

How the internet influences decisions to undertake facial surgery

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INTRODUCTION

The internet is an ever-expanding source of information that in recent years has been used on an increasing basis to investigate medical concerns, including those related to surgical decisions. The decision to have facial surgery is influenced by various internal factors (including aesthetics, function and self-esteem) and external factors (including the doctor's opinion, friends and family, educational materials and internet advice). Although much of this internet guidance is excellent and results in patients who are well informed, it must be considered carefully by patients due to the incorrect nature of some internet content. Patients deciding to use the internet do so for a number of reasons, such as apprehension about their surgery and, therefore, wanting to be more knowledgeable so they can make a more informed decision, and also because they want to research and ask questions anonymously. Regarding facial surgery, the internet plays a role in patients' research; however, the impact it had on patients' decision making was variable.

The decision to undertake facial surgery (usually orthognathic) is a considerable one, with treatment on average lasting around two years, including both orthodontic devices and surgery.⁽¹⁾ It is, therefore, imperative that this decision is fully informed so that patients can make the best decision for themselves. Orthodontic treatment, more so than other areas of medicine, tends to be elective, consequently it is vital it is the patient's own decision.⁽²⁾ This decision to have orthognathic surgery has many motives, including improving aesthetics, self-esteem and function.⁽³⁾ These motives and the treatment choice are often influenced by a multitude of factors employed by the patient, including consulting friends and family, gaining educational materials and internet research.⁽⁴⁻⁶⁾

Since its commercialisation in 1995, the internet has expanded massively, with 84% of the UK population using it.⁽⁷⁾ With the introduction of social networking sites, forums and blogs on top of websites, the way people use the internet has rapidly transformed.⁽⁸⁾ Allowing the sharing and adding of information among internet users facilitates connection between them and allows a platform for challenging beliefs about wellbeing, self and medicine.⁽⁹⁾ Using this facility, patients now have the resources to research their health concerns and medical decisions in depth before consulting a healthcare professional. This conversion of the internet to a source of medical advice has coined the term 'cybermedicalisation'.⁽⁹⁾ The use of this electronic facility for providing health-related information is increasing; however, much of it is unregulated and patients often lack specific knowledge to determine a resource's

educational worth.⁽¹⁰⁾ Consequently, patients need to be vigilant of information they use to form opinions.⁽⁹⁾ Saba and McKormick recommend the use of websites as an economical, confidential and comprehensible way of providing health endorsements.⁽¹¹⁾ The use of chat rooms is also important due to their ability to allow patients to feel they are not alone with their condition and share experiences.⁽¹²⁾

MOTIVES FOR FACIAL SURGERY

Those requesting aesthetic surgery have many complex motives which, at times, can seem puzzling to physicians.⁽¹³⁾ They often feel surgery is the only option, but have differing levels of keenness for this route.⁽¹³⁾ Their motivation for wanting surgery should be assessed, ie is it internal or external?⁽¹³⁾ Internal – to correct a problem perceived about themselves. External – influenced by others, eg parents, peer group, spouse. The key reason described by patients deciding to undergo facial surgery was aesthetic.^(3,14) Eighty per cent of adults studied had orthodontic treatment to improve aesthetics rather than for a functional improvement.⁽³⁾ This has been found to be affected by age, sex, social class and desire to perfect appearance.⁽²⁾ In particular, orthognathic surgery was undertaken mainly to straighten teeth, correct a functional problem, avoid future dental issues and improve smile and self confidence.⁽¹⁵⁻¹⁶⁾ Predictably, internally motivated people were more satisfied than externally motivated at the end of treatment⁽¹³⁾ Bullying also played a role in the decision.⁽¹⁷⁾

NON-INTERNET-BASED INFORMATION SOURCES

Before the internet was available, people asked family/friends, looked in magazines/newspapers and consulted their doctor.⁽⁶⁾ Information from a healthcare professional was the main source post-operatively.

Another aspect influencing choice was the patient asking the doctor, 'If you had it what would you do?' and the doctor's answer of, 'I'd have it'. This relates to the fact that also playing a factor in the decision to undergo facial surgery was the patient's confidence in their surgeon. Those with a trusting relationship with their surgeon are more likely to undergo surgery than patients with a bad relationship, who were more likely to choose non-surgical treatment.

MEDICALISATION OF THE INTERNET

Considering 70% of patients use the internet to search for health information and nearly a fifth of web users use the internet as their first port of call when investigating a health

concern, it comes as no surprise the 'medicalisation' of the internet is a well-studied topic.^(19,20)

With websites such as NHS Choices experiencing a 50% increase in visitors, it is clear the online health information providing domain is in high demand:⁽¹⁹⁾ 52,150 people engage with NHS Choices over Facebook and the 'From couch to 5k' app, which also has online resources to link up to forums, has been downloaded off iTunes by 2.1 million people.⁽¹⁹⁾ Offering assets such as a wide audience, swift sending/receiving of messages, only minor limits on subjects to be discussed, many specific subjects discussed and low cost, it really is no surprise the internet's popularity has grown quickly.

The amount of time patients are spending researching before their surgeries is increasing, and with the vast amount of excellent information on the internet, usage is high. The internet has the potential to improve events such as the patient surgical experience by making them more informed of possible dangers and benefits and improving the knowledge basis behind informed decisions.

REASONS FOR CONSULTING THE INTERNET

Various studies have looked at the efficacy of orthodontic treatments which the surgeon should consider, but no treatment can take place without patient consent. It is, therefore, important to understand the reasoning behind patients' decision making.

