The British Society of Prosthodontics London 2015 Conference

TITLE: CONFRONTING THE GREY AREAS

VENUE: BRITISH LIBRARY CONFERENCE CENTRE AND PULLMAN HOTEL ST PANCRAS

Day one: Friday 27th March 2015

The last bsspd conference held in London was in 2001 under Paul Wright's Presidency. Therefore 2015 was the year of return for the bsspd to the capital after a 14 year wait.

The title and theme of the 2015 conference was: ***Confronting the Grey Areas.*** The conference was organised under the presidency of Peter Briggs with a strong line-up of speakers who were asked to explore the areas of grey within Prosthodontics.

For the first time the conference was run on a Friday and Saturday under the direction of Council toy attract more primary care practitioners. The venue at the British library allowed for 250 delegates in the main tiered auditorium with two additional break out rooms (connected with AV to main lecture theatre) to hold additional delegates allowing for a maximum of 340 delegates.

The conference speakers agreed to make PDFs of their presentations available for bsspd.org.

The Postgraduate Dental Dean for London Dental Education Training (HEE) and her Patch Deans felt that the academic programme for the Friday was particularly relevant to the educational needs of the London Dental Foundation trainees. They were particularly keen for their DFs to experience the society debate on the implications of the phase down of dental amalgam. This meant that the conference needed to use both break-out rooms to accommodate the large number of delegates.

Liz Jones, OBE, the Postgraduate Dental Dean for London welcomed the society to London and formally opened the conference. **Peter Briggs, Society President** then invited **Ken Hemmings**, Consultant in Restorative Dentistry at the Eastman Dental Hospital and also a specialist private practice in Buckinghamshire to commence the scientific programme.

Ken's lecture was titled: **Prosthodontic Management of Tooth Wear – the Grey Areas.** He outlined the importance of accurate diagnosis and assessment of Tooth Wear – with the use of a Tooth Wear index to better aid objective measurement and description. He stressed the importance of informing patients when and why they are suffering from Tooth Wear and what the options of management include. He also displayed the sharp increase of tooth wear in the general UK population. Ken used his and other

studies to back up his views. He felt that composite is now a safe and simple approach to most presentations of tooth wear. It perform better than many predicted at the beginning of prospective studies. Interestingly he advocated early intervention with direct composite resin of worn / 'cupped-out' incisal edges before the remaining enamel is lost as they are easier to restore at that stage. He also felt that you need around 50% of tooth length to predictably offer fixed restorations. Ken discussed the advantages and disadvantages of crown lengthening surgery and conventional tooth preparation. His message was to avoid for as long as possible but to realise and explain the limitations of adhesive dentistry. He showed cases where he was also using composite in thick sections to successfully to restore the occlusal aspects of posterior teeth. His take home view is that it is always worth giving adhesive dentistry a go as the worst that can happen is that it fails with no biological cost to the patient. For para-functional patients Ken emphasised the use of robust splints with the newer bilaminar splints highlighted by the Liverpool team potentially providing a cheaper alternative to Michigan hard acrylic splints.

After a quick coffee break that, due to large numbers, required efficient crowd by the orginsation team **Professor Julian Satterthwaite, bsspd President Elect**, chaired the next session.

First up was **Richard Porter**, Consultant in Restorative Dentistry at St. George's Hospital. His title was **Modern Thinking on the Management of Fractured and Cracked Teeth**. Richard used several clinical examples to nicely demonstrate the dilemma that we all face with fractured teeth, whether they are vital and symptomatic or whether the teeth are the source of discomfort etc. He used a vital central incisor with infraction lines and cracks on its palatal surfaces. He used this tooth as a method of teasing out philosophy, fact and fiction. In fact obvious traumatic fracture of teeth is easier to plan and treat than teeth with large infraction lines and cracks. He made reference to the excellent Trauma guide of the University of Copenhagen, which provides a fantastic, free resource for those seeing patients with trauma.

Richard was very clear that due to a general lack of evidence there is not only one way to manage teeth with suspected cracks. He gave good advice on diagnostic tips and he was keen on the use adhesive gold cusp re-enforcement for cracked teeth. Ceramic can be also considered - although the patient should be aware of likely reduced outcome compared to metal.

