

# ignite

WARWICK MEDICAL SCHOOL MAGAZINE

AUTUMN 2019

## **A day in the life...**

One of our clinical education fellows reveals all

## **Prescribing parkrun**

Improving health, wellbeing and social welfare in primary care

## **#Medschoolforall**

The benefits of widening participation events

WARWICK

MEDICAL SCHOOL



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## Foreword

**Welcome to the fourth edition of our Warwick Medical School (WMS) magazine. In this issue we focus on some of the fantastic work currently being undertaken by our postgraduate community, including research into embryo implantation, the benefits of virtual reality for psychosis, social prescribing, and removing the stigma surrounding menstruation.**

We also feature interviews with two of our students - one of our third year medics, Ollie Burton, tells us about a widening participation event he organised earlier in the year, while postgraduate student Antony Willman explains how he discovered a passion for research thanks to his time on our Master's in Medical Education. We also take a look at a typical day in the life of a clinical education fellow at one of our partner NHS Trusts, George Eliot Hospital, in Nuneaton.

As we prepare for the new academic year, we reflect on our successes from the last. Our MB ChB finalists

performed exceptionally well, coming second in the UK based on their highest average total score for the Foundation Programme, with 90% allocated to their top preference placement and 100% allocated to a top 5 preference placement. And one of our finalists achieved the top overall mark for the Foundation Programme in the country!

Our staff have also had a successful year. Among many other achievements, our Head of Medical Education was awarded a national teaching fellowship, two of our Biomedical Sciences researchers were recognised in a list of the 'Nation's Lifesavers' for their work on recurrent miscarriage, and our Dean was awarded an OBE for services to medicine and diabetes care.

We look forward to a busy and exciting academic year ahead, with recruitment for our new undergraduate courses now fully underway. We can't wait to be joined by our first intake of MSci Integrated Science and BSc Health and Medical Sciences students in just one year's time.





Dr Andrea Wilkinson,  
Clinical Education Fellow,  
Warwick Medical School

# A day in the life of a Clinical Education Fellow

Clinical Education Fellows (CEFs) are an essential part of our medical teaching team, working in our partner hospitals to deliver innovative teaching to our MB ChB students in the clinical environment. Here, two of our CEFs based at George Eliot Hospital in Nuneaton, Dr Andrea Wilkinson and Dr Lucy Elliott, give us an insight into a typical day in their role.



**8.30am – 9.00am:**

## Finding patients

Our day centres around the education office, which we share with the admin team who put together the timetables and provide a central hub for students. We start our day on the wards to find appropriate patients for our bedside teaching sessions. This is a crucial step in the teaching process as the whole session is dependent on the patient's condition, signs and symptoms. Patients are usually keen to engage with the teaching, often stating: "they've all got to learn."

**9.00am – 10.30am:**

## Bedside teaching session

Students can book bedside teaching sessions with us through Moodle. Typically, we take two students per session to see a patient each, to practise history-taking, examination and communication skills. We observe and time them during the session and make notes in order to give meaningful feedback. We then conclude each session with further discussion in the hospital's training and education centre about the patient's condition and the student's overall performance. These sessions can range from formal timed mock exams through to more relaxed sessions focusing on a particular skill that the student has requested. These are also an opportunity for students to complete a supervised learning event such as a mini clinical evaluation exercise, case based discussion or objective structured long examination record (OSLER).

**11.00am – 12.00pm:**

## Workshop

We teach the students in small groups on topics mapped to the medical school curriculum. We prepare various cases in advance to illustrate the students' learning outcomes and this is supported by the technology enhanced learning team to help create resources. We deliver these sessions in an interactive and (hopefully) engaging format that encourages group discussions and relates to their clinical experiences on the wards.

**12.30pm – 1.00pm:**

## Drop-in session

Pastoral care is an important role within undergraduate education. We offer drop-in sessions alongside the clinical leads for students who wish to discuss any aspect of the course, from practical to personal issues.

