

Patriarchal medicine

Dr Arianne Shahvisi shares her thoughts
on how medicine is failing women



In this issue

- The risks of smoking shisha
- Award-winning teaching in A&E
- How your heartbeat can help you tackle phobias



from the Dean,
Professor Malcolm Reed

By the time this edition of *BSMS Pulse* is in print we may know more about the manner in which BREXIT will unfold. Regardless of the outcome, we face challenging times as a nation and our future role in Europe is unclear. This has a major impact on many of our staff, students and colleagues across both universities and the NHS. I recognise that this is a very unsettling time but we are doing everything we can to support those affected in every way possible in accordance with our strong sense of inclusion and community at BSMS.

In the past few months we have been extremely busy running our recruitment process to ensure we fill our increased number of places, with just over 200 new students starting in September 2020. I am grateful to our fantastic admissions team and all our colleagues, including patients, students, university and NHS staff who have helped with the process.

We are fully committed to our pledge to use our expansion to ensure that we increase the representation of students from the whole range of society including those from disadvantaged backgrounds. This year new guidance from the General Medical Council (GMC) will encourage us to recruit more students with a disability than we have ever done previously, and we will be holding a stakeholder meeting later in the year to refresh our selection policy in order to ensure that we reflect the GMC's aspiration. BSMS is already a leading example of inclusion and diversity and we will ensure that we maintain our commitment in this vitally important area.

We are determined to preserve the high quality of the education we provide to our students, and are working hard to ensure that the ethos and values of BSMS are maintained and our new students are able to have a similar experience to previous cohorts. We will also continue to support all our activities including research, knowledge exchange and public engagement, which do so much to contribute to the success of the school overall.

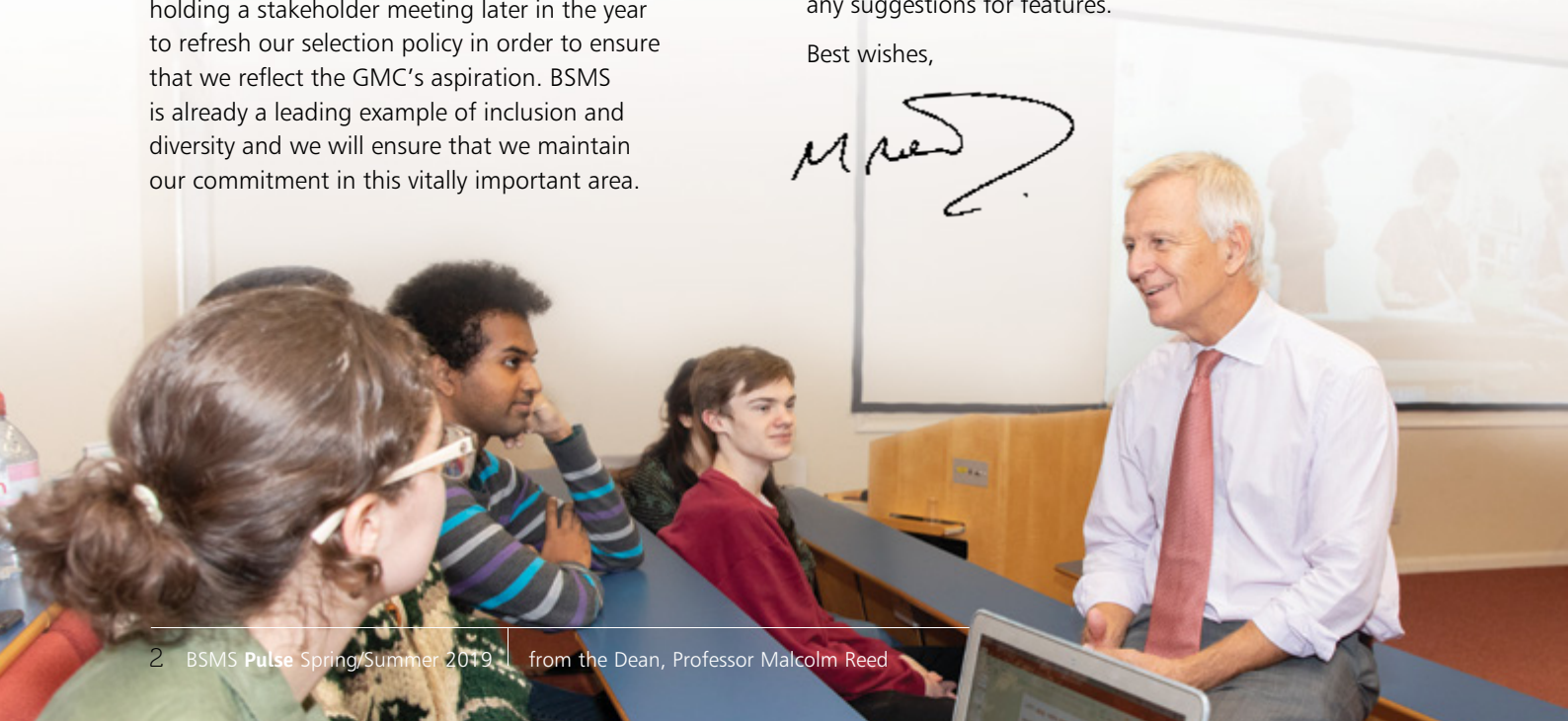
As smoking cigarettes decreases, alternatives such as vaping and smoking shisha (hookah) are on the increase – particularly among young people who are drawn to their range of flavours. But a recent study has shown just how bad shisha smoking is for you – you can find out more on page 4.

We take a look at the A&E department at Brighton and Sussex University Hospitals NHS Trust – which recently won the Royal College of Emergency Medicine's Teaching Department of the Year (page 6).

And Dr Arianne Shahvisi, Lecturer in Ethics and Medical Humanities, investigates how medicine is failing women, and the dangers of turning to unproven 'alternative' therapies (page 8).

