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Dr David Muscat B.D.S. (LON)

Editor / Secretary, P.R.O. D.A.M.

Dr Andrea Agius

Best regards,

David

DENTAL ASSOCIATION OF MALTA

The Professional Centre Sliema Road, Gzira

Tel: 21 312888 Fax: 21 343002

Editorial

By Dr David Muscat

Dear colleagues,

This year sees the introduction of Dental Clinic Health standards. The DAM committee has been involved in discussions in this regard.

The DAM committee has also been involved in helping The President of The Republic's initiative in finding dentists to work on disadvantaged individuals who need complex dentistry. This work is to be carried out free of charge but with expenses refunded. Some patients have already been allocated.

The following is a list of events the DAM has been involved in this year so far and this list is correct at the time of writing this editorial:

3/2/18 **DENTAL IMPLANTOLOGY** FOR PERFECT ESTETHICS

Full day seminar by Dr Henriette Lerner at Radisson St Julian's. Marletta Enterprises in conjunction with DAM. Event part sponsored by DAM.

11/2/18 ST APOLLONIA MASS

Celebrated by Fr Mark at St Peter's Monastery in Mdina, followed by lunch at Palazzo Castelletti. Organised by Dr Lino Said and lunch kindly sponsored by V. J. Salomone (Brufen).

PATIENT EXPERIENCE PRO - A BRIEF INTRO

By Mr Matthew Jardine at Corinthia Marina. Bart Enterprises.in conjunction with DAM.

28 /2/18 **AGM AT FEDERATION HALL GZIRA**

14-19 MARCH **IVOCLAIR VIVADENT HANDS ON COURSE IN LEICHENSTEIN**

DAM and part sponsored by DAM.

At St Joseph Convent Rabat - opposite Villa Messina.

Bart Enterprises in conjunction with

25 MARCH **LENTEN MASS AND LUNCH**



handing 430 euro collected at the raffle of the Annual DAM Christmas party to Ms Shirley Zammit, fundraising manager the sponsors of our raffle including Bart Enterprises, Page Technology, Cherubino, Collis Williams, GSK, Chemimart, Alf Gera & Sons and Metropolis Ltd

Father Mark celebrating mass on the occasio of St Apollonia at St Peters monastery in Mdina on Sunday 11th February 2018.

The Rev Dr Mark Sultana BA.S.ThL.PhD (Greg) is the spiritual director of the DAM. He is a senior lecturer in Philosophical Theology at UOM. His works include 'Self Deception' and 'Akrasia' for which he received the Premio Bellarmino in 2006. He is a member of the Editorial Board of Forum Philosphicum and the International Journal of Philosophy.

Saint Apollonia was a virgin martyr Christian from Alexandria, Egypt, who, according to legend, during an uprising against Christians was tortured by having all her teeth pulled out or shattered.

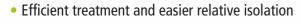
She is regarded as our patron saint. The real date of the feast of St. Apollonia is 9 February.

Saint Peters monastery was established in 1418. The church was renovated in 1625 on the initiative of Bishop Baldassare Cagliares.

The altarpiece dates from 1682, and depicts the Madonna and Child with St Peter, St Benedict and St Scholastica. by Matthia Preti.

Other works in the chapel include the Resurrection of Jesus and Our Lady of Pillar by Francesco Zahra.

The chapel houses the remains of the blessed Maria Adeodata Pisani who was a cloistered nun living in the monastery in the 19th century and was beatified by Pope John Paul II in 2001.



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LET THE TEETH DO THE TALKING

THE LINK BETWEEN DENTISTRY, EATING DISORDERS AND DOMESTIC VIOLENCE

By Dr Joan Camilleri

INTRODUCTION

Work-based experience indicates that dentists may question the significance of their role and function in the management and treatment of eating disorders with possible underlying domestic violence.

Frequently asked questions include: What is the role of the dentist in the treatment of eating disorders? How are eating disorders related to domestic violence? How could our profession form part of interventions related to domestic violence? If we are the family's dentist could such interventions interfere with our professional relationship with the significant others?

This article will strive to elucidate how the dentist's input may, in some cases, be essential in the formulation of the initial diagnosis. One may also be in a position to motivate the patient/ significant others, to seek specialized services,influencing the progress of the bio-psycho-social management of either condition by providing discreet support in addition to dental care.

LITERATURE REVIEW

Eating disorders and domestic violence are respectively well researched conditions. However, few studies have been carried out regarding how they are associated. Risk factors are also not so frequently researched, despite evidence that persons with mental ill-health experience a high prevalence of intimate partner violence(Kallivayalil, 2010, Oram et al., 2013).

Physical and sexual abuse, within a dysfunctional family dynamicare the two greatest interpersonal factors which cause people to develop eating disorders (NEDA, 2012).

The World Health Organisation conducted a study on women's health and violence in 10 countries, reporting that the prevalence of lifetime physical and/or sexual abuse in intimate partner violence ranged from 15% to 71%, while the prevalence of past year physical and/or sexual abuse in intimate partner violence ranged from 4 - 54% (Garcia-Moreno et al., 2006).

Following a systemic review of 8 papers involving research carried out on 6775 females and 4857 males, Bundock et al., (2013) highlighted that in the UK a large nationally representative household survey and a small community-based survey reported the prevalence of lifetime physical intimate partner violence among women to be 34.6% and 40.0%, respectively.

No similar global estimates exist for the prevalence of being a victim of intimate partner violence among men. This may imply that women are at a higher risk of physical violence.

A meta-analysis of 41 studies carried out worldwide emphasized that women suffering from eating disorders were more likely to have been victims of domestic violence, to suffer from depressive/anxiety disorders, obsessive compulsive disorders and other mental health issues and substance abuse.

Depression partially explains links between direct victimization and eating disorders (Mitchel & Mazzeo et al., 2005).

Research seems to indicate that clients suffering from eating disorders have frequently been exposed to domestic violence during childhood and/ or adolescence, which is also the common age for the development

of eating disorders (Hudson et al., 2007) (Table 1 on page 8)

Victims of physical and sexual abuse are more likely to attain the criteria of bulimia, binge-eating (Dansky et al., 1997) and post-traumatic stress disorder (PTSD), while those of psycho-emotional abuse tend to succumb more readily to cultural pressure developing anorexia (Milosevic, 1999). The following sections will discuss these terms.

Domestic Violence (DV) is not specific to race, religion, socio-economic background, age, educational level, sexual orientation, or gender. It may be found in opposite and same-sex relationships, and between intimate partners who are married, living together or dating.

DV is defined as a pattern of abusive behaviours, wherein, one partner/family member uses violence to gain and/or maintain power and control over another member. Intimate partner violence consists not only of physical and sexual aspects but also of emotional, economic and/or psychological actions or threats of actions that influence another person to behave in a manner set by the perpetrator, who could be an actual or former partner.

Abusive actions include, but are not limited to, manipulation, humiliation, isolation, coercion or hurting someone.

Physical abuse includes denying a partner medical care or forcing substance abuse upon the other. Sexual abuse ranges from marital rape, to treating someone in a sexually demeaning manner.

