

NHS Lothian Researcher Profile

Dr Alison Coull,

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Tell us a bit about yourself and your career history

I qualified in 1986 as a Registered General Nurse with a Bachelor of Nursing degree from the University of Glasgow. I undertook post-registration training in General Intensive Care Nursing at Guy's Hospital in London and also in Burns and Plastic Surgery Nursing in Salisbury, and worked in various clinical roles in England and Scotland as a staff nurse and a sister eventually becoming a Tissue Viability Nurse Specialist at Health Care International (now the Golden Jubilee Hospital). I was undertaking an MSc in Health Studies at Glasgow Caledonian University when I became a Clinical Trial Coordinator for the Scottish Leg Ulcer Project in the Vascular

Studies Unit at the old Edinburgh Royal Infirmary. This was a fantastic opportunity to work within a very active research team which sparked my early interest in leg ulceration. I moved from that job to a lecturer role at the University of Stirling in 2000. I worked in Higher Education for over 20 years but always maintained a clinical role too.

What did you do for your PhD?

I undertook a PhD at the University of Stirling. I was lucky enough to win a competitive doctoral studentship from the Smith and Nephew Foundation worth £90K, which offered salary replacement, allowing me to take time away from work to undertake my research. I also received help with fees from the University of Stirling as I was a member of staff. My PhD study was **“Leg ulceration in young people who inject drugs; causative factors, and how harm may be reduced - a mixed methods approach”**.

Why was this research study important?

Anecdotally the incidence of leg ulcers amongst the people who were using and injecting street drugs was increasing. It wasn't clear what was causing this increase and leg ulcers were becoming prevalent in much younger people than

the expected (elderly) demographic. The youngest person I saw clinically with a leg ulcer was 17 years old. At the time, I was also puzzled as to why I saw so many leg ulcers in the Glasgow population but not in Edinburgh. So I undertook the PhD to answer a clinical question.

What kind of research study did you do?

I followed a mixed methods approach to answer the research questions. I first undertook a survey using a questionnaire and interviewed 200 people who had injected, or were injecting, street drugs. Then I undertook a smaller qualitative study, using semi-structured interviews, with 15 people who had injected drugs and had experienced leg ulceration.

Why was this group of people important to you?

I had been working in wound clinics in Glasgow and Edinburgh with the Homelessness Team and

the Harm Reduction Team – seeing individuals with such chronic recurring unpleasant ulcers drove me to want to help, and try to prevent them happening in the first place.

I undertook the study in Glasgow as there was a high prevalence of people who injected drugs, and an apparent high prevalence of leg ulceration. I already knew some of the staff who might help me with access. I withdrew from my clinical work there whilst I undertook the research, but continued my clinical work in Lothian.

Why did you want to do doctoral studies?

I had a clinical question that I wanted an answer to, and there were no answers within the published literature, so there was very clearly a gap in the evidence base.

I had also looked at Information Services Division (ISD) data and could not find the answers from hospital admissions data. It seemed logical to ask the question – as to what was causing the leg ulcers and what we might do to prevent them, by undertaking a research study. I was working as a lecturer at the time and, for progression, I also needed to complete a PhD.

What were your main findings?

I found that leg ulceration in injectors was related to injecting in the groin and /or the legs and that most ulcers followed deep venous thrombosis (DVT). I also identified a 60% prevalence of wounds in the population that I interviewed, with a 15% prevalence of leg ulceration. That is, shockingly, 15 times higher than in the general population.

What are the implications if your findings for practice?

I have learnt so much! I can directly link history to ulceration and almost every patient I see in

clinical practice with leg ulceration has the same aetiology – femoral or groin injecting and / or leg injecting and usually a previous DVT. This means I can confidently explain, investigate, diagnose and treat appropriately.

I was so struck that when I interviewed current and former drug users about their leg ulceration and none linked the ulceration to their injecting career. We need to do better and reduce harm by teaching about venous disease and that leg ulceration is end stage. There are many signs of venous disease that appear in advance of leg ulceration.

If we can stop some of the injecting habits and offer alternatives, we could reduce the incidence of groin infections and hospital admissions, and ultimately reduce the incidence of leg ulceration in future.

So education is vital –of both staff and service users. I have taken the opportunity to develop and deliver training across Scotland and disseminate findings beyond our Borders to improve knowledge. In the Harm Reduction Team we developed ‘below the belt’ resources to show what damage from groin injecting in the form of visible venous disease on the legs looks like – the posters are on display across the UK now. We developed cards with images and information for direct interventions and take-away. This was supported by NHS Lothian Public Health.

What do you enjoy most about being a researcher alongside your clinical role?

I have been very happy that my findings are being implemented in various ways and the risk of groin and leg injecting has been made apparent. The profile of leg ulceration has been raised within the injecting population too. So I hope that my

research had made a difference. That's what matters most – impact.

What are the main challenges for you to do research alongside your other roles?

Time is the perennial factor!

Writing up results for publication takes time and concentration and that is hard to come by.

How were you supported to undertake research within your roles?

My manager in NHS Lothian, Jim Shanley, was very supportive and I undertook my pilot studies in Edinburgh – my colleagues were also very patient answering never ending questions and allowed me to explore more theories with them.

I had excellent supervisors in Professor Andrew Watterson, Professor Avril Taylor and Dr Iain Atherton. They left me to get on with it most of the time but were there to provide guidance and support whenever I needed it.

How has having a doctorate influenced your career since you completed it?

I have gone on to implement my findings and I deliver a lot of training around wound care for injectors.

I also have enhanced confidence to undertake research work and if I only had more time, so much more could be done.

What do you hope to do in the future?

Continue to work on reducing harm for individuals who inject, utilising all that I have learnt through the PhD journey. I'd love to write more and teach more about the topic – I think much more wound care and teaching about drug use could be delivered in the undergraduate nursing programmes

Have you published any of your findings?

Coull, A. F., Kyle, R. G., Hanson, C. L., & Watterson, A. E. (2021). Risk factors for leg ulceration in people who inject drugs: A cross-sectional study. *Journal of Clinical Nursing*, 30(11-12), 1623-1632.

<https://doi.org/10.1111/jocn.15716>

Coull, A. F., Atherton, I., Taylor, A., & Watterson, A. E. (2014). Prevalence of skin problems and leg ulceration in a sample of young injecting drug users. *Harm Reduction Journal*, 11(1), 1-9. DOI: 10.1186/1477-7517-11-22

I have also used my knowledge to write a National Wound Care Guide

<https://sdf.org.uk/wp-content/uploads/2022/02/National-Wound-Care-Guide.pdf>

and developed an elearning module called 'How are your sites?'

<https://www.sdftraining.org.uk/e-learning/690-how-are-your-sites>

What advice would you give to anyone planning to start doctoral studies?

Protect your time! Make sure you are investigating something that you are interested in. It's a long process and you need to be as interested in it at the end as the beginning!

And link in with other doctoral students and researchers – during my studies I was unaware of the doctoral network in NHSL (and they were unaware of me!), but it is an excellent source of support and advice.

For more information please contact:

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