Preceptor reflections on the Community Health clinical rotation for fourth year pharmacy students at the University of the Western Cape

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Abstract

This paper describes the community health clinic rotation of the Patient Care Experience programme (PaCE) offered to fourth year pharmacy students (2018) at the University of the Western Cape. Reflections from the collective experiences of the faculty and practice preceptors offer insight into integration of a clinically-oriented medicine therapy management programme directed at the primary care level.

Key words: Community health, clinical-orientation, primary care, pharmacist preceptor, pharmacy students.

Introduction

South Africa's healthcare system has traditionally been directed towards hospi-centric curative services with minimal focus on primary health care. The proposed National Health Insurance (NHI) advocates for the re-engineering of primary health care, requiring multi-stakeholder coordinated responses to address the social determinants of health through health promotion and disease prevention.[1]

In the pharmacy sector, patient-centred health care seems geared towards a clinical specialty for hospital practice[2], while the pharmacist prescriber service targets the private community pharmacy setting. However, pharmacists working in primary healthcare in the public sector remain peripheral to these developments; confined to high volume mechanical dispensing and supply chain management to meet the increasing patient load. Primary healthcare is a focus area, where the past president of the Pharmaceutical Society of South Africa (PSSA) attested that "It is now more critical than ever to prove up and step into our roles and responsibilities as primary health care providers and to expand these into advanced roles like medicine therapy management and medicine use evaluation (MUE) and review"[3]. In addition, a recent consensus report on health professional education in South Africa endorsed transformative efforts aimed at inter-professional education and collaborative practice at the primary care level to optimise student learning outcomes.[4]

The Patient Care Experience (PaCE) programme of the School of Pharmacy at the University of the Western Cape (UWC), offers hands-on clinically-oriented learning experiences to develop students' skills in identifying, solving and preventing medicine related problems by analysing individual patient cases as a learning tool.[5] The 30 credit programme is presented to fourth year pharmacy students in the second semester, consisting of two 5 week rotations, one in a public sector hospital and the other in a community (primary) healthcare facility.

Pharmacists employed by the health facility and School of Pharmacy faculty, who are registered with the South African Pharmacy Council, precept students; with 2018 marking the first time that faculty undertook on-site precepting for the Community Healthcare clinical rotation since PaCE was launched (2016). Generally, a PaCE cycle consists of pre-PaCE workshops, collaborative preceptor planning, student orientation, on-site learning and assessment and feedback. Student assessments for the community health rotation comprised of individual and group learning activities (Table 1).

Table 1. Individual and group learning activities undertaken by fourth year pharmacy students for the community health rotation

Individual learning activities	
	Therapeutic care plan (n=2) Patient- centred Medication history taking and reconciliation (n=2) activities Interprofessional education (IPE) assignment
Group learning activities	
	Medicine Use Evaluation (MUE) feedback and intervention In-service training targeted at specific facility staff Patient education poster: design and presentation

This reflection paper is framed on the collective pharmacy faculty and practice preceptor experiences and their lessons gleaned from the community health rotation, highlighting the potential of a clinically orientated pharmacy practice role in primary health care in the public sector.

Pre-PaCE: Pharmacist preceptor workshop

Before the fourth year pharmacy students embarked on their community health rotation, a community healthcare preceptor workshop was hosted at UWC's School of Pharmacy (July 2018) to strengthen learning opportunities with practice pharmacists (n=7) working in public sector primary care facilities (n=6; namely, community health centres, clinics and community day centres) and the community health UWC faculty members (n=2). The strengths and challenges of the current assignments and assessments were discussed to adapt assignments, by making them more complementary to enhance the quality of pharmacy services at facilities.

Therapeutic care plan development required students to critically analyse prescriptions in accordance with standard treatment guidelines and rational medicine use principles. Preceptors agreed that the limited patient contact time and the lack of laboratory data (for effectiveness and safety monitoring) posed a challenge to students completing their care plans adequately.

Since patients are present at the facility for only a few hours, students are unable to extract relevant information to thoroughly assess the medicine related problem. This resulted in a retrospective activity which made it a purely academic activity for students, with little opportunity to actively intervene in the medicine therapy management process. One suggestion was to identify a patient a few days before their visit, complete the plan and locate them on their appointed clinic day where they could pitch the care plan to the patient and other health care workers. Another suggestion was to focus care plans on prescriptions with more than 8 medicines as polypharmacy was a major problem in chronic disease management at primary healthcare level.

Medication history taking and reconciliation required a face to face engagement between students and patients to understand and interpret the dispensed chronic medicines, which included the name, indication, frequency of use, allergies, use of additional medicines (OTCs, herbal, traditional), and to include those medicines which they were taking, but not noted in the prescription. In this way, students could identify knowledge gaps and offer tailored education to the patient. One practice preceptor further suggested that by incorporating patient adherence into the medication history and reconciliation assignment it could potentially serve as a medicine use review (MUR).[6]

Interprofessional education (IPE) and collaboration activities required students to discuss patient care with other facility staff members including clinical nurse practitioners, doctors, health promoters, dieticians, family planning staff, school health team and community healthcare workers.

All practice preceptors agreed that the group assignments have thus far been effective in showcasing pharmacy at their facilities. The MUE assignment was especially effective to promote communication between the pharmacy and prescribers. Previously, a team of pharmacists in the Western Cape conducted an aspirin MUE (2016), which led to a saving of 5.4 million rand per year for the Province.[7] Subsequently, 3rd year (2017) students assisted with collecting MUE data for amitriptyline, therefore the next logical step required them to present these results to the prescribers at the facility for the PaCE rotation in 2018.

