THE PULSE
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EDITION 2
MEDICINE: ART vs SCIENCE
DEAKIN MEDICAL STUDENTS ASSOCIATION
Welcome to the second edition of The Pulse, MeDUSA’s quarterly newsletter for students, staff and medical professionals alike. In this edition we address the theme of ‘Medicine: Art vs. Science’. This debate, which has raged on since time immemorial, still continues on searching for an answer. While this edition in no way tries to bestow any profound answers, it is a wonderful insight into both sides of the argument.

We have a brilliant article from Associate Professor Peter Martin on communication in medicine, followed by an insightful piece by 1st year Sarah Garry on what the world of research is all about. There is also an update from NOMAD, Deakin’s rural medical club, as well as an exciting new initiative from our very own MeDUSA.

Thanks goes to 3rd year student Dylan Dunn on designing the cover, and all those who contributed to this edition. Enjoy the read!

Benjamin Paul
Editor (3rd Year)
Like other areas in medicine, there is an increasing gap between the evidence and what actually happens in clinical practice. One could argue that the priority should be to embed the current evidence rather than continue to add to it.

The first point to agree on is that this is a clinical skill like any other. This allows us to agree that it needs to be taught, learnt and practiced. Once foundational skills are developed, we can move to specific contexts such as open disclosure of an error or breaking bad news.

However, it is not a skill like others. Firstly it is the basis of every consultation we perform as clinicians. Most of us will perform this complex clinical skill 200,000 – 250,000 times throughout our clinical careers. It is confronting when we realise that the communication skills we developed socially only help to a certain extent.

The evidence is clear that it is the observed practice of new skills that allows us to change our behaviour. Unlike other skills we almost always become aware of errors we need to change and this can shake us up particularly if you have taken pride in your relationships with patients.

Reflecting on my own career, I had almost no training during my basic medical degree. I tried my best and reflected often after consultations that I found difficult or that went well. A while ago when back in Ireland

I met a nurse who I worked with during internship (called houseman in my day). I recalled I was asked to tell a lot of patients bad news. I didn't think of why at the time. She told me all the nurses would talk about the doctors and they all knew who took care and pride around this task. I was one of the young doctors they had confidence in as generally the senior medical staff avoided this task. I was shocked when she told me they discussed who they trusted to perform this task but it shows how much they cared as they picked up the pieces after the news was disclosed.

Years later at Monash when I started teaching medical students about symptom control during my specialist training, the students said the task they felt most unprepared for was talking to people who had a terminal illness. A colleague, who happened to be an actor, and I demonstrated scenarios and solutions and practiced with the students. They told us they valued these sessions. However, I had no idea of the evidence of what or how to teach these skills.

After moving back to the UK I had the opportunity to teach “breaking bad news” to the Cambridge medical students. I was
humbled and shocked when I realised how little I knew about clinical consultation skills. I had a number of epiphanies but the biggest one was I had been taught what (content) information I needed to gather but not how (process). Many years later I still love developing my own skills. The professional rewards are huge. Increasingly, the policy makers and funding bodies are finally realising that these skills are at the core of diagnostic accuracy, clinical reasoning, treatment adherence, team work and hard surgical outcomes such as surgical complications and mortality following surgical intervention. Thankfully the idea that this is a soft skill for “nice” doctors is slowly dying.

So what would I suggest to doctors as they begin their career.

Take pride in developing these skills during your whole career. Your patients and their families will thank you. You will feel rewarded as you have the confidence of navigating challenging consultations just as you would mastering any complex "procedure". This allows us to utilise our perceptions, to be professionally curious about the impact of illness on who we care for and to have the courage to have the conversations that are important to our patients. We are entering a period of medicine when our community want doctors who can help them share complex decisions.

Quizzical Quote Quarter

“The art of medicine consists of amusing the patient while nature cures the disease.” - Voltaire

“We look for medicine to be an orderly field of knowledge and procedure. But it is not. It is an imperfect science, an enterprise of constantly changing knowledge, uncertain information, fallible individuals, and at the same time lives on the line. There is science in what we do, yes, but also habit, intuition, and sometimes plain old guessing. The gap between what we know and what we aim for persists. And this gap complicates everything we do.” - Atul Gawande, Complications: A Surgeon's Notes on an Imperfect Science

"Each patient ought to feel somewhat the better after the physician's visit, irrespective of the nature of the illness." - Warfield Theobald Longcope
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It wasn’t until the final presentation of my honours thesis, when defending myself and a year of work and results to my examiners that I was asked the question that momentarily stymied me; “who does your research benefit?”. So focussed was my effort to produce a thesis that the ultimate outcome, the benefit of this addition to the collective knowledge of the scientific community was not one I had considered beyond science for the sake of science.

For most of the community, for clinicians (and clinicians-in-training) in particular, it is all too easy to be engaged and excited by the prospect of translational research. Clinical research and investigation of specific disease provides a much more tangible outcome for us all to appreciate, and work at the research-clinical interface is both promising and exciting and makes for excellent articles for the paper and selling points on grant applications. But this appeal should not lead us to lose sight of the “blue-sky” research that underpins this translational research, and we should instead prize this foundation of knowledge that it provides.

But this sentiment is far from contemporary. In response to growing post-war attitudes that cancer could be cured with a concerted “practical” effort akin to the intensive wartime development of technologies including radar, sonar, computing systems and the atomic bomb, a concerned researcher Vannevar Bush wrote a report addressed to the then President Truman. He argued that “(basic research) provides scientific capital … (and) is the pacemaker of technological progress, … (and) a nation which depends upon others for its new basic scientific knowledge will be slow in its industrial progress and weak in its competitive position in world trade”. 60 years later, those words are as true as ever and we would do well to heed them. We cannot neglect or lose sight of the importance of basic research and the base of knowledge it forms, and from which we draw from so much of our work.

