

Medicine sellers' perspectives on their role in providing health care in North-West Cameroon: a qualitative study

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Background Increasing recognition of the importance of medicine sellers in low-resource settings has emerged alongside assumptions that their motives and capacities primarily relate to profit maximization. This article suggests a need to reframe thinking about the role of medicine sellers in developing country health systems.

Methods We used in-depth interviews to explore perceptions of medicine seller roles among a restricted random sample of 20 medicine sellers in North-West Cameroon. Interviews and analysis explored self-perception of their work/role, community perceptions, skills and knowledge, regulation, future plans, links with the formal health system and diversity among medicine sellers.

Results Medicine sellers in our study were a varied, yet distinct group. They saw themselves as closely integrated in the social and medical landscapes of clients. Although some client interactions were described as simple sales, many respondents presented themselves as gatekeepers of medicines and knowledge, reflecting a conceptualization of the distinctness of medicines over other commodities. Acknowledgement of limits in knowledge and resources led to recognition of the need for formal healthcare providers and justified a restricted scope of practice and the need for referral. Motivation was derived from a desire for both financial and social capital combined with a proximity to medicines and repeated exposure to ill health. Legitimacy was perceived to be derived from: a historical mandate; informal and formal training and effective 'community regulation'.

Conclusions The distinct role that medicine sellers describe themselves as occupying in this study area can be characterized as provision of 'first aid', urgent, reactive and sometimes providing intermediate care prior to referral. Medicine sellers suggest that they do not aspire to be doctors and emphasize the complementary, rather than competitive, nature of their relationship with formal providers. We discuss the challenges and opportunities of characterizing medicine sellers as a distinctive group of 'first aiders' in this setting.

Keywords Health care, medicine sellers, qualitative research, Cameroon, developing countries, informal sector, private sector, drug shops

KEY MESSAGES

- Medicine sellers in North-West Cameroon are a varied, yet distinct, group who perceive themselves as integrated into the social and medical landscapes of their clients.
- Medicine sellers recognized their limitations in capacity and described good relationships with formal health workers to whom they referred clients.
- Medicine seller motivation was driven by a desire for both financial and social capital, and respondents had aspirations for progression.
- The framing of medicine sellers as ‘first aiders’ may provide a way to recognize, legitimize and regulate their roles.

Introduction

The role played by informal medicine sellers in many developing countries' health systems is of increasing interest among policy makers, as exemplified in recent debates surrounding their current and potential involvement in the home management of malaria (Goodman *et al.* 2007), a disease for which rapid access to treatment is essential (WHO 2010b). The Global Fund is now actively promoting the inclusion of private retailers into national malaria control programmes through its antimalarial subsidy scheme, the Affordable Medicines Facility for malaria (AMFm) (Global Fund 2009).

Although there is recognition that gains can be made in increasing access to prompt treatment through informal medicine sellers, concerns arise over the quality of care they provide (Moon *et al.* 2009), with few tested solutions for integration with public health objectives (Wafula and Goodman 2010). A number of common conceptualizations and assumptions about informal providers seem to underpin much of the debate. These include the characterization of medicine sellers as primarily profit-orientated economic actors (Breiger *et al.* 2005), an emphasis on conflicts in agendas over concordance with public health aims (Bennett *et al.* 1997) and a tendency towards assuming homogeneity within this diverse group (McPake 1997).

Current understanding is predominantly built around analyses focussed on clients' self-reported behaviours or on the observed actions of medicine sellers (Brieger 2005; Granado *et al.* 2009). There has been limited research aiming to understand sellers' perspectives and motivations. If these actors are to be brought into public health programmes, it is essential to understand the roles that they currently see themselves as occupying and their existing relationships with clients and the public sector (Tawfik *et al.* 2002; Kamat and Nyato 2010). Without this perspective, expectations from policy makers, and consequent measures to align medicine sellers' activities with public health goals, have the potential to be misjudged.

Cameroon has a rich history of biomedicines supplied through informal channels, with around 25% of the population purchasing drugs from informal providers (National Statistics Institute 2006). In the North-West of Cameroon, the informal providers include patent medicine sellers, which are a legacy of the region's Anglophone history. Unlike neighbouring Nigeria, where patent medicine sellers are officially sanctioned and have a recognized role within the health system, the status of medicine sellers in Cameroon is uncertain (Whyte *et al.* 2002).

Anthropological studies have previously described the use of medicines by unlicensed sellers and rural Cameroonian populations (Van der Geest 1987) as well as the challenges this poses within the health system (Van der Geest 1982). However, little attention has been paid to these actors until recently, when the debate over the regulation of medicine sellers' place in the Cameroonian health system has re-emerged (Ongolo-Zogo and Bonono 2010). We aim to contribute to this debate an understanding of medicine sellers' motivations and perceptions of roles in rural and urban North-West Cameroon.