The internet offers many benefits to people requiring information. It allows contesting of views because of its anonymity, hence people feel they can open up more,⁽⁸⁾ especially given unwanted physical features and mental health issues such as agoraphobia, which would normally be a barrier to meeting people. Consequently, users can form closer relationships than in their everyday lives and often feel freer communicating online when they would not normally feel socially accepted. Those who would be more prone to social withdrawal and struggle to maintain one-to-one connections form online friendships more easily, allowing them to bond with others in a comfortable environment. These 'cyber' friendships have been shown to be just as meaningful as 'real-life' equivalents.

Patients are more frequently consulting their general practitioner (GP) with ideas and expectations they have gained via online sources, teaching themselves via these sources. In fact, 20% of patients presenting at hospital for a procedure had looked it up on the internet before attending.

In a recent University Hospitals of Morecambe Bay orthognathic patient survey, 9/13 patients surveyed said they did not use the internet to research their upcoming surgery. Of the four that used the internet, three used NHS sites (one described simply using Google). Also, 2/4 felt they had been affected by looking at the sites and 2/4 were more determined to have the treatment following the internet research. The other 2/4 felt their treatment determination had remained the same as before online searching. Interestingly, of the two who felt they had been affected, one was more determined to have surgery and one felt the same as before.

Although the computer as a method of research is now a fundamental part of many lives, people must always bear in mind how vigilant they must be regarding taking advice from uncontrolled sources.⁽⁹⁾ Only 1% of patients were found to rate information obtained from the internet as 'unreliable', which is concerning as the information is often confusing and false, resulting in difficulty for patients to find accurate advice. This sub-standard information must be tackled by the clinician, as it could be the source of the patient's own opinions and obscure their judgement. Sites geared for patients tend to be better in terms of providing information for informed decisions, rather than those for healthcare professionals, which focused on surgical techniques and were of little assistance to patients.

FACIAL SURGERY AND THE INTERNET

In an analysis of the available online orthognathic information, just over half were for the general public and the majority were created by maxillofacial surgeons.

Beyond official medical advice in a clinical setting, the internet provides an alternative source of less formal material, empowering patients with medical knowledge but also baffling them with the sheer quantity. University Hospital of Zurich has offered a solution to this by providing an online service with doctors ready to answer maxillofacial-related questions any time with no traceable information required.⁽²¹⁾ Specialists are consulted if the doctor is unable to answer, providing patients with anonymous, personalised, high-class, evidence-based advice.⁽²¹⁾ Over half of the people (51.5%) who contacted the service had not consulted a doctor before about their problem, meaning half already had and were clearly not fully satisfied with the information they received.⁽²¹⁾

A study in 2012 found the majority of patients seeking septorhinoplasty (61/70) found the internet very/moderately useful in their treatment decision making.⁽²²⁾ They did, however, feel the online sites were lacking in knowledge and, therefore, gained more guidance from the doctor (64/70). The online information they rated most vital was the operation's description, followed by patient contact and pre/postoperative pictures. This information did not, however, affect clinic choice in 44/70 or how prepared patients felt before they saw the doctor (36/70). This was in comparison to the aesthetic rhinoplasty and post-traumatic correction, where 17/44 and 19/62 patients respectively learned about the operation via the internet and 36/44 and 34/62 used the internet for research. The majority of aesthetic patients got their preliminary information from someone who had had the operation, like a family member, and of the post-traumatic patients, the majority were advised by their GP. Over half in each group searched for advice online pre-operatively, in particular 36/44 in the aesthetic group compared to 24/62 in the post-traumatic, and around two thirds found the advice inadequate compared to their doctor's guidance.

ADDITIONAL INFLUENCES AFFECTING SURGERY CHOICES

Before making the decision to have surgery, several decisions must be made, including asking for help in the first place, deciding to have the surgery, taking the resulting medications and recovering back to former health. To assist these decisions, patients are exposed to a range of guidance from different members of social group (family, friends, colleagues) and other sources (books, leaflets, internet). A study in 1971 that found where patients source their information to assist their decisions is the most important factor in determining the extent to which they will be satisfied with their final result.⁽¹³⁾

A combination of studies showed the influence of demographics such as age, gender and education level on the likelihood of an individual undergoing surgery. Women were more afraid of dental treatment than men and younger patients more afraid than older. Those with a higher income and education level showed less fear than those with lower. Researching health information such as sensory (eg what does a procedure feel like?), procedural (what, when and how do procedures occur? Sequence of events?) or behavioural (actions to assist recovery reducing pain, eg walking, coughing, etc) reduced apprehension about surgery itself. High levels of apprehension were shown to negatively affect patients seeking medical advice and treatment.

CONCLUSION

In summary, the internet is gaining in popularity and plays a large part in patients seeking help about medical matters, including surgery. There is some excellent online information, giving patients greater access to increase their knowledge base behind their care decisions. Researchers must, however, be vigilant about the quality, as knowledge used for informed decisions can be damaging to patients' wellbeing if it is ill informed. Research prior to procedures has many benefits, including reducing anxiety and facilitating patients playing a greater part in their care. Internet advice specifically permits further details to be sought outside of consultations should anything be forgotten, and provides anonymity, allowing patients to reveal more personal details than they may otherwise have and feel freer to share details. This is particularly vital in those feeling segregated by society due to the way they look.

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