It has been suggested to me that having publications on your CV when applying for jobs in medicine is beneficial. This initially struck me as odd, given my ability to produce data for research in no way reflects my capacity to skilfully communicate with patients or consider social determinants of one’s health or differential diagnoses. But perhaps it infers nothing more than a demonstration of one’s capacity to apply themselves to a task that can be unforgiving at the best of times. All research, and basic research in particular, is littered with setbacks and failures, and hidden between the lines of print are the
failed tests, late nights and unexplainable results. A paper is therefore evidence of a significant degree of resilience and patience that has resulted in a tiny addition to the sum of knowledge that we as a species have amassed. Whilst I am very realistic about the infinitesimally small contribution my work on one rare subtype of human cell has made to this sum, it is a contribution nonetheless. It will be a very very long time before any part of my basic research sees the light of application and contributes to clinical translation, but it is ready and waiting for when someone has need of it.

**Transition to 3rd year:**

**From lecture theatres to operating theatres**

3rd Year Student

“Medicine is learned by the bedside and not in the classroom. Let not your conceptions of disease come from words heard in the lecture room or read from the book. See, and then reason and compare and control. But see first.” This quote from William Osler, one of the founding fathers of John Hopkins Hospital, did not mean much to me before beginning 3rd year. Up until this point of my education, I had been the product of a classroom-based education system, moving from secondary school to undergraduate university to the pre-clinical years of medicine. While I truly value what I have learnt from lectures, tutorials, textbooks and online MCQ’s, I failed to appreciate the human side of all that I had studied.

Clinical years force you to not merely be able to regurgitate slabs of information to spew forth on another short answer mid-semester test, but instead eloquently synthesise what you have learnt from a patient’s story and inform them of what is going on inside their body. The art of communication is required to paint scientific literature into diagnosis discussions, medical terminology into patient handovers, and appropriate abbreviations into clinical notes.

In medical school, it is easy to lose sight of the reason why we pursue medicine; patient care. It can be easy to get bogged down in lecture content, listening to Kaplan videos or practicing for OSCEs. In contrast, it is very refreshing and reminding when you are given the opportunity to sit down with a patient during one of the lowest and/or hardest points in their life and listen to them share their personal story. It is even more rewarding when you can reassure them that they are in the care of competent, compassionate doctors, people who we all aspire to become one day.

What 3rd year has shown me is that medicine is truly a mastery of both art and science. I think this sentiment is encapsulated in SC Panda’s discussion paper on the subject in 2006, where she stated, ‘For successful practice, a doctor has to be an artist armed with basic scientific knowledge in medicine’. While there is still plenty of science to learn and art to master, I am excited and invigorated by seeing medicine in action each and every day in the hospital, helping those in need.
Welcome to #wellbeingwednesday!

Each week MeDUSA will be posting wellbeing tips to help keep you happy and healthy while you study. Start following @medusa.deakin on Instagram today for wellbeing inspiration and to keep up-to-date with MeDUSA happenings.

Also, watch this space for upcoming #wellbeingwednesday competitions!

Take care of yourself!

#stayhealthy    #happystudying    #medusawellbeing    #medusacommunity
As many of you are aware, NOMAD is Deakin’s rural health club. We work with Rural Workforce Agency Victoria (RWAV) and NRHSN to promote regional and rural careers in healthcare. In addition to medicine students, we have members that have backgrounds which include medical imaging, occupational therapy, optometry and many more. Benefits of membership include not only NOMAD events but also access to NRHSN conference funding.

This year we have been quite busy with all of our events! Highlights have included:

- Lawn Bowls
- Teddy Bear Hospital
- Rural High School Visit
- NOMAD Country Fair

The rural high school visit was held in Ballarat this year and was focused on exposing year 10 students to possible careers in STEM subjects. A number of students volunteered to talk to students on a range of professions.

Very recently the NOMAD country fair was held at the Lord Nelson and was an entertaining evening. Great food and drinks were supplied, and hay bales prizes we scattered and a huge Russel Coight was available for entertaining pictures. On the night prizes were won for a number of activities such as a sack race that was entertaining to watch!

We have a number of events coming up which are sure to be a must! First we have the Annual Rural Careers Fair which is a one-day conference with 2 sessions. The first session will be talks from various medical professionals about their own experiences in rural and regional healthcare. The second will be a skill session that involves either a clinical skills session or attending a workshop to aid in CV preparation for 4th year internship applications. This is sure to be a fantastic event with much to offer to the attendee.

Another event is the 21st Celebration Gala dinner to be held in September. The night will include speakers, a three-course meal and drinks for the night. Other events that are going to be held are the Annual OSCE Weekend in October, clinical skills sessions, Teddy bear hospitals, rural high school visits and many more.

For further updates head to the NOMAD page on Facebook or the NOMAD NRHSN website. Email secretary.nomad@gmail for any information.
- Imparting wisdom at the Rural High School Visit in Ballarat
- Saving furry lives at the Teddy Bear Hospital
- Bowling over the competition at Lawn Bowls
- The legendary Russell Coight with students at the Country Fair
- Students enjoying the Country Fair
"Your X-ray showed a broken rib, but we fixed it with Photoshop."

Look Out for Edition 3 - Public Health: Communities, Initiatives & Volunteers

Thanks for reading!
Make sure to follow MeDUSA for the latest updates

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References
Page 4: http://www.goodreads.com/quotes/tag/medicine

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