The audience were left with a good update of a very difficult clinical problem. The issue is clearly on the rise and something we all need to think more about in primary and secondary care. Richard strongly made the point that we need more clinical outcome research on treatment strategies for cracked teeth both within primary and secondary care.

Julian then introduced **Kevin Lewis**, Director of DPL to speak to: **Dento-Legal Grey Areas in Prosthodontics**. Kevin is probably one of the best known dentists in the UK and regularly voted as the most influential dentist in the country. As expected he produced a masterful presentation on the Dento-Legal risks and pitfalls in Prosthodontics. His presentation was particularly relevant to those starting out on a clinical career. After he had depressingly demonstrated that the UK is now the riskiest place to practice in the world then then went on to dissect the reasons patients make complaints against us.

Although we all might think that it usually relates to one *precipitating* event this is not the case. If a patient has built up good rapport and trust with a dental team then a single suboptimal event is unlikely to result in a complaint as there will have been few *modifying factors* prior to the event.

Conversely, if the patient does not know the dentist or specialist and has built little relationship with the practice team; or has experienced previous problems the situation is likely to be different. In such circumstances a clinical incident / poor outcome is much more likely to lead to a complaint. This because several *modifying* factors are then likely to be in place prior to a major *precipitating factor* that triggers a complaint.

In summary if we spend time on learning *'people skills'* we will be better placed to control risk when we experience (as we all will) a clinical problem / unfavourable outcomes. Kevin then with reference to the book: *Bounce – the myth of talent*, by Matt Syed went on to describe how dentistry is a repetitive learning skill and it is possible to move from unconscious incompetence to conscious competence with volumetric procedural experience and when needed formal supervision and teaching.

Kevin's advice, to those starting a career in Prosthodontics was firstly to conquer 'people (soft) skills'. It is important for us all to remember that we are all in the 'people-business' and not implant, crowns or veneer business. So before we 'tool-up' and learn new clinical procedural skills we must be able to look after patients in a manner that they can appreciate and trust.

Lastly, Kevin explained that our adventurous side and general attitude to risk will play a large part in our overall risk of receiving complaints. Ideally, we should take time to thoroughly plan and exhibit realistic cautiousness but have the clinical skills to provide what has been promised. This was an excellent message to take into the excellent lunch and trade show. Posters were also viewed by delegates.

In the afternoon delegates packed into the main auditorium and breakout rooms in expectation for the **bsspd Society Debate on the Implications of the Minamata Convention on Mercury to Dental Amalgam – Should our patients be worried?** After a coin toss **Professor Trevor Burke**, Professor in Primary Care from University of Birmingham, was first up and gave a short presentation in support of the alternatives to dental amalgam. His theme was 'why in 2015 would you want metal in your mouth?' His presentation included many clinical examples and use of composite resin from various manufactures. His upbeat message was that resin is a good substi-

tute for amalgam with recent studies confirming predictable outcome. He admitted that Composite resin is more fiddly to place but can be done by most dentists. Trevor finished with a prediction that by the time we are no longer able to use amalgam manufacturers will have found the ideal resin material to replace it.

Next up was **Phil Taylor,** from Queen Mary's University of London (QMUL) with a hard hitting evidence-based riposte in support of dental amalgam. He felt that without amalgam dentally-vulnerable patients will suffer more secondary caries and biological problems (e.g. pulpal necrosis). As a result he felt that more teeth will be prematurely lost in the UK population in an amalgam free world. He strongly felt that amalgam is a biologically more forgiving particularly in sub-optimal circumstances e.g. special needs patients.

The debate session now moved on to interactive smart phones voting. With the help of **Rupert Austin** from King's College London's and James Toner from the KCL Technology Enhanced Learning Centre the audience was able to use the latest technology to record the views of the audience to a number of pre-chosen clinical examples. One of the big advantages of this technology was the ability for audience to use 'free text comments' with their voting. Both speakers had previously had the opportunity to make comments on the examples used and it was interesting to see the differences in opinion between the audience and the speaker responses. As one might expect there was not too much disagreement when the clinical examples were relatively straightforward. However the differences became more apparent when people were asked to restore large cavities with deep sub-gingival boxes. Specific questions were asked of the dental foundation trainees present – many of whom may not have been trained in the use of dental amalgam.