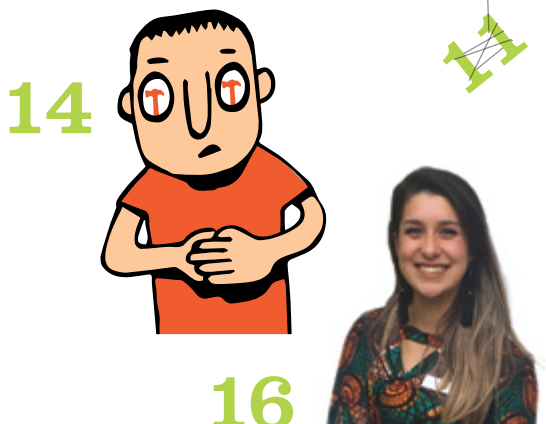
We hope you enjoy this issue of *BSMS Pulse* magazine and please do not hesitate to let us know if you have any suggestions for features.

Best wishes,



Contents


- 4 New dangers of smoking shisha discovered
- 6 Learning at the frontline of emergency medicine
- 8 Medicine neglects women's needs, but alternative medicine is not the answer
- 11 An end to arachnophobia 'just a heartbeat away'
- 12 A conversation with Dr Kristy Themelis
- 14 'Rubber hand illusion' clue to Tourette syndrome
- 15 Waiting rooms missing a trick
- 16 School news
- 17 Postgraduate study at BSMS
- 18 News
- 19 Events



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Cover story (see page 8)




New dangers of smoking shisha discovered

Smoking shisha or 'hookah' significantly increases the risk of diabetes and obesity, a study at BSMS has revealed for the first time. In fact, it may even be worse for you than smoking in some respects.

Research found that shisha smokers were more likely to gain weight and develop type 2 diabetes in comparison to non-smokers after inhaling 'hookah' fumes.

Taking place in Iran, where smoking shisha is common and considered a relaxing way to spend time among friends, the study involved 9,840 participants, including non-smokers, hookah smokers and cigarette smokers, among others.

Participants' baseline characteristics were measured against their biochemical results from blood tests and anthropometric data. Results showed a link between hookah smoking and the presence of obesity, diabetes, metabolic syndrome (a cluster of symptoms that increase risk of heart disease, stroke and diabetes) and dyslipidemia (an abnormal amount of fatty lipids). In contrast, there was no significant association between cigarette smoking and these conditions.



"It is not yet clear why hookah smoking is associated with obesity and diabetes. It is possible that the toxins in the smoke stimulate an inflammatory response that causes tissues to become resistant to the effects of the hormone insulin, which regulates glucose levels in blood. However, it may also be the case that hookah smoking is associated with other social behaviours that lead to weight gain, for example sitting around rather than moving, and eating as you smoke."

Shisha smoking uses a stemmed instrument or 'hookah' for vaporising flavoured tobacco, with smoke being passed through a water basin before inhalation via a tube or hose.

The new research has cast doubt on the widespread belief that smoking shisha may be healthier due to the smoke passing through water and somehow being purified.

"An average session of hookah smoking lasts an hour, in which smokers may inhale the equivalent of smoke from more than 100 cigarettes, and therefore a substantially greater amount of toxic compounds," says Professor Gordon Ferns, Head of the Department of Medical Education at BSMS, and co-author of the study.

As cigarette sales have steadily been falling for decades, people are increasingly turning to 'healthier' alternatives such as vaping and hookah smoking. A recent study published in the *British Medical Journal* showed that shisha practice now accounts for around half of all teenage smoking in some regions.

Young people may be attracted to the range of flavours shisha smoking offers.

However, while a cigarette is finished in an average of 20 puffs, shisha smokers may have a session with friends that lasts an hour or two, exposing them to greater volumes of tar heavy metals and other carcinogenic chemicals over a longer period of time.

Prof Ferns adds: "There is now good evidence that hookah smoking is not harmless. The risk with respect to certain cancers is well established, and the evidence for an association with cardiovascular disease is growing. From a health policy perspective, it is important for the public to recognise the risks of hookah smoking – which needs to be regulated as strictly as cigarette smoking."

Learning at the frontline of emergency medicine

The A&E doors slam open and a trolley carrying a stricken patient is pushed through, ambulance staff calling out critical information. A young doctor steps up and makes an instant decision, taking control and saving a life. We've seen that happen many times on TV programmes, and while the reality isn't always that dramatic, the reliance on a doctor to 'get it right' at that crucial moment is real enough.

Medical students at BSMS are not only given training in a busy A&E, but are lucky enough to be learning in what is now an award-winning teaching department. Brighton and Sussex University Hospitals NHS Trust's A&E department was recently awarded the Royal College of Emergency Medicine's Teaching Department of the Year.

Emergency Medicine Consultant Dr Rob Galloway believes A&E offers something special to medical students: "A&E is an amazing learning environment.

You have a patient in front of you who has certain symptoms but hasn't yet been diagnosed. So you don't see someone with an appendicitis – you see them with abdominal pain, you don't see someone with a myocardial infarction – you see them with chest pain. You see them at the beginning of their medical journey and this means you can learn loads."

Dr Galloway puts the department's success down to "a young, dynamic consultant body who make things happen, despite difficult working conditions", along with the development of a new role to help teaching. Ten Educational Fellows have been employed to work with the medical school, spending 66% of their time on clinical work and 33% working with medical students.



Dr Rob Galloway watches students practising ultrasound on Dr Sam McInney



Dr Sam McInerney leads a teaching session

This means that medical students have a dedicated fellow teaching them, giving them feedback and supporting them throughout their placement.

Dr Sam McInerney has been working as an Educational Fellow at the Royal Sussex County Hospital for the past two years. "My role means I'm able to build my teaching portfolio, and increase my exposure and skills across all medical and surgical specialties through the patients I see in A&E," he says.

