Medicine Runners: A community-initiated solution to chronic medicine access in underserved communities

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Abstract

Patient access to chronic medicines is crucial in optimising disease management. With the introduction of a decentralised chronic dispensing unit, stable patients qualify to have access to their chronic medicines away from health facilities at alternative distribution points in the community. The aim of such decentralised chronic medicine 'parcel' collection points is to minimise patient load at healthcare facilities. However, non-collection of medicine parcels creates added workload for pharmacy staff and poses a financial burden on the health system.

At the University of the Western Cape, following a workshop with community members as part of the service learning in pharmacy (SLiP) programme (2017), medicine runners (collectors) emerged as a theme. Medicine runners are a community-initiated solution to deliver chronic medicine parcels closer to the homes of vulnerable patients. They are community members who fetch medicine parcels either from the facility, or from a collection point, for delivery closer to the patient's home.

Final year pharmacy students (n=6) participated in the workshop to engage with various role-players (n=19) to ascertain how the medicine runners services could be regulated within existing pharmaceutical services. Students were further concerned about the integrity of the medicines during delivery. Upon reflection, students felt that reciprocal accountability between the pharmacy professionals and medicine runners should be incorporated into the delivery framework. Evidence from a pharmacy alumnus who shared experiences on innovative community-based delivery interventions, exemplified adherence to good pharmacy practice rules.

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Introduction

South Africa's quadruple burden of disease imposes a strain on the public health system, with patients affected by communicable and non-communicable chronic diseases requiring chronic medication therapy. In this regard, access to a continuous supply of medicines is crucial to reach equitable and quality health access for all South Africans as envisioned through universal health coverage (UHC) as per the National Health Insurance (NHI).[1]

In comparison to the private health sector, pharmaceutical services in the public health sector operate with severe resource limitations to address the pharmaceutical needs of an increasing patient load. In an effort to decrease the patient load on facilities, the centralised chronic medicine dispensing and distribution (CCMDD) programme was implemented.[2] This would have a twofold solution for facility-based pharmaceutical service delivery: (1) the pre-packing of chronic medication from repeat prescriptions at an off-site dispensary (thus lightening the load on pharmacists at facilities); and (2) the distribution of these chronic medicine parcels at alternative distribution points outside the facility (thus reducing the number of patients queuing at the pharmacy). There is thus a need for pharmacists to better understand medicine use in the community to align with the new model of service delivery.

The School of Pharmacy at the University of the Western Cape (UWC) is committed to exposing students to the realities of medicine use in underserved communities. This is done through the bi-annual SLiP programme embedded in the first to the third years of study, which places students in a range of learning environments such as informal settlements, primary healthcare clinics, community healthcare centres and hospitals. Such exposure aims to prepare students to make sense of the community perspective on medicine use and access.

A Community Engagement (CE) elective introduced in the fourth year (2018) aims to sensitise students to a role in advocating for social justice and the future pharmacists' role as a "change agent" in resource-constrained settings.[3] The co-authors of this open forum article are six final year pharmacy students, enrolled for the 2018 CE elective. The students' first CE activity was to participate in the School's Medicine Runners Workshop (February 2018) to engage meaningfully with role-players to understand the role of

medicine runners within the health system (UWC BPharm IV CE elective 2018). This workshop was born from needs identified through the service learning co-operative partnership with the Cape Metropole Community Health Forum (CHF) representatives (October 2017).

The CHF was established in accordance with the National Health Act,[4] which makes provision for provincial health departments to establish clinic committees where the community and facility can interact regarding community health issues. However, the Act failed to specify a formal mandate for health/clinic committees, because the roles and functions of these committees were left to the provinces to stipulate. The latest amendment by the Western Cape government to the Western Cape Health Facility Boards and Committees Act (no 4 of 2016), elicited a march to the Western Cape legislature to show the community's discontent with the new Act which essentially ignores existing health committees and creates a space for new health committees to be appointed by the Health MEC.[5] The participating CHF representatives are community leaders who have long represented the community in the health committees and have served to address barriers to the provision of quality care at the primary level of care. They identified key medicine-related priority needs, in particular the emerging role of medicine runners in the community as a means to resolve barriers to medicine access among vulnerable residents such as the elderly and severely debilitated patients. This prompted the question: how is this community-initiated solution translated within the regulated pharmaceutical processes of the health system?

