THE PULSE

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MeDUSA Newsletter

Issue 1: RESEARCH

How to (quickly) Nail your Referencing

- Ash Qama

So, you've got an assignment that says you need to have 7 references. Or you need to provide evidence for your reflective piece or public health assignment. If you haven't been involved in the all-consuming machine that is research, the thought of *actually* reading papers can be quite daunting.

As a researcher, reading papers is part of my job, and you must be able to find and read the relevant evidence you want quickly, since there is always a constant stream of new articles. So, here is the easiest way to find, read and manage journal articles for your assignments. I could sit here and talk about evidence-based medicine, but chances are you don't care about that right now.

1. DO. NOT. JUST. READ. THE. ABSTRACT.

This is a pet hate of mine, and not just because I write papers for a living. The abstract does not give you the full picture of what the paper is about; what exactly the researchers did or found; or why their research is important. It is a quick summary that authors are forced to write to match the journal's publishing requirements.

In short – they are hurriedly written, and they suck. Just don't. You may as well just slap the author in the face. You'd get the same amount of information either way.

2. Install the LibX extension for Chrome

LibX is your best friend for accessing the full-text version of journal articles using the Library, without actually having to use the Library website. All you have to do is install the Chrome extension, choose Deakin Library in the settings, and then any time you come across a paper you can just right-click and choose "reload via Deakin proxy". Then you get full access.

It is magical. (http://libx.org/editions/downloadlibx2.php?edition=8D9D1342)

3. Use Mendeley and not EndNote to manage your references

Can we all just agree that - if you've used EndNote - it's the worst? I'd rather write out my citations manually than use it. Fortunately, there is a great solution for managing references – Mendeley.

Here's why it's amazing:

- It is free
- You can download the desktop version and it will sync all your papers in the cloud
- It has a Word in-text citation manager that is actually easy to use
- It will format your citations however you want them without crashing
- You can search for the full journal article details once it's in your library so you don't have to manually update the records
- It has a Chrome extension which can magically import articles when you're looking at them into your library and save the PDFs too.

It's 2017. Step away from the EndNote.

4. Start with Google Scholar

Google Scholar is the best place to start when looking for journal articles. Don't bother with library catalogues or specific databases (for now – you need these if you're writing a paper). Just type in what you're looking for, set your parameters and let our Google overlords do their thing.

5. Look for titles and abstracts that match your ideas in the search results

This is one of the important parts. No-one has time to open every single paper that comes up in their search, and a tonne of them won't be relevant anyway. Skim for key words of whatever your topic is about. See if you can see papers that might answer the question or give you the evidence for your argument. Here are ways to exclude papers:

- They are more than 20 years old, unless you're looking at historical contexts
- They are not in English (the abstracts often are, but the papers are not)
- The journal looks dodgy – for example, *American Based Research Journal*. It sounds ridiculous (and it is, if you want to look it up).
- The abstract contradicts your idea or argument
- The context is not comparable – say you want to look at the attitude of Australian medical students toward research. Unless you're contrasting this with other attitudes, finding a paper about Pakistani medical student attitudes is not relevant.

6. Head straight to the discussion of the full-text

After you've found some papers that might be relevant. You've right clicked and used the LibX extension to access the full-text. Now ignore most of the paper, and scroll down to the discussion section. The whole point of writing a discussion section in a journal article is to talk about what the results were and how they fit in to what we already know. It condenses the results and the context into a couple of paragraphs. How good is that?

Ask yourself – does this section tell me what the authors looked for, what they found, and what it means? These are the important bits. If these answers match what you need for your assignment, save it to Mendeley and cite away.

7. Read the introduction

The introduction of a paper you decide to use will help you write your own opening paragraph for your essay/assignment/reflective piece. It gives you a way to frame the context of your argument, and then you can use the paper to back up why what you're saying is important.

8. Rinse and repeat #6 and #7

All you need to do is repeat this process, until you've finished your piece (or met the requirements for how many journal articles you need to reference).

"Taking a Break": Honours During Medical School

- Robbie Mann

So you've decided to pursue a career in medicine... That's it. You're done. You're set for life and don't have to work hard again. Bring on the world of fat pay cheques.

