Mobile health consulting as an option for improved access to healthcare in Nairobi's slums

Introduction

Mobile phone communication technology has increasingly been suggested as an option for the delivery of healthcare services globally (1–3). In Kenya, this technology provides numerous opportunities for the improved provision of and access to healthcare especially in areas with underserved communities. We undertook an explorative study to assess the feasibility and status of the use of mobile phone technology or mConsulting(4) by healthcare users, providers and implementers of mobile phone health consultation. This is part of a larger study that was undertaken in Tanzania, Bangladesh, Pakistan and Nigeria.

Approach

We interviewed local residents, health care workers, mobile phone technology providers and key health managers and decision-makers with a focus on healthcare service use and provision in informal settlements. We recruited study- participants who had previously used a mobile phone to seek care and were derived from a household survey which was conducted in the settlements (5). We explored the type of mConsulting services available, how the end-users and providers utilise them and, their perceptions of mConsulting services. Our study was guided by an advisory team that was composed of key stakeholders involved in healthcare delivery in informal settlements.

Results

Our findings show that residents in informal settlements in Nairobi are indeed using mConsulting services. The services occur in two different forms; first, is direct contact between a healthcare provider and a client. This normally occurs through phone calls or text messages and is highly likely to occur in an already established contact between the healthcare provider and a client in a prior physical consultation. The second form of mConsulting occurs through established platforms run by NGOs or commercial partners which link the care provider to the user.

Services offered through mConsulting

The healthcare services offered through mConsulting include disease management, prescription services, follow-up services, referrals and health education services. "maternal and child health services were the common services and occurred in different forms" For example, one mConsulting provider linked expectant women to professional antenatal service providers. Once they delivered, they graduated to a platform for new mothers. The service providers used text messages to follow up and monitor pregnancies by helping women understand the different phases and respond to questions asked.

> *After maybe you have gone there for treatment, there is a number you can communicate with them as they follow-up on how you are progressing with the treatment.*
>
> *Healthcare user*

Perspectives from healthcare providers

Healthcare workers value mConsulting potential to increase coverage of healthcare services. They highlighted the use of audio calls and text messages to interact with patients, and other media such as WhatsApp and Facebook Messenger to link with their patients especially expectant women, and also as a platform for health education. mConsulting was fronted as an option that can be used to complement face-to-face consultations for long-term illnesses, where the patients and their healthcare providers can interact as patients continue with remote self-management. Healthcare providers were happy to respond to patients' queries about their illnesses through mConsulting.

> *Let's say you have been diagnosed and started TB treatmment, that person is sent an SMS to confirm if she/he has taken drugs. Also, doctor's follow-up on patients through the phone, calling them to know how they are progressing.*
>
> *Healthcare provider*

Concerns about guidelines and protocols to be followed while offering services through mConsulting or other digital platforms were raised by healthcare workers. Although many of them had been involved in giving medical advice such as prescription, responding to a distress call or following up on a patient, they felt that they had difficulty on the dos and don'ts while offering services through mobile phone technologies. This brought about the question of professional ethics and patient data safety which healthcare workers were said it was difficult to guarantee.

A section of healthcare workers especially in public service felt that mConsulting was not part of their job and could not be considered as part of their routine output since it was not included on the current health information systems. They argued that until services being offered through mConsulting become streamlined in the routine health information system, they will remain unaccounted for. On the other hand, private care providers considered mConsulting as an opportunity to engage more with their clients but thought that it was difficult to integrate mConsulting into their services without proper guidelines.

Digital health readiness for healthcare workers was raised as a potential impediment to implementation of mConsulting. This was argued against low digital health literacy both for the healthcare professionals and patients. Healthcare workers required training on basic minimums in digital health to be able to clearly offer their services through the platform.

Perspectives from the community

Many community members found mConsulting as a better option since it saved on time and costs incurred traveling to the health facility for a face-to-face consultation. They reported that they were able to work and make a living and still consult a doctor whenever the need arose. Further, they could save the money they could have spent on transport and use it to buy medications.

> *Through the phone, say, for instance, they (referring to healthcare providers) have come and tested you, they have known your problem., They take your telephone number, they send you a message reminding you that you need to go to the clinic.*
>
> *Community member and healthcare user*

Some community members thought that mConsulting was a good platform for connecting them with health professionals when they have stigmatizing conditions such as Sexually Transmitted Infections (STIs) and long-term illnesses such as Tuberculosis (TB). On the other hand, they were concerned that there was a risk of misdiagnosis in case the healthcare provider misunderstood the symptoms and this could cause further harm to them than if they had attended a facility for a physical consultation. They also argued that at some point they still have to visit a health facility for services such as laboratory and prescriptions.

mConsulting has big potential for healthcare delivery. Our findings show that healthcare providers are already using it, and are willing to expand their practice to include mConsulting. While there are limits in use of digital healthcare, policymakers and interested stakeholders need to develop a working group and come up with practical ways to create a better environment for mConsulting.

Call to action

We recommend the following actions for effective implementation of mConsulting.

i. Properly regulated guidelines on the standard of care provided through mConsulting. The guidelines need to consider the safety of the mConsulting user and provider. This will be a starting point for enhancing healthcare provider readiness to offer mConsulting services.

ii. Involve the healthcare providers and users in co-creating a workable mConsulting component of the larger eHealth policy Review of the health policy and the e health strategy to include the voices of direct implementers and users. Co-creating with the users and providers will enhance readiness and ownership of the policy action.

iii. Developing tools for documenting healthcare services delivered through mConsulting platform. This is meant to promote accountability for healthcare workers and ensure proper streamlining of services offered through mConsulting platforms in line with routine reporting as provided for in the health information system.

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