The general conclusion of the debate was that the conference audience would not want to see a complete ban on the use of dental amalgam. It saw strong benefit of continued amalgam availability particularly where clinical conditions (isolation, sub-gingival margins and high caries risk) dictate. The results of the debate will be written up and disseminated in a dental publication in the near future. The session showed the benefit of modern technology to both include and engage a large audience. Informal audience feedback confirmed positivity towards the new technology and many commented that it was the only lecture where they had been asked to turn on their phones!

After afternoon tea and poster display / judgment **Peter Briggs** then introduced **Professor Daniel Edeloff,** from Munich University who lectured to the society at the Liverpool bsspd Conference in 2012. Daniel was asked to address: **Is CAD/CAM Technology and All-Ceramic Restorations the Answers to all our Problems?**

Daniel showed early on that he is a very talented clinician with fantastic attention to clinical and laboratory detail. He also is heavily involved with the development of newer ceramic and glass technology. In addition to his teaching and research responsibilities he spends two days of his week providing high quality dentistry for patients within the dental institute in Munich – a very similar to the USA model where he spent much time during in the earlier part of his career. The fact that he had to put his heavy (over a ton) CAD-CAM machines in the basement of his institute was an indicator of his drive for quality. He felt that chairside surgery machines, because of the problem of vibration, were just not accurate enough. As a result machines too heavy to be put in the dental laboratory allow the construction of highly suitably accurate CAD-CAM restorations. As a fully-trained dental technician (before dental training) he understandably focussed on technician expertise. She showed case after case of exceptional quality, presented in a matter of fact humble fashion.

The University of Munich had access to many CAD CAM systems – it was routine for undergraduate dental students to use this for their patients. Daniel felt that the cost of scanners was a problem for many. As a result, even in Germany, uptake to intra-oral scanners was slow. So most were indirectly scanning their plaster models (in the laboratory) to allow fabrication of CAD CAM restorations. Daniel explained the difference of 'Monolith' and 'Layered' restorations and the difference between them.

Although Daniel's first presentation was at the end of a long day it gave delegates a good indication that his presentation on the following day would be worth seeing. The delegates then prepared themselves for the conference meal at the Pullman Hotel just next door to the British Library Conference Centre. Bsspd members attended the AGM in one of the break out rooms.

Conference dinner: The conference dinner was attended by 220 delegates and was held in the ballroom of the Pullman Hotel St Pancras. The pre-dinner drinks reception coincided with the launch of the bsspd young practitioner group (subject to ratification of the constitution by bsspd council). Peter Briggs thanked the conference organising committee (Rob McAndrew and Kirstin Berridge), all the speakers, bsspd council members, bsspd secretary (Shiyana Eliyas), bsspd treasurer (Mike Fenlon) and all those involved in making the conference such a success.

He then personally thanked two of his own mentors Professor Roger Watson and Martin Kelleher, who were both his personal guests. He handed over to Dr Phil Hammond, the after dinner speaker. Phil proved to be a very popular choice for the conference meal with a good mixture of fun, jokes and serious comment on the NHS and all type of medical diseases. He was committed to the maintenance of high professional standards and encouraged all young medical and dental professionals to aim for high professional standards. He also displayed from his own experience how things have improved in terms of clinical training. Due to the large number of people it was not possible do the usual sweepstake for the nominated charity.

Therefore Rob McAndrew 'supervised a game of *top and tails* which raised over £500 for the nominated charity of the President - **Bridge2Aid.**

Then off home, to bed, or bar - to relax, network and reminisce to the small hours.

Day 2 Saturday 28th March 2015

Professor Mike Fenlon drew the short straw in chairing the early morning session after the night before.