**1.30pm – 16.00pm:**

## Simulation (COMET)

A COMET (clinically observed medical education tutorial) is a simulation designed to follow a patient's journey in hospital. The CEFs run these in conjunction with the clinical skills team, who facilitate the procedural aspects and T-DOC assessments (teaching and assessment by direct observation of clinical skills) within the scenario. Most of these simulations include stations on the A-E approach (an approach to the assessment of the unwell patient), investigations and management of an unwell patient from



Left to right: Dr Moji Sani-Omolori, Dr Ragai Fouda, Dr Andrea Wilkinson, Sam Cook, Shona Worwood, Emma Vickers

a variety of specialties for example - palliative care, orthopaedics, acute medicine and surgery. We work with trained actors who role-play as our simulated patients. We assess the students in a variety of domains and provide overall feedback on their performance.

**4.00pm – 5.00pm:**

## Admin time/e-Portfolio tickets

To round off the day, we have scheduled admin time to complete e-Portfolio tickets for the students, prepare for workshops and tutorials, write formal exam questions for the medical school and answer students' emails and queries. At other times, this session can be filled with meetings at Warwick Medical School regarding exam preparation and marking.

Working as a clinical education fellow is a rewarding and interesting job where no two days are the same. We work with a diverse team of healthcare professionals and administrators to provide high-quality teaching to Warwick medical students.



Thomas Rawlings,  
PhD student,  
Warwick Medical School

# How improved understanding of embryo implantation can help improve fertility treatments



**With an estimated one in seven couples in the UK now thought to be affected by infertility, research in this area is becoming increasingly important. PhD student Thomas Rawlings tells us about his work, which aims to improve our understanding of embryo implantation.**

Despite vast improvements in In Vitro Fertilisation (IVF), embryo implantation remains the biggest hurdle for pregnant couples struggling to conceive. Our understanding of human embryo implantation is limited, largely due to the lack of a suitable model to investigate the process. Improving our understanding will lead to better treatments for patients suffering with infertility. Under the supervision of Professor Jan Brosens, my research aims to develop a novel model of embryo implantation by utilising cutting-edge, three-dimensional cell culture techniques to reconstruct the human endometrium in vitro to unpick the mechanisms underpinning human embryo implantation.

## How does embryo implantation happen?

The site of embryo implantation is at the endometrium, the secretory lining of the womb. This tissue undergoes monthly cyclic phases of rapid growth and differentiation. At around day 14 of the cycle, ovulation occurs at the ovary, where a single egg cell is released into the fallopian tube. This causes an increase in the steroid hormone progesterone which differentiates the endometrial tissue in preparation for a potential embryo implantation. In the absence of an embryo, the uppermost layer of the endometrium is shed through menstruation.

This exposure of progesterone in the second half of the cycle transforms the stromal cells of the endometrium into highly specialised decidual cells. These differentiated cells can sense embryonic signals, and are thought to act as embryo implantation quality control sensors, accepting implantation of high-quality embryos (known as euploid) or rejecting poor quality embryos (known as aneuploid). The endometrium also contains highly secretory epithelial glands, a vascular system and a unique immune cell population (including specialised uterine natural killer cells). Both the epithelial glands and the endothelial cells of the blood vessels secrete huge volumes of chemokines, proteins that influence the direction of migrating cells, which are believed to direct embryo invasion for the purpose of the development of the placenta.

## Investigating why embryo implantation fails

The direct molecular mechanisms underpinning this quality control process, and the subsequent invasion of the endometrial tissue, is still largely not understood. Investigation of these mechanisms will lead to understanding of this quality control checkpoint in early pregnancy. It will also lead to understanding of how this quality control can sometimes fail, leading to either high-quality embryos not implanting (implantation failure) or poor-quality embryos implanting, but then later failing to develop (miscarriage). Animal models are largely unsuitable for implantation studies, as very few mammals follow the same menstrual cycle as women do (exceptions include the great apes, bats and the elephant shrew). So instead, cell culture models using human endometrial cells from biopsy are often used for implantation studies – but this has its drawbacks. Standard cell culture involves growing single cell types as a monolayer on plastic cell culture plates, a far cry from the complexity of the endometrium described above.