Methods

Study setting

We carried out a qualitative study in the North-West region of Cameroon in both urban and rural areas in and around the Regional Capital of Bamenda and the town of Ndop. The main spoken language is Pidgin English, with English also widely spoken. At the time of the 2005 Population Census, the North-West region had a population of 1 728 953 (Libite 2010). According to the Regional Health Delegation, Bamenda Health District has a population of 240 000 and an enumeration of health providers undertaken in May 2009 recorded 29 government and mission facilities (Health Centres and hospitals), 15 pharmacies and 125 drug stores. Ndop is one of 13 rural health districts in the North-West region and is served by a district hospital, 10 government and mission health centres and 12 drug stores (Mangham *et al.* 2012).

Description of participants/locations

This study involved informal sector medicine sellers who operate out of fixed premises and specialize in the sale of medicines, as identified during the enumeration of health providers. We did not include ambulatory sellers or general stores stocking medicines alongside other products.

Study design

We took an interpretive approach to this research, with the narratives of medicine sellers the object of study, to understand how participants made sense of events and actions in their lives as medicine sellers. Fieldwork took place in August and September 2009 and consisted of in-depth interviews with medicine sellers and direct observations of interactions between medicine sellers and their clients.

Sampling

Providers were a restricted random sample of those who had been enumerated during an outlet survey undertaken for the Research on the Economics of Artemisinin Combination Therapies (ACT) (REACT) project, excluding communities where patient exit surveys were ongoing. From this list, medicine sellers were randomly selected (through drawing numbers from a hat), restricted to represent half urban and half rural outlets. If it was impossible to find a selected medicine seller when visiting their mapped location, passers-by were asked for directions to the nearest medicine store, and this storekeeper was invited to take part in the study in their place if they had not already been interviewed.

A total of 20 medicine sellers (10 rural and 10 urban) were interviewed. At this point, the key themes identified across the participants appeared to be repeating and solidifying. This sampling strategy was considered to be both pragmatic and provide sufficient diversity among the target study population.

Conducting interviews

A review of the literature about roles and motivations of healthcare providers was used to identify topics of potential importance to explore. Initial topic guide domains included self-perception of their work/role, client expectations, community perceptions, skills and knowledge, regulation and future plans. This topic guide was subsequently modified to take account of developing themes as data collection/analysis continued, specifically to include domains of integration (with the formal sector) and diversity and commonality (between medicine sellers).

All interviews were conducted in English by R.H., who was introduced as a researcher, at or nearby the medicine seller's place of work, during the usual hours of operation of the stores, generally between 8 am and 9 pm. Interviews were recorded, with consent from participants, using a digital recorder.

Observations

Observations of seller–client interactions were undertaken opportunistically. Where possible, after the interview had been completed R.H. remained in or around the medicine store, to make notes and complete contact summary forms, and participants were asked for permission to be observed at work. During this time, the practices of the providers were observed and field notes were prepared to provide a rich description of the setting as well as to note specific details including the timing, nature of the interaction and the outcome.

Analysis

Digital recordings were uploaded to NVIVO 8 Software (QSR International 2008), where they were transcribed (by R.H. and a research assistant) and coded (by R.H. with guidance and discussion with C.I.R.C. and L.J.M.J.) together with the field notes. Following the principles of grounded theory (Strauss and Corbin 1990), each transcript was initially coded line by line to identify recurring ideas and these ideas were grouped into key concepts through an iterative process of reflection on the data, research concerns and broader literature and theory. This analysis was carried out by R.H. together with C.I.R.C. and

L.J.M.J. Implications of the findings were drawn from discussions with W.M. and the REACT team.

Ethics

All invited participants were given written and verbal information about the study and signed informed consent forms before taking part. All recordings, transcripts and field notes were made anonymous and participants/interactions were identified only by identification number during analysis. The study was approved by the National Ethics Committee of Cameroon and The London School of Hygiene and Tropical Medicine, UK.

Results

Study participants

A total of 20 participants were included in the survey, half of whom were male and half of whom were female. One of the 21 invited medicine sellers refused to take part in the study (through shutting the premises when approached, not citing any reason for refusal). All others approached agreed to participate. Interviews lasted between 13 and 55 min with an average of 29 min. The average age was 32 years, but individuals ranged from 15 to 47 years. Regarding formal education, all participants had completed primary school, and 12 (60%) had completed secondary school. Half (10) had taken a formal educational course since leaving school, including six who had studied for a nursing/nursing aid qualification. Others described diplomas/short courses in economics, engineering, accounting and computing. The average length of time working at their current place of work was just less than 7 years, with a range from 1 month to >20 years (Table 1).