Continues on page 8.

ST APOLLONIA RECEPTION

At Palazzo Castelletti. Kindly sponsored by V. J. Salomone (Klacid and Brufen)















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LET THE TEETH DO THE TALKING

Continues from page 5.

Economic abuse involves attempting to make an individual financially dependent by maintaining total control over financial resources, and/or forbidding attendance at school or employment.

It appears that through emotional abuse the perpetrator, intends to undermine the victim's sense of self-worth and/or self-esteem through constant criticism and/or belittling or by damaging one's relationship with one's children.

Psychological abuse, includes but is not limited to, causing fear through intimidation, threatening physical harm to self, partner, children or partner's family/friends, destruction of property and/or pets and forcing isolation from family, friends, school and/or work. Emotional and psychological abuse underlie the previous three forms.

Within a transactional context, abuse may be played within the psychosocial game of 'look what you make me do to you – it's your fault if I hurt you.'The perpetrator justifies ones abusive actions, blaming the victim for acting in a way that allegedly precipitates the abuse. In addition to having a detrimental effect on the victim, DV has a negative impact on those who watch it.

Through virtual trauma and identification with the victimthey might reflect that 'this could happen to me' (Berne, 1991). Children who frequently witness DV may become predisposed to numerous social and physical problems, possibly concluding that violence is a normal way of life – 'if you get what you want, I do the same.' Work-based experience, indicates that battered wives may also become battered mothers.

Eating Disorders are characterized by irregular eating habits ranging from the inadequate to the excessive, accompanied by severe concern

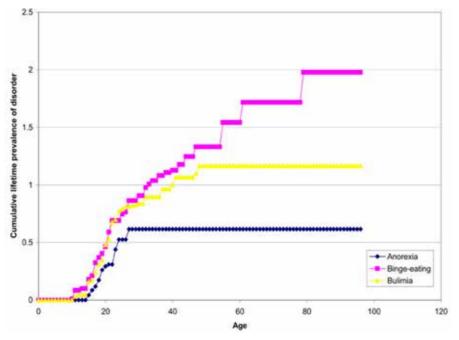


Table 1: Age of onset of eating disorders

about body size, weight and/or shape and having an unrealistic perception of body image, damaging the individual's well-being. In this article we will be looking at Anorexia, Bulimia and Binge Eating, which may affect both males and females.

Anorexia nervosa more frequently arises due to societal pressures setting a constraining stereotype of how a female should look rather than family dysfunction. Families with an anorectic have been described as high achieving, over-protective and conflict avoiding, possibly implying the presence of psychological/emotional pressures/abuse leading to the child/adolescent feeling that one has lost power and control over one's life.

Anorectics, viewing themselves as overweight despite obvious proof otherwise, severely limit their food intake. Their diet could precipitate brain damage, multi-organ failure, bone loss, heart difficulties and infertility, possibly leading to the person losing one's teeth and/or causing other forms of damage to one's dentition(Milosevic, 1999). Anorexia is frequently associated with Anankastic Personality Disorders/traits, characterized by a fascination

with power and control, perfectionism, stubbornness and rigidity, having a hard and cruel superego which does not allow them to take effective decisions (McDougall, 1990).

Childhood sexual and physical abuse, parental over expectation/criticism, indifference and emotional immaturity frequently appear in the bulimic family background. *Bulimia nervosa* is characterized by repeated binge eating followed by behaviours which compensate for the overeating e.g., purging, excessive exercise and/or extreme use of laxatives or diuretics.

This cycle is typically carried out in secret, accompanied by feelings of shame, guilt and lack of control. In the dental clinic this behaviour may be discovered through the observation of Russell's sign wherein callus forms on the back of the hand and fingers due to the bulimic putting one's hand in one's mouth to induce vomiting. In addition to gastrointestinal problems, severe dehydration, and heart difficulties resulting from an electrolyte imbalance, regular purging causes pain in their throat and the acid from the purging damages their teeth (Milosevic, 1999).

Typically persons who suffer from Bulimia tend to be impulsive, resorting to self-harm such as cutting, and causing themselves physical pain to cope with emotional numbness, thus exhibiting Borderline Personality disorder/traits (DSM-V, 2013).

Individuals who suffer from Binge Eating Disorder frequently lose control over their eating. However, episodes of binge-eating are not followed by compensatory behaviours, such as purging, fasting, or excessive exercise.

ecause of this, they might become obese, increasing their risk of developing other conditions, such as cardiovascular disease. Persons struggling with binge eating may also experience intense feelings of guilt, distress and embarrassment related to their eating habits, which could influence the further progression of the eating disorder. Through binge eating they may numb feeling hurt and/or humiliated, masking feelings of vulnerability and powerlessness. Binge eating may be perceived as an act of defiance – gaining control in a context of no-control.

From a transactional perspective they say 'look what you make me do to myself.' Rather than being assertive with the perpetrator, victims become assertive with their food intake, consuming how much they want, when they want it. When victims of DV begin to feel worthless and the perpetrator's actions reinforces this negative belief, they may binge eat as a manifestation that they do not care about themselves. Binge eating becomes a form of self-harm wherein physical and psychological trauma is enacted by oneself on one's body, causing re-traumatisation in a manner similar to that of the perpetrator.

Post-Traumatic Stress Disorder (PTSD) is a well-researched condition including recurrent, involuntary, and intrusive distressing memories, dreams and dissociative reactions (flashbacks).

These may be accompanied by a complete loss of awareness of present surroundings. Intense or prolonged psychological distress/reactions may be observed when victims are exposed to internal or external cues that symbolize or resemble an aspect of the traumatic event(s). As a result victims tend to avoid or make efforts to avoid, associated stimuli which entail people, places and activities that arouse distressing memories, thoughts or feelings.

Unless treated with urgency, victims tend to forget important aspects of the traumatic event(s), while experiencing persistent and exaggerated negative beliefs about themselves, others, or the world. Distorted cognitions about the cause or consequences, lead victims to blame themselves. Negative emotional states (e.g., fear, horror, anger, guilt, or shame), lead to markedly diminished interest in significant activities, feelings of detachment from others and the inability to experience positive emotions (e.g., happiness, satisfaction, or love).

This precipitates a marked deterioration in their behaviour consisting of unprovoked irritability and angry outbursts, reckless or self-destructive behaviour, hypervigilance, concentration problems and sleep disturbance (DSM-V, 2013). Victims suffering from DV related PTSD may be highly intelligent, selfactualised persons prior to meeting the perpetrator, losing it all due to exposure to: - constant negative criticism, e.g. being told that another woman is more beautiful than they and/or that nothing they do is ever good enough and ongoing lack of affect and empathy i.e. never feeling loved or appreciated.

This may lead to their losing their sense of self, having to constantly make their partner feel more special than themselves and/or the children, and to their losing spontaneity, having to really think what to say and how to say it to avoid a tirade

against their inefficiency – they live in an intangible psychic prison.