"I help prepare medical students for their foundation roles by seeing and examining patients, testing their clinical skills and medical knowledge, as well as showing them how exciting medicine can be. It's not about just passing exams, but problem solving, learning and developing an understanding of the amazing entity the human body is with its underlying physiology.

"Every day brings something new in A&E and it really allows students to see how the patient journey in hospital begins. It helps them develop the skills to approach a sick patient and formulate a plan after seeing them, and gives them an understanding of the bigger picture of hospital pressures."

Shaily Mehta (top photo, left) is on her third-year placement in A&E with Dr McInerney. "It's really helpful being able to take histories and examine people

with acute problems, practising formulating initial investigations and management," she says. "This is very different from being on the wards, where these steps will already have taken place and a patient's problems are already being addressed. These are crucial skills to develop, as we'll be doing this all the time as junior doctors. Dr McInerney is really amazing – he helps us put our theoretical knowledge into practice, and gives us really valuable feedback on how to improve our history taking and examination techniques."

Fellow third year Jamie Lau (photo page 6, left) agrees: "The fact that there is a wide range of conditions you could potentially see really appeals to me and makes it a unique placement. Dr McInerney provides further teaching on what we see in the department, and gives constructive criticism on our clinical skills in a friendly manner!"

The A&E team have also developed an extensive programme of postgraduate training, with weekly training sessions, ad hoc simulation sessions and a range of courses in trauma and human factors.

If any doctors or future doctors would be interested in a fellow post – please email rob.galloway@nhs.net for further information.

Medicine neglects women's needs, but alternative medicine is **not** the answer

Dr Arianne Shahvisi, Lecturer in Ethics and Medical Humanities, shares her thoughts on how medicine is failing women, turning many towards alternative therapies that lack a scientific basis.



In 2008, Hollywood actor Gwyneth Paltrow launched her lifestyle company, *Goop*, claiming she “wanted it to be a word that means nothing and could mean anything”. Over the past decade, the claims and recommendations made by the company have been widely criticised. *Goop* claimed that underwire bras cause breast cancer, suggested that women ought to be increasing their sexual energy using vagina eggs and vaginal steaming, and recommended the use of coffee enemas. Experts have shown these recommendations to be spurious and sometimes dangerous.

Around the same time that I heard about *Goop*, I was becoming more interested in feminism as an area of research. In speaking to other women about their experiences of gender inequality, an issue that came up time and again is the way in which medicine neglects women’s needs. I met several women who were dabbling in alternative remedies only marginally less ridiculous than those espoused by Paltrow’s site. These women were not unintelligent or uncritical. Their serious long-term health issues were not being addressed by mainstream medicine, and they were desperately casting around for other solutions.

It occurred to me that medicine’s poor treatment of women might be pushing them towards alternative remedies that are often expensive or dangerous, and generally just don’t work. I started a research project to investigate women’s relationship to conventional medicine and alternative medicine.

Women and conventional medicine

One major reason that medicine often doesn’t work well for women is that female participants have long been excluded within clinical trials. While things are gradually improving, we still have poor knowledge of the way diseases present and progress in females, even though we know that there are sex differences in how certain conditions appear clinically, eg, anaemia, osteoporosis and cardiovascular disease. This means that women are being given “standard” medical diagnostic tests and treatments which were designed with men in mind, and which are sometimes sub-optimal or unsafe for women.

Other factors relate to the way that women are treated by clinicians. One of the most important experiences that women report is not being believed when they describe their ailments. Studies show that women’s pain reports are often discredited, or attributed to mental health issues. Women are 13-25% less likely to receive painkillers for abdominal pain even when they have the same pain scores as men, and typically wait longer to receive pain medication. Further, women who are admitted to hospital with irritable bowel syndrome are more likely to be offered sedatives and lifestyle advice while male patients with the same symptoms are offered X-ray imaging of the digestive system.

Women are also less likely to receive appropriate treatment for heart attacks, which means that they are more likely to die once a heart attack is underway. They’re also more likely to die in hospital from septic shock, and critically ill older women are less likely than men to be admitted to intensive care units and receive life-saving treatments, again leading to an increased risk of death. Almost all of these worrying trends are also observed for people of colour, and women of colour fare worst of all.

Given these shortcomings, it’s fairly unsurprising that “medically unexplained disorders” are more common in women, who may be further harmed by the side effects of endless tests and investigations while doctors try, and invariably fail, to figure out what is going on.

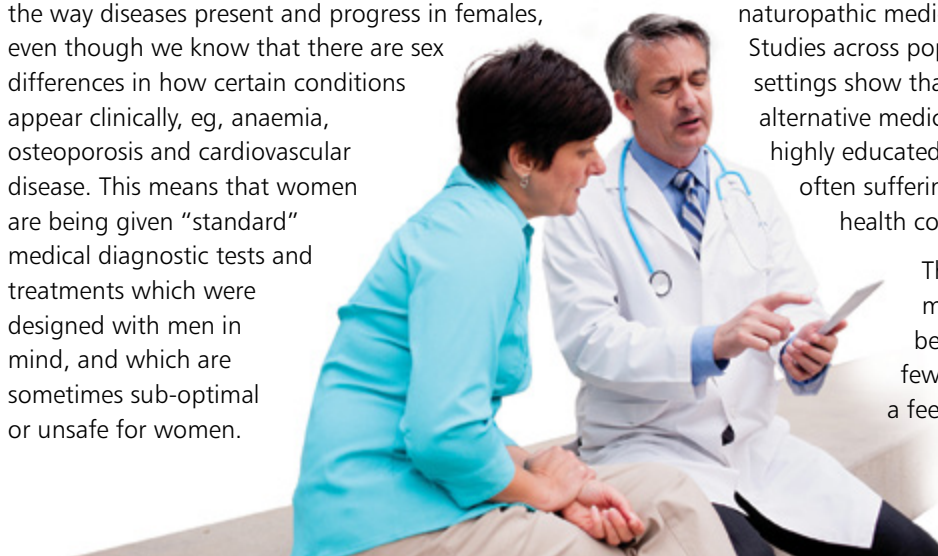
Women and alternative medicine

“Alternative medicine” means all therapies that don’t have any proven benefits beyond the placebo effect, and generally do not have any *plausible* explanation for how they’re supposed to work. Some examples include homeopathy, chiropractic, energy medicine, naturopathic medicine and faith healing.

