PERCEPT

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Primary Healthcare (PHC) vignette

Implementing telehealth interventions for primary care: challenges and possibilities

January 2024

Percept

The **PRO**-active **TE**lemedicine Ta**CT**ical **O**pe**R**ation (PROTECTOR) project was a telehealth study initiated in Hanover Park in the Western Cape in 2021. Its goal was to understand if telemedicine could be used as part of routine primary healthcare to support at-risk diabetic patients who were struggling to control their sugar levels.

Over the course of three months, pre-selected diabetic patients participated in 10-20 telephonic or virtual engagements with a telemedicine doctor.

Besides monitoring blood glucose levels and offering psychosocial and health support, the programme facilitated meaningful reciprocal relationships between patients and doctors, and rendered largely positive health outcomes.

Expected and unexpected challenges

82 pre-identified diabetic patients were enrolled in the study by enrolment officer "MP", who also conducted a short survey with the participants at the start and end of the pilot. The resulting insights are invaluable in not only understanding the complexities of implementing a telehealth solution in urbanised, high-density settings, but also understanding the key success factors that would enable scalable telehealth interventions in future.

Poor data integrity meets social instability

"*I was given a week and a half because we thought it would be easy*", MP says.

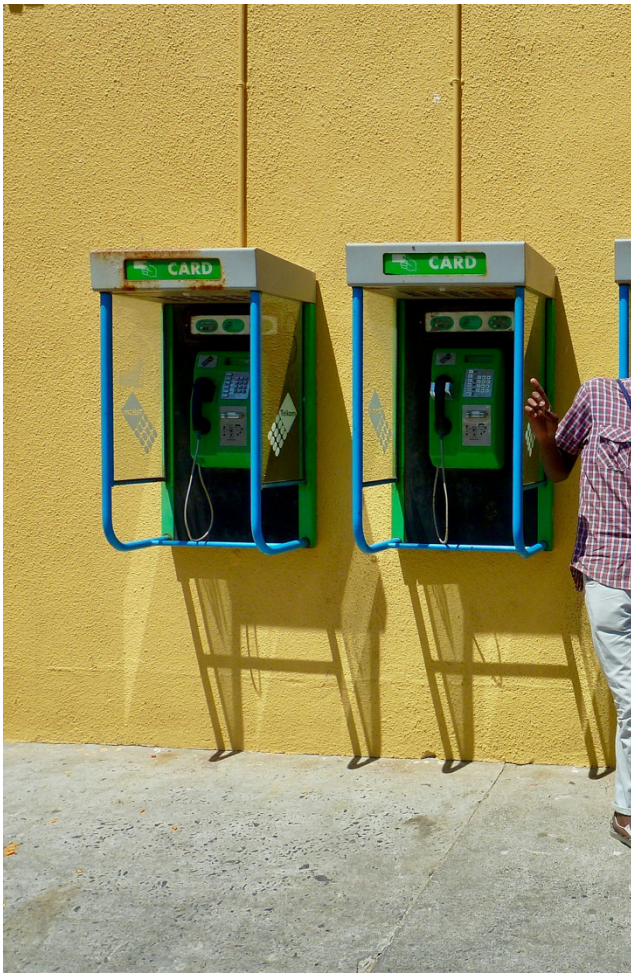
Three weeks later, the project still had not reached its recruitment target. What the team had not expected was that recruiting 20 participants [for each cohort] would mean calling at least 80 patients from a long list:

> *"The databases that we were getting the information from were as old as 2017. So we are talking patient information that's five years old plus. So either those patients have lost numbers or changed numbers. Some of them are deceased… We literally have to sift through almost 100 patients' contact information just to get 20 patients to answer the phone."*

Beyond outdated databases, the project had to grapple with the regularity with which patients changed their phone numbers. Reasons for this can range from lost or stolen phones to the data saving plans of different sim cards, and attempts to escape telephonic harassment by call centres and debt collectors.

In addition, patients would sometimes share mobile phones with relatives or neighbours, which further complicated the enrolment interaction while still ensuring the protection of patient privacy.

As Dr N, the co-creator of PROTECTOR and a family physician working in the public health sector, so astutely points out, "a stable phone number often signals a level of social stability that many people don't have".



Building trust

When MP did manage to get someone on the line, her next challenge was to gain the trust of prospective participants, who were often understandably unnerved by her cold call:

"*People are very hesitant to speak with you.*", she says.

Appropriate patient selection

The first batch of patients MP did manage to enrol were keen to participate, and eager for the extra support the pilot would offer. This early cohort was comprised of patients with higher blood sugar readings and diabetes-related complications:

> *"When I did the baseline with them… it became apparent that they suffered from complications…they'd lost limbs, they'd really gone through the wringer with diabetes. Some of them had strokes, some of them had really been affected to the point of no return. And yet their diabetes was still uncontrolled. So many of them said immediately, 'Where do I sign up? Must I go to the Club Room?' Because apparently there's a club room for chronic patients at the Day Hospital. They were already at that stage, where they were involved in extra programs at the hospital to assist them. So they were very, very willing, which was a good thing."*

Unfortunately, this did not hold true for the later intakes, where the patients were younger and many had jobs. While they were easier to get hold of because they had working mobile phones of their own, they were also less available during working hours.