Having lost their self-esteem and self-confidence they begin to genuinely believe that if they leave their partner they would be unable to cope. Financial issues, including loss of child support increases their resistance to leave this detrimental situation.

COMORBIDITY – DOMESTIC VIOLENCE FUELS EATING DISORDERS

People are known to resort to comfort eating to experience a sense of calm, with food taking on the role of comforter when they need it, something which might not happen in real life situations.

People are also known to drastically decrease food intake when feeling sad, depressed or anxious. It is not surprising, therefore, that eating disorders are often comorbid with mental ill-health (Hudson et al., 2007), wherein eating disorders represent a form of maladaptive creative adjustment, (Evans& Gilbert, 2005), an effort to manage an unmanageable, abusive, life situation.

Research indicates that domestic violence victims and persons suffering from eating disorders both feel that they have been "stripped of their power and... control over their own lives or actions" (NEDA, 2012). While in DV control emanates from the perpetrator's need to feel superior, in eating disorders, food becomes a means of regaining control over lost aspects of one's life.

This results in the development of low self-esteem, feelings of inadequacy, severe depression, anger, anxiety and/or loneliness. Similarly to how perpetrators isolate their victims from friends and family, so do eating disorder behaviours. Further knowledge about how these conditions, possibly fuel each other, is required.

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LET THE TEETH DO THE TALKING

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The Dental Probe

March 2018 - Issue 65

EATING DISORDERS AND THE DENTIST

Patients suffering from eating disorders are reticent to admit their condition and may present with other symptoms including, but not limited to: unexplained and frequently visible weight loss or excessive gain; sore throat from recurrent vomiting and/or lethargy/ apathy. A characteristic giveaway of eating disorders is the destruction of surface tooth tissue secondary to vomiting, reflux and regurgitation. Milosevic (1999) describes how:

"angular cheilitis, candidosis, glossitis and oral mucosal ulceration are possible sequelae to nutritional deficiencies while peculiar intra-oral presentation...chronic irritation to the mucosa from long term vomiting [and] severely eroded dentition...may raise suspicions in the dentist's mind that something odd is happening."

Persons exposed to domestic violence are, even more secretive, explaining cuts, bruises and lost teeth as a result of innocuous household incidents. which raise an alarm when they are a regular, even if not frequent occurrence. Psychological and emotional abuse is intangible, but noticeable possibly from the manner the clients interact, even at times, in front of the dentist. A possible alert is the refusal to undergo necessary treatment, which might imply economic abuse. The dentist is a front liner, who can direct and motivate his/ her patients to seek further support, in a professional and discreet manner, so that their situation might be resolved.

Having identified the possible presence of an eating disorder and/or domestic violence situation, in addition to routine/complex treatment, the dentist could provide general advice, raise the patients' awareness about their condition and motivate them to seek support. This intervention forms part of the Prochaska et al. (1991) change model (See Figure 1).

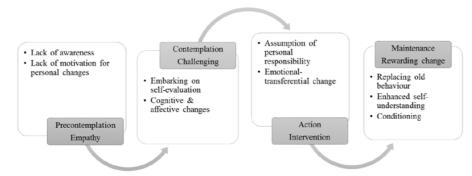


Fig. 1: The dentist may support moving from precontempation to contemplation to action

During the pre-contemplation stage the patient is aware that change needs to occur because something in one's life is not making one happy but is not yet conscious that personal change is required.

Consciousness raising and increasing of awareness about self and context are necessary to commence the transition process. As self-awareness increases, the patient may enter the contemplation stage embarking on self re-evaluation.

This is a very challenging time during which the patient questions one's life expectations. Such questions may include: - what is happening here?; what should I be doing?; how can I do what is required of me? This is a very delicate stage as it involves cognitive and affective changes, which lead to change in meaning-making. If the patient accepts that one needs to act to enhance ones quality of life and sense of well-being, assuming personal responsibility, than one is ready to enter the action stage.

This is a vulnerable moment as resistance from others and unanticipated reactions may lead to self-doubt, inner contradictions and crisis, especially if what needs to be done is in direct confrontation with introjected past rules, regulations and belief systems.

Perpetrators are particularly effective at this stage by either seducing the victim to continue acting 'in the way we always have – we do not need anyone to solve our problems for us', or by threatening the victim that

if one changes one will be placing the relationship at risk. This usually leads to the victim becoming passiveaggressive, precipitating of stress, anxiety and confusion. This state of affairs may precipitate relapse into the contemplation stage.

Motivating reluctant patients or patients in denial, may take various forms: leaving informative leaflets about domestic violence and eating disorders in the waiting room is an effective way of raising awareness discreetly, using a psycho-educational approach. Domestic violence contact number cards may also be provided.

Handing out the SCOFF questionnaire to patients whom the dentist suspects as having an eating disorder but are in denial or hiding their condition, may also be an awareness raiser. The patient may read the questionnaire at home, avoiding being embarrassed. The SCOFF questionnaire, is a userfriendly self-reporting tool consisting of 5 questions which highlight the presence of eating disorders.

THE SCOFF OUESTIONS

- Do you make yourself sick because you feel uncomfortably full?
- Do you worry you have lost control over how much you eat?
- Have you recently lost more than one stone in a 3 month period?
- Do you believe yourself to be fat when others say you are too thin?
- · Would you say food dominates your life?

A score of 2 and above indicates the likely case of an eating disorder.

During one's interventions, the dentist may motivate patients and/ or their significant others in cases of minors, to seek further professional support. If the patient admits to vomiting as part of a weight reducing activity, post-vomiting methods may be suggested.

Less severe anorectics, who indicate that they are amenable to long term out-patient psychological interventions coupled with medical monitoring, may be referred to the relevant professionals. More severe cases and multi-impulsive bulimics may need in-patient treatment involving nutritional provision and psychotherapy. A trans-disciplinary approach, is recommended wherein, following consent from the patient, the dentist may work together with a psychologist to plan the stages of dental treatment using behavioural therapy and together with the patient's G.P. The latter may prescribe anti-depressants and support psychological interventions.

A few suggestions how one might raise awareness directly if one suspects the presence of an eating disorder include: - discreetly asking what the patient's diet consists of, how often one eats during the day and when/if the patient avoids particular foods.

The dentist should avoid asking why questions, as this could lead to the patient retracting to continue hiding the eating disorder. Paraphrasing what is said by the patient and ensuring that one is understanding what is being implied by asking 'Am I understanding you correctly' at the end of the paraphrase, usually gives better results (Egan, 2014).

If the patient feels that the dentist is actively listening one may offer unasked for information. In this manner the dentist would bring the client-system in touch with the

potential for being self-determining, and encourage the understanding of the patients' own experiences within the circumstances (Mezirow, 1998, Lewin, 1951; Parlett, 1991).

The dentist's intervention may thus result in a better outcome for bulimia with recovery in up to 80% and up to 50% of anorexia nervosa sufferers (Milosevic, 1999).

WAY FORWARD

The way forward includes more research, information sharing and self-reflexivity to enhance further our understanding of these conditions and the quality of our interventions.

