

Essay on all restorative work should adhere to the golden proportion essay

[Health & Medicine](#), [Beauty](#)



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Introduction

A dentist is a medical professional trained in the field of dentistry. He is a medical practitioner that is also referred to as a dental surgeon. A dentist specializes in the prevention, diagnosis, and management and treatment of diseases involving the oral cavity which means that the anatomic structures that will be covered by this field would be the teeth, gums, and the tongue. The idea stating that dentists are only concerned with the different pathologies involving the oral cavity is rather conventional and could be actually being considered invalid as of today. The field of dentistry has evolved in the past decades that it no longer encompasses just the pathologies involving the oral cavity but basically everything that has something to do with it and the anatomical structures inside it which are the tongue, gums, and the teeth. The aesthetics of oral cavity are already included in this field. Dentists are now being called to fix broken teeth, replace lost or extracted permanent teeth with new ones and to basically keep the dentistry patients' oral cavity aesthetically pleasing. In dentistry,

there is this quote “ all restorative work should adhere to the golden proportion.” This essay will actually revolve around that topic, aiming to discuss the different evidences extracted from various literatures about dentistry available.

History

Contrary to popular belief, this quote did not originate from the modern field of dentistry. It actually has much deeper roots than what most people expect. This quote was actually derived from the concept of Golden Ratio which was first described by a man named Leonardo Fibonacci. The concept has been widely used since then and it later on became generally accepted by the public. The concept revolves around a sequence of numbers which could only be appreciated or attained by adding the last two numbers in an addition equation of two consecutive numbers starting from zero. For example, $0+1= 1$, $1+1= 2$, $1+2= 3$, $2+3= 5$, $3+5= 8$, and so on. In this particular set, the numbers we got are 1, 2, 3, 5, and 8. Now, the theory is that when you divide any one of the numbers from the sequence by the number that comes before it, the answer would be a somewhere around the number 1.618. Also, the theory states that the larger the number is—it still has to belong to the Fibonacci sequence, the more the answers become accurate or closer to 1.618. The number 1.618 was referred to as Phi and its inverse which is 0.618 as phi; hence the discovery of the Golden Ratio.

Dentistry and the Golden Ratio

Long before Fibonacci discovered the Fibonacci sequence, the same concept had actually been used by the Greeks during the first few years after the first

Parthenon was built. They used the concept to make the Parthenon and other Greek Structures more pleasing to the eye. That's what this concept was actually made for, to make something more aesthetic or pleasing to the eye.

In dentistry, the concept of Golden Ratio is actually being applied. The concept is usually used in determining the right dimensions or measurements of a replacement tooth. If for example, there is a client who wants to replace two central incisor teeth that was extracted before due to an accident or any reason, the dentist cannot simply implant any tooth replacement without determining the aesthetically correct dimensions of tooth for that patient and other factors.

The concept of the golden ratio has actually been a common tool that the dentists before and even now are still using in similar cases to this. This is important because every person's tooth has different measurements and this is actually the reason why there is no standard tooth measurement being implemented. Suppose the patient's central incisor measures about 8.5 mm. multiply that by two and we are going to get 17 mm. using the concept of golden ration, we would have to divide 17 by Phi which is equivalent to 1.618. The answer would be 10.5 mm for the two central incisors. It would be important to know at this point that the central incisor widths derived from the concept of Golden Ratio is not the actual width but rather ideal aesthetic width when viewed from the front and not perpendicular to the tooth's surface. The measurements or tooth dimensions that would be derived using the Golden Ratio concept has been continuously used by dentists many years ago and according to them, results have been

very positive and the patients were able to appreciate their newly-reconstructed teeth once again.

There are certain things that need to be considered in dental esthetic reconstruction however. The concept of Golden Ratio is simply a tool or a principle that aides in the creation of an ideal aesthetic tooth replacement that will most likely jive with the rest of the patient's tooth and will make him look as if he did not get a tooth extraction in the past at all. The concept of the Golden Ratio can only do so much. It is not really advisable to use the measurements that were obtained from the concept of Golden Ratio as the sole basis in designing a new tooth or a set of it for reconstruction. This is because aside from aesthetics, there are a lot of other factors that needs to be considered in tooth reconstruction. The size and shape of the tooth, the age of the patient, the shade of the teeth and other subtle factors all have to be considered in the process of dentition.

According to Schoenbaum, the final outcome of a teeth reconstruction should be based upon many factors and should also be complimentary to the functional requirements of the remaining teeth, the muscles of mastication and the Temporal-Mandibular Joint; must be in harmony with the entire face, must not severely affect the dental and biological health of the gums and the jaw bone; must create symmetry within the mouth and face; be as non-invasive as possible; and must be as aesthetically-pleasing for the patient as possible.

Conclusion

Over the years, it has been proven that designing teeth for reconstruction could be made easier and more visually-pleasing using the concept of Golden Ratio which incorporates the use of Fibonacci's concept of sequential numbers. Furthermore, there are a lot of available and accessible literature that could justify the Golden Ratio's validity and effectiveness in dental reconstruction. However, it should always be remembered that there are a lot of other factors that must be considered by the attending dentist in a dental reconstruction aside from the aesthetics. Therefore, the concept of Golden Ratio should not be used as the sole basis in determining the right teeth measurements in a teeth reconstruction procedure. The derived measurements could only be used as long as they adhere to all other factors being considered in a dental reconstruction such as the integrity of the underlying bone, stability of the TMJ joint, etc.

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