The purpose of this open forum article is to reflect on the workshop from the perspective of pharmacy students, identify the lessons that were learnt and share key messages to inform pharmacy education and practice. Workshop participants consisted of various role-players either involved in pharmaceutical services or medicine use and included public sector pharmacists (n=4), practising and research pharmacists (n=1), postgraduate pharmacy students (n=2), community health forum representatives (n=10), medicine runners (n=1), advocacy representatives (n=1), not-for-profit organisation representatives (n=2), pharmacy students (n=6), academic facilitators (n=2) and public health faculty (n=2).

Workshop themes

The emergent workshop themes focused on: (1) the current model of care, namely decentralised chronic dispensing of medicine parcels and the challenges of this model; (2) the different variations of the community-initiated solution, i.e. medicine runners; and (3) concerns of different groups of participants regarding the quality of medicine runner services. The article concludes with lessons and questions, and closes with four key messages from the students' perspective.

Description of the current model of care

A chronically stable patient receives a six-month repeat prescription, which is forwarded from the health facility's administrators to an external private company, also known as the chronic dispensing unit (CDU). The CDU is contracted to compile and distribute chronic medicine parcels to the facility or an alternative distribution point. Essentially this decentralised distribution service aims to provide an alternative care model to stable chronic patients to bypass the overburdened facility-based approach with the intention to decrease waiting times, and pressure on the healthcare workers and the health system. It allows more time for healthcare professionals to serve unstable chronic and acute in-patients, as stable patients would be required to return for their follow-up to the facility six months later.

Workshop participants identified two main challenges in the new model of care: (1) stock-outs of medicine in medicine parcels; and (2) non-collection of medicine parcels. From a patient's perspective, medicine parcels which have missing medicines due to stock supply shortages, theft or dispensing error, require patients to return to the facility to seek assistance. On the other hand, pharmacist participants identified non-collection of chronic medicines to cause a huge financial burden on the health system. Additional time and staff were required daily to address the lack of medicine collection, and address those patients who did receive their medicine parcel, but with the absence of one or two medicines. Indeed, the problem of stock-outs and non-collection was so prevalent that in some clinics a dedicated pharmacist's assistant is specifically assigned to handle chronic medicine delivery queries to reduce patient frustration levels.

Medicine runners

A community-initiated solution, namely the medicine runner, emerged to enable vulnerable residents to access their chronic medicines from alternative distribution points closer to their home. Medicine runners or medicine collectors are people who are formally and informally identified by the patients (community) to collect their chronic medicine parcels from either a health facility or an alternative distribution point on behalf of the patient. This alternative chronic medication delivery invariably aims to minimise non-collection from healthcare facilities or at collection points.

There seem to be a few variations on the community-based concept of medicine runner. The first consists of an informal community-appointed local resident who undertakes the collection of chronic medicine for distribution to patients who are unable to access the facility or alternative distribution point on the specified day. Medicine parcels with patient reference details can then be collected from the medicine runner's home, which is closer than the alternative distribution point or facility.

The second refers to a much larger and formal partnership between the community-led medicine delivery services (courier) with a private company (Iyeza Health®). Started by a young entrepreneur Sizwe Nzima, and co-founded by pharmacist Siraaj Adams,[6] the establishment of a prominent partnership led to a medicine courier service dedicated to over 3 000 people in Cape Town's underserved Khayelitsha's sub-district. This multi-sectoral collaboration offers

doctors, clinics, hospitals and patients an accessible alternative to accessing their medications. Job creation was a spin-off for a team of seven local residents who are employed, with a bicycle-rider-to-patient ratio peaking at 1:700 per month (Iyeza Health®). By applying the principles of good pharmacy practice, along with the legal and ethical requirements, the medicine courier service pilot project is expected to disseminate findings to the Department of Health. Typically, medicine delivery services are known to levy a minimal (approximately R20.00 to R30.00 per parcel) fee.

