

Introduction

Wisdom teeth were typically used in the cavemen days to chew uncooked meat and hearty foods. This chewing required a broader jaw. As the human society became more civilized and developed, the human species has changed to include smaller bites and well-cooked food. Through evolution, the human jaw has become narrower and the need for wisdom teeth to chew certain foods has decreased. Because the human jaw has become narrower, there is very little room for wisdom teeth. This is crucial as when the wisdom teeth start erupting and developing in a mouth, with no room for them, it creates potential issues such as pain, infections, and cysts. Since wisdom teeth have begun to create more harm than good, 8.5 out of 10 people get them removed after they have been developed. While being mentored in an orthodontist office and viewing scans of teeth, I noticed that increasingly more people did not even develop wisdom teeth anymore. In order to research the evolution of wisdom teeth development in the human species, I am conducting this experiment.

Summary

I am conducting this study to research the evolutionary trends of the decrease in development of wisdom teeth due to those sets of teeth no longer having much use for the humans. This is an original research endeavor. This type of study has not been done before on this scale, and it is important to note the new changes in the human body as society develops. I predict that at least 2 out of 10 people will not have wisdom teeth.

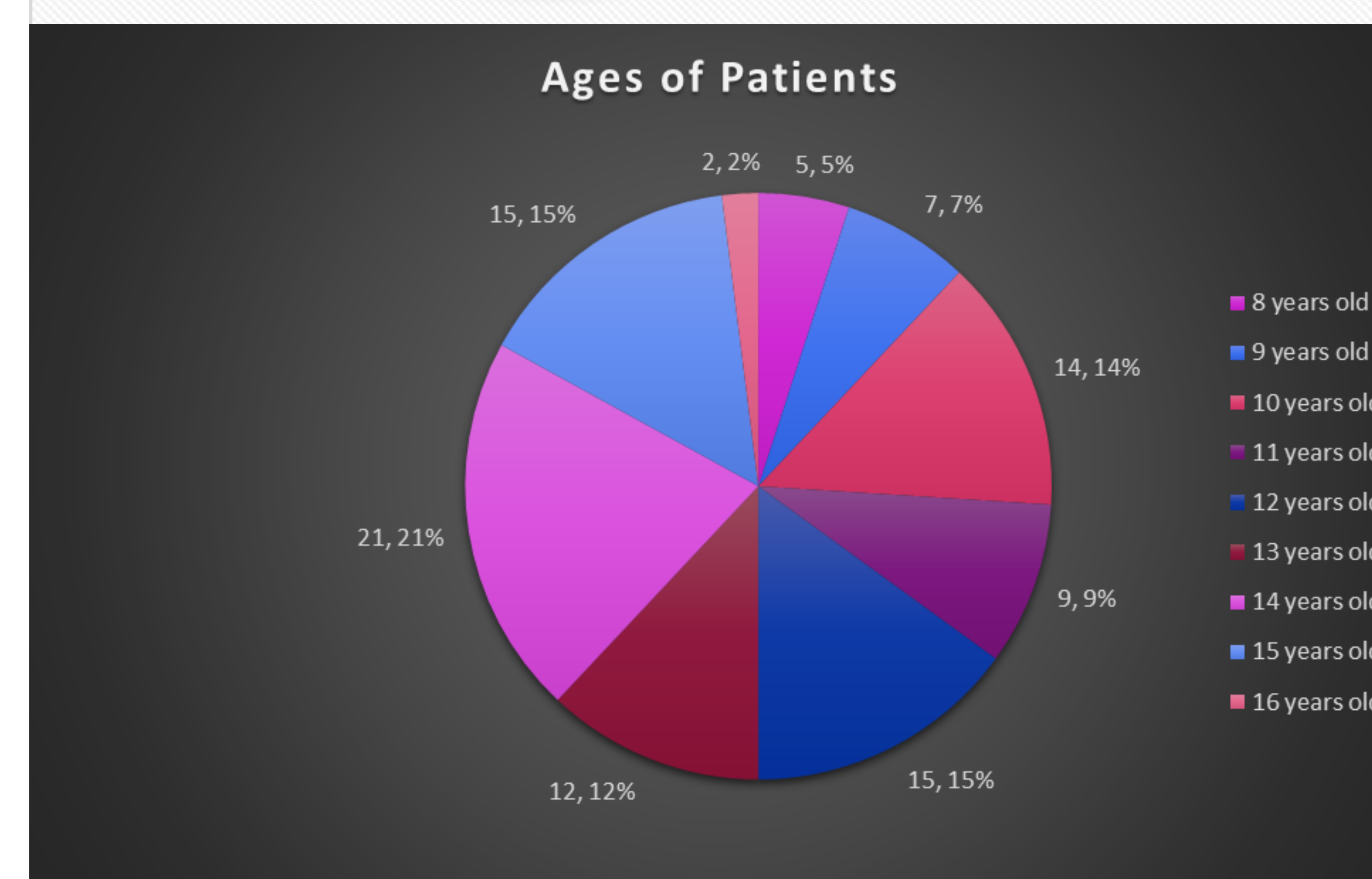
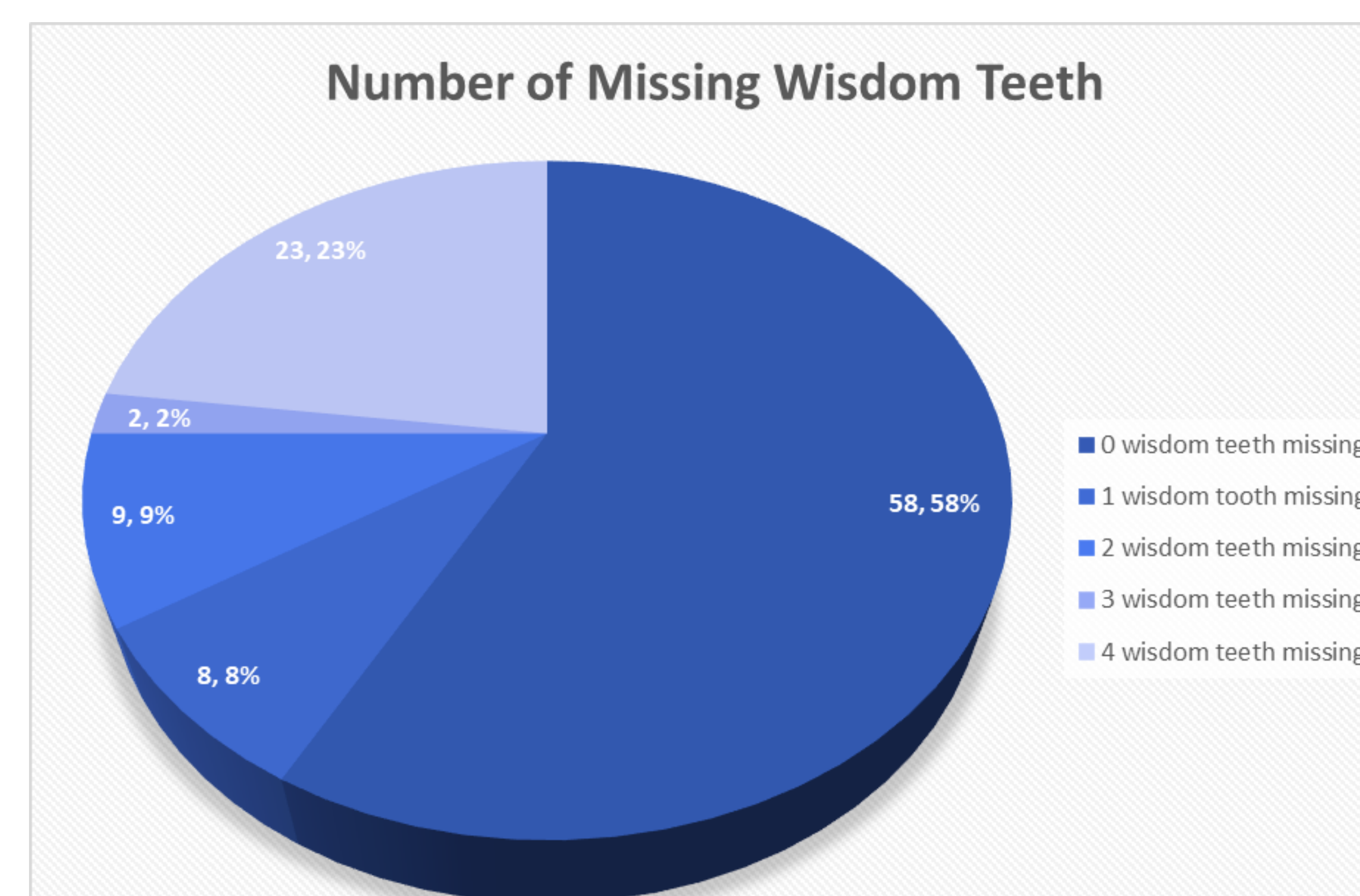
Methodology