There was considerable diversity among medicine sellers interviewed, across education, training, age, services and medicines on offer and pricing. This variation partly reflects differences in their individual origins and operating contexts. Reasons stated for starting work in medicine stores included retirement from work in the formal healthcare sector, lack of employment opportunities in the health system, perceived gaps in local pharmaceutical supply, market opportunities and a lack of other general (semi-skilled or skilled) employment opportunities.

Describing their trade

When asked what they considered their job title, half of respondents stated 'drug seller' or a variation such as 'medicine trader'. Others, however, ascribed themselves a more 'medical' title, including nurse/nursing aider (5), prescriber (1), pharmacist (1) and 'medical centre' (1).

Medicine sellers described offering a variety of services. Their role in dispensing medicines prescribed by others or medicines requested by clients was frequently mentioned. Some of these medications including intravenous (IV) and intramuscular (IM) medications were also administered in the stores or at people's homes. In addition, encounters were described as consultations in which the medicine seller, through a diagnostic approach of some form, was expected to select the correct medicine to deal with the client's problem. All interviewees mentioned referral as part of their job. Other services described included wound

Table 1 Attributes of medicine sellers interviewed

Respondent ID	Job title (in own words)	Previous occupation	Time worked at facility	Originally from same area? (y/n)	Age (years)	Male/female	Completed Primary School?	Completed Secondary School?	Any other formal education?
U01	'[name] Medical Centre'	Medicine seller at different location	2 months	No	33	Male	Yes	Yes	*First degree holder—diploma in economics
U02	Medicine store trader	Accountant	8 years	No	50	Male	Yes	Yes	Diploma in stores accounting
U03	Nurse	Farmer	6 years	No	25	Female	Yes	No	None mentioned
U04	Not recorded	Nursing school	2 years	No	24	Female	Yes	Yes	Nursing aid course
U05	Drug dealer	Student	20+ years	Yes	47	Female	Yes	Yes	None mentioned
U06	Nurse	Student	2 months	No	?	Female	Yes	Yes	Recently completed nursing school
U07	Nurse	'Doing business'	3 years	Yes	24	Male	Yes	Yes	Nursing course at nursing school
U08	Pharmacist	Student	6 years	Yes	15	Female	Yes	No*	*Current student
U09	Nursing aider	Nurse (at govt. clinic)	1 year	Yes	39	Female	Yes	No	Nursing aid school—9 months
U10	Medicine seller	Student	11 years	Yes	38	Male	Yes	Yes	None
R01	Medicine store	Student	1 year 5 months	Yes	28	Female	Yes	No	Yes—nursing/nursing aid qualification
R02	Medicine store	Apprentice	10 years	No	43	Male	Yes	No	None mentioned
R03	Medicine store seller	Barman	18 years	No	36	Male	Yes	No	None mentioned
R04	'just a way of sustaining life and to help the population... health wise'	Veterinary worker	1 year	Yes	43	Male	Yes	Yes	None mentioned
R05	Drug dealer	Student	20+ years	Yes	47	Male	Yes	Yes	None mentioned
R06	Assistant nurse	Assistant nurse	7 years	No	29	Female	Yes	No	Nursing aid school
R07	Prescriber	Teacher (still employed)	1 year	Yes	22	Female	Yes	Yes	Computer course
R08	I sell drugs	Nurse	4 years	No	33	Male	Yes	Yes	Yes—City and Guilds in engineering
R09	Drug seller	Student	13 years	No	37	Male	Yes	Yes	None mentioned
R10	Business	Pharmacy assistant	1 year	Yes	22	Female	Yes	No	None mentioned

care, suturing, spiritual guidance, abortions, on call services, various laboratory/diagnostic tests and admission of patients under the care of the storekeeper (Box 1).

Medicine seller roles

This section outlines how medicine sellers in this study articulated their roles in the social and medical landscapes of their clients, including the way in which their roles related to the formal health sector. First, we present the way in which medicine sellers articulated the need for their role to be filled in the context of failures and access barriers to the formal health system. Second, the way in which their role as salespeople was often expanded to include expert diagnosis and prescription or administration of treatment is illustrated. Finally, we present the way in which participants justified and implemented professional boundaries, including adoption of a gatekeeper role and through linking with the formal health sector.

The need for medicine selling

The need for medicine sellers to fill gaps in formal sector provision was often implied rather than explicitly articulated. Financial barriers to access to formal health care were repeatedly cited, particularly for informal charges made and high fixed prices at formal sector pharmacies. Medicine sellers saw themselves as providing a cheaper service as well as having advantages for clients in terms of geographical proximity and extended and flexible opening hours. However, medicine sellers presented themselves as complementary to the formal sector, rather than in competition. They emphasized linkages and referral, a characterization that supports medicine sellers as experts, as described later.

Experts within communities

Interactions with clients, who were referred to as both customers and patients, sometimes interchangeably, were described variously. These included simple salesmanship, diagnostic encounters and requests for information/advice. Furthermore, in a proportion of all these described interactions, referral to formal health care or diagnostics providers was an additional outcome.