That's where you're wrong, bucko.

Medicine is more than just 'obs stable, afebrile'. It's a privilege to be a doctor, and a privilege that shouldn't be taken lightly. We have a responsibility to be hard-working, well educated, and up-to-date with the latest research and evidence-based practice.

Now that could mean subscribing to a journal or reading each new section of UpToDate, or it could mean developing the skills necessary to critique journal articles and to be objective in the evidence you come across.

Personally, I'm a hands-on kinda guy, and I decided to defer between my third and fourth year of medical school to complete an Honours year.

"Research is the spice of life." – med student idiom.

I decided to do Honours for a few reasons.

They were mainly to learn more about evidence-based medicine, to make myself a better doctor, to take 'a year off', and to be closer to my family (Warrnambool is beautiful, but it's a long way away from four doting nephews). Entering my third term of internship, the better doctor bit is very questionable, however, Honours definitely taught me to be more objective and not just take the registrar's word as gospel.

Not only does research make you a better doctor (R. Mann, 2017), it makes you more employable and competitive. Now, it's difficult to know how MUCH more employable/competitive, but there's quite a large box on the intern application process with a section on research.

Regardless, it's experience, and it's something different to the monotony of lectures, tutes, assignments, PBL, repeat. Ask around.

Unfortunately, it cannot be deleted, and it's quite obvious when it's left empty. My advice would be to take up an array of different challenges throughout med school, all while still getting assignments done. It's a difficult thing to juggle, but much more interesting than reading Boron's medical physiology from front to back, when they end up testing you on a minute detail from one lecture anyway.

There are SO many research opportunities going on around you. There are formal programs such as Honours, or there are less formal data-crunching things that clinicians would love an extra set of hands on.

Show interest.

Be proactive and be involved early; don't try to cram a resume's worth of activities and achievements into the last 6 months before applications.

Learn the significance of the word 'power', and not just as a phrase you throw out when presenting your findings of a neuro exam.

Get experience under your belt, so that when the registrar asks about your research skills hoping to get you involved in a project, you don't have to blush or lie!

Research experience is not 100% necessary for internship, but it's practically mandatory for some medical and surgical training pathways. My advice – do it now while you can, before later when you must (I never really like people telling me what to do).

My research year was invaluable, and taught me how to be efficient, how to be objective, and re-sparked my love for evidenced-based medicine.