The third medicine runner variation is a clinic-based intervention into chronic medicine delivery. For example, in a certain underserved area, communities relied on the voluntary counselling and testing (VCT) counsellor to access their chronic medicines directly from public sector facilities. The VCT counsellor seemed to serve a dual purpose both in medicine delivery and ensuring that patients were treatment-adherent.

Concerns

Participants' key concerns related to the medicine runners' safety while travelling, ensuring medicine stability during the delivery process, and the uncertain role of the community health forum representatives.

Participants expressed concern for communities, which are riddled with gangsters or drug lords, compromising the medicine runners' service. The medicine runners' safety may be compromised during delivery when gangsters are instructed to intercept medicine packages. This is especially common for anti-retroviral medicines such as efavirenz, which is used for recreational purposes. This results in patients being denied their complete treatment regimen.

Student participants were concerned about the integrity of the medicines during the delivery process before the medicine parcel reached the patient. They suggested that one approach is to engage the aforementioned challenges with the role-players to arrive at a framework whereby there is reciprocal accountability and sharing of good pharmacy practice principles. This would require initiating a dialogue between medicine runners, pharmacists and patients, so that each role-player understands the importance of integrating medicine storage and delivery principles in community-based medicine access.

Some CHF representatives seemed unsettled with the emergence of medicine runners, since they were traditionally responsible for assisting patients with queries at health facilities such as missing medicines in parcels and lost files. Inevitably, the trusting relationships between the community and CHF representatives that earned them the title of 'foot soldiers' for patients in the facilities, seemed to become sidelined with the introduction of medicine runners into the community skills mix. In essence, the CHF representatives felt alienated from discussions relating to the medicine runners' introduction in the community.

Lessons and questions

Post workshop, student discussions focused on pharmacy training (including campus teaching, SLiP and externship) and personal work experiences to make sense of the workshop themes by integrating it through a theory and practice lens. It was enlightening to witness the work of an alumnus expressing his entrepreneurial and innovative skills in improving medicine access in the community.

Upon reflecting on the pharmacist's current role, there seems to be a position whereby services, which go beyond facility-based dispensing to working directly with communities, are required to seek solutions to address medicine access. The emergence of medicine runners in promoting access to medicine to chronic patients is a reality for those patients who are physically unable to collect their medicines at a specified date and time. A key question emerged: is facility-based dispensing data a reliable indicator to measure patient adherence to medicine regimens? It seems that roles and responsibilities between patients, pharmacists, medicine runners, and community health forum representatives should be outlined. This raises questions such as: should medicine runners be trained on basic pharmaceutical principles and who will be responsible for this training? Who is legally responsible for medicine delivery via unregulated medicine runners or courier services? How would medicine runners handle medicine queries from patients during the six-month period when there is no consultation with a pharmacist or healthcare professional?

A screening selection process for appointing medicine runners (either at the community level or within the health service) is necessary to eliminate the risk of substance abuse or theft. But, how and by whom should medicine runners be appointed to ensure responsible, safe and quality medicine delivery to underserved patients? The Iyeza Health® model might offer a framework which adheres to good pharmacy practice rules. A collaborative approach might answer questions about how medicine runners may be integrated into the health system to serve as a vehicle to improve adherence to medication and reduce the disease burden in low resource communities. And, while the service delivery fee might seem 'reasonable', how affordable is the delivery service within the poorer communities who are reliant on social grants as their only form of income?

The aforementioned questions then led the students to ask the main question: How should pharmacy training embed learning approaches to develop change agents/leaders who advocate for equitable medicine access for underserved communities?

Key messages

- Despite the CCMDD programme launched by government, access to a continuous and reliable supply of chronic medicines remains a challenge in underserved communities.
- Community-led solutions to medicine access, such as medicine runners, are evolving in parallel to facility-based pharmaceutical services.
- Meaningful engagement with key role players from across communities, service providers, institutions and organisations is crucial in ensuring the quality of medicines which are distributed to the community.

- Pharmacy education may contribute towards community-based primary care services, by facilitating collective engagement between communities, students, pharmacy services and role-players to address equitable access to medicines. Such an initiative would fulfil an NHI requirement.

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