Studies across populations in high-income settings show that the typical user of alternative medicine is a woman who is highly educated, relatively affluent and often suffering from a long-term health condition.

Those who use alternative medicine say they value it because it is “natural”, has few/no side effects and offers a feeling of greater control

continued page 10



Research

over their health. Patients are usually much happier with their alternative medicine practitioners than with their GP, and describe their appointments as feeling friendlier, more personal, less rushed and less authoritative. It is easy to see why alternative medicine can be an attractive possibility for women whose health needs are not being met within conventional medicine.

However, from an ethics perspective there is a problem. In order for any kind of medicine to be ethically acceptable, practitioners must make sure they seek *informed* consent from patients. This means explaining the proposed treatment to the patient to make sure they understand how it works and why it's been chosen, and then asking them to agree to the treatment.

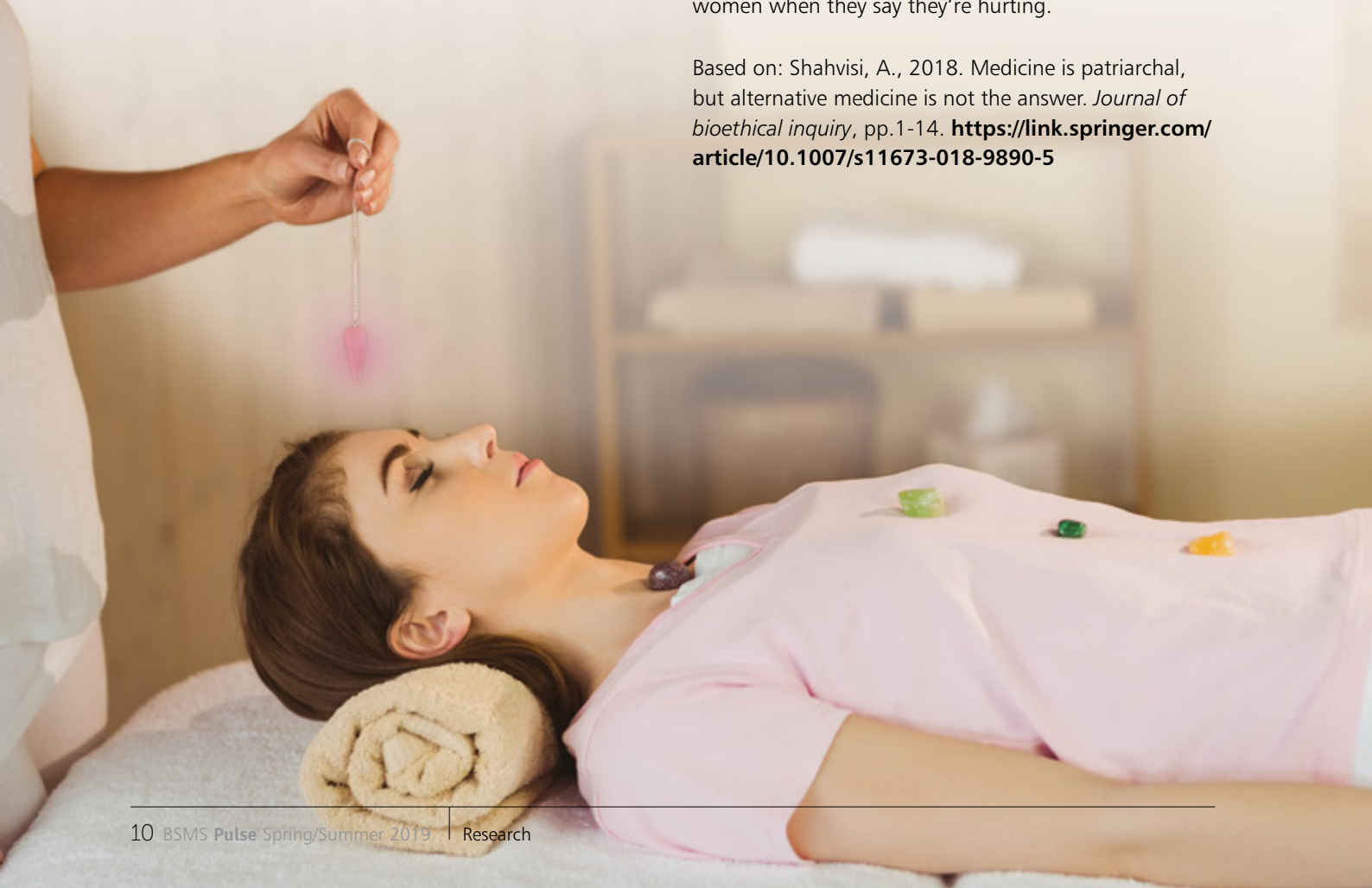
My first worry about alternative medicine is that there are no acceptable explanations that can be offered to patients, so informed consent becomes impossible. Patients must therefore trust alternative medicine practitioners, even though they are not able to offer evidence or explanations. That kind of trust can be easily exploited. My other worry is that, apart from the placebo effect, alternative medicine doesn't work!

What should happen going forward?

The bottom line then is that alternative medicine is, like Paltrow's *Goop*, something "that means nothing and could mean anything"—it doesn't work, and can easily exploit people. It's the wrong answer to a very important question: what should we do when medicine lets certain groups down? I think the clue can be found in the reasons people give for using alternative medicine – they get more time with a practitioner, and they feel listened to. We need to make more time in medicine, and everyone will save time in the long run. It's been shown that longer consultations lead to: a greater likelihood of taking a thorough medical history and providing the right clinical examinations, a lower prescribing rate, a greater likelihood of offering advice about preventative healthcare and fewer follow-up consultations.