Research: Cited studies focus primarily on physical/sexual abuse decreasing the possibly of assessing: - the association between all forms of abuse and eating disorders; the temporality of the relationship between eating disorder and abuse; whether recovery from eating disorder is associated with a reduction in risk of abuse (or vice versa); and the strength of association between eating disorders and how recent was the abuse (i.e. past year vs. lifetime).

Further research to assess the prevalence and risk of abuse among women, men and adolescents with eating disorders should use standardized/validated measures/instruments enabling the differentiation between physical, sexual, economic, psychological and emotional abuse, between minor, moderate and severe violence and frequency as opposed to the single occasion. Since eating disorders have different etiologies, probably the association between them and intimate partner violence would vary with type of abuse.

Further studies are also required into the risk of developing an eating disorder as a result of childhood abuse and co-morbid psychiatric conditions. Although limited, current evidence suggests that professionals working with people with eating disorders should be competent at addressing their experiences of abuse, including safe identification and responses(Bundock et al., 2013; Collier & Treasure, 2004).

Adding value to dental interventions through information sharing and self-reflexivity: On the 18th October the Commission for Domestic Violence launched a Peer to Peer Evidence Based Research Group which aims to deliver the highest level of professional services to victims of domestic and gender based violence through peer to peer learning, support and research. Its objectives consist in increasing interstakeholder knowledge of services on offer; networking between members attending the group and adding value to their respective professional interventions; enhancing professional reflective practice and providing mutual support/reciprocity supporting the professionals through vicarious trauma and collaborating with similar units abroad, in exchanging knowledge, best-practice and research.

Team reflection leads to learning and may consist of objective and/ or subjective reframing – i.e., one reflects on what and how an event happened, and on which personal assumptions and preconceptions the actions carried out were based.

The advantages of carrying out selfreflexivity within a team setting includes, burnout prevention through receiving mutual support and enhancing creativity and innovation leading to self-growth – learning is one of the best intrinsic motivators. The Commission is interested in working with all stakeholders including dentists, and looks forward to becoming a focal point for joint initiatives.

Continues on page 12.

LET THE TEETH DO THE TALKING

Continues from page 11.

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PREDICTABLE CHAIRSIDE CAD CAM RESTORATIONS

In this lecture Dr Piotr Strojek presented predictable chairside digital protocol for posterior restorations. Benefits of utilising chairside CAD CAM sysyem in the practice include: Increased patient's comfort – single visit, no need for impressions, temporaries, second anaesthesia; Stronger, durable materials; Precise fit.



Full digital workstation of Dental and Implantology Unit at St James Hospital including acquisition unit, milling machine and secondary design computer



One of the presented cases.

Secondary caries, failing amalgam restorations in 46 and 47



Initial situation on bitewing radiograph



Rubber dam isolation is crucial when adhesive procedures are carried out



Olde restorations removed. Visible caries



Large tungsten carbide ball burr was used for final precise carious tissue removal

Continues on page 16.

PREDICTABLE CHAIRSIDE CAD CAM RESTORATIONS

Continues from page 15.



Selective etching of enamel with 38% phosphoric acid - 15 seconds



After adding more acid to dentine for another 15 seconds the cavities are copiously rinsed



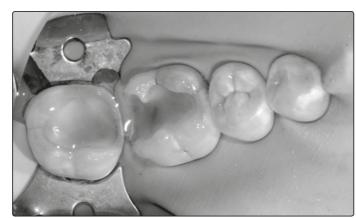
2% chlorhexidine is well known matrix metalloproteinases (MMP) inhibitor. Application of chlorhexidine prior bonding prevents quicker hybrid layer degradation



Immediate Dentine Sealing procedure is performed with use of three-step etch-and-rinse bonding system



Introduced in 1995 Optibond FL (Kerr) may be considered a golden standard in adhesive technology



A layer of flowable composite is placed to thicken and stabilise bonding layer

Continues on page 16.



- Regular toothpastes[†] only protect the hard tissue, which is 20% of the mouth²
- The remaining 80% of the mouth is the tongue, cheeks, and gums, which can provide a bacteria reservoir for plaque biofilm recolonization

WHY SETTLE FOR 20% WHEN YOU CAN OFFER PATIENTS PROTECTION TO 100% OF THE MOUTH'S SURFACES?



^{*}In addition to fluoride for cavity protection, Colgate Total® provides 12-hour antibacterial protection for teeth, tongue, cheeks, and gums.

References: 1. Fine DH, Sreenivasan PK, McKiernan M, et al. J Clin Periodontol. 2012;39:1056-1064. Z. Collins LMC, Dawes C. J Dent Res. 1987;66:1300-1302.

^{*}Defined as non-antibacterial fluoride toothpaste.



BEAT BEAT SENSITIVITY PAIN FAST

new

CHMLT/CHSENO/0022/17

SENSODYNE



PREDICTABLE CHAIRSIDE CAD CAM RESTORATIONS

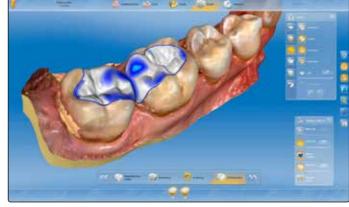
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The margins of the preparation are cleaned and refined with ultrasonic handpiece. Teeth are ready for scanning



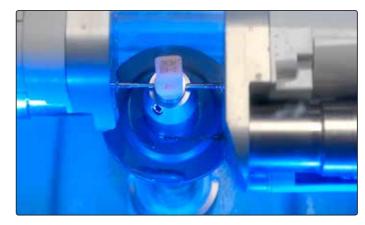
Intraoral scanning



Design stage



Hybrid ceramic material was used in this case - Vita ENAMIC



Milling



Milled restoration. Fissures are refined with diamond bur

PREDICTABLE CHAIRSIDE CAD CAM RESTORATIONS

Continues from page 19.

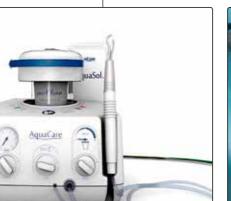
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Staining kit for ENAMIC blocks was used for characterisation



Glazed restorations - ready for bonding



Bonded surface of both restoration and the tooth are sandblasted with 50micron aluminium oxide powder



Enamel etching



Frosty appearance of etched enamel



Isolation of the adjacent tooth and bond application (just adhesive – no primer required at this stage as there is no exposed dentine). Bond is left uncured



First restoration in situ



Dual cured composite is used for luting



Both restorations in place



After rubber dam removal



Final check

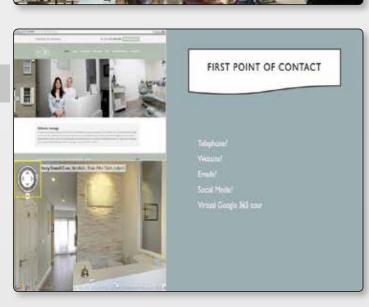


There is no way back from digital technology. The future is clear – a move from milling to 3D printing

MEETING PATIENTS' RISING EXPECTATIONS

IMPLANT UNIT ST

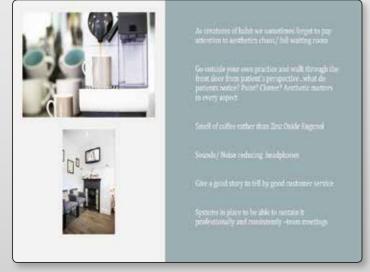
THE AESTHETIC PATIENT JOURNEY Attracting the right patients Patient experience Initial interview Treatment planning Comprehensive Assessment



WHY SHOULD THEY TRUST OUR TEAM?