Professor Dominic O'Sullivan, from the University of Bristol, was first up. He was asked to present to the title of: **Implant Use in the Periodontally-Susceptible Patient – The Grey Areas**. It was clear from the beginning that Dominic had put together a superbly well prepared presentation on the use of dental patients with a history of periodontal disease. As a director of the postgraduate implant programme at Bristol, he was acutely aware of the responsibilities that he and other trainers of such university programmes have with training dentists to adopt a measured approach with the use of implants. This was particularly apt after Kevin Lewis had highlighted the rapidly growing number of Dento-Legal claims involving dental implants. Dominic went through the various stages of planning with a strong emphasis on prosthodontic reverse planning the first stage. He emphasised the need for periodontal maintenance to be in place before implants can realistically be considered to replace teeth. This maintenance must be proven over an agreed time period before implants can realistically be offered. He illustrated the greater risk of implants developing problems in periodontal patients where plaque-control is suboptimal and where inflammatory disease is still active.

Dominic was clear that wherever possible natural teeth should be preserved. He outlined the common complications of peri-implant mucositis and peri-implantitis. He explained the ways we can reduce the risk of such problems but patients with a history of periodontal disease have a greater risk of developing implant problems. He also highlighted the greater risk in patients with aggressive periodontitis. The key to success with periodontal patients is adequate Supportive Periodontal Therapy – it makes a big difference to long-term outcome and bone loss around implants. Dominic spent some time evaluating the value of immediate implants in the periodontal patient and the issue of biofilm management. Finally he suggested aggressive management of the mucositis for those patients with known periodontal susceptibility. He left us with a quote from Donos 2014 - *that the extraction of periodontally-involved teeth may not be the end of problems but the beginning of new ones.* It was just what the conference needed for the first presentation of the day to wake up those jaded from the night before.

Mike then welcomed back **Professor Edeloff** to speak on: **The potential and clinical Indications for the Newer Indirect Ceramic and Glass Restorations**. I am sure that those there would agree that Daniel gave a 'jaw dropping' demonstration of what is possible at the very highest end of clinical dentistry. He used this benchmark to outline his approach and solutions to an array of clinical challenges and problems with modern technology.

All his patients all achieved excellent periodontal health prior to commencement any prosthodontic treatment which clearly increased his predictability with the latest indirect adhesive ceramic restorations. He demonstrated multiple clinical applications of indirect (all ceramic and glass restorations) across a broad clinical range. All his clinical photographs of every clinical stage were of a very high standard. He and his technical team were prepared to find the outer limits of potential for these relatively new materials. For instance, he showed several full occlusal wear (erosion) cases where his technical team were able to construct extremely thin (E-max) monolith press ceramic onlays - which he then bonded with aid of with hydrofluoric acid etch followed by low viscosity resin-based lute cement. His latest published audit (at three years) confirmed none of these restorations to have failed.

He also highlighted how his team were using CAD-CAM technology to 're-tread', rather like a tyre, damaged ceramic restorations on conventional and implant cast and CAD-CAM superstructures. Daniel illustrated very exciting concepts that can be used to avoid both the difficulty and expense of removing (and completely replacing) failed and failing fixed conventional and implant-retained restorations.

In summary, Daniel's contribution to the scientific component of the conference was a view into the future, with aid of the technology we will all be using in 10 years. For those old enough to remember he reminded me of a 21st century Jan Pameijer – one of the great 20th Century dentists. This complemented the presentation by Dominic to get the first session of the second day of conference to great start.

After morning coffee the conference delegates had the choice of three sessions.

The **Schottlander Research Prize presentations**

In the main auditorium this session was ably chaired by Phil Smith. The quality of both subjects and oral presentation was of the highest standard giving the judges a difficult job in selecting a winner. The audience appreciated the effort that had clearly gone into the presentations and it was good for the society to see that the bsspd conference continues to attract a high number of high quality poster and oral prize entries.

The awards made at the 2015 bsspd conference were as follows:

The Schottlander Oral Prize; Andrew Keeling, University of Leeds for his presentation, "3-D printing of a copy denture template; a case history". The judges commented on the quality of the other presenters who were commended for their efforts and who made the task of selecting a winner very difficult

The Schottlander Poster Prize; H Patel, Queen Mary University Of London, School Of Medicine and Dentistry, for their poster: "An investigation into the effect of finishing and polish-

ing protocols on the surface roughness and characteristics of two different ceramic systems"

The Heraeus-Kulzer Award; **Greg Herbert**, Liverpool University Undergraduate for his critical review, **"The role of Metal Ceramic Crowns and Direct and Indirect Composite Resin in the aesthetic restoration of worn teeth".**

The Coltene Award; **Raggi Munjal** a recent graduate from the University of Sheffield.