But we also need to think more broadly about the way in which we as a society fail to listen to and believe women, which is a problem that also comes up in another context, that of sexual harassment and assault. Women deserve better, and it is up to clinicians and medical researchers to step up, while it's up to the rest of us to start normalising the practice of believing women when they say they're hurting.

Based on: Shahvisi, A., 2018. Medicine is patriarchal, but alternative medicine is not the answer. *Journal of bioethical inquiry*, pp.1-14. <https://link.springer.com/article/10.1007/s11673-018-9890-5>



An end to arachnophobia 'just a heartbeat away'

Patients' own heartbeats can play a part in speeding up the treatment of their phobias, according to a new study at BSMS.

Researchers have discovered that exposing people to their fears reduces their anxiety – if it's timed with the exact beat of their hearts. These findings could form the basis of a new treatment for irrational fears and phobias.

"Many of us have phobias of one kind or another – it could be spiders or clowns, or even types of food," says Professor Hugo Critchley, Chair of Psychiatry at BSMS, and Principal Investigator. "Treatment usually involves exposing the person to their fear, but this can take a long time. Our work shows that how we respond to our fears can depend on whether we see them at the time our heart beats, or between heartbeats. You could say we're within a heartbeat of helping people beat their phobias."

In phobias, disproportionately intense, disabling anxiety is induced by specific situations or triggers. Treatment is often prolonged and involves a graded exposure to fear-evoking stimuli, but has made some progress in recent years through the use of computerised therapy. This new research shows that phobias can be treated more effectively by linking computerised therapy to the patients' own heart rhythms.

Researchers at BSMS had previously revealed how bodily arousal signals that occur with each individual heartbeat can change the emotional impact of potential threats, for example, when experienced during a heartbeat they can appear greater.

In this clinical trial, a computerised exposure therapy for spider phobia was combined with online measurements of heartbeats. For one group of patients, pictures of spiders were presented in-time with heartbeats (during the signalling of cardiac arousal), while for another patient group, pictures of spiders were presented in-between heartbeats. A third 'control' group saw spiders randomly in the therapy sessions.

Although there was some improvement among all patients, those individuals exposed to spiders in-time with their own heartbeats showed a greater reduction in self-reported fear of spiders, anxiety levels and their physiological responses to spiders. These improvements were also shown to depend on differences in how well an individual patient could accurately feel their own heart beating in their chest, suggesting a further way of tailoring the treatment to benefit each patient.

The study was published in the *Psychosomatic Medicine* journal.



A conversation with ...

Dr Kristy Themelis

Tell us about your role at BSMS

I am a Postdoctoral Research Fellow at BSMS, currently working on an Arthritis Research UK-funded interventional trial looking at mechanisms of chronic pain and fatigue. I'm also a co-representative for Early Career Researchers (ECRs) in our department, with the aim of addressing some of the challenges they face and actively supporting the need to involve ECRs in discussion around formal and informal policy-making.

What are your particular research interests?

I've always been fascinated with how the human body works and what we are capable of. When growing up, I watched my sister, who has learning disabilities, receive physiotherapy, which has had a real impact on her mobility and motor skills. This got me interested in seeking to improve understanding and management of long-term conditions with the overarching aim to improve the quality of life for people living with such a condition.

What are you working on at the moment?

The project I am currently working on is looking to further understand some of the mechanisms underlying chronic pain and fatigue in people with fibromyalgia and chronic fatigue syndrome (CFS)/ME. We know that in such conditions there may be abnormalities in the 'fight or flight' involuntary nervous system and blood tests may also show more markers of inflammation. So we're trying to understand in more detail how abnormalities in these bodily responses affect each other and interact to cause pain and fatigue.

What got you interested in this area of research?

Having trained as a physiotherapist in the Netherlands, I worked closely with people living with chronic pain. This made me appreciate the impact that persistent pain can have in the lives of people trying to manage their symptoms on a daily basis and the lack of understanding they face from society towards this condition.

I decided I wanted to learn more about the mechanisms that might contribute to and maintain chronic pain, so I pursued a Masters degree in pain and a PhD in psychology focusing on pain and the body. Although I am no longer working as a physiotherapist, I still work closely with a range of healthcare professionals and continue to receive the odd requests from friends/family members/colleagues/relative strangers for a free diagnosis of a sore limb or recent sporting injury!

Can you explain a bit more about the specific research?

In our current study, we ask people to take part in three study visits. The first study visit takes place at the Royal Sussex County Hospital, Brighton, and involves heart rate, blood pressure and cortisol measurements to investigate abnormalities in the “fight or flight” involuntary nervous system. The other two study visits take place at the Clinical Imaging Sciences Centre at BSMS, where participants are tested under an inflammatory state (typhoid vaccine) and placebo (saline), which is randomised between visits.

We ask participants to go in the MRI scanner where we look at how the brain responds to an inflammatory challenge. All study visits also involve blood tests to look at levels of inflammation, questionnaires about pain, fatigue, mood and attention, and performing some tasks related to cognitive processing, pain sensitivity and the processing of internal bodily signals.

How do you think this research could help in terms of benefits to patients?

Although great progress has been made in the general understanding of the mechanisms underlying the conditions, for many people current treatments are still inadequate and there remains a lack of understanding and general acceptance of fibromyalgia and ME/CFS due to the unknowns around the cause of the conditions and the lack of specific targeted treatment options.

Our research has the potential to improve the understanding of some of the mechanisms underlying the conditions and thereby guide the development of new treatments targeting inflammation and the autonomic nervous system, which could have a significant positive impact on the lives of people suffering from chronic pain and/or fatigue on a daily basis.