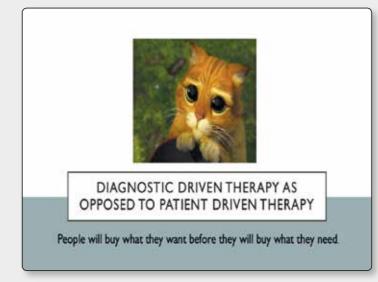
- Cosmetic dentistry is not a need based discipline but a want based discipline therefore requires more trust than conventional dentistry.
- These people have choices and time to get other opinions before getting treatment done. They are not in pain and have time to make up their mind.
- Dr. John Medina a molecular biologist wrote Brain Ruleswine tasting experiment highlighting how vision in what we see is very powerful and perception overrides our minds.
- We are visual creatures and perception of the practice plays a







By Dr Nicola McArdle B.Ch.D, MFDS, PGdipRAD Dental and Implant Unit, St James Hospital, Sliema













DIAGNOSTIC EXPERIENCE

I about halding a relationship of area. Seein to inform of applicat

Showing photographs of own cases

Discuss budget

Clinical photographic and Radiographic Analysis

Articulated study Models

TIME blocked off in the dark may from patien

Smile Design

Digital Simile Design Tool Mock-ups

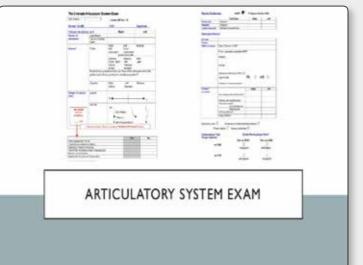


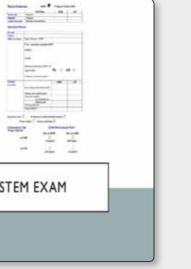
MEETING PATIENTS' RISING EXPECTATIONS

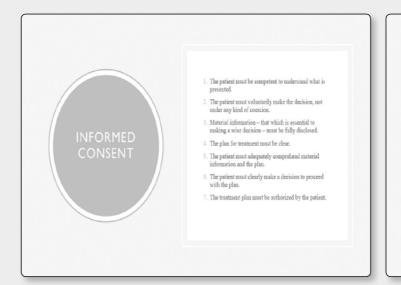
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The Dental Probe



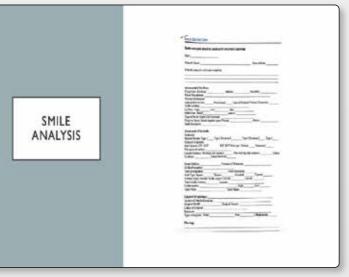


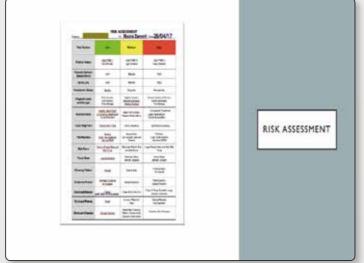


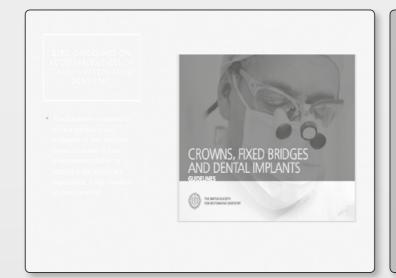


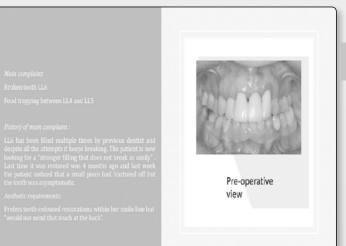


- $Crown \ and \ bridgework \ is \ responsible \ for \ the \ greatest \ proportion \ of \ negligence \ claims \ against \ dentists, accounting \ for \ dentities \$ the largest element of all damages and legal costs.
- With patients' ever-increasing expectations, the pressure to deliver quality dentistry has never been higher and will not
- The patient's expectations of crown and bridgework must be assessed, particularly when cosmetic treatment is
- Appropriate care needs to be taken with tooth preparation.
- Patients should be warned regarding risk of loss of vitality with fixed restorations.
- Occlusal problems are common precipitators of complaints, particularly when reduction of opposing teeth is carried

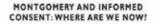












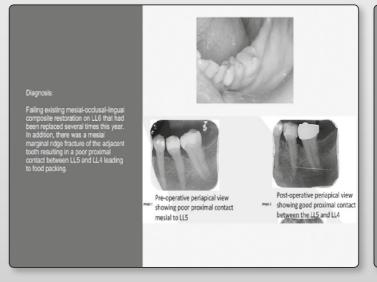
Prior to the Montgomery case, the "Daughter Test" was a good aid in attaining consent for Bective Aesthetic Dendstry, Ac Its simpless, Dr. Martin Kelleher sales the question Knowing what I know about what this procedure would involve to the teeth in the long terms, would I carry out this procedure on your charber?"

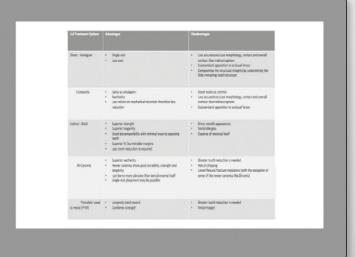
on my own displace?

The Montgomery a Laurishire case of March 2015 drew hish assention to informed consent. Nadise Montgomery, a woman with diabetes and of small stature, delivered her son vaginally; he experienced complications owing to shoulder dystocia, resulting in hypoxic insult with consequent cerebral pality, her observations had not disclosed the increased rink of this complication in vapisal delivery, despite Mongomery saling if the haby's size was a potential problem. Mongomery such for negligence, arguing that if she had known of the increased risk, the would have requested a desarrate section. The Supreme Court of the UK announced judgment in her favor in March 2015. It established that rather than being a matter for clinical judgment to be assessed by professional medical opinion, a patient should be told whatever they want to know, not what the doctor thinks they should be told.

Monogomery v Lanarkshire Health Board [2015] SC 11 [2015] 1 AC 1430.







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We do not need to go into the obvious grief one's family will go through in such an eventuality; however, one thing that many people fail to identify is the problem that arises vis-avis your business or practice when the worst happens.