At the same time two parallel workshops also ran in the breakout rooms. Both were well received by attending delegates.

Workshop 1

This was run by **Neil Poyser** and **Jason Watson** both from Queens University Hospital Nottingham. The title of the workshop was **Multi-Disciplinary Care (MDT) – Restorative and Prosthodontic cases from Nottingham**. The workshop was an interactive discussion and presentation given by both Jason and Neil of different cases that they have treated together in QUHN. The delegates appreciated the structured discussion of each clinical case with clear description of the role of the Restorative Dentist, the Consultant Technical Scientist and the Maxillo-Facial Surgeon to achieve satisfactory outcome. A PDF of the cases was made available to the society. The delegates that work with similar patients were treated to a good session on how a good MDT team should and can work. It also explained the advanced role of the Technical Scientist for the head and neck patient.

Workshop 2

This was chaired by **Kushal Gadhia**, Chair of the young bsspd practitioner group. The workshop was titled**: Immediate or Delayed implant placement**. This brought together **Lloyd Searson and Shakeel Shahdad** on different sides of the argument. The attending delegates were treated to a high intensity debate between delayed and immediate placement (with the aid of clinical case examples and use of clinical literature. Both speakers were able to put forward their views – leaving attending delegates to reflect on the implications to their own practice.

In line with long-standing bsspd tradition both presenters, with strong opposite views were able to smile and shake hands at the conclusion of the workshop to applause of the audience. Delegates enjoy a topical and clinically-relevant debate that was well mediated by Kushal.

Phil Taylor chaired the next session after a successful lunch. The first session of the afternoon was filled by **Brian Schottlander**, **Shakeel Shahdad** (fresh from his workshop debate) and **Jimmy Makdissi**. Shakeel and Jimmy both work with Phil at Bart's and the London.

Phil welcomed **Brian Schottlander** to provide a short presentation from in which he updated bsspd on his company's new **Enigma** denture teeth that had been launched the previous day in central London. The development of these teeth was clearly a huge passion for Brian and he was obviously proud of the final result. The teeth had been trialled and well received by several experienced bsspd clinicians. Phil Taylor, of Bart's and the London, is heading a project (supported by bsspd) where the teeth are being used by ungraduated dental students. Brian carefully explained the benefits and advantages of Enigma teeth both from both cosmetic and functional viewpoints.

Next up was **Jimmy Makdissi** talking to: **The Grey Areas to 3D Scanning and Dento-Facial Imaging in Prosthodontics.** This was a very useful presentation for those in the audience. Jimmy outlined the indications for CT and CBCT scanning. In summary it should add to the diagnostic information and help decision making or improve safety of treatment. He outlined important guidelines from the college of Dental and Maxillo-Facial Radiologists and the likely doses associated with CT and CBCT images. All images should also be appropriately reported. He used some clinical endodontic and implant examples where the addition of a 3D image helped considerably diagnosis and potential treatment. He also explained the advantages and disadvantages of CT and CBDT views. He stressed the importance of not over-relying on the 3D technology with the aid of a clinical example where the correct use of a CBCT / computer-aided implant surgical stent resulted in poor (dangerous) positioning of mandibular implants.

Shakeel Shahdad spoke next to: **Managing Complex Prosthodontics and Failure – Some Clinical Tips**. Shakeel emphasised the need for good communication, diagnosis, assessment and planning prior to definitive treatment planning for failing cases.

He was strongly of the view that restorable teeth should be preserved where possible and honest information given to patients about their usefulness compared to other options. He was always keen to plan for failure - as if the patient is young enough – then it will happen. He was also keen to split fixed conventional and implant fixed restorations into smaller manageable units to ease the difficulties of managing failure. He felt that this approach was better accepted it would help all involved with managing prosthodontic failure.