What do you enjoy most about your job?

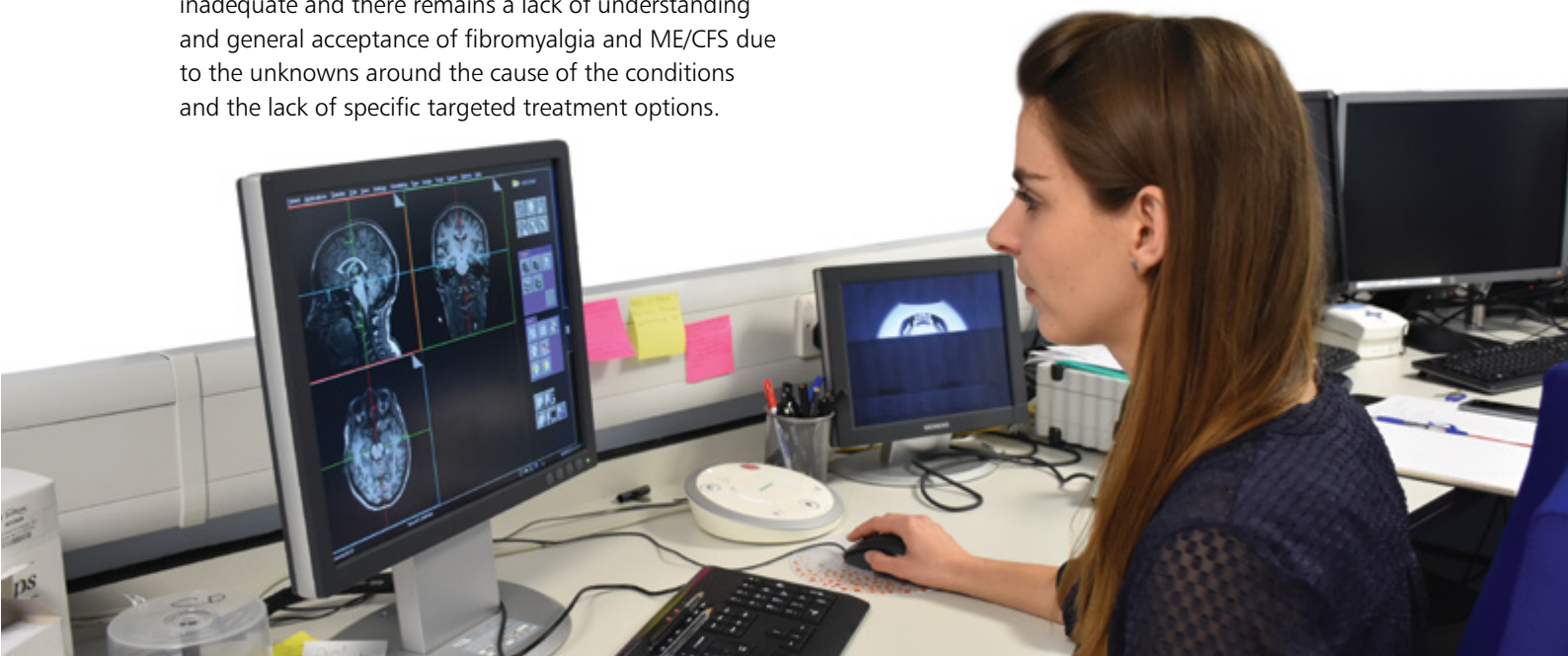
I enjoy the diversity that comes with working in a clinical academic setting. One day I could be running behavioural or fMRI experiments with participants, the next I might be analysing data for an abstract or supervising students on a research project.

Where do you hope to take your research in the future?

I am intrigued by the significant individual variability that exists in the affective, cognitive and behavioural responses to pain and in a person’s susceptibility to chronic pain.

The implications and impact of chronic pain become greater the longer pain persists, and its duration is often associated with reduced health-related quality of life and pain-related distress. This highlights the importance of early identification and intervention in high-risk individuals to reduce the burden of chronic pain and improve outcomes.

In future research I would like to continue to take a multi-modal approach and particularly focus on psychophysical and psychological dimensions that have the potential to predict variability in the response to post-interventional pain and variability in treatment requirements.



‘Rubber hand illusion’ clue to Tourette syndrome

Scientists use an eerie illusion of having an extra hand to understand Tourette syndrome.

New research at BSMS finds that people with Tourette syndrome react differently to others when undergoing a ‘rubber hand illusion’, suggesting that symptoms of the condition may arise, in part, because the way in which the brain represents the body is harder to adjust.

“We wanted to understand why people with Tourette syndrome experience symptoms such as feelings of urges to move their limbs, which can be a causal factor in their involuntary movements known as tics,” says Dr Charlotte Rae, Research Fellow at BSMS. “The results showed that their body perception was considerably less malleable than that of participants who do not have Tourette syndrome. Not only that, but there was a direct correlation between their awareness of their hand’s location and their impulse to tic.”

If you watch the fingers of a fake rubber hand being stroked in front of you, while feeling your own fingers being stroked (out of sight) in the same way, you may well get the uncanny feeling that the rubber hand is part of your own body. Some people even pull away their

own hand when they see a hammer approaching the now ‘embodied’ fake hand. This rubber hand illusion demonstrates that we continually use information from our vision and touch to update what we think of as our body and where we think it is.

During the rubber hand illusion, people without tics and those with Tourette syndrome both reported feeling that after stroking, the rubber hand felt like part of their own body. However, there were differences in where they thought their own (hidden) hand was located, an objective measure of body perception. Usually when people experience the rubber hand illusion, they feel their own hand has ‘drifted’ towards the fake one. This did not happen in the people with Tourette syndrome, who were in fact more accurate when judging the position of their own hand. The combination of feeling ownership of the fake hand, and having an accurate, more rigid perception of one’s own hand, predicted the severity of Tourette symptoms (tics and the urge to tic).

