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Abstract

Student run clinics offer an innovative approach to medical education. They provide students with hands on, supervised clinical experience and offer an opportunity to translate lessons learned in a lecture theatre into genuine clinical scenarios. The students also develop improved interprofessional skills and cultivate their empathy, compassion and an appreciation for holistic patient care. The literature suggests that as well as being an effective incubator of student education, SRCs can provide high quality patient care, often to underprivileged populations with poor access to healthcare. Students' Health and Welfare Centres Organisation (SHAWCO) is a University of Cape Town society that operates daily SRCs in a variety of distinct locations around Cape Town. This is a reflective report that discusses my experiences during my placement with SHAWCO and compares them to the literature on SRCs. The report concludes by discussing the possibilities and practicalities of implementing SRCs in the UK.

Introduction/ Aims and objectives

My elective placement was undertaken with SHAWCO, a University of Cape Town (UCT) student volunteer organisation that aims to provide quality healthcare to underprivileged communities in Cape Town. I joined the health division of SHAWCO and participated in their daily student run clinics, alongside UCT and fellow international students.

In these clinics, clinical year students are responsible for taking a history from the patient, examining them, formulating a management plan and presenting the case to the supervising doctor. In some clinics, first and second year students are guided and taught by their more experienced university peers. The key tenant to these clinics is that the students take on responsibility for almost all aspects of the operation- both organisational and medical. This contrasts immensely with the universal experience of the UK based medical student: sitting in an outpatient clinic, shadowing a consultant and learning through observation. In SHAWCO clinics the student transitions from observer to participant, from passively learning to actively experiencing, no longer an audience member but now the headline act. My project aims to compare the literature on SRCs with my experiences in South Africa and analyse the benefits and drawbacks of student run clinics. My objectives are threefold: to assess and reflect on the student and patient experiences, to analyse the moral and ethical concerns that arise from student run clinics, and to contemplate the feasibility of implementing SRCs in the UK.

Literature review

The first review of SHAWCO was completed by its co-founder and life president Dr Golda Seltzer in 1963. She describes how SHAWCO provides students with experience in a variety of clinical conditions and scenarios, common in general practice but rarely seen in large hospitals. She describes the division of tasks according to student seniority and the role of inter-professional collaboration within the clinics. The overall impression is that these clinics are a beneficial educational resource for the students and a valuable service for communities with poor access to healthcare. These views are reinforced by Katz, who praises the practical application of knowledge in these clinics as an invaluable resource. Moreover, he states that the clinics allow students to appreciate the medical and social background of the patient, to see them as an ill person within their environment. Similarly, in the United States, student run clinics are widespread, with over 62% of US medical schools operating at least one SRC. A substantial proportion least one SRC. A substantial proportion of these clinics were founded to provide free healthcare for homeless or poor people who could not afford health insurance. Many of these operate on a similar model to SHAWCO, with older students responsible for the diagnostic interventions and teaching younger students. These early accounts of SHAWCO and similar clinics in the USA recognise the tremendous benefit these clinics can have to all parties involved.

More recent study has challenged these views and scrutinised their foundations. Schutte et al conducted a systematic review of the literature regarding student outcomes in SRCs. They reviewed 42 articles discussing SRCs and found that not only did students generally appreciate the clinical experience, their attitudes and behaviour towards patients improved. Students enhanced their standards of care and compassion through working with underprivileged populations. These clinics rely on student volunteers and are driven by students desire to contribute to their community. Simpson and Long surveyed 124 medical schools on their SRCs and found that this communal enthusiasm is what drives most students to participate in SRCs. They report that student volunteers "always" or "often" participated to serve the poor (100% of survey respondents) and enjoy themselves (98%). The educational benefits such as spending time with patients (97%) and learning clinical skills

(90%) were also important motivators but less so than students' collective social conscience and altruistic passion. Despite no reported difference in exam grades between regular participants and other students, those attending clinics felt that their skills and competence improved. While self-reported improvement is of limited value and accuracy, it represents an indication of satisfaction and willingness to participate. As Schutte explains, these are important representations of intrinsic motivation- a key facet of self-directed learning and independent study.
In addition to the students benefitting from clinics, Schutte reports that patients were generally found to be satisfied with the standards of care they received. This corroborates with work done by Gorrido et al who analysed the quality of care delivered at SRCs. They compared changes in HBA1c for patients with Diabetes Mellitus (type two) who regularly attended an SRC in Nashville, Tennessee with best practise benchmarks. The SRCs delivered high quality care, with mean HBA1c values improving from 9.6 to 7.9 over 12 months. This represents a longitudinal and clinically significant improvement in diabetes care and indicates that as well as being a valuable educational resource, SRCs could be a potential arena for high quality healthcare delivery. Gorrido suggests that even students in their first year of medical school could contribute to patient care and chronic disease management in SRCs.