All medicine sellers described encounters where clients requested named medications at specific doses, often analgesics, and also treatments for common conditions such as malaria. Although such situations were often described as simple sales, respondents also reported controlling or restricting clients' access to pharmaceuticals, sometimes apparently in conflict with the motivation to maximize profits:

At times some women will come and say 'No I don't want to go to the hospital, just give me that one like that'. I say 'No, this thing like that, you need to go and check and see the one that is right, that is good for you before you take'. So you refer them to the hospital. You keep on insisting because you don't need a patient to dictate to you. That's one of the things that you have to know in the medical ethics, that you don't need a patient to dictate, because when somebody is sick, eh, he will want you to give him what he wants. But you, *like somebody who knows*, you will

Box 1 Compound list of services offered by medicine sellers

Services described (in order of frequency):

- Dispensing medications prescribed by others
- Selling medications requested by clients (sometimes small amounts or with credit offered)
- Appropriate storage of medications
- Referral to clinics, hospitals or diagnostic laboratories
- Consultation, diagnosis (including clinical observations) and prescription
- Counselling and advising patients
- Administration of medications
 - Intravenously (including drips)
 - IM injections
 - Oral medications (within the store)
- Spiritual services/counselling
- 'On call' services or home visits
- Admitting patients for treatment or monitoring
- Laboratory/diagnostic tests
 - HIV tests
 - Malaria tests (microscopy)
 - Pregnancy tests
 - Fasting blood glucose (diabetes diagnosis)
 - Blood pressure
 - Urine dip stick tests
- Wound care
 - Suturing wounds
 - Dressing wounds
- Abortions

need to advise him and tell him that 'No! You don't'. You don't need to take [advice] from the patient, you need to take [advice] from me, who knows the drugs and knows the outcome of drugs. [R05, male 'drug dealer' for 20 years] (emphasis added)

All interviewees also described clients coming into stores complaining of symptoms. The majority described how such situations prompted a diagnostic approach of one sort or another. These interactions were emphasized as representing the most important aspect of medicine sellers' work, if not the highest proportion of clients. One medicine store even had on-site diagnostic tests, including malaria microscopy.

When [they] tell me how they are feeling, I will still ask more, 'are you still? Are you feeling your head ache or you are feeling the stomach bite?' If you are feeling stomach bite, if it is intense, I know that I suspected typhoid; I will send you to do your lab. So from your lab investigation, I will know what to give her. [U07, male 'nurse' for 3 years]

Much emphasis was placed on the role of medicine sellers themselves as expert informants to clients, both regarding the

medicines that they supplied and also with general health information. One described how he took responsibility for teaching community members:

I behave like the only person who sees in the community of the blind. I try to teach them what is right though it will take them time to understand. But I know that subsequently they will; they are already picking up. [U01, male 'medical centre' of 2 months]

Another described his responsibility for disseminating general health information:

...the people of my own quarter here, they used to come, they will ask me certain information in relations to health and so on. I used to tell them, I advise. Since they know that I am dealing in medicines, some of them come and ask me of eh, very major complaints of the illnesses we have in Cameroon, eh, especially of the AIDS pandemic and some other related diseases which are major ones, even when they are not about to buy. Some of them come just to get those informations from me and I refer them to the hospitals for proper care. [R04, male 'helper', for 1 year]

In this way, medicine sellers not only emphasized the 'expert' role but also placed limits on it. Considerable attention was placed on the fact that this extended beyond clients involved in transactions and actually provided a 'service' to the community.

Professional boundaries and links

Referral to diagnostic or therapeutic providers is another role that all respondents emphasized, giving examples where they referred clients to formal sector providers. Recognition of the limits of their own clinical competence and the resources available to them combined with the complexity of clinical presentations seemed to legitimize referral. The lack of diagnostic laboratory services most frequently justified respondents' referral decisions. In some cases, clients were expected to return for follow-up or supply of medications; however, in others, there seemed to be no expectation for custom to follow. Motivations cited included patients' best interests, concern regarding the implications of poor outcomes in the context of community regulation, and the opportunity for the medicine seller to learn through accompanying the patient through the referral process.

This is just a first aid. So when the patient is serious, I will tell the person to go further. [R01, female 'medicine store' for 17 months]

When it comes to the problem that I don't know, I will send you to the big hospital; the bigger nurses can see you there. [U03, female 'nurse' for 6 years]

Motivations and aspirations

This section describes first the way medicine sellers were motivated by the responsibilities conferred on them given their special relationship with medicines, which set them apart from traders of other commodities. Second, we outline the

aspirations of medicine sellers, particularly for further education and training.