Dr Rae adds: “These findings could help with new ways of treating Tourette syndrome, perhaps by using medicines or physical exercises that loosen the more rigid unconscious perceptions of body position.”

The study has been published by *ScienceDirect*.





Waiting rooms missing a trick

GP waiting rooms should provide better health education materials, according to a new study at BSMS.

Researchers have found that health education materials in GP waiting rooms are frequently out of date, inaccessible and poorly displayed, despite the existing evidence suggesting that such materials are associated with increased patient knowledge and satisfaction.

Medical student Katherine Maskell and BSMS colleagues studied more than 500 patients and 19 practices where they were registered. They found a bewildering range of materials, with the average waiting room containing 72 posters covering 23 different topics, plus 53 leaflets covering 24 topics. Many of these were outdated and poorly presented with limited access.

Only half of waiting rooms contained a TV screen and none played sound, despite evidence that TV screens are a potentially effective educational resource.

Just 47% of patients questioned considered the health education materials on offer to be well-designed and attractive, although the majority (68%) did find them useful.

"Health education materials in GP waiting rooms are associated with increased knowledge and satisfaction, and decreased anxiety among patients, yet many surgeries don't update their waiting rooms regularly," says Dr Priyamvada Paudyal, Lecturer in Public Health and lead author on the study. "This study highlights the need for surgeries to display relevant, evidence-based

information in order to help support informed decision making and patients' involvement in their care."

The study also found that most practices did not have a personal responsibility for health education materials in the waiting room. "As most practices rely on outside providers of health education information, national and local producers of this material should be encouraged to work with practices and practice federations to ensure that the displays in waiting rooms are appropriate, useful, well-designed, up-to-date and accessible."

The research team has already been contacted by surgeries for information on how best to display health education materials in waiting rooms. "Early signs are really encouraging and we hope in the longer term the study will have a real impact on how health education materials are managed in waiting rooms, along with improving their accuracy and quality. This should help develop health-related knowledge and satisfaction among patients, ultimately leading to better self-management," adds Dr Paudyal.

The study has been published in the *British Journal of General Practice*.

Quiz app goes from strength to strength

A digital learning resource developed by BSMS is now being trialled at four UK universities, following its successful rollout at the medical school. CAPSULE consists of around 670 medical, surgical, therapeutic and ethical clinical scenarios, spanning the entire undergraduate curriculum and providing relevant X-rays, blood results, electrocardiograms or videos to make cases more realistic.

Launched to Year 5 BSMS students in 2016 and then rolled out among Years 3 and 4, the app is now being trialled with medical students at four medical schools around the UK.

“Creating such a high-quality digital learning resource has required years of development, writing and editing content, and aligning to curriculum updates,” says Tim Vincent, Senior Learning Technologist and Project Coordinator at BSMS. “It is testament to this hard work that CAPSULE has gained the attention of other established medical schools, and we expect to engage with more in the coming year.”

Feedback from students at BSMS has also been extremely positive. CAPSULE receives very high levels of use throughout the academic year, especially during the period leading up to assessments. “As the app can be used anywhere and at any time, students have made the most of this, completing a case during travel time or when waiting for a patient in a clinic,” adds Tim.

After taking a quiz, students receive detailed feedback to maximise their learning, while BSMS has access to usage data on how the students and the app’s content are performing.

“We are committed to developing high-quality digital learning resources for our students,” Tim says. “We plan to return investment into CAPSULE so we can grow its benefit to medical education both for our students and for students at medical schools all around the UK.”



Student wins top paediatrics prize

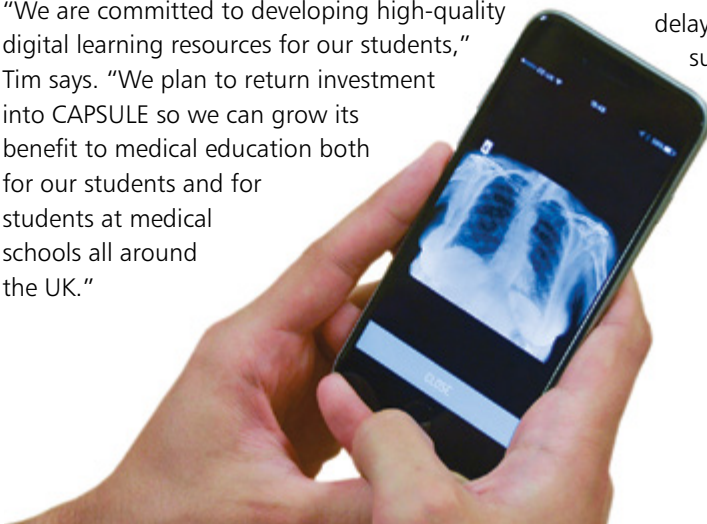
BSMS Year 5 student Aisling Ahluwalia has won the Royal College of Paediatrics and Child Health (RCPCH) prize for the 2019 Outstanding Student of the Year in Paediatrics. Aisling was nominated by the paediatric consultant body at the Royal Alexander Children’s Hospital, following her research work in Tanzania on the benefits of delayed cord clamping in childbirth.

Aisling intercalated after her third year at BSMS, and as part of her Masters thesis in Global Health, she conducted a primary research project based around neonatal health in Tanzania. She spent a month in the country, collecting data in the form of interviews and surveys with healthcare professionals on the delivery suite.

“With growing evidence supporting the significant positive health outcomes of delayed cord clamping techniques and a lack of literature on practices in low-income settings, I hoped to elicit information into current practice and barriers in Tanzania,” she says. “This insight could then help inform implementation strategies to allow the adoption of evidence-based, beneficial practices in areas with low resources and high infant morbidity rates.

“I found that education of healthcare professionals and structured hospital protocol related to the topic of delayed cord clamping was essential and that lack of sufficient resources, in a global health setting, posed a further barrier to the use of the practice.”

