Over the years there have been many trends in dentistry and as they come and go they leave their mark – some positive, some negative. As a result our experience will be greater and dentistry will be advanced and/or changed in some way. Most recently we have ridden the cosmetic wave with an emphasis on creating the perfect smile, at almost any cost. Patients’ desires for immediate results coupled with most dentists preference to pursue a restorative option has probably resulted in some over zealous tooth preparation. However, patients who required restoration anyhow will undoubtedly have benefitted from dentists’ greater understanding of smile design. Also the profile and perception of dentistry have been enhanced with patients now appreciating the benefits and desirability of dentistry rather than dentistry being seen as a necessary evil. With an ageing population who want to look good and expect to keep their teeth for a lifespan that has never been longer, the expectations of dentistry have never been greater.

Trends

Trends in dentistry tend to be introduced around new dental tools. For example, the development of increasingly thinner, stronger and more beautiful porcelains together with improved bonding techniques have propelled the cosmetic wave. We need to remember that whilst it is very important to move with the times and embrace new technologies it is also essential to appreciate the concepts that underlie good dentistry and never forget the timeless principles that have stood the test of time.

These days much is written about “comprehensive dentistry” as a concept, but what does that mean? Comprehensive or complete dentistry is about treating the patient as a whole rather than as a “mouth”
and understanding the balance that exists between function & aesthetics, biology & structure. It is also about understanding the psychological and psychosocial ramifications that exist for each patient.

Sometimes we dwell too much on just one aspect. Whilst patients may ask us to create a beautiful smile, I doubt that there are many patients who don’t expect health, comfort, function and longevity to be delivered at the same time. Similarly there are few patients who would accept a functional result that did not at least look reasonable. Understanding and managing the patient’s expectations is without doubt the most fundamental part of any treatment plan. Taking the time to do this is crucial to a satisfactory result and a happy patient. We also need to remember that a patient may not share the vision that we have of how their treatment may end up. There are many tools at our disposal to do this from digital imaging and diagnostic wax ups to showing examples of completed treatments. It is also often possible to develop a treatment plan in stages, allowing a patient to stop at the point where the result is appropriate for them.

Scheduling treatment

Barry’s main concern was that his front teeth continued to break down and he was afraid of losing them. He presented with erosion, decay and attrition together with mild periodontal disease. He was unconcerned about the appearance of his teeth at this stage. However, often such patients desire a more aesthetic result once their initial concerns have been met. In this case, after initial periodontal therapy and tooth whitening we were able to restore the teeth with a simple single layer composite system to achieve the patient’s structural, functional and biological requirements. Once these parameters had been met the patient was able to reassess his aesthetic goals with a more positive approach. Despite uneven gingival levels and the basic aesthetic level, the patient was delighted with the result and has continued to maintain an excellent hygiene regime. The treatment was cost effective and fulfilled the patient’s needs and desires. Whilst he understands that composite restorations may require some degree of maintenance, he is willing to accept that.

This process of scheduling the treatment or “progressive smile design” can also be very beneficial in helping patients spread the cost of treatment over time, particularly important at these difficult economic times. Employing this approach will almost always ensure a more natural result and certainly produces a solution that is appropriate to meet each patients individual needs and desires. In order to develop a staged treatment plan it is very important to understand the treatment options that we have available to us together with the tools and materials that we have at our disposal.

Paul attended wanting to improve his smile whilst understanding that there was significant structural and biologic damage to his teeth (Fig 1). He was found to have moderate periodontal disease together with erosion, attrition and caries. He also wanted to improve his smile for a trip to America in just three weeks’ time! Based on a thorough examination and
records process together with listening carefully to the patient’s requirements we were able to develop a suitable treatment plan that would allow us to continue to work on the patient’s periodontal needs whilst at the same time improving his smile and helping him to envision what could be achieved. Initial periodontal therapy was commenced and a diagnostic wax up produced on mounted models. After ensuring that the patient understood the limitations of the procedures to be provided together with the need for further treatment, single layer hybrid composite restorations were placed in accordance with a stent constructed from the diagnostic wax up (Fig 2). We were able to meet his deadline for his journey to America and at the same time help him to see how his appearance may be improved. The patient returned a month later delighted with the result and highly motivated to further improve the aesthetics. After his periodontal condition had been stabilised porcelain crowns were placed 12, 11, 21, 22 and 23 to restore structure, function and aesthetics (Fig 4). Elsewhere, composite restorations were left in place. The patient was totally satisfied with the treatment provided and maintains his hygiene with renewed vigour.

_Treatment Options and Timeless Principles_

Forty years ago Dr Peter Dawson spoke about the concept of complete dentistry. He became known for function and occlusion not because it was the only part of comprehensive dentistry that he taught but because he explained those concepts so well and how they had an impact on every other aspect of dentistry. The tools and materials that we use may have changed but the balance that he spoke about (Fig 1) is just as important today as it was back then.

Similarly he listed the treatment options that are available to us:

<table>
<thead>
<tr>
<th>Treatment Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Re-Shape</td>
</tr>
<tr>
<td>Re-Position</td>
</tr>
<tr>
<td>Restore</td>
</tr>
<tr>
<td>Reposition bone (surgery)</td>
</tr>
</tbody>
</table>

At first glance the table (above) looks just to be a list of options but if considered in this order at the treatment planning phase it will enable us to practice truly minimally invasive dentistry. The concept of minimally invasive dentistry has been around since the 1970s but the emphasis of this was solely on the biological aspects of patient care. More recently there has been a move towards minimally invasive cosmetic procedures with a much greater emphasis on orthodontics (repositioning), tooth whitening and simple bonding procedures (alignment, bleaching and bonding).

Most dentists have always accepted that if the teeth are a good shape but in the wrong position it is much more appropriate to move the teeth to position rather than to restore them into position. However, many patients would refuse orthodontics because of the time it would take and the appearance of “train track” braces. This has spurred the development of other ways of moving teeth which are much more acceptable to patients. Lingual orthodontics, ceramic brackets and clear aligners such as Invisalign have become very popular as has the Inman aligner which is removable, offers quicker treatment times and is
less expensive (Figs 7 & 8). These are just a few of a number of systems available today. Again it is important to understand that each of these is just a tool to help us in providing a comprehensive and appropriate result. Straight teeth that aren’t biologically sound or don’t function properly are not a satisfactory result. Orthodontics can also be an extremely important prerestorative treatment correcting gingival levels and minimizing or eradicating the need for tooth preparation. Many patients will require a combination of treatment options to produce an acceptable result.

Summary

With the development of improved, more patient friendly treatments and the fabulous array of materials we have available to us today we have never been better placed to practice minimally invasive COMPREHENSIVE dentistry to fulfill the needs and desires of even our most demanding patients. However, we must remember that to achieve a great solution for any patient it is critical that we listen to them carefully so that we may understand what an appropriate result may be for each individual. At the same time we must have our own clear and well-defined goals such that we deliver a treatment that is maintainably healthy, structurally sound, functionally correct and aesthetically pleasing to that patient. Perhaps most importantly we should remember that it is understanding the timeless principles and overall concepts that will allow us to use the tools available today or developed in the future for the benefit of our patients keeping them happy and healthy for a lifetime and not just the next few years.

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Fig. 7_Before Invisalign
Fig. 8_After Invisalign