The 'charm of medicines'

Dealing with medicines, with their special relationship with health and healing, conferred a particular set of responsibilities on sellers that our respondents contrasted with responsibilities for trading in other goods. Recognition of the 'medicines business' as somehow distinct from other trading activities appeared to confer a number of privileges and corresponding responsibilities on those working in it. Privileges arose from the respect conferred to the expert role that medicine sellers assumed, and the way that this was viewed by peers in the community. With this came the responsibility to act as a gatekeeper to the 'powerful' medications, necessitating a diagnostic process and to some extent overriding the profit-maximization motive.

The gatekeeper role was clearly articulated. Medicines were seen as powerful and poorly understood by 'untrained' lay people. Other than for basic medicines, such as simple analgesics, various requirements were set in order for a medicine to be sold to someone. For example, if a person came requesting a named medicine, assuming it is in stock, it would be provided if: the client brought a hospital/clinic book; or they were known by the storekeeper to be regularly taking the particular medicine; or if when questioned by the seller they knew the indication, and were felt to be 'trustworthy' of being provided with the drug. The consistency and strictness with which this sort of interrogation was applied was variable and difficult to assess. Some sellers felt simply knowing the name of what medicine a client wanted was sufficient to warrant supply, whereas others insisted that they would only supply some medications with a doctor's prescription, even if this meant losing business to less scrupulous competitors:

...and for those that they will insist buying half drugs, I don't always like to sell drugs that you will not buy the complete treatment, because I know the side effect. Like when you will take [medicine], if the drug is not complete and the illness will later on come back and that will also destroy your immune system because immediately your immune become used to that drug, it will not be more effective as well. And so, I don't love selling drugs to people that will not buy the complete dose. [R06, female 'assistant nurse' for 7 years]

Whilst client autonomy was recognized to a point, in particular, in relation to decisions to reject advice or to be referred for laboratory test or hospital/clinic review, sellers also highlighted their autonomy, and explained how they would prefer not to sell than to compromise their, sometimes self-imposed, rules about prescribing.

Financial and social capital

A consistent aspiration amongst the interviewed medicine sellers was for progress and improvement in the services they offered. Whilst financial constraints were cited, particularly a lack of access to capital, medicine sellers saw progression as possible and desired. This could be achieved through increasing

knowledge, in the context of dealing in the 'special' industry of pharmaceuticals, and through working more closely with both the formal sector and other medicine sellers.

The desire for further education was consistently highlighted. Some medicine sellers suggested that any training offered should be compulsory:

...you see, drugs is something that they are dealing with life, eh? Yes, so when you are dealing with life and it comes to, a, a, seminar, where you can benefit something from there, it should not be optional. You, you go there, if you want to remain, and then so that people should enjoy your services in the community, then you should be able to learn. [R06]

Regarding closer collaboration, the current lack of legal legitimacy was felt to undermine efforts to collaborate across formal and informal sector boundaries. Nevertheless, some providers described formation of informal networks of medicine sellers for keeping up to date and 'exchanging ideas [and] technical know-how' and 'sharing individual experiences' [U01]. One seller also highlighted the solidarity amongst medicine sellers, and how they 'come together, encourage each other and plan how we can work in a team' [R06].

Defending legitimacy

Until 1985, when an order by the North-West Governor outlawed their practice, medicine sellers in North-West Cameroon were legally entitled to sell a limited formulary as Patent Medicine Stores. This historical status, and a sense of injustice at it ending, contributes to the sense of legitimacy amongst medicine sellers, especially those who have been in the profession for a long time:

...you see, when I, when I left school, at that time, the hospital here was a cottage hospital. So what the community did here was that they got some of us in doing that job and they trained us. [U05, female 'drug dealer' for more than 20 years]

Another determinant of this perceived legitimacy is that conferred by either formal or informal training. Six (30%) of the medicine sellers reported having undertaken a formal training course in nursing or prescribing either in government or private nursing colleges. Other respondents reported informal apprenticeships as the route through which they learnt their trade. These were either through working for or alongside other informal sector providers, or through working alongside clinicians or pharmacists:

...there's one doctor who was our teacher at that time. He's in America today. So they took us for that and we were trained for 9 months. Then after that, we were sent to the hospital and then do some, eh, practical reading on prescription and things like that. [U05]

Both these apprenticeship models of learning frequently relied on social or family links, for example, working with family

members employed at the local hospital or with those who already worked as medicine sellers.

Routes of regulation

Many medicine sellers interviewed felt their work was monitored, and approved of, by an effective community monitoring mechanism through which bad practice would be identified and prohibited. This was cited in relation to individual cases, especially, those perceived to be serious, where poor practice, or indeed any poor outcomes, would have negative consequences for the medicine seller and the client. The cumulative effect of the community's awareness of a medicine seller's performance was linked to particular medicine stores operating for a long period of time:

I have been in the same place, in this area for 18 years so if I have a problem, maybe I will not be here! [R03, male 'medicine store seller' for 18 years]

This was contrasted with ambulatory sellers who were described as 'charlatans...who have not undergone the training [and] just sell just because they see that there is money in it' [U07].

