.

Figure 1 - Measurement of Lip length

RESULTS

	MALE	FEMALE
N	**31**	**54**
Mean value of lip length in cms	**4.62**	**4.72**
Standard Deviation	**0.533**	**0.504**
Standard Error Mean	**0.095**	**0.068**

Table-1:The mean values, standard deviation, standard error mean of lip length among Gender

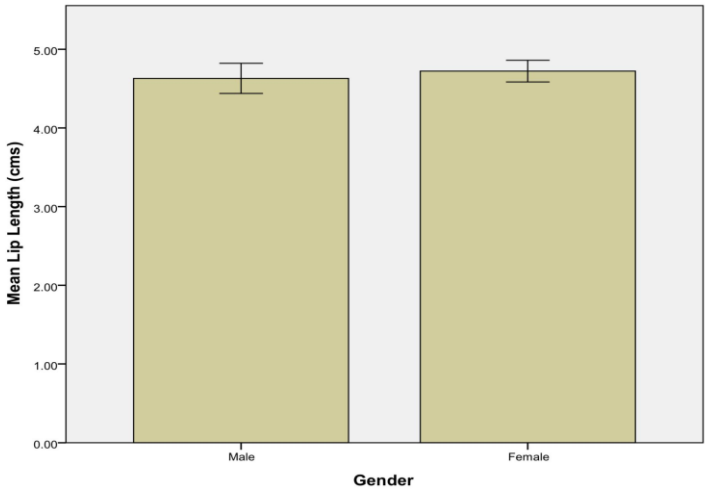

Figure 1 - Mean lip length among Male and Female

Independent T test was done using data from table 1 the significance was found to be 0.564, P>0.05, hence statistically not significant.

DISCUSSION

The labial mucosa forms a characteristic pattern of skin creases/grooves called lip prints". Study of lip prints is called Cheiloscopy. The lip print is unique and can be used to determine the personal identity and sex of a person. (Krott, 1996). Lip print is normal line and fissure in the form of wrinkle and groove present in the zone of transition of the human lip of inner oral labial mucosa and outer skin. The study of these grooves or furrows is known as cheiloscopy.(Schechter, 2020).
The importance of lip prints lies in the fact that the pattern is unique to an individual and is thus analogous to fingerprints.Advanced technology not only enables the investigator to narrow down an investigation but also aids the criminal to commit crimes using innovative methods to avoid detection (Hilal and Mohamed, 2015). In such a scenario, forensic experts also need to rely on adjuvant techniques for proper identification.
Sapkota 2021in their study in the Nepalese population has found no correlation between lip length and gender. kumar and Selvi (2018) has reported sexual dimorphism in lip length measured in Indian and Malaysian students (Rahman and Hanan Abdul – Rahman Abdul – Rahman, 2018). (Al-Juboori *et al.*, 2017) studied relationship of lip length and smile line. The applicability of cheiloscopy in individual identification has been an area of extensive research in recent years (Bacci *et al.*, 2021). In a study,they found that both the upper and lower lip can help in gender determination among males and females. (Greenberg and Schmelzeisen, 2019) In our study we did not find any correlation between lip length and gender.

CONCLUSION

From our study we found no relation between lip length and gender. In order to completely utilize the role of Chelioscopy in forensic investigation it is mandatory to carry out more studies on different population groups to analyze the variation and establish a database.

AUTHOR CONTRIBUTIONS

Ishwarya: Study Design, Data collection, Data Analysis, manuscript writing
Yuvaraj Babu K: Study Concept, Data verification, Data Analysis, manuscript drafting and correction

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CONFLICT OF INTEREST:

The author reported the conflict of interest while performing this study to be nil.

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