He displayed evidence that showed that cantilever implant fixed bridges are a viable, cleansable and predicable option. He suggested that it was essential to strip down teeth and restoration(s) before making major decisions on restorability can be made. Shakeel is not a fan of immediate implants preferring to wait until the 'osteoblastic phase' of socket healing (6-8 weeks) prior to fixture placement. He displayed in his presentation some very nicely treated cases that involved re-treatment of varied examples of prosthodontic failure. His messages were very clear and simple. Natural teeth should be preserved where possible, natural teeth should be thoroughly assessed and 'stripped down' before informed decisions can be made on their future.

Implants have their place in the management of failure. However we need to assess lip line, soft tissue biotype and bone volume very carefully. Shakeel prefers to use srew-retained implants and augments with Xenograph material to achieve optimal anatomy. This was a very useful presentation from an experienced clinician for those asked to manage prosthodontic failure with many clinical tips provided and learnt. After questions sessions for Shakeel and Jimmy it was break for afternoon tea

Peter Briggs chaired the final session of the afternoon where he invited **Paul Tipton**, a very well know private practitioner and clinical teacher in Prosthodontics from Manchester to address bsspd for the first time.

Paul was asked to speak to the title: **The Grey Areas of Occlusion in 2015 – the Balance between Evidence and Clinical Experience**. The number of remaining delegates bore testimony to both to the importance and interest in the subject and also in Paul. Paul outlined his own learning and development on the subject - initially in general practice in the North of England, Mike Wise's Restorative course in London and then a two year part time 'taught' MSc in Conservative dentistry with Derrick Setchell and team at the Eastman Dental Institute (1987-89).

Paul gave a passionate presentation on his view of Prosthodontics, Occlusion and Tooth Preparation. He felt that young UK trained dentists are generally inexperienced with prosthodontic skills. He admitted that he clinically prescribes more indirect restoration and prepares more teeth for patients than in hospital settings. He defended this due to the very predictable reported survival of fixed conventional restorations if done well.

He described the things that need to be in place in order to make a crown successful. Preparation must include good taper, satisfactory margin design and good preparation height. Occlusal loading must be planned and controlled and it is important, for larger cases that the retruded-axis position and retruded-contact position must be assessed and identified.

Paul spent then some time explaining the law of levers. With the analogy of a nut-cracker he explained why all restorations should be loaded within a type 3 lever situation to best reduce the problems associated with occlusal overload.

He also felt that it was still essential, when planning change to vertical dimension, that patients should wear a Michigan maxillary splint to identify, with muscles de-programmed, the reproducible start position (RCP / CR) from which restorations can be manufactured.

Paul was still a fan of metal dies and pick-ups to optimise accuracy and all verification at all stages. He has found other techniques (stone dies and other methods of recording jaw registration) less accurate in his hands. He also stressed the need for good robust temporisation and ensuring that the patient is comfortable with the temporaries and happy with the way they look.

He demonstrated diagnostic and PKT wax up. He feels that all dentists should gain experience in waxing-up restorations to learn the nuts and bolts of static and dynamic occlusion together with the benefits and use of anatomical articulators.

In summary Paul remains happy to use the techniques he was taught during his own training. He still sees fixed prosthodontics as an important skills area for the young dentists. Loading restorations correctly is achieved by building good posterior stability and appropriate anterior guidance. He explained how he achieves this. He recommends that patients with para-functional risk should wear hard protective splints to protect placed restorations but accepts that occlusion, in itself, is not the cause or solution of para-function.

This brought the scientific part of the conference to a close. Peter then asked **Julian Satterthwaite** to come up to the stage to be installed as the bsspd President for 2015-16. Julian then gave Peter a past President badge and thanked Peter, **Kirstin Berrige** and **Rob McAndrew** for putting together such a well-attended conference in London. He then updated delegates on his own conference titled: **Progress, Precision in Prosthodontics**. This will be run at the **Bridgewater Hall, Manchester on Friday 18th March and Saturday 19th March 2016**.

This brought a formal close to the conference. The society would like to thank all the speakers, those presenting posters, workshops and oral prize presentations and finally all the attending delegates for making it such a successful two days.

Peter Briggs

Inauguration of incoming president Professor Julian Salterthwarte who takes over the Presidency of the BSSPD from Peter Briggs for 2015/16