This community monitoring was linked to the lack of social distance between community members and medicine sellers and was articulated as objectives closely aligned with those of the community:

We are in the same area, we are the same people. People will come, so the problem is this: I am tied to the people and the people are tied to me. [R03]

well, with the local community, I pull well with them, yes. I pull well with them. Like particularly me who has been in that business for long, yes. There are so many who, who have confidence in the advices we've given them in the past, yeah. So sometimes they will say 'No, go to that man, he has been in that trade for long, so he has an idea about so many things', yeah. So I interact very well with the community. [R05]

In contrast to this reportedly effective informal community regulation, the perception about the current formal regulatory regime was far less positive. Although medicine sellers recognized that it is appropriate that medicine distribution is controlled, it was felt that the conditions of current sanctions were motivated by corruption rather than improving patient safety or public health:

That is the problem of eh, the delegates, the provincial delegates, the ministers. But with us down here we do not have any problem with one another; that is only the problem of those up there. You know many at times when they do like that they want 'this one' [motions to rub thumb against fingers] (RH: What one?) They want money [Laughing] When they want to close us down, they want money! [R03]

Frustration was felt with the regulators who 'go out and collect bribes and allow the [bad practitioners] to keep

operating' [U07]. Many recognized the value of appropriate regulation; 'rules to keep the profession alive and [to ensure that] people enjoy your services' [R05]. The existence of other, less scrupulous, medicine sellers, including ambulatory drug sellers, and 'untrained charlatans' to the profession was also cited as rationale for both regulation and compulsory training.

Observed encounters

Observed seller–client interactions were relaxed, with limited social distance apparent between client and provider. Of 17 observed interactions, eight clients came requesting a specific medication, seven brought medical complaints to discuss with the medicine seller and two brought prescriptions from other prescribers. In eight encounters (including all those who brought medical complaints and one client who requested a drug), there was some form of medical history taking, including questions or prompts about symptoms, duration of problem or past medical history. There was some form of physical examination in two encounters, both of which led to administration of first aid. Fourteen of the interactions resulted in sale of one or more medication, and verbal or written advice was provided in eight encounters. On five occasions, treatment was administered or taken in the store. The average duration of encounter was more than 3 min with a range from 1 to 10 min. **Box 2** includes brief description of five illustrative encounters.

The observed interactions underscored a number of the key points arising from interviews. There were a number of ways in which many of the encounters differed from simple salesmanship. Medicine sellers frequently took an active role in encounters, for example, questioning even clear requests for named medications and offering alternatives or advice. Whilst they were responsive to client requests, for example, through offering credit or selling a single day's medication each day, their position as 'experts' seemed to be accepted and their advice was generally followed. Additionally, the perception of stores as health facilities and medicine sellers as healthcare providers was emphasized by the observed administration of medications and wound cleaning/dressing in a number of encounters.

Discussion

Medicine sellers are now well-documented as key sources of pharmaceuticals for communities in Cameroon (Van der Geest and Whyte 1988; Ongolo-Zogo and Bonono 2010) and in many other developing countries (Kamat and Nichter 1998; Breiger *et al.* 2005; Goodman *et al.* 2007). However, medicine sellers' own perspectives on their roles and relationships with individual clients and the formal health sector have been less well-documented. Such insights are important for informing the design of interventions to support the roles expected of medicine sellers in programmes, such as the Global Fund's AMFm (Kamat and Nyato 2010).

This study presents medicine sellers with fixed premises in North-West Cameroon as a varied group, in age, experience, qualifications and scope of practice. Legitimacy appeared to be derived from informal 'community' regulation alongside the legacy of historical official roles. Formal regulatory mechanisms

were seen as desirable in theory but dysfunctional in practice. Whilst the 'simple salesperson' role was one that characterized a large proportion of encounters, respondents often couched their role in terms of provision of 'first aid'. The aspirations of medicine sellers for progression and recognition as legitimate providers of care may provide a channel for dialogue with authorities wishing to engage with them to improve standards of care received by the Cameroon public.

Reframing the medicine seller role: 'first aid'?

Through analysis of medicine sellers' perspectives, this study supports the characterization of these providers as more complex than the 'simple salespeople' that they are sometimes described as (Breiger *et al.* 2005). Medicine seller narratives support a more sophisticated characterization which recognizes the privileged position of working with 'charmed' substances (Whyte *et al.* 2002) and emphasizes relationships between practice and knowledge, local social environments and regulation (Brugha and Zwi 1998).