## Using 'organoids' to mimic the human endometrium

Three-dimensional cell culture involves growing cells not on the plastic of cell culture plates, but instead suspended in hydrogels that mimic the extra cellular matrix of tissues and organs. These hydrogels provide the structural support for three-dimensional growth. When coupled with a complex cocktail of growth factors and inhibitors, the cells can grow into tissue-like structures reminiscent of the tissue or organ the cells originate from. These are called organoids, as they are 'organ-like' in their structure and function,

and there have been successful attempts in making human liver, intestine, pancreas, and even brain organoids in culture, that all show structural and functional similarity of their organ of origin, unlike in standard cell culture. Therefore, organoids bridge the gap between in vivo and in vitro models by maintaining the structure and function of the organ or tissue of interest, while having the benefit of using human samples. This therefore holds the opportunity to answer previously unanswerable questions, such as the mechanisms of embryo implantation.

The organoid most pertinent to this research is the endometrial gland organoid, of which a protocol has been recently published in Cambridge. Our research at Warwick has taken this further by successfully establishing a protocol for co-culturing these human gland organoids with patient matched stromal cells in hydrogel to reflect the human endometrial tissue structure. This co-culture functionally responds to steroid hormone treatment and mimics the growth and differentiation of the human endometrium. Next steps for this work involve incorporating patient matched endothelial and uterine natural killer cells to further develop a complex co-culture, to produce the most representative in vitro model of the human endometrium available. Long term, we aim to begin implantation studies, using human embryos, donated and consented for our research, in order to use this organoid based model to finally unpick the mechanisms governing implantation.

## Long-term aims

Until now, our understanding of embryo implantation has been impeded by a lack of a suitable model for study. The research we have been doing has aimed to alleviate this issue by establishing three-dimensional organoid cell culture techniques that mimics the structural and functional complexity of the human endometrium, providing a superior model to standard 2D monocultures. The ultimate long-term aim of this research is to develop this technique into a personalised drug screening tool, where patient endometrial biopsies can be individually reconstructed in the lab using this technique, and then treatments can be tailored to individual patients, leading to streamlined treatment plans for improving pregnancy outcome.





Dr Jo Fleming, Research Fellow,  
Academic Primary Care Unit,  
Warwick Medical School

## Could parkrun help primary care in getting patients more active?

Social prescribing, which involves helping patients to improve their health, wellbeing and social welfare by connecting them to non-clinical community services, is becoming increasingly common. Here, Dr Jo Fleming, a research fellow in our Academic Primary Care Unit, explores how GP 'parkrun practices', which encourage patients to get involved in their local parkrun, could help people become more active.

### What is parkrun and who is it for?

What started out as a few friends meeting for a 5k run in Bushy Park in London, followed by a coffee and a chat, has now grown to become a national and global event. Parkrun did not set out to be a public health initiative, but appears to have become exactly that, having grown substantially in the 15 years since it first began. Parkrun is a series of free, weekly 5k events for all ages every Saturday morning, in areas of open space across the UK, as well as in over 20 countries globally. The organisation also delivers junior parkruns, which are 2k events for 4-14 year olds and their families on a Sunday morning.

There are no joining fees, no restrictions of a time limited programme, and no intimidating equipment. Instead, participants are presented with an inclusive, friendly environment in which to walk, jog or run 5k or take part in one of the many volunteering roles. parkrun presents the opportunity to be physically active, while removing some of the usual barriers. Indeed, its inclusive nature is being recognised, as finish times are getting slower, indicating that parkrun is becoming more successful in attracting those who favour walking. Evidence has shown parkrun to be attractive to 'non-runners', with these more likely to include women and those who are overweight or with a limiting disability or health problem.

### The parkrun practice

In recognition of the potential parkrun has in enabling inactive people to become more active, in June 2018, the Royal College of General Practitioners (RCGP) and parkrun launched the 'parkrun practice initiative' to encourage GP practices to link with their local 5k parkrun event(s) to become a parkrun practice. A parkrun practice is one that makes a commitment to promoting parkrun through the appropriate channels. Practices can become a parkrun practice by making contact with their local practice and registering on the RCGP website. A toolkit is available which offers practices ideas and information on the types of activities they can carry out. It is then up to each practice to deliver the initiative in whichever way they would like.

parkrun



**'Parkrun did not set out to be a public health initiative, but appears to have become exactly that...'**

Within the Academic Primary Care Unit, my colleagues and I are working in collaboration with the RCGP and parkrun to build a portfolio of work exploring the parkrun practice initiative. In April 2019, an online survey was delivered to all 780 registered parkrun practices at the time, allowing us to see what is happening 'on the ground', including the challenges practices are experiencing and the things which are working well. An online survey was also delivered to all 634 parkrun event teams across the UK in order to gain the perspective of those delivering the parkrun events.