Robbie Mann

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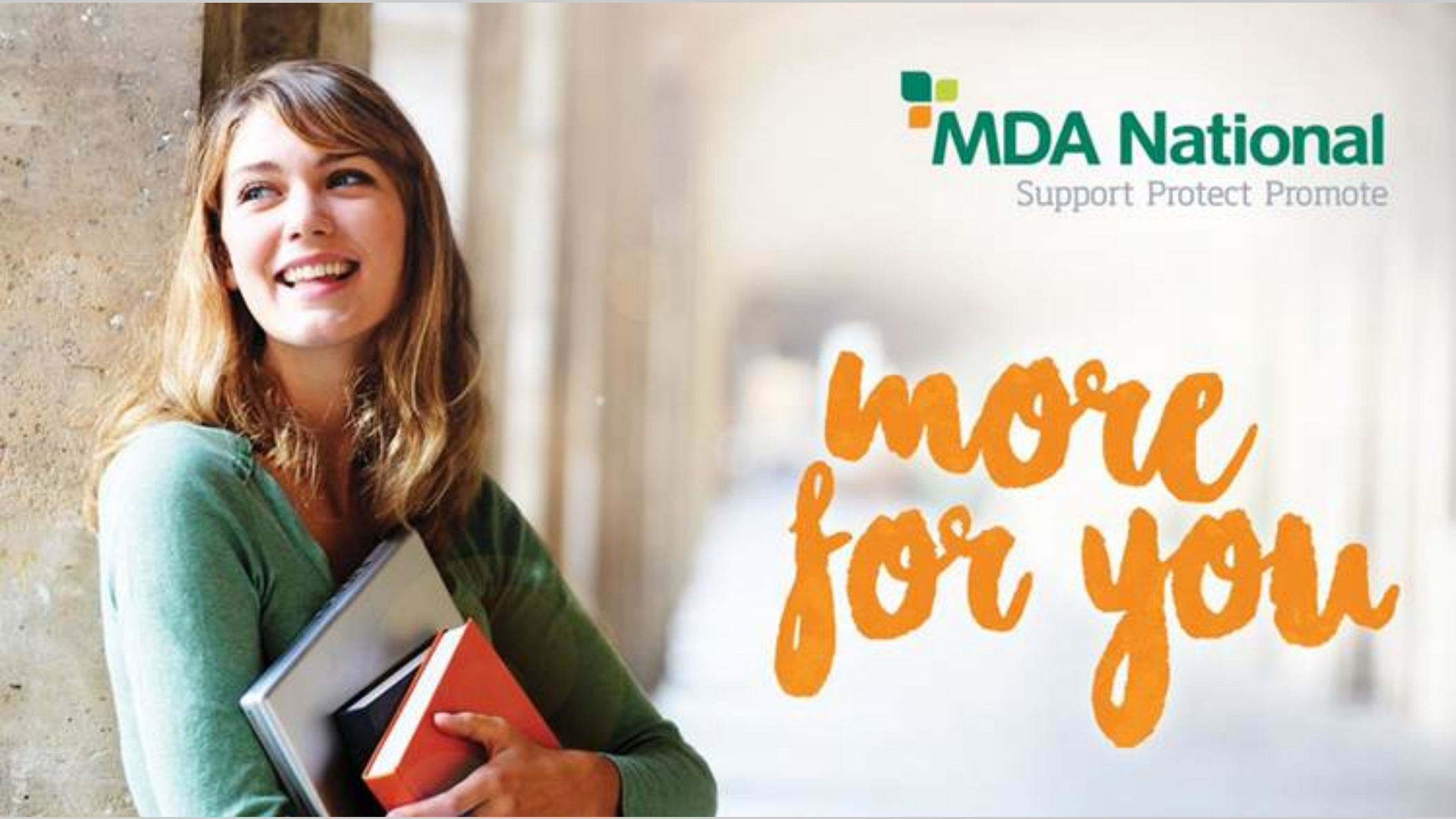
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Give Research a Chance

- Angus McCormack

My first foray into research was in 2013 with my Honours year.

I had just scraped through Biomed at the University of Melbourne, with marks nowhere near close enough for an interview at even the least-prestigious medical school (lol, Bond). The next step, Honours, was a no-brainer, because honestly apart from medicine, there is literally nothing else to do after biomedicine. Back then, I pictured 'doing research' as being stuck in a lab for all hours of the day, looking through a microscope and doing 'assays' and 'PCRs' to help explain a single step of a much longer and complicated biochemical pathway.

. This is still the extent of my understanding of lab-based research (and really, pathology generally). However, I also learnt that you can 'do research' outside of a lab, which incidentally, is how I picked my honours research project; taking a Wheel of Fortune-esque approach to my future, I went through the long list of honours projects and randomly picked out the handful that weren't lab-based, regardless of the topic.

Thus, I landed at the Burnet Institute, doing an honours project on 'syringe stockpiling by people who inject drugs' literally because it sounded cool.

Needless to say, what started out as a means to an end (specifically, the means to bump up my GPA to an end of medical school) became a genuine interest. Having the opportunity to devote an entire year to a single research project, you become attached to it; it becomes your baby. And for the first time in my university career, I *actually* enjoyed what I was doing. I was suddenly part of a world of *real* scientists doing *real* science, and I felt as though what I was doing actually (which can be so hard to visualise from your seat in a lecture on biochemistry or writing your 100th reflection piece this week on your thoughts and feelings towards the fake patient you made up in DP and how she's going to influence your future practice).