Meah et al discuss some of the wider benefits of SRCs and their place in medical education[4]. She references SRCs as excellent examples of experiential learning, where students can relate clinical knowledge to genuine scenarios in real time. The degree of autonomy expressed by students in SRCs is unparalleled which, according to Williams and Doci is "critical to nurturing more responsible and humanistic learning and execution of patient care". In addition to the educational and developmental benefits, Meah explains that SRCs also expose students to non-clinical experience such as fundraising and healthcare management. SRCs run under the authority of their medical school but are organised and managed by students. Committee members are tasked with resource acquisition and allocation, arranging supervising staff and overseeing the delivery of high quality healthcare. Early development of leadership and healthcare navigation skills could have significant benefits to students later in their careers.
Furthermore, SRCs can be valuable settings for students to develop interprofessional skills and relationships. Students from a variety of healthcare courses can attend clinics, so students can develop communication skills, learn conflict resolution, and make shared decisions in a supervised setting**.** Wang and Bhakta explain how SRCs encourage a feeling of mutual investment and interdependence among students, in addition to a greater level of respect for their colleagues. In a time where the multi-disciplinary team is omnipotent in every aspect of healthcare, the benefits of developing effective interprofessional collaboration early on in one's career cannot be overstated.
Existing literature also touches upon some of the ethical dilemmas that arise from SRCs. Unlike, traditional clinics where students are restricted to observer status, in SRCs students are thrust to the forefront of care and are faced with overwhelmingly complex tasks with limited experience of how to manage them[4].
Buchanan and Witlin explain that while the students can't legally practise on patients without a supervising qualified physician, many of the administrative and management duties can be undertaken by inexperienced students with limited faculty assistance. The student's role in the clinic organisation may indirectly hinder patient care. The authors go on to identify unintended counter-productive lessons that may be learnt at SRCs. These include notions that patients who cannot afford regular healthcare deserve less privacy or can be prescribed lower quality medications. Buchanan posits that the very nature of SRCs force the conclusion that disadvantaged individuals can act as guinea pigs for medical students to practise on, to improve their skills for their future patients.

However, further examination of the available literature refutes these claims, with no evidence present of reduced quality of care or student organisations propagating the notion that underprivileged patients deserve less care. The literature substantiates the efforts of students to match or even exceed conventional standards of care**.** Indeed, a survey of students who attended SHAWCO clinics found that attending clinics reinforces for many the altruistic reasons they became doctors. Attendees explain that while medical school dehumanises patients, SHAWCO clinics reengage students with holistic patient care, opening students' eyes to the patient's background and culture, allowing them to address all their patient's biopsychosocial needs.
The overall conclusion from the literature appears to be overwhelmingly positive, promoting SRCs as beneficial organisations for the student's education and professional development while simultaneously providing high quality healthcare to underprivileged communities.

Reflection and critical analysis

The four weeks I spent with SHAWCO were highly enjoyable and filled with positive experiences. The UCT students and staff were extremely helpful and welcoming, all of which contributed to the overall constructive atmosphere of the clinics.

When I attended my first clinic, I was paired with two other international students from University College London, so that I could ease into this new role without initially having to take full responsibility for patient care.

My initial reaction was one of shock. I was used to clean, well-organised NHS clinics where one doctor saw one patient, perhaps with a nurse assisting with clinic management and patient care. On my first evening with SHAWCO there were three students per patient with one doctor overseeing four clinic bays and one pharmacist responsible for organising prescriptions and managing clinic flow.

Despite the clinic lasting almost four hours we only saw three patients as we were limited by the supervising doctor. Each consultation was unnecessarily extended as we waited for the doctor to come and verify our findings and confirm our management plan. In truth, my first thoughts were not of the advantages of the clinic as an educational arena, but of the limitations and ethical concerns such a setting produce: they seemed short on many resources, with a limited supply of basic medications and a shackled ability to effectively care for the patients. This led me to question the ethos of the clinic itself- was this primarily for the patients benefit or the attending students? How could we hope to provide effective care in such a resource limited setting? I raised these concerns with my fellow students who agreed with my observations but explained that due to the nature of the population and their lack of access to healthcare, these clinics were a vital resource for ensuring the health of the community.

My initial doubts continued through the next few clinics I attended but as I got more involved I began to appreciate and understand the incredible work that SHAWCO does.