More locally, we have carried out interviews and focus groups with parkrun practices in the West Midlands, and carried out interviews with non-registered practices located near to a parkrun venue, to establish their awareness and perceptions of the initiative. This wealth of data will provide initial feedback to the RCGP and parkrun in helping develop and improve the continued roll-out of the initiative. Furthermore, our portfolio of work will start to build a base on which to inform future work, not only in relation to the parkrun practice initiative but other social prescribing initiatives as well.



Rebecca Evans,  
Doctoral Researcher,  
Warwick Medical School

# The Red Tent Project



**Doctoral researcher Rebecca Evans tells us about the Red Tent Project, a new initiative that aims to remove some of the stigma surrounding periods and tackles some of the key issues facing menstruating girls and women today.**

Talking about menstruation is one of the last taboos. In a bizarre menstrual etiquette, girls are expected to pretend it isn't happening. Names of sanitary products, such as 'Whisper', promise to help keep the secret. Adverts for 'Carefree' show images of young women smiling and wearing white trousers. The message is that the 'protection' is so good nobody will know. Does this promote girl empowerment, which would be great, or does this create an expectation that a girl should 'hush up and put up'? Whilst it is undoubtedly a private matter and the revealing of menstrual status must be a girl's choice, there is a danger that everybody else assumes that because of products like 'Always Ultra', girls have no problems at all managing their menstruation.

Nothing could be further from the truth. Managing menstruation takes a lot of planning. It comes with experience, but young girls may find it quite difficult. They need to be prepared and carry products with them, and they need to be able to access toilets in a timely way for changing, and have somewhere to dispose of menstrual waste. None of this is easy for a girl in a school environment. Not being allowed out of the classroom if bleeding starts unexpectedly, queues for toilets in short breaks, teasing boys lurking in gender-neutral toilets – there are many causes for anxiety and loss of concentration.

And that's not to mention the physical symptoms caused by menstruation: cramps, bloating, nausea,

and headaches for starters. Dysmenorrhea (pain during menstruation) is experienced by over 80% of young girls. It may not last too long, perhaps a couple of hours of not feeling one's best. It would possibly be improved by walking around or popping a couple of painkillers but, again, this can be difficult to manage in the school environment. So many young girls that I have spoken to have informed me that they are on the pill in order to be able to reduce their blood flow and cope at school.

## Promoting discussion about periods

The Red Tent Project is a new awareness-raising initiative that I have set up with a grant from the Wellcome Trust which aims to promote discussion about menstruation and remove some of the stigma surrounding periods. It is a large yurt-like structure with cushions, bunting and fairy lights designed to create an intimate festival vibe. Stepping into the tent provides an 'experience' where participants can individually reflect on their own menstrual knowledge, or share and learn from others. There are prompts about menstrual beliefs from many cultures displayed on cards around the tent. Blank cards are provided for participants to leave their own stories, observations or questions and these are hung on washing-lines around the red tent. There are also some pen and paper activities such as word searches and true-false quizzes for a bit of fun. The Red Tent is going to be taken to festivals and schools, with one of its first outings having been the 2019 British Science Festival which took place at the University of Warwick during September.

## Tackling sustainable periods and period poverty

'Breaking the silence' is the primary aim of the Red Tent, but its secondary aims are to tackle sustainable periods and period poverty, issues that have hit the headlines this year. As a result, there are two additional workshops that accompany the Red Tent.

The first is a hands-on alternative product demonstration, showcasing the mooncup, sponges, period panties and washable pads



**Disposable sanitary pads take 500 years to biodegrade**

**'By encouraging open discussion and removing the stigma surrounding menstruation we can help make schools more aware, and society a little kinder.'**

and tampons. We've all become aware that we need to reduce our plastic usage. Like nappies, disposable sanitary pads take 500 years to biodegrade. So there is quite a bit of interest in sanitary products that are plastic-free and re-usable. Switching to a new system often requires a bit of thought and encouragement, and women and girls appreciate being able to look at and handle the products prior to making that commitment.

The second workshop is a sew-your-own pad workshop. Washable cloths are not only environmentally-friendly; they save a lot of money too. Sanitary products are expensive. We've all heard of girls missing school because of period poverty.