I loved it so much, I decided to postpone med applications for a year to continue to work in research on a bunch of cool projects on drugs, hepatitis and porn (but not all together). Unashamed humble-brag ahead: I was lucky enough to be first-author on a published paper, I have more on the way, and my paper was even used to successfully argue for a change in ACT legislation. Not bad for a guy who didn't know the difference between a Kolmogorov-Smirnoff test and an Anderson-Darling test. What an idiot I was! Last year, I started work with some great clinicians at the Barwon Health Liver Clinic on a nifty little project on community-based hepatitis C treatment. Sure, it's a great CV-builder since I'll have the opportunity to go to conferences and get my name on a paper or two.

‘But wait!’, you say, ‘doesn’t this detract from your studies? Don’t your grades suffer?’. To the first question I say, yes, it does detract from my studies a little, but not drastically so. After the countless hours of studying KHI, it is such a welcome relief to switch my attention to writing a relatively low-stakes ethics proposal or conference abstract. It’s productive procrastination at its finest, and also provides a much-needed balance to our study that we all forget to implement at one point or another throughout medical school.

To the second question I say, you can’t get any lower than rock bottom!

However, I haven’t even gotten to the best part; my colleagues are also doctors and understand the rigours of medical school.

At every step, they have maintained that I focus on my study, and if the demands of the research project get too much, I am well within my rights to step down for a few weeks.

The great thing is, most clinician/researchers would be of the same mindset. If that’s not enough of an incentive to jump into research, then I don’t know what is. For a quick point of digression, as your great and illustrious Deakin chair of GPSN (bow down) it would be remiss of me not to promote the great work being done by the National GPSN Research Working Group, who exist purely to aid medical students from all over Australia get into research. They’re currently developing a ‘How to do research’ webinar series aimed at providing a step-by-step guide about getting into research as a medical student, and are also developing a database of practitioners from around Australia who have expressed interest in supervising medical students in a research capacity.

. These projects are still in the works, but you can email research@gpsn.org.au for more information or if you want to get involved! Getting involved in research is as useful an endeavour as it is important, one that we can all implement into our careers to some extent as medical students and clinicians.

Everything we know and continue to learn about medicine we owe to hundreds of years of medical research, and in many ways, we are obligated to do our bit to build on the knowledge base.

After all, as doctors, we will have privileged access into the personal and medical lives of our patients, and are better placed than anyone else to conduct clinical research.

So, don't put it off until your clinical career.

Don't even wait until your 4th-year freak out/CV-building spree. If you're in 2nd year, you *could* intermit (or fail) to have a research project built into your curriculum (with the added bonus of having MD next to your name upon graduation) but honestly, it doesn't really require significantly more time or effort to help out on the odd research project in pre-clinical years, and in the long run you'll be far better off for it!

Fancy yourself a budding writer?
Have a great perspective on something in medicine?
What about a fantastically hilarious anecdote?
The Pulse is MeDUSA's quarterly newsletter, full of fantastic insights, artwork, student articles and more.

If you'd like to write a piece, have a great idea for an issue, have come across some novel research, are artistically gifted or anything else vaguely medicine-related, we'd love to hear from you!

publications@medusa.org.au

Lab-Based Research - Clare Vincent

I completed my honours year in 2015 at the Royal Women's Hospital in Melbourne. My decision to do honours stemmed from completing my Bachelor of Science and having no firm idea of what I wanted to do next. I have always had an interest in women's health so the journey of choosing my honours project started from there. While I did visit multiple labs at the university I was attending, due to funding issues I choose to put the Women's Hospital as my first preference because I knew for sure for could they had capacity for an honours student. I knew before going into honours that it was going to be an intense and stressful but worth every minute of it.

My research project evolved like all projects do; into something I was very proud to produce.

While I was not a massive fan of lab-based research, due to the isolation, the environment I was privy to - being on a floor shared with three different research groups - provided me with a wider perspective of the vast research world than I could have ever anticipated. I loved being able to hear and see the other projects that I viewed as more tangible, clinical research, which kept me engaged year-round.

Another benefit of my placement within the hospital, was that it ignited my interest in the medical field and was the tipping point I needed to further pursue medicine. I am so grateful that I took up the opportunity to complete research. I not only survived the tough year, but have gained so much from it. With my future in medicine, I would love to return to doing research and will hopefully be a part of some more clinical research in the future. I would highly recommend you get involved wherever, and whenever you can!