Following the collation of her thesis, Aisling travelled back to Tanzania to present the results at the Royal Society of Tropical Medicine and Hygiene East African Research in Progress Conference 2018.



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- Internal Medicine
- Medical Education
- Medical Research
- Paediatrics and Child Health
- Physician Associate Studies
- Psychiatry
- Public Health
- Simulation in Clinical Practice
- Surgical Studies



Please note that bursaries are offered for some courses.

Find out more: bsms.ac.uk/postgraduate

Research news

- A new collaborative research group has been formed to explore the causes of blood cancers and design new treatments. The Haematology Research Group is a network of six labs across the School of Life Sciences at the University of Sussex and BSMS.
- PhD student Ben Alberts has had papers published on his work on inflammation in the *Journal of Cellular and Molecular Medicine*, *Frontiers in Immunology* and *Journal of Rheumatology*. The research was led by Dr Lisa Mullen, Lecturer in Biochemistry, and medical students Connor Bruce and James Barber contributed to the work as part of their individual research projects and are co-authors on two of the papers.
- A "citizens' jury" took place in Brighton last year to find out whether, and under what conditions, the public would accept medical free text data being used for research. Dr Elizabeth Ford, Senior Lecturer in Primary Care Research at BSMS and colleagues from the University of Manchester, Healix and Citizens' Juries c.i.c, organised the three-day event.
- Researchers at the Sussex Health Outcomes Research and Education in Cancer (SHORE-C) have released



bWell, a new arm and shoulder exercise app for people with breast cancer. bWell comes with a three-stage exercise programme to support patients in recovery after surgery and radiotherapy, and help them to restore arm and shoulder movement and mobility.

- Martin Llewelyn, Professor of Infectious Diseases, is developing clinical practice ready training materials on antimicrobial resistance for the NHS. Funded by Health Education England, Professor Llewelyn will develop the materials with members of the National Institute of Health Research (NIHR) Antibiotic Review Kit Research Programme clinician network that he has established.

School and student news

Top marks for PAs

The first cohort of Physician Associate (PA) students graduated from BSMS in 2018. Not only did they all pass their final exams, they also achieved a 100% pass rate in the National Examinations, making them the highest ranked group in the written test out of 25 courses in the UK. All of the graduates have now secured employment in acute medicine specialties in local trusts and clinical commissioning groups (CCGs).

Dr Wesley Scott-Smith, who established the PA course, says: "This is an absolutely fantastic result for the first cohort of PAs to have graduated from BSMS, and reflects not only their hard work as 'pathfinders' for the programme, but also the contributions from faculty and the medical education teams at the local trusts and CCGs who have supported these students in their placements."



Gordon Ferns, Professor of Medical Education and Metabolic Medicine at BSMS, met Her Royal Highness Princess Anne at the recent launch of the book *Cardiovascular Disease: Diet, nutrition and emerging risk factors*, to which he had contributed two chapters.



- Carrie Llewellyn, Professor of Applied Behavioural Medicine, has been appointed as Regional Chair of the NIHR Research for Patient Benefit South East and Central funding committee. The South East and Central committee is one of eight in the UK funded by the NIHR's national programme.
- The Clinical Imaging Sciences Centre (CISC) at BSMS was rated 'Good' in every domain in the latest Care Quality Commission (CQC) report, including being safe, caring and responsive to people's needs.

Events



Talking science and the media

Doctor and TV presenter Chris van Tulleken visited BSMS in November, to share his personal journey through his medical career, working on science-based TV shows with his twin brother Xand and his unique research surrounding the media and science. He then joined staff, students and families for a welcome dinner on campus.



Anatomy Suite officially reopened

The brand-new Anatomy Suite was officially reopened in the Medical Teaching Building in December 2018. Extensive works had been carried out over the summer to expand the suite and install new equipment ahead of the increase in undergraduate student numbers.

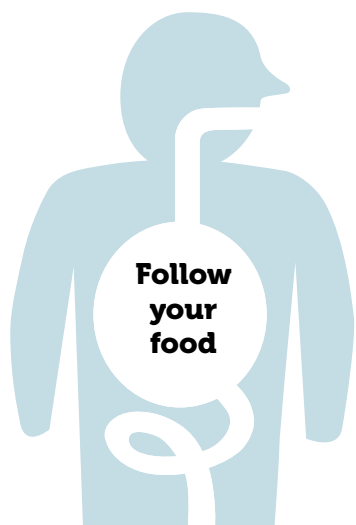
Professor Susan Standing (far right), Editor-in-Chief of *Gray's Anatomy*, cuts the ribbon at the opening, with Dr Claire Smith (left) and student Pashmina Bhutto



A hearty Valentine's with a difference

The BSMS anatomy team treated guests to a live dissection of a heart at 'Anatomy Night, Matters of the Heart' on Valentine's Day. More than 60 guests at the Walrus pub in Brighton got to see first-hand how blood enters the heart, where the heartstrings really are and understand how it beats. At the end, visitors were able to put gloves on and explore the organ for themselves.

Dr Claire Smith (left), Head of Anatomy, dissects a heart with the help of Catherine Hennessy, Teaching Fellow in Anatomy



The BSMS anatomy team are at it again, revealing the mysteries of the human body. This half term the focus is your gut. The event will take participants along on their food's journey from the mouth to the stomach and the intestine, and even the end result! The session is interactive and will involve guided dissection of animal intestines used in the food chain. Learn more about your own digestive health and how you can look after your gut better. Gowns/gloves and masks are all provided. Suitable for ages 10+.

Thursday 30 May 11am or 2pm
Medical School Teaching Building, University of Sussex
Tickets £4 (suggested donation)
Proceeds to Crohn's & Colitis UK
Book tickets: bit.ly/follow-your-food

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University of Sussex
Brighton
East Sussex
BN1 9PX

T: 01273 606755

E: news@bsms.ac.uk