This workshop encourages participants to make their own. Cloth of different patterns, different shapes and different absorbencies can be chosen to make a custom-made pad, which can be sewn together with very basic skills. The consideration of shape, absorbency and pattern is a very personal matter and women and girls can feel empowered by making something catering exactly to their needs. Non-menstruators can join in for the empathy value! During the sewing, further discussion about menstruation can take place.

## Making society kinder

While it's disappointing that some girls are still being held back at school due to their periods, initiatives like the Red Tent Project are a positive step forward. By encouraging open discussion and removing the stigma surrounding menstruation we can help make schools more aware, and society a little kinder.



Farah Elahi,  
Doctoral Researcher,  
Warwick Medical School

# Virtual reality and mental health: Does it work?

**With traditional mental health services coming under increasing pressure, could virtual reality treatments be an effective alternative? Farah Elahi, doctoral researcher in our Division of Health Sciences, tells us about her current research looking at the potential benefits of virtual reality for psychosis.**

Technology has become a vital part of our daily lives and has influenced the way in which we communicate with one another. The increasing pressure on mental health services means that digital forms of treatment or e-mental health is on the rise. Digital treatments have the potential to reduce waiting lists and provide patients with interventions in the comfort of their own homes.

## The benefits of virtual reality treatments

Within the last few decades, virtual reality (VR) has gained recognition in its ability to provide assessments, diagnoses and treatment to populations who are hard to reach and struggle to access face-to-face treatment. VR is a stimulated experience, where an individual can interact with a three-dimensional world. Therefore VR is a broad term, which encompasses anything from video games to immersive headsets. The benefits of VR treatments are that they can provide individuals with a 'real' and 'immersive' experience in an artificial environment, which can be monitored and controlled by a clinician. Thus individuals can learn and practise skills with clinical support, which can then be utilised in the real world.

## Virtual reality and psychosis

One of the conditions to benefit from VR treatment is psychosis. Psychosis is one of the most challenging disorders worldwide, in which individuals suffer from both hallucinations and delusions. Individuals with psychosis experience poor outcomes such as social cognition deficits (our capacity to socialise with others), which can have a detrimental impact in their ability to attend face-to-face treatment.

Social cognitive interventions have not been as thoroughly assessed in the beginning stages of psychosis, where the opportunity to improve outcomes is the greatest. Therefore a research project I was involved in, which was completed in October 2018, aimed to assess whether it might be feasible and acceptable to deliver a treatment called 'Social Cognition and Interaction Training' (a form of CBT) in an online virtual world.

Funded by MQ: Transforming Mental Health, this project was called 'Virtual Reality as a Method of Delivering Social Cognitive Therapy in Early Psychosis' (VEEP). The chief investigator of this project was Dr Andrew Thompson (Associate Clinical Professor in Psychiatry) and my role involved assisting with the development, implementation, data collection and analyses. I was also the lead facilitator of this intervention and provided the treatment to participants.

## Running the pilot study

Participants were diagnosed with early psychosis and were recruited from Early Intervention Services in Coventry and Warwickshire Partnership NHS Trust. The VR programme called Second Life® is free to use and can be accessed on a laptop/computer. Participants attended group therapy in a safe and secure area of the virtual world, using an avatar (a visual representation of themselves). Treatment took place during 1-hour bi-weekly sessions for four weeks. Here they learned about social cognition, emotion regulation and improving their ability to interpret social scenarios. The treatment was provided by two treatment facilitators, including myself.

## Positive initial results

Results indicated that participants found the VR intervention to be feasible and acceptable. There were some significant improvements in some aspects of social cognition (ie emotion recognition). Participants found the technology to be accessible, safe and easy to use. They also stated that there were improvements in their mental wellbeing post intervention. This pilot study recruited 19 individuals and therefore a

further trial needs to be conducted to see whether these findings are significant with a larger sample size. One of the things participants would have liked to see was an intervention more tailored to suit their individual needs.

## Next steps

Now, I am developing a novel CBT intervention, which aims to improve social cognition deficits in those with early psychosis. This treatment will be combined with 360 degree videos (a type of VR), which will be viewed using headsets to provide patients with a more immersive and personalised experience. The aim of the 360 degree videos is to provide a stepped care approach to experiencing social situations in real life.