The limitations on resources and staff forces attending students to raise their game and improve their overall clinical methodology. There was increased reliance on taking a thorough history, asking detailed questions about a variety of relevant factors, pressing to understand the nature of the presenting complaint and the patients social background. The examinations we performed, while basic, had to be rigorous and comprehensive to ensure we didn't miss a vital clinical sign or indication of serious pathology. Only once this laborious process was complete did we begin to formulate a management plan and call for the overseeing physician to verify our conclusions. The overextended consultations which I had initially dismissed as inefficient were essential in allowing for a systematic history and examination.

This attitude shift was best illustrated by a case of a 37-year-old mother who presented with a non-specific rash and general musculoskeletal pain. After a basic history and relevant orthopaedic and dermatological examination a specific diagnosis still eluded us. As we were not under time pressures, we were able to delve deeper into the history of her pain and rash, uncovering details of her home life and social circumstances. It emerged that she had significant stresses at home from her family commitments and external professional and financial pressures. Only once we understood the patient's psychosocial history did it become clear that her rash and pain were possible somatic manifestations of a psychiatric illness. With the help of the supervising physician we formed a tentative diagnosis of depression and referred her to the local mental health services for further investigations. In the UK, with the time limitations of outpatient clinics, this patient could have bounced between various medical and surgical specialities with limited improvement in her wellbeing. The time afforded to us – thanks to the nature and structure of SHAWCO clinics – allowed us to understand the patient as a person, to see her within her social and cultural setting, and make a significant difference to her overall health.

One of the key tenants of SRCs is peer learning. Older students are encouraged to teach younger students throughout the duration of each consultation. This involves explaining presenting complaints, justifying questions and elaborating on examination findings.

In my second clinic, I was paired with two second year students and instructed to educate them as the evening progressed. I found the experience to be highly rewarding. I found myself rising to the challenge as I transformed into a clinical role model for these students, and mindful that everything I did or said was scrutinised. The students engaged well with the consultations and were receptive to instruction and advice.

Due to the nominal age gap between myself and the younger students, the lines of demarcation between tutor and pupil began to merge, and the clinic became a shared learning experience. I wasn't just relaying information about the patient to them, they were actively participating in the history and examination procedures, simultaneously learning and treating the patient. Consequently, I greatly enjoyed the educational aspects of SHAWCO and the opportunity also allowed me to understand my own teaching style, whilst exploring the possibility of seeking further teaching involvement later in my career.

The pre-clinical students informed me that the clinics were excellent opportunities for them to expand their studies outside of medical school. It provided relevance and forged connections between the abstract biomedical concepts they were learning and real life clinical scenarios. One student summarised her motivation for attending by quoting Chinese philosopher Confucius: "what I hear I forget, what I see I remember and what I do I understand".

SHAWCO clinics attract a variety of presentations, with everything from scabies to suspected meningitis presenting in a single clinic. I found this to be a double-edged sword. I was confronted by a plethora of dermatological presentations, primarily scabies but also several rashes of varying complexity. Dermatology has long been a speciality I struggled with and being faced with several dermatological cases, forced me to confront this weakness.

I also became acutely aware of other gaps in my knowledge. For example, I have had very little experience in paediatrics and so was unprepared for some paediatric consultations. While being 'thrown in the deep end' may have been beneficial for my educational progression, I was painfully aware that my lack of proficiency may have reduced the standards of care provided. It is here that peer learning is vital; other students taught me how to do a brief paediatric history and guided me through difficult dermatological cases.

My experience paralleled with the literature- SHAWCO clinics promote an environment of teamwork, cooperation and interprofessional collaboration that is mutually beneficial to all involved and facilitates effective, high quality patient care.

Conclusion and Recommendations

The overall conclusion from my time with SHAWCO was that the experience matched the literature. These clinics, which were organised, managed and operated almost entirely by students, could provide high quality patient care to an underprivileged population. The students involved benefitted greatly, utilising the clinic as an educational resource to improve their clinical skills and knowledge. In addition, students could further their understanding of their patients, developing holistic models of care by treating their patients in relation to their background and environment.

Most importantly, students could develop their professional empathy and nurture their compassion towards their patients. overall, my experiences indicated that SHAWCO clinics benefitted the patients, but more so the students, both as people and as future clinicians.

Nonetheless, questions remain about the suitability of implementing the SRC model in the UK. In Cape Town, over 15% of the population live in informal housing or shanty towns with poor access to healthcare. Conversely, in the UK universal free healthcare ensures widespread access with minimal socioeconomic inequality in both the quality and supply of primary care**.** Therefore, the patients have a reduced necessity for free healthcare provided by inexperienced students. Widespread implementation of SRCs could have a negative impact on patient care, as patients might be diverted away from consultant led clinics. Even if SRCs were to provide high quality patient care, there remains little demand from patients for slower, inexpert consultations when a free alternative is readily accessible.

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