Several participants described their role as 'first aider', a phrase that may aptly describe their function, which has been previously ascribed to medicine sellers elsewhere (Rutebemberwa *et al.* 2009). Parallels with 'first aid' ideology suggested by this study include the emphasis on immediate and often urgent care, the generally reactive nature of provision and the expectation of necessity for occasional referral.

In addition, the 'first aid' role may accurately describe the varied 'expert' role occupied by medicine sellers. This ranges widely from being a partial 'gatekeeper' of knowledge amongst variably informed clients to referring care to others with a great scope of practice. Reframing the role of fixed-premise medicine sellers as 'first aiders' poses opportunities and challenges both logistically and politically.

A first aid role implies altruistic motives, conflicting with common presumptions of a profit orientation of medicine sellers. However, we found altruism to be one of a complex set of influences on participant medicine sellers' practices. Whilst unlikely to be a primary motivation, this finding aligns with the increasing recognition that profit maximization is not necessarily the main driver of practices of informal health providers (Cross and MacGregor 2010; Wafula and Goodman 2010). Acknowledgement of such complex motivations amongst medicine sellers implies an opportunity to design interventions that support social as well as financial capital; for example, accreditation schemes and mechanisms to support and publicly acknowledge good practice.

Locally, such a reframing implies a degree of legitimacy that could spur higher or earlier utilization of medicine stores. An important condition will be to ensure that medicines on offer are used appropriately and cases outside of the provider's capacity are referred effectively. This is likely to be particularly of concern regarding therapeutics, such as ACTs and antimicrobials which rely on appropriate usage to minimize development of resistance (WHO 2002, 2010a). Whilst this study does not attempt to measure the current scale of this problem, it does suggest that medicine sellers will be keen to take up training opportunities. This is partly because of their aspirations for progression and recognition, but also because of their articulated respect for medicines as special commodities that require

Box 2 Description of five illustrative observed client encounters**Encounter 1: 'You got gastric?' [U01a]**

Young (mid-20s) male walks into the store, apparently in a rush. He asks for a brand name of pain killer, but before giving it to him, the medicine seller asks what it's for. The storekeeper then suggests an alternative (ibuprofen), but just before handing it over, he asks 'You got gastric?', and only when reassured that he has no past history of 'gastric' (heartburn) does he complete the transaction, selling a full card of ibuprofen. [2 min]

Encounter 2: 'Hey, Doc' [U02b]

A man aged around 40 comes into the store, addressing shopkeeper 'Hey, Doctor, I get fever.' Shopkeeper responds with a number of questions, regarding duration of symptoms, and asks if he's also suffering with joint pains, before diagnosing malaria. He goes on to prescribe three different medications, and to say 'You need to take full course'. When the client seems overwhelmed by this complicated prescription, he first asks for clarification, before accepting the seller's offer to write it out for him on a scrap of paper. [5 min]

Encounter 3: 'Try somewhere else' [U04d]

A boy aged around 10 comes into a busy store by a junction on the main road. He has a scrap of card with the name of a medication written on it, which he silently hands to the young storekeeper whose presence seems to be intimidating to the boy. The storekeeper, after rummaging through some boxes behind the counter, then sends his assistant off to see if he can get the medication. The assistant runs off down the road out of sight, whilst the boy waits. Three minutes later, the assistant returns empty handed, and the boy is told to try somewhere else, and quietly leaves. [5 min]

Encounter 4: Dressing change [R02a]

A teenage boy walks into store, and greets male storekeeper. He points out a healing burn on his right leg, which is dressed with a grubby bandage. The male medicine seller inspects the wound by loosening the ragged dressing, before agreeing to re-dress the wound. As he is out of stock of bandage, he sends boy across the road to buy bandage, before returning for the dressing to be applied. [10 min]

Encounter 4: 'Gimmie Flagyl' [U04e]

At a busy stall, a lady waits patiently in line for 3–4 min before simply asking, 'Gimmie Flagyl for 100'. Four tablets are put in small bag, and given to her with few words exchanged. The whole encounter lasts just over 1 min. [1 min]

Encounter 5: Hospital book [R10a]

[Encounter not in English] Lady walks up to stall, and, after greeting medicine seller, presents a hospital book, apparently with a prescription in it. The storekeeper carefully counts out the tablets from a large container into a small plastic bag, before labeling it, and exchanging it for money. [3 min]

accompanying knowledge about indications, contraindications and broader health topics. Our findings also suggest that informal community regulation exerts a degree of control over practice. However, questions remain around the adequacy of this and external quality assurance may be necessary in addition. Training of private providers has been successful elsewhere (Marsh *et al.* 2004) and is encouraged as part of malaria control strategies, ideally under the 'stewardship' of the public sector (Roll Back Malaria Partnership 2008). An ongoing concern has been whether drug sellers will refer cases beyond their capacity at the appropriate time (Chandler *et al.* 2011). However, medicine sellers in this study recognized and emphasized the limited scope of their practice and the necessity for referral to formal providers. This acceptance of boundaries to their role stands in contrast with the reluctance to admit diagnostic uncertainties that characterizes formal health