The future of VR research requires a significant investment in training researchers so thorough Randomised Controlled Trials (RCTs) can be conducted. Furthermore when these VR treatments are implemented into the healthcare system, relevant clinicians need to be trained on how to best utilise these interventions. It is vital that clinicians are well supported, well trained and understand the benefits of it. In addition, VR treatments need to be cost effective in order to be implemented in the NHS and other healthcare systems.

Although it is early days, the future of VR treatments, particularly for psychosis, looks promising, novel, useful and fast-paced.





# #MedSchoolForAll

## A widening participation event

Third year medical student Ollie Burton tells us about a widening participation event that he and a team of MB ChB volunteers put on for local students earlier this year to help them prepare to apply to medical school.

### Tell us a bit about the event

Our event aimed to help local students practise multiple mini interviews (MMI), which are used by many UK medical schools during the selection process. Entry to medical school is highly competitive and there are several companies who run private courses and tuition sessions to help prospective students.

However the private MMI courses cost upwards of £100 per candidate, excluding travel costs, which can price certain demographic groups out of the market. This will have knock-on effects in terms of the people who get into medical school, and representation of the population as a whole. So we wanted to show that we could run an event of professional quality, that was completely zero cost (or as close to zero cost as possible) for a group of students who might not be able to benefit from practice like this otherwise.

Our event gave students the chance to practise six realistic stations in a friendly environment, with constructive feedback being offered at the end.

### What gave you the idea to run the event originally?

It all came from the fact it's what I wish I'd had when I was applying to medical school. I run my own channels on social media about studying medicine and had been running mock interviews online for the last year, both for undergraduate and graduate entry, developing a bank of questions and marking schemes. It gave me a really good insight into the common things that applicants struggle with, and it occurred to me that the biggest thing was actually just self-confidence, even in people who were older and wanting to go to graduate-entry programmes. So I thought, why can't this be scaled up? If we open it up, we could benefit many, many more people... and the idea of the MMI day was born!

### How did you organise the day and who did you invite?

The organising committee was made up of me, my three housemates and a few other close friends. We reached out to members of all four years of the MB ChB course here at Warwick to help us on the day and I was absolutely astounded by how many people from all the different cohorts got back to us. Within about a day we'd had 60 volunteers sign up! We only had eight weeks to organise everything but it was a great team effort and we managed it in time.

In order to be eligible for the day, the schools that we invited had to fall under the Medical School's widening participation criteria (which involves being from a minority ethnic

background, or from a low participation neighbourhood, or low income or education level of parents or being the first generation to go to university). The overall goal was to not only provide this open access, equal opportunity training as a whole, but to offer it to those people who we felt would benefit the most from it and at no cost.

### How did the day go?

The day as a whole went unbelievably well. It was great to see how engaged the students attending were and how enthusiastic our volunteers were. We all felt we were doing something so important and that so much was at stake on making the event work, because even if we got one more of these kids into med school thanks to this intervention it would have been worth it.

### What response did you get from attendees?

We actually received an email 20 minutes after the day ended - the delegate in question must have literally just gone home and immediately told their parents all about it! His mother contacted us saying that he'd come home, he was buzzing and before this he had had no idea what to expect, but now he had so much more confidence and really felt he could do it. The fact that we've had that impact just for one student is more than enough and means we would happily do it all again.

On the day, we asked the school students to fill out a survey in the morning about how confident they felt about a number of different things,

"...he had had no idea what to expect, but now he had so much more confidence and really felt he could do it".

then we contrasted that with a survey done at the end of the day. The rough data shows that in every single one of these measures of their confidence there was, on average, a two to three point increase across every single domain. There was one exception - the responses for 'how interested in a medical career are you?' stayed the same, which simply tells us that we had the right people there on the day.

### Are you planning to do more events like this in future?

Definitely. We'd like to continue running this particular event every year. We've also had some requests from schools to go and do sessions on site, as we have limited numbers for the event at WMS, so that's something we're looking at. And a few people have been in touch asking about events for those considering graduate-entry medicine, so we're excited to explore that too.

We've also analysed our survey results from the day, which we will pool with the data from this year's day to inform other centres about what these candidates find more useful.