In order to investigate the evolution of wisdom teeth development, I studied patient scans from an orthodontist's office. I randomly picked a sample of 100 patients between ages 8 to 16 from the main patient database. I could not evaluate wisdom teeth in patients under age 8 because wisdom teeth are usually not developed in anyone before that age. After 16 years, people who have developed wisdom teeth usually get them removed, thus I could not evaluate any patients over the age of 16 either. For each patient, I pulled the panoramic scan of their teeth and looked for wisdom teeth or the development of wisdom teeth in their gums. In my datasheet, I wrote the age of the patient, if they are missing wisdom teeth, and if they did, I wrote how many wisdom teeth they are missing. Some patients developed 2 wisdom teeth instead of all 4, thus it was important to note the number of wisdom teeth that were missing. I repeated this process for 100 patients.

Abstract

While working in an orthodontic office and reading dental scans, I noticed that many people are no longer developing wisdom teeth and wanted to study the evolution of wisdom teeth development in humans. I studied this by picking a random sample of patients in the age range of 8 to 16 years and studying their dental panoramic scans to see if they had wisdom teeth or if they were developing in their gums. I found that 42% of people are missing at least one wisdom tooth and 23% were missing all four of their wisdom teeth. This led me to conclude that slowly, but surely, the evolution of the human race is taking place as an increasing number of people are not developing wisdom teeth.

Results



Findings

The results show that 42% of people are missing at least one wisdom tooth and 23% were missing all four of their wisdom teeth. This statistic shows that there is an increasing number of people being born without wisdom teeth because in the Paleolithic period (roughly 2.5 million years ago) majority of people were born with wisdom teeth. These extra sets of teeth were needed to chew raw meats and nuts. Now, just under half of the population isn't developing wisdom teeth in the later years of their life. I predicted that at least 2 out of 10 people will not have wisdom teeth which has proven to be true.

Discussion

In the future, this study should be repeated with a bigger and more widespread sample to ensure that the data and results are not skewed. My sample was limited to 100 patients of one orthodontic office, so it was hard to apply these results to the entire population. Some other limitations of my study were that every human's mouth develops on a different schedule. Some people develop their wisdom teeth really late, in their 20s, this would cause the wisdom teeth to not show up on their scan. I tried my best to mitigate these factors that could skew my results to only sampling people in the age range of 8 to 16. I chose these ages because the majority of people start developing wisdom teeth as early as 8 years old, and after 16 years, people start having their wisdom teeth removed. Again, this study can be improved by being conducted on a larger scale thus further preventing extraneous factors from skewing the results. Overall, with the resources I had, I would say that this study, on a small scale, was a success as I got the data I needed and did everything in my power to mitigate biases. The impact of my study on future research is that it can give scientists and researchers a baseline to help guide them in future human evolution research which can help them study the decreasing number of wisdom teeth development on a larger scale and the benefits and consequences of fewer people developing wisdom teeth on the human race as a whole.