Many patients in the latter cohorts did not have glucometers at home (even though this is meant to be provided by the Day Hospital), which meant that they could not report blood sugar readings to Dr K, the telemedicine doctor, in the way that others in the study did. This group also suffered less severe complications from diabetes than the early cohorts, as such, their lived experience of diabetes was different.

Some who were invited to participate in the study turned down the invitation; others lost motivation as the pilot progressed:

> *"They become bored with the program" MP explains. "Because every time it's the same thing, I don't have readings to give [the] doctor and every time the doctor communicates with them, all they say is they're okay. And after a while, they just stop answering their phones."*

Key success factors

Despite being such a small team – one enrolment officer and a telemedicine doctor – the impact on the patients' lives exceeded expectations. According to MP, this was only made possible through close collaboration and continuous communication:

Integrated communication

MP reflects that, once the patient cohorts were enrolled and the telehealth intervention was up and running, communication between the telehealth doctor and the field team (those recruiting and undertaking surveys with patients) was critical, since patients' lives (and therefore their ability to be reached) were often in flux:

> *"When I started in February with a patient (at baseline)", MP explains, "the next time I speak to the patient will be once they have completed the programme (endline). It's so important that Dr K and I keep communicating with each other. Because she is the one that is able to tell me, 'MP, please don't contact this patient today; this patient is in hospital; this patient has been ill this week. So please don't contact him today.' The doctor will also know if patients*

have lost or changed their numbers in the previous 2-3 months and be able to report that information back."

Interdepartmental communication

Beyond individual communication, MP imagines a future in which a network of different departments work in close collaboration with one another:

"I don't think anyone doing admin is going to be able to work individually from the clinician. The clinician is not going to be able to function without the community worker. There's going to have to be a network of people working hand in hand and everybody is going to rely on everybody. There is going to have to be integrated communication".

Telemedicine and the future of primary care

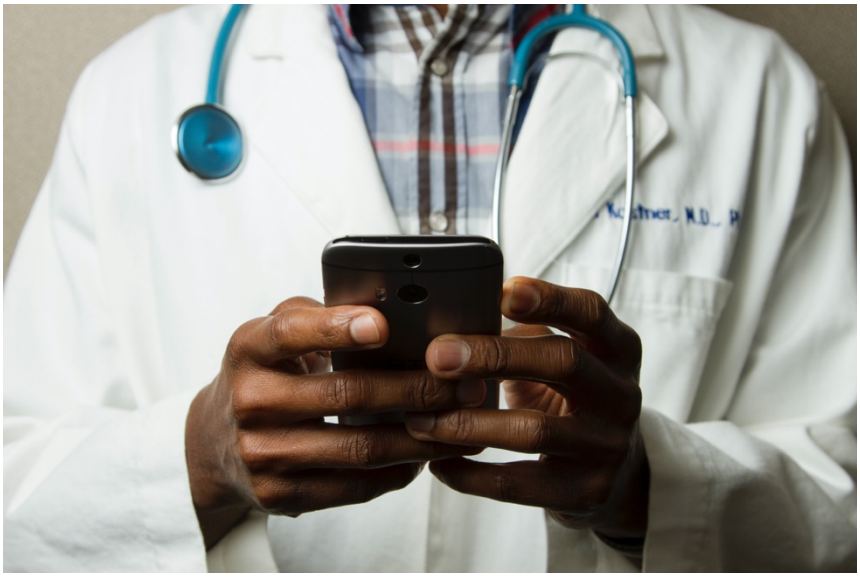
While not all who enrolled in the PROTECTOR study experienced the telehealth engagements in the same way, many patients feel radically changed and empowered by this simple yet powerful intervention:

"We have patients who have really, really benefitted," MP reflects. "These are patients who were really suffering. They could physically see the changes happening in front of them."

Dr K concurred:

"I think with our project, we can show that there has been some value to patients. And it may not all be in a quantitative sense, in the sense of their blood sugar readings having all been reduced, but also in the qualitative sense… of how they feel about themselves, about their well-being. I think we've seen so many positive reactions, just in the qualitative sense, which we don't put emphasis on [as a health system], you know."

Despite the challenges, PROTECTOR showed that contacting patients telephonically, while challenging, can be an important intervention to improving health outcomes. The need for updated contact details of health users is crucial to effective telehealth and investment required to do this will pay off through the dividends of improved outcomes and averted health complications.



Acknowledgements

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