



Collaborative practice: can work based learning benefit both students and healthcare professionals?

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Experiential learning is well recognised as a means of developing problem solving skills, where the contextual transfer of learning encourages application of knowledge in order to solve real life problems.¹⁻⁴ Clinical placements involving students in direct patient care can provide diverse, practical, real world experiences that really encourage active learning.⁵ In line with this evidence of the educational benefits of experiential learning programmes, the South African Pharmacy Council (SAPC) requires providers of pharmacy education in South Africa to include a minimum of 400 hours of structured experiential learning over the four year undergraduate pharmacy programme.⁶ A component of these 400 hours occurs when final year pharmacy students from the University of the Western Cape (UWC) spend 10 weeks in local hospitals and clinics, providing pharmaceutical care and other patient-focused activities. One assignment that is completed during the clinical rotations focuses on in-service training, the topic and format of which is identified by pharmacists at the clinical site.

In 2019, a group of four UWC final year pharmacy students were placed at New Somerset Hospital for a 5 week clinical rotation, spending four mornings a week on-site. The hospital pharmacists identified a problem area linked to prescription errors and explained the brief for the in-service training assignment to the students. They needed a simple, concise and easy-to-use chart that showed both first and second line anti-retroviral (ARV) and anti-tuberculosis (TB) medicines, that could be used by prescribers when making relevant dosing adjustments in renal impairment. As there are two clinical rotations running back-to-back at the hospital site, the idea was that one group would look at ARV medicines and the second group would focus on TB medicines. What started out as a simple project with a misunderstood brief, turned into a happy accident which resulted in a very useful tool. Little did this group of students know that what started out as yet another assignment would grow into something so much bigger!

The students dutifully completed the assignment combining both ARV and TB medicines into one poster, and included additional

information for the nursing staff on risk factors and how to monitor renal impairment. A colour-coded poster was designed and a medicine dial-up wheel developed for quick reference purposes. Initially the pharmacists nearly sent them back to the drawing board as the students had misunderstood the brief. However, the creative and informative quick-to-use reference guide that was created by the students was extremely well received by the delighted pharmacists. The educational tool was presented to both the pharmacy and medical ward staff as in-service training, using role-play. The pharmacists were more than satisfied with the outcome of the assignment and shared the poster with the hospital's clinical manager, who in turn described the practical value of this collaborative project to the Chief Operational Officer (COO) of the hospital. The students were subsequently invited to present the educational tool at the quarterly Clinical Governance meeting, where a decision was taken by hospital management to print the posters for dissemination into the adult wards.



In-service training for medical and nursing staff. From left: Dr Ismail Banderker and Sister Galant (Medical Ward, New Somerset Hospital), with the UWC group of final year students, Prince Dlozi, Kian Shafiei, Christelle de Jongh and Simon White-Phillips



Pharmacists Carrie de Beer and Madinieyah Salasa presenting the poster and dial-up wheel at the 2020 Health Indaba

January 2020 started with a flurry of emails – late one afternoon, the clinical manager and COO requested that this collaborative assignment be submitted to the Western Cape Department of Health’s annual Health Indaba as part of the Innovation Exhibition. Not only was it submitted, but it was accepted and Wednesday 19 February 2020 saw Carrie de Beer and Madinieyah Salasa representing New Somerset Hospital at the Health Indaba and proudly displaying this collaborative project on behalf of all involved.

This simple student assignment did not stop here. Due to the immense interest and numerous requests for copies of the poster, the educational tool will now be presented to the Pharmacy Manager’s Forum where a decision will be taken on how best the poster, once updated with the latest treatment guidelines, could be adopted for implementation in the Western Cape’s healthcare facilities after re-branding and editing.

What lessons did we learn from this?

From the pharmacy students’ perspective:

“As a student you dread learning about HIV and TB, because of the complexity and ever-changing treatment guidelines of these diseases. Our project at New Somerset Hospital in 2019 was in fact a blessing in disguise. These tools certainly helped me to study HIV and TB. I realised the importance of inter-professional collaboration when it comes to best pharmaceutical care for each patient, which reassured me that our input may help the pharmaceutical profession to flourish.” (Christelle de Jongh, UWC)

“It was only after we started doing research into the widespread adverse events related to renal impairment and the first line therapy combinations of HIV and TB drugs, that we realised the significance of our task. We needed to produce a tool which would limit unnecessary harm related to suboptimal prescribing, offer evidence-based alternatives and do so in a way which increased access to pharmacological information ‘on-the-go’. Reflecting on the product, we realise the importance of the input from a multi-disciplinary team. More specifically, we see how the pharmacy profession can assume a role in guiding safe and effective medicine therapy. We attribute much of our insight in creating the poster and wheel to having been able to learn in a practical and professional setting.” (Simon White-Phillips, UWC).

“The value of such a tool was initially lost on me. However, I was privileged to have access to the medical wards at the hospital where I was able to experience a South African public health hospital facility first-hand and I interacted with the very patients afflicted with these conditions and the dedicated staff who tend to them. It’s hard to dismiss the statistics when you’re face to face with the situation. A recurring thought while I was working on this task was, “isn’t this a thing already?” I came to realise the tool didn’t exist and it was our role within the healthcare team to bring about the realisation of the tool as a convenient guide for renal dose adjustments that would not only streamline the process, but minimise drug-related complications related to prescribing, dispensing and use.” (Prince N Dlozi, UWC)

“The poster and tool that we made was met with very positive reactions from the staff to the point that they are incorporating it as a tool that they will be using on a regular basis. This is a huge honour in itself. At the end of the day as a health care provider, knowing that because of what we have achieved and developed for the facility, that we’ve aided the decision making process for a safe and effective choice of medicines to save patient lives, even if it was just several patients and that they might not even learn our names or see our faces in their duration of treatment, it is still the best feeling of achievement and accomplishment for us to know that a patient’s condition has improved.” (Kian Shafei, UWC)

From the perspective of pharmacy practitioners, never underestimate the potential benefits of collaborative partnerships between the pharmacy profession and academia. Young minds and fresh eyes bring creative energy into our practice environments. *“Being involved and engaging with students can be both rewarding and daunting. We have been fortunate to have mentored students that have come to our facility with a passion for the profession and a willingness to engage and learn from a multi-disciplinary team.”* (Carrie de Beer and Madi Salasa, New Somerset Hospital).

From the viewpoint of a pharmacy educator, *“Never underestimate the potential of a practice-based assignment, and the opportunity to promote the pharmacist’s expertise in all aspects of medicines, to other healthcare professionals.”* (Jane McCartney)



Jane McCartney

Work-based learning programmes provide excellent opportunities for pharmacy students to enrich practice, when guided by practice's needs. Our pharmacy students have much to offer the profession, when given the opportunity and our colleagues in practice have so much expertise to offer our students.

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