## THE GRADUATE PERSPECTIVE



# Interview: Antony Willman

Military GP Antony Willman completed his Master's in Medical Education at Warwick in 2017. His work during the course sparked an interest in research and he has been involved in projects looking at continuing professional development for military doctors ever since, alongside his role as a GP. Here, he tells us more.

### What's your career background?

After graduating from my degree in Medicine I went to Sandhurst and trained to become an army doctor. I've now left the army but am still working for the Ministry of Defence, in a military GP practice in Wiltshire. We have a mix of soldiers and their dependents in our practice and offer primary care and occupational care.

### Why did you decide to study Medical Education at Warwick?

I'm a GP trainer, which is why I decided to do a Master's in Medical Education initially. I'd heard good things about Warwick and I liked the fact the course was focused on graduates, including more mature students. It also worked out as excellent value for money as I was able to put my enhanced learning credits from the Ministry of Defence towards the course.

### How did you find the course? Would you recommend it?

I would highly recommend it! It was such an enjoyable course and there was so much enthusiasm from the other students and the teaching staff, which was great. Like all these things you learn from colleagues as well as from the taught content and I was fortunate to be with a great group of people from different backgrounds, including GPs, nurses and hospital doctors.

I completed the Master's alongside my full-time job, so it definitely had its challenging moments. You have to give yourself protected time to do the background reading and the assignments and be disciplined with it. By the end of the teaching blocks you're exhausted but you learn so much and go away invigorated. It makes writing that assignment a lot easier!

I thought the course was practical, the timeframes were good and the assignments were fair. It was stimulating and worthwhile.

### What benefits has the course had?

I was always interested in medical education and from a teaching point of view it's helped me a lot. I have been able to apply a more theoretical approach to what I teach as well as question why I do things a certain way. More importantly, it has stimulated my appetite for educational research, looking at how we learn, how the primary

care team can help each other and what works or doesn't work. I wish I'd done it 15 years ago!

### Tell us about your research

For my Master's my research focused on medical education for GPs, specifically GPs working for the Ministry of Defence. My professional project looked at Practice Based Small Group Learning (PBSGL), which is an innovative approach to continuing professional development (CPD) for GPs that originated in Canada. GPs and practice nurses work in small groups of 5-12 with one person acting as a facilitator, meeting on a regular basis. They discuss real patient problems and the evidence to solve these cases in a relaxed setting.

My project involved evaluating the impact of PBSGL which I had introduced to our practice (and surrounding ones) a year earlier. It gave me the opportunity to examine the impact as well to see if it could be expanded within defence primary healthcare (given we are widely spread and often isolated).

I wrote a paper for the Journal of the Royal Army Military Corps on my findings, which was published, and that is one of the factors that has triggered a bigger trial throughout the Ministry of Defence for uniformed and civilian doctors to use as a way of doing their CPD. I'm currently involved in that project and if it's demonstrated as having good outcomes, the Ministry might fund it on a permanent basis moving forwards.

### What do you think are the benefits of GPs doing research?

I think the problem with general practice is that if you get too bogged down with service delivery you can sometimes start losing your curiosity. That's why I think research is so beneficial. Having that other interest, that other spark, is important.

In Wiltshire we have four big Ministry of Defence practices. We want all our doctors who come to us, either as trainees or doctors who come to us before specialist training in uniform, to get some research out in terms of a poster, a paper or some sort of publication because it fires up that curiosity which will hopefully then stay with them throughout their career.

### What's next for your research?

For my next research project I'm planning to look at opioid prescribing in military practices and how the chronic pain module in PBSGL can support colleagues when prescribing opioids. Because the project will use a mixed methods approach, I'm currently studying Warwick's Postgraduate Award in Mixed Methods for Health Research. This has already stimulated interest in another area, that of non-cancer chronic pain (CNCP) and opioid use. I hope to combine the advantages of PBSGL with an evaluation of the challenges of CNCP to see how GPs can improve in this area. Mixed method is an ideal paradigm as a subject such as this is complex and nuanced.



# Staff Profile



**Dr Lucy Hammond was recently appointed Director of Undergraduate Studies (DUGS) and Deputy Pro-Dean Education at Warwick Medical School. Here she tells us about how she came to these roles and how they fit within the WMS community.**

## What is your background?

My background is in private clinical musculoskeletal sports rehabilitation for the athletic community. I studied for my PhD at Nottingham University focusing on injury surveillance in team sports, particularly professional football. This involved monitoring injuries and considering how athletes ignoring injury affects our ability to accurately capture data and injury patterns.