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- Life Assurance and Savings/ Retirement Protection plus a savings element.
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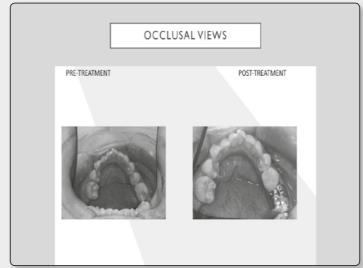
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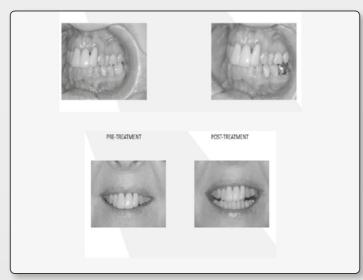
Together we thrive

MEETING PATIENTS' RISING EXPECTATIONS

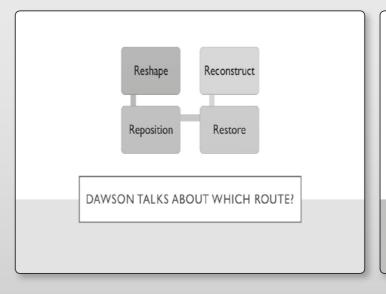
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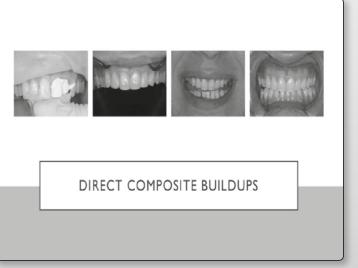












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The Dental Probe

MEETING PATIENTS' RISING EXPECTATIONS

Continues from page 29.









The prospect of litigation is increased when a combination of precipitating and predisposing factors exists. These factors have an aggravating effect, especially when the predisposing factors leave patients feeling abused or ignored.

- · Pain
- Early failure and need for remedial treatment
- Perceived aesthetic deficits (unexpected display of metal)
- Overprescribing/over-treatment (patients feeling that they have been talked into treatment that they did not need, or which was of little benefit to them)
- Under-treatment/supervised neglect The most common allegation is that the patient was unaware of the presence of periodontal disease, or that the extent and implications of the periodontal problems had not been explained to them. Where there are significant levels of periodontal disease, and one or more teeth have a doubtful or terminal prognosis, the patient may well become very angry blaming the previous dentist for allowing the periodontal condition to deteriorate under their care. If the condition, along with the treatment options and appropriate advice, is not explained to the patient, the individual may well feel that they have been let down by the professional person they have trusted over many years.
- Escalating or unexpected cost (patients have a right to know in advance how much their dental treatment is likely to cost with an explanation of potential situations which may necessitate costs to be revised).





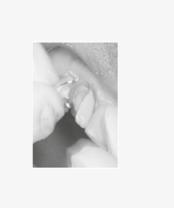
TREATMENT PLAN

dodontic

- An endodontist colleague was consulted regarding existing root canal treatment URI and endodontic status of ULI (Whitworth et al., 2002). We discussed the potential risks of redoing the suboptimal (radiographically) existing root canal filling on the URI given that it had been asymptomatic for over twenty years. Her advice was as follows;
- "There is no contraindication for us to go ahead with change of existing crown restoration on URI, based on marginal failure and poor aesthetics, if it does NOT require post and core upon further clinical examination. If a post is deemed necessary, refer the patient to her for a further endodontic assessment prior to proceeding with further restorative treatment."

storative

- Accept lower arch and rest of maxillary arch with UR2 in crossbite.
- Crown the ULI and replace the existing PFM crown URI with high-strength lithium desilicated (IPS e.max) conforming to the existing occlusal scheme.
 Planned restorations will not be involved in lateral canine guidance and share anterior guidance with no interferences.





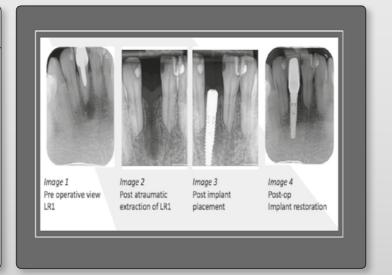


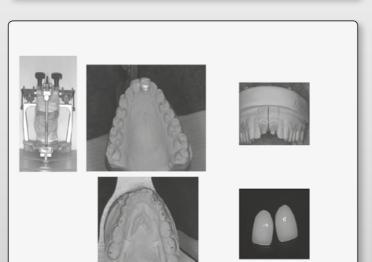


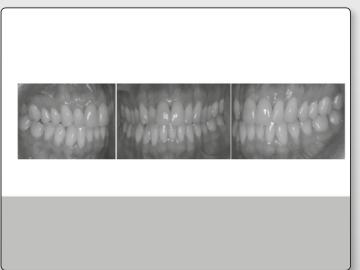


EXPECTATION PAIN RELIEF VERY DISAPPOINTED WE COULDN'T ACHIEVE THAT WHILE RETAINING HER TOOTH









Medical history

history: Drinks an average of two units of alcohol per week mostly red win

MEETING PATIENTS'

RISING EXPECTATIONS

Dental

Social

history: History of extensive work done in Italy over the last few year

AESTHETIC REQUIREMENTS

- During her relaxed smile, the patient's upper lip exposes the cervical aspects of the maxillary anterior teeth.
- Non homogenous shade of her anterior dentition partly attributed to the existing metal-bonded to ceramic crowns LL1 and LR1. Her entire dentition shows some degree of extrinsic and intrinsic staining.

The gingival zeniths of the maxillary central incisors are symmetrical and at the same height. Uneven gingival zeniths in her lower labial segment caused by recession in the gum line and bone loss (Ahmad, 2005).

Gingival recession on her UR2, UR1, UL1 and UL2 has caused dimensional changes altering the width-length ratio of these teeth which should ideally be in the range of 75-80% (Ward, 2007).

Although symmetrical, the form of both upper central incisors is Actional symmetrical, title form of obtain apper central inclusions is triangular in shape with a wide gingival embrasure between them. According to the patient, this black triangle is 'getting bigger with time as her gums recede'.

The lower labial segment also shows a reverse smile line

In the transverse plane the occlusal plane is parallel to the interpupillary plane (Tjan et al., 1984).

Midline straight and perpendicular to interpupillary line For aesthetic purposes only the UR6 requires replacement as the UR7 is not in her smile line.



ARTICULATORY SYSTEM EXAM



Mandibular forward excursion



Mandibular right lateral excursion

PERIODONTAL EXAMINATION



BPE examination indicated a full periodontal charting (Armitage, 2004).