providers (Bradley 1992; Bossyns and Van Lerberghe 2004) where such knowledge is equated with authority, and capital is generated through this authority (Foucault 1972). Amongst drug sellers in Cameroon, the lack of formal responsibility for health care combined with shortcomings in diagnostic infrastructure appeared to validate this boundary drawing. Whilst boundaries were clear in many cases, some medicine sellers noted that they had carried out procedures we consider to be beyond their remit, including IV infusions and even abortions. We do not know how prevalent these practices are, and further research would be needed to uncover the rationales behind performing such procedures outside of the formal sector before taking action.

A further condition for the encouragement of local medicine seller administration of all medicines is that those medicines sold are of good quality. Strategies to engender drug quality are

essential at all levels in the distribution chain, such as subsidies for quality medicines at the top of the antimalarial supply chain as with AMFm (Global Fund 2009) and strengthened regulation of drug supplies lower down the chain (Onwujekwe *et al.* 2009).

The political implications of a reframing of medicine sellers as 'first aiders' are significant, particularly in the Cameroon context, where their legal status is precarious. Legitimizing the role of medicine sellers would challenge a number of important established hierarchies, including the medical and pharmaceutical professions, as has been documented elsewhere (Goodman *et al.* 2007). Concerns articulated by these groups, who may perceive medicine sellers as a threat, must be balanced against the potential benefits that could be derived through defining an appropriate set of roles for medicine sellers. Globally, labelling medicine sellers with the distinct and legitimate role of first aiders might encourage a greater focus on their potential contribution in discussions on human resources for health. Further research into the perspectives of policy makers, biomedical practitioners and local care seekers is needed to evaluate possibilities for next steps for these providers. Lessons for reframing medicine seller roles may also be learned from the extensive debates and varied engagements with traditional healers in the provision of primary health care (Warren *et al.* 1982; Offiong 1999).

Limitations of this study

This article primarily reports on the results of interviews where medicine sellers were asked to discuss their own practice and motivations. As such, an important question regarding the applicability of the conclusions is that of how much self-reported actions and feeling relate to praxis. It is possible, for example, that respondents underplayed factors such as profit motives in their narratives, and the frequency of different practices they describe is hard to interpret with our methodological approach. Their narratives do provide insights into medicine sellers' representations of their social worlds, however, with a sophisticated set of normative values through which sellers seek to present themselves, and the importance of a variety of different relationships in enacting their practice. The limited number of observations undertaken enabled interviews to engage with practice to an extent, albeit a 'reality' of practice that was presented by participants to the observer rather than 'reality' as might be observed in the case of simulated clients, or with exit interviews as was the case for our larger survey, reported elsewhere (Mangham *et al.* 2012). The open observation method we used allowed participants to strengthen their representations with their actions and allowed the interviewer to draw on observations in exploring meanings given to practices; nevertheless, central to the limitations—as well as to the insights—of this study is the way medicine sellers' seek to describe themselves.

This study suggested that whilst medicine sellers in the study area came from a variety of backgrounds, many shared similar views of their roles. However, it is possible that there is variation in their practices and abilities to fulfill their aspired-to roles. Results from the wider project's patient exit and provider surveys suggest considerable variation in the presumptive treatment of malaria between and amongst different types of provider (Mangham *et al.* 2012). Action requires the ability of communities and regulators to differentiate sellers providing a

genuine health service from those taking advantage of clients to sell ineffective solutions (Omaswa 2006).

Conclusion

This article gives voice to the under-represented perspective of medicine sellers in their roles in communities in Cameroon. Our findings challenge simplistic assumptions about medicine seller motives and capacities and suggest a need to reframe thinking about the role of medicine sellers in developing country health systems. In addition, these findings support the need for an enhanced understanding of the current and potential roles for medicine sellers in this and similar contexts by both policy makers and researchers.

We present medicine sellers in North-West Cameroon as a varied, yet distinct group, who are thoroughly integrated into the social and medical landscapes of their clients. Their precarious formal regulatory position contrasts with a legitimacy derived through historical and ongoing community support. Encounters with clients vary. Some are simple sales, whereas many, reflecting a universal recognition of the distinctness of medicines over other commodities, can be characterized as provision of 'first aid' and often lead to prescribing of pharmaceuticals or to referral to formal sector providers. Medicine sellers did not aspire to be doctors, and emphasized the complementary, rather than competitive, nature of their relationship with formal providers. Characterizing medicine sellers as a distinctive group, as 'first aiders', and recognizing diversity amongst the group as reflecting individual strengths, emphasizes the potential value from supporting them in their distinct role.

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Conflict of interest

None declared.

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