I have previously worked at the University of Northampton and the University of Bedfordshire teaching sports therapy and was also involved in research looking at ethics and professionalism issues for students and practitioners working in the sports environment.

I have always had a passion for education and was keen to broaden my role beyond a sports focus which led me to move to the University of Warwick three years ago. I began my time here as Postgraduate Academic Lead where I was responsible for leading a portfolio of Master's programmes, working alongside course directors to ensure the quality of the courses and improve student experience across the postgraduate provision. I was Student Staff Liaison Committee (SSLC) academic convenor and worked with staff and students to improve engagement with the Postgraduate Taught Education Survey (PTES) which is the sector indicator of student satisfaction for postgraduate courses.

## Have you been able to bring any of your sports rehabilitation experience into your role?

Dr Hollie White, who also has a similar background, and I have developed a Student Selected Component (SSC) called Health and Care in Sport and Exercise for our MB ChB programme, which is a new offering to medical students who have an interest in sports and exercise medicine.

## Tell us about your recent appointment to your two new roles

They are both inaugural roles that I envisage will develop over time. I have only been in post since the beginning of September so I am just starting to find my feet and make plans for the rest of this academic year.

The Deputy Pro-Dean Education role will enable me to develop an overarching strategy for student experience across all our programmes (undergraduate, postgraduate taught and research). I am looking forward to welcoming a new Director of Student Experience role in the coming months to work with me to develop and implement effective systems to support and enhance our students' academic careers with us and ensure we retain a collaborative way for working so they get the most out of their learning.

In terms of the Director of Undergraduate Studies role I will be working with the Course Directors of our two new undergraduate courses, MSci Integrated Science and BSc Health and Medical Sciences, towards a successful launch in 2020 and beyond as we welcome students to the course and through their studies. I will be working to ensure that structures are set up around the programme to enable excellent student support.

## Can you tell us a bit about the programmes?

It's a really exciting time for the school to be launching these programmes as they are both excellent offerings that draw on the strengths of our research and teaching specialties within the School. Both programmes are designed to look at their fields from a multi-faceted perspective and require interdisciplinarity, critical thinking and problem solving skills that will be vital for careers of the future.

Integrated Science draws on a number of different scientific fields such as biology, physics and computational science to consider scientific problems from a number of perspectives, which is vital in our ever complex world where we need to consider issues across a range of disciplines.

Health and Medical Sciences looks at the world's big health problems such as cancer, mental health and infectious disease from both health and medical perspectives including considering ethics, legal and environmental aspects.

Both programmes provide an innovative pedagogy drawing on the Medical School's existing strengths, which make them distinct from other courses available.

## What are your key objectives for the next six months?

I am working to plan for the growth of our student numbers and teaching to ensure the quality of our delivery and student experience. I will also be working across the School to encourage all academic colleagues to become involved with teaching and extol the benefits of their involvement in education from a personal point of view but also how their experience can bring great richness to our curricula and benefit the School in general. I also have a busy programme of teaching including working with Master's students on their professional projects and dissertations.

I am also working on a two year grant in partnership with academic colleagues at WMS and at Monash University in Australia to develop digital teaching resources for medicine, pharmacy and allied health students around planning, conducting and reporting quality improvement activities in health. A lot of our MB ChB and Master's students conduct clinical audit and service evaluation projects as part of the student research components of their courses. We feel that providing these resources and case studies from different disciplines will empower large numbers of individual healthcare professionals to assess and enact changes that will result in the next wave of improvements in the quality of healthcare service delivery. We are hoping these will be available for a 2021 academic year start

## What are your scholarly interests?

I am particularly interested in student research development and support. I am involved with the University's student research working group and am keen to identify more opportunities for Master's students to have the chance to share the research and scholarship that they undertake. What they produce as part of their Master's studies in the form of their dissertations and professional projects shows great potential; I want to find ways to support students to develop their ability to apply research skills in their professional contexts and to disseminate their findings.





[wms.comms@warwick.ac.uk](mailto:wms.comms@warwick.ac.uk)  
[warwick.ac.uk/med](http://warwick.ac.uk/med)