- · Site specific level of attachment loss localized particularly in one area (UR6 and UR7)
- UR6 and UR7 both grade II mobile (MILLER'S CLASSIFICATION) and no sign of traumatic occlusion. Localized defects with an FIII furcation in the UR7 and FII furcation involvement in the UR6 (Schei, 1959)
- No areas of suppuration
- . Lower molars show deep pocket depths with significant attachment loss and need to be kept under close review
- . There is significant attachment loss both palatal and lineual on all premolars and molars

RESTORATIVE EXAMINATION

- · Generalized heavily restored dentition
- . Stable MIP with canine guidance in lateral excursions and shared incisal guidance during protrusion
- Impressions for study models, bite registration in ICP, face-
- bow record and pre-op photographs were also taken. · Diagnostic casts were mounted on a semi-adjustable articulator and used to evaluate;
- . the occlusion in MIP.CR and all excursions 2. the edentulous space ridge relationship to the adjacent
- teeth and the opposing dentition
- 3. the amount of vertical and horizontal overlap
- 4. the restorative space available No over-eruption of opposing teeth LR6, LR7and LR8 which could have led to occlusal interferences and decreased inter-
- occlusal space necessary for implant restorations

The lower incisor crowns are splinted and functioning well

on a semi-adjustable articulato

DIAGNOSTIC WAX UP INSTRUCTIONS/ 3D DIGITAL PRINTING OF MODELS BY NIMRO DENTAL

RADIOGRAPHS

- LL1 and LL2.
- · Digital image of grade 1 quality (despite scratches in film) demonstrating absence of periradicular radiolucencies or pulp canal obliterations.
- height generally 3-4 mm from CEJ and increased vertical loss around the LL1.
- · No caries or marginal defects under existing fused metalbonded crowns noted.

ORTHOPANTOMOGRAPH



Oblique cut CBCT view showing axillary posterior region postrafting with good regeneration in JR6 site. (Dawood et al. 2009).

- View: P1 dental panoramic tomograph.
- Quality: Grade 1 with good angulation.
- Normal trabecular pattern and bone density overall with normal anatomical shadows (mental foramina and ID canals). Body and ramus of mandible and maxillary antral floors and walls of sinus are of normal appearance with no fluid level noted. Pneumatisation of the right sinus shows inadequate space for placement of implants in the UR7
- Teeth Present: UR7, UR6, UR5, UR3, UR2, UR1, UL1, UL2, UL3, UL5, UL6, UL7, UL8 (IMPACTED), LL8, LL7, LL6, LL5, LL3, LL2, LL1, LR1, LR2, LR3, Ir5, LR6, LR7, LR8,
- · Caries present: NIL (Bitewings required to verify this). · Periodontal tissues: horizontal bone loss with more extensive attachment loss of one particular area UR6 and
- Restorations visible on UR7, UR6, UR5, UR2, UL1, UL6, UL7, LL6, LL1, LR1, LR6, LR7 and LR8.
- No root resorption noted.
- No Perianical radiolucencies of note

TREATMENT OPTIONS

LL2, UR2, UL2 alignment correction	Advantages	Disadvantages
Orthodontics	Correct rest of dentition especially crowding which could help with her periodontal condition long-term	Compliance Treatment time Expense Interproximal reduction /extractions
Ceramic veneers	Shade stability. Can be repaired and altered chairside.	Preparation of sound tooth tissue Irreversible Technician involved temporary restorations Marginal staining
Composite veneers	Reversible No laboratory fee Can be polished and repaired Minimally invasive	Shade less stable, staining Can chip

Montgomery approach. She was adamant that she did not want to get braces again and eventually chose composite reneers based on their ease of reversibility (Frese et al., 2013).

TREATMENT OPTIONS

No expense/No chairside time Reduced function in mastication, unstable occlusion leading to overeruption of opposing molars Aesthetics (wide smile) Not fixed Removable partial denture Restores function and aesthetics (Chrome/Acrylic) No graft required Plague recention Implant supported fixed prosthesis Fixed, independent of rest of Expense, invasive (grafting /sinus lift

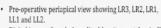
Patient was very conscious of her missing teeth UR6 and UR7 and wanted a fixed replacement however she was reluctant to get a sinus lift to allow placement of an implant in site UR7 and was happy to replace the UR6 for the time being and reconsider UR7 in due course. Risks associated with Implant treatment in patients with a history of treated periodontitis were discussed at length (Heitz-Mayfield and Huynh-Ba,

Continues on page 34.

BACKGROUND

9

Continues from page 31.



Generalized horizontal bone loss with interdental bone

92

MEETING PATIENTS' RISING EXPECTATIONS

Continues from page 33.



IMPLANT FIXTURE PLACEMENT SITE

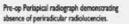












- The image is of grade I quality
- It confirmed that the pulp canal of the ULI was not oblicerated.
- No root fractures were evident and no evidence of external/internal root resorption or perispical pathology of note.
- There is evidence of significant bone loss mestal to her upper central incisors.
- Restorations noted palatal class I amalgam restoration on her UL2, paletal class I composite restoration on her UR2 and distal class 3 composite restoration on her UL3.

TREATMENT **OPTIONS**

- Single discoloured ULT Intrinsically stained due to pulpal trauma and possible Transient Apical Breakdown after possible knotion injury as a child (Andreasen, 1986).
- Vital bleaching outcome of UL1 is unpredictable due to the severity of the intrinsic stain pre-treatment (Barber and King, 2014s). Result may not be stable and relapse of ULI could occur so will be kept under close

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- After a discussion of all enumeric options, the patient was lappier to opt for what blacking as the most minimally insolve socirologe before moving to more levales thamples. Decid the discoloration mout then we could discuss the postation of a more invasive treatment modeling (Magne et al., 1995).
- Night guard Hital bleaching, as introduced in 1989 gainer 2004), will be used with a 10% curtaminite perceide viscous get and a custom vacuum-form samplisse propored over a model of the posteric trooth (Sulferman, 2005).
- ULI status and shade will be held once treatment is complete.

MATERIALS USED

- The bleaching agent of choice was 10% carbamide peroxide used in the past as an oral aneasptic (Mapne et al., 1993). A sariety of case reports and clinical studies have shown that: a 10% carbamide peroxide gel used in a bleaching any at right produces predictable resists; Solienan et al., 2004. Tooth whoseing with 10% carbamide peroxide is an effective and safe treatment (Haywood, 1997) when under a dental professional' supervision. "Reported incidences of detaites creatively range from 15-65% of patients using 10% carbamide peroxide".

 (Albami et al., 2015).
- A Council of the European Union Directive on sooth whitening A Council of the European Union Directive on soon whening allows dorstes so supply products legally which release or contain up to 4% hydrogen pervoide (equivalent to 20% carbamide percusile) to patients aged 18 and above for sooth whitening (Council of the European Union, 2011).

Casein phosphopeptide-amorphous calcium phosphate

(CPP-ACP) GC Tooth Mousse was applied in the bleaching trays in order to help control the perient's sensitivity (Greenwall, 2015).





Main complaint: The patient presented complaining of a

History of main complaint: Patient had traumatized both her upper central incisors as a child and ever since always remembers the ULI being darker than the rest. She remembers seeing a dentist at the time and vaguely recalls him "pushing one of her front teeth into position after the fall" but she doesn't recall ever getting any further treatment for it and the tooth has been asymptomatic ever since. Her own dentist had told her that the only way to improve its colour was to get a porcelain veneer and she is now looking for a second opinion

Aesthetic requirements: Homogenise shade of dentition. Her ULI is discoloured when compared to the neighbouring dentition and her metal ceramic crowns are currently a brighter shade than her existing dentition.