Both in-service training and poster development required students to engage with staff and patients, respectively, about practice or pharmaceutical knowledge gaps which the practice preceptor identified. Poster development focused on asthma inhaler use and insulin administration, which has been identified previously as common problems across facilities. Students were required to submit a first draft of their planned training or draft poster to their faculty preceptor, make changes and present it to the target audience.

Description of PaCE experiences

PaCE 2018 placed students (n= 85) in groups ranging from 2-4 students per group at 16 primary care facilities. Two faculty preceptors were each assigned to 8 facilities for the 2 rotations.

In terms of care plan development, at facilities where the administrative efforts to identify patients a few days before their visit were too difficult, another option was to identify a patient's prescription quite far back in the dispensing queue, so that students would have enough time to prepare their care plans and ask patients pertinent questions at the time of dispensing, and if necessary, make a recommendation to the prescriber.

Despite this plan, many students could still not complete their care plans before the patient left the facility. To counteract this problem, some students showed initiative by discussing some important medicine related problems identified in their care plans with the prescriber the next day. Their recommendations were noted in the patient file for incorporation into the patient's care in the next consultation.

The medication history taking and reconciliation seemed to be an ideal activity in these community settings as patients were readily available, and not as sick and confused as those in a hospital setting. Adherence was cornerstone to medicine therapy as endorsed by the practice preceptor during the pre-PaCE workshop. However, medicine adherence counselling posed a problem at facilities that did not have designated patient counselling areas.

Some facilities re-designed their IPE assignment to include community outreach activities with the health promoter, providing a learning activity beyond the facility. Students were especially grateful for these opportunities as it provided them with a valuable context to understand medicine use in the local community.

The medicine use evaluation (MUE) project encouraged students to engage with the facility's prescribers. By analysing the data at provincial and facility levels, students realised the crucial role that pharmacists play in developing a professional relationship and

that a nonintrusive presentation skill was essential in promoting rational medicine use with prescribers.

The in-service training assignment was received well in all facilities. At some facilities, time was a problem and students were required to extend their presentations over more than one session, so as not to impede pharmaceutical service delivery. In some facilities baseline knowledge questionnaires were developed to gauge the existing knowledge of the target audience, so that the students' presentation could be tailored to address the identified gaps, thereby linking the training to the routine practice needs.

For poster development, an additional aspect was added that required students to engage patients in refining the poster contents. A first draft of the poster required their faculty preceptor's feedback, and after incorporating any changes, students had to test the prototype poster with a group of patients at the facility for which the poster might have relevance (i.e. inhaler use in children – find parents of children with asthma). They asked the patient group what they made of the poster, giving minimal instructions at the beginning. Students then made the identified changes needed and further 'tested' the amended poster with another group of patients, until only minor changes were required. This iterative process of engagement sensitised students to indigenous knowledge on medicine use in the local communities and allowed them to incorporate local terminology into their poster.

Learning points, limitations and recommendations

The primary goal was to enable faculty and practice preceptors to work collaboratively to design and implement a PaCE programme suited for primary care.

One of the primary limitations for the community health rotation was the reality of students getting absorbed into the pharmacy's routine operational duties, especially in situations when the pharmacist responsible for student supervision was either not available or if the pharmacy was short staffed. Staff non-availability was especially problematic if it impacted on (posters or in-service training) presentations. Faculty preceptors offered support and assistance to practice preceptors to promote meaningful learning activities. Subsequently, the main focus in adapting PaCE activities was to enable students to obtain experiences beyond that of the pharmacy. It also sensitised pharmacists to (re-) think ways to advance professional practice.

Care plans which are prepared and discussed at the point of dispensing would be ideal and requires a revision of the care plan format for the community health rotation. Practice preceptors should sign off on care plans to optimise opportunities for students to engage with prescribers on pharmaceutical interventions with care plans done retrospectively. However, for patients receiving prescriptions with more than 8 items, the challenges include individualising the interventions for such patients, and the longitudinal nature required to address such problems.

Medication history taking and reconciliation should be aligned with MURs as per the current trends in primary health care settings. Evaluation should focus on the process of face-to-face engagement between the student and patient which should ideally be assessed on-site, rather than in the form of a written report.

Students should be encouraged to look beyond the nurse or doctor for their IPE activity. What is unique about the community sites is the interaction with community healthcare workers, health promoters, and counsellors on outreaches outside the facility. In this way the IPE assignment is not limited to the care plan of one patient inside the facility, but could be expanded to a target group of patients in the local communities.

The MUE was positively received among facility staff, underpinning its importance with the prescribers. Students were reminded that the MUE is in fact a mini-research project, requiring them to apply research principles, as it serves as a professional communication tool. Sustainability of the MUE exercise is a vital link between pharmacists and prescribers.

In service and poster assignments were adapted to include more engagement, taking cognizance of knowledge that is embedded in practice and the community. For in service activities, it is recommended that students include a 'build-up' of the content through direct engagement with the audience, eliciting tacit knowledge and embedding it before the formal (actual) presentation. For poster development, iterative testing of the prototype poster should be embedded in the assessment to compile a patient terminology database, which could offer a geospatial comparison of chronic medicine use terms across communities.

Conclusion

The PaCE community health clinical rotation demonstrated interdependence between pharmacy faculty and practitioners to integrate a clinical role at the primary care level. District-based monitoring and evaluation is needed to determine the effectiveness of the community health rotation.

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