Details of aesthetic requirements: Smile line is low and forgiving to receding gingivae and black triangle between her upper central incisors which is not a concern to the patient. Her teeth are well aligned.







Pre-op retracted view with shade tabs



Improved shade of ULI as well as rest of dentition following nightguard vital bleaching with 10% carbamide peroxide.



Smile following external vital bleaching



Smile following bleaching of entire upper and lower arches for further

Continues on page 36. Continues on page 36.

MEETING PATIENTS' RISING EXPECTATIONS

Continues from page 35.





- Taking a good medical and dental history
- Performing a thorough examination including any relevant investigations
- Formulating a diagnosis and provisional treatment plan and discussed with the patient
- Explaining and considering treatment options as part of the consent process
- In giving consent, the patient needs to be aware that it may not always be possible to make a definitive treatment plan until the response to an initial phase of care is known

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THE DENTAL ASSOCIATION OF MALTA Administrative Report 2017

By Dr David Muscat, Secretary - DAM

The Dental Association of Malta committee consists of 9 members. These are:

- Dr David Vella, President
- Dr Adam Bartolo, Vice President
- Dr David Muscat, Secretary
- Dr Noel Manche, Treasurer
- Dr Nik Dougall, IT Officer
- Dr Audrey Camilleri,
 European Affairs Co-ordinator
- Dr Ann Meli Attard, CPD Officer
- Dr Gabrielle Cordina, Projects Manager
- Dr Chris Satariano Federation Representative

These members were elected in a fair and regular election in early 2017. The Association is regulated by a statute which is available to the public. The Dental Association of Malta had 172 full members in 2017.

In 2017 the DAM committee had 14 committee meetings. There was one AGM and one EGM. The DAM organised two full day hands on courses and four evening lectures with sponsors. The DAM also liaised with Ludes University to make postgraduate Orthodontics lectures and courses by eminent world renowned lecturers professors available to its members at no cost.

The DAM is committed to postgraduate education and CPD and easily satisfies 15 hours of verifiable CPD hours per year with our events. A study on CPD in Malta was carried out by Dr Meli Attard and we have analysed the data we have collected for statistical reasons.

The DAM organised the first ever Council of European Dentists conference in Malta. This was organised very well by Dr Audrey Camilleri at the helm with all the committee helping and pulling together. The DAM was involved in all the initial discussions with the office of the President of the Republic in making complex dental treatment available to those social cases who cannot afford such treatment. The DAM was involved

in the Ethics conference organised by the Federation of Professional Associations on 27th November 2017. The DAM was also involved in many issues such as the Dental Technologists issue; the EU proportionality issue, numerus clausus in Dentistry in Malta, the dental inspections issue, Dental Health Care Standards issue, advertising, the organisation of hands on courses abroad in Liechtenstein and Rome (which will bear fruit in 2018) and the dental specialists issue. We also again negotiated a new mobile phone package for our members.

With our membership of CED and FDI we constantly keep up with issues in Europe and the World that will ultimately affect all of us and Dr Audrey Camilleri, our EU officer, attends conferences abroad in this regard.

Dr Chris Satariano keeps us updated with his attendance at Federation meetings which he attended in 2017. Dr Manche has been very diligent with our accounts.

Dr Dougall, our IT officer, has been instrumental in disseminating out adverts and information in relation to all our events and activities.

Dr Bartolo has been our officer who had worked on dentists' behalf in relation to government affairs. Drs Muscat, Vella and Dougall have also been involved in talks with the authorities regarding outsourcing of work from Mater Dei such as fillings, check ups and dentures to private practices.

The DAM donated 420 euro to Inspire in January 2017 – this money was collected at the 2016 Christmas party at the Hilton. This year the Christmas party was held at The Villa at Le Meridien Hotel on 8th December 2017 and a further 430 euro was collected and this has been handed over to Inspire once again.

Dr Ann Meli Attard, who, although she had a baby in 2017, still attended meetings by Skype call. Dr Gabrielle Cordina was busy in the organisation of the Liechtenstein project for 2018 as well as all other issues.

A mention has to be made of the other members of the committee especially those who have young children who give up their time for all. I did not mention the word 'free' as a description of time as we all know that dentists are extremely busy professionals and time is very important for us all.

The work at the Committee level costs you both financially at an expense of family time and we all know how important that is. Each committee meeting starts at 8pm and does not finish before midnight. There are many things to consider – even the printing of CPD certificates takes time, chasing advertisers for The Probe, obtaining sponsors for events. One only sees the finished result - before every event there would have been several meetings, emails etc. This all eats into one's professional time. Dr Lino Said, although not a member of the committee, had helped us with our St Apollonia event and organising masses and Lenten sermons.

The Dental Probe – The Maltese Dental Journal edited by Dr David Muscat who is now going into his 12th year as editor is doing well and we encourage dentists to submit articles. Most dental lectures/events are covered by Dr Muscat who summarises them or obtains slides so that those who could not attend have a chance to keep up with all the new techniques etc.

In 2017 we bid farewell to Dr Edwin Galea, a gentleman who was once President of the Dental Association of Malta and attended most of our events very regularly.

The current Dental Association committee under the Presidency of Dr David Vella has worked very well together in 2017. Let us face 2018 with the same strength and determination to overcome any obstacles and improve the quality and care of dentistry in Malta.



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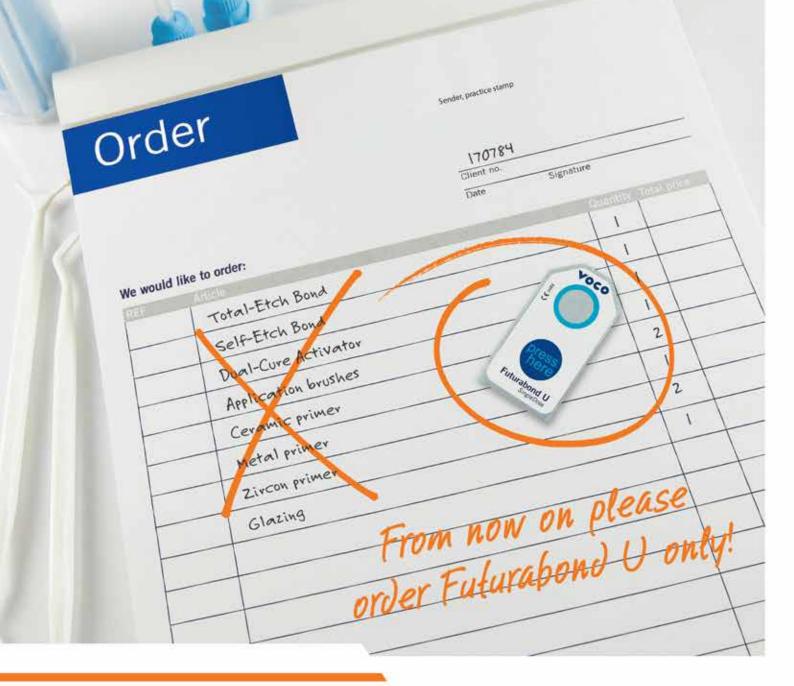
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