

Reconstructed Living Lab: supporting drug users and families through co-operative counselling using mobile phone technology

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Abstract

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Background: There is a recognised problem with drug taking in South Africa. In socially deprived areas immediate help for drug users and their families is a problem. As part of their work in a community in tension, Impact Direct Ministries (IDM) and Reconstructed Living Lab (RLabs) in Cape Town provide a drug advisory service using mobile phone technology that can support multiple conversations. It is staffed by trained volunteers and is available to drug users and their families.

Methods: This article investigates historical counselling help for drug users. It explains the importance of family involvement in the life-changing process of a drug user and the importance of co-operative counselling. The Drug Advice Support (DAS) service provided by IDM and RLabs is introduced as a case study to explore how mobile phone technology can support the co-operative counselling model in a Living Lab context.

Results: The advantages of the DAS technology and what it offers to community-based organisations are discussed. Data on relatives of drug users using the system are included.

Conclusion: The use of mobile phone technology has advantages for community-based organisations acting as a first point of contact to drug users and their families. Minimal cost to the person in crisis and the organisation serves as an example. The co-operative counselling model it employs is also of benefit. As the community experiencing tension due to the problem of drug abuse becomes aware of this service, help and support for family members will increase in time.

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Introduction

There is a recognised problem with drug taking in South Africa. The increased use of alcohol and other drugs places a hefty burden on the health, social welfare and criminal justice sectors.¹ South Africa's Department of Health reported an increase in drug abuse in Cape Town since 1996, and an increase in different drugs used, including nexus, smart drink, malpitte, methcathinone, Khat, magic mushrooms and crystal methamphetamine.²

The increased demand has placed substance abuse treatment and counselling facilities under pressure to increase their coverage and provision of services.³ For many socio-economically disadvantaged communities, the health services delivery system is not coordinated, but is fragmented and difficult to access.⁴ Research indicates that non-governmental community-based organisations (CBOs) are envisaged to be the first point of access for help for many people, and in Cape Town in particular CBOs are the primary providers of treatment.⁵

The Reconstructed Living Lab (RLabs) has grown out of a collaboration between Cape Peninsula University of Technology, Impact Direct Ministries (IDM) and the Bridgetown Civic Organisation. It has identified drug abuse as a major problem and is piloting the provision of counselling services via mobile phone technology.

This article sets out to

- explain the theoretical basis for family involvement in counselling;
- discuss problems with family access to counselling services in South Africa;
- describe the qualitative research model Living Labs; and
- evaluate how the Drug Advice Support (DAS) technology developed by IDM in collaboration with RLabs has provided families with accessibility to a local drug abuse counselling service.

The importance of family and community care in the case of drug users

The Community Intervention Centre in Cape Town, South Africa, has called drug addiction the family illness.² In fact, it has been noted that “relatives suffer bio-psycho-social stresses as a result of living in a drug user’s environment, which may impact on physical and mental well-being and lead to the development of problems both for themselves and other family members”.⁶

In 2003, the World Health Organization supported an investigation into substance use by adolescents in high schools in Cape Town. The problem group identified was youth, in a semi-urban setting, often absent from school and from a single-parent household.⁷ Barrett and Turner found that poverty and single parenting alone were not the strongest factors involved in adolescent negative behaviours.⁸ The determining factor leading to a drug problem was “differential exposure to stress and association with deviant peers”. Thus, individual therapy by itself is not sufficient to change behaviour; a community of contacts, which includes family members, needs to be formed. Velleman and Templeton refer to this method as co-operative counselling.⁶

Co-operative counselling was used in a longitudinal study during 2009 in the United States of America. Dumaret investigated 22 families with social problems, offering one-to-one support to all family members at crisis times over a period of seven years.⁹ This time-consuming method demonstrated positive results; however, it was noted that accessible structures are needed to ensure continuity. Garrett¹⁰ used Velleman’s model in the ARISE family intervention programme with good results. The researcher’s conclusion was that “[t]here is a growing evidence base for behavioural, community reinforcement, family and social network approaches to involving relatives as adjuncts to substance misuse interventions; and for the effectiveness of interventions for relatives in their own right”⁶

The high labour costs of co-operative counselling mean that it has rarely been available to many families in countries where health care is expensive.

Access to substance abuse counselling services

Dumaret observed that services families can access in times of crisis and with ease are a feature of life-changing behaviour. Access to counselling via mainstream services may historically be available in two ways:

- Firstly, by booking an appointment with a counsellor, means that help is available on an individual basis.

Given that face-to-face counselling takes place with both parties being at a certain geographic location, the cost can include transport, time taken for travelling and the cost of the counselling session itself. According to Cape Town Drug Counselling Centre (CTDCC),¹¹ the cost of counselling starts at R185 per session, with some facilities requiring a minimum of six sessions. As drug abuse is a problem in many lower-income groups in South Africa,¹² the cost may make this service non-viable.

- Secondly, by using a helpline; this is available for discussion with one person on a 24-hourly basis. The advantages of helplines are that they are confidential, do not require any appointments and are easier to access. However, in very poor communities, the cost of a call to a helpline may be prohibitive. Also, following the research that co-operative counselling is a more effective model for drug abuse, a single call may not lead to long-term change. With face-to-face counselling you have to wait for an appointment, with helplines the caller has to wait in a queue to be connected to limited available lines. Queuing systems limit the number of people who can be attended to, as treatment and counselling facilities are already under pressure, and not adequately resourced to cope with the number of people that need to be helped.¹³

The Living Lab research method

Living Labs is a qualitative research method, similar to action research. It is research in a real-world situation, where data are continually being created and evaluated during the duration of the project. In recent literature, it is defined as “[a] research methodology for sensing, prototyping, validating and refining complex solutions in multiple and evolving real life contexts”.¹⁴ Unlike the testing of new technology in a scientifically controlled environment, a Living Lab is seen as an innovation platform where the users can experiment with breakthrough concepts that will be relevant to them.¹⁵ The context of a Living Lab is where industry, technology and citizens meet.¹⁶ To gain innovation, all the community stakeholders have to be involved to contribute towards dynamic community change. The Living Labs concept has been adopted by the European Union as the way to regenerate communities who due to their geographical position have not been connected to new technologies and are thus technologically and economically isolated. Living Labs operate by generating innovative data which, when analysed by the stakeholders, can model good practice that can be duplicated. RLabs piloted the use of technology to offer support and advice to people affected by drug abuse. This service was open to drug users and their families. RLabs, in partnership with a local CBO, IDM, have collected data that identified families of drug users as major users of the DAS service.

Drug Advice Support technology

More than 38 million people in South Africa have access to a mobile phone,¹⁷ which translates to almost 85% of the population. More people are connected by mobile phones than landline telephones.¹⁸ The technology that RLabs has piloted offers support and advice service via mobile instant messaging (MIM). MIM, at one cent a message, is cheaper than a text message (SMS), and is therefore increasingly used in less affluent areas in Cape Town.¹⁹ DAS offers a wider portal of entrance at the point of need, by the creation of innovative, distributed technology that facilitates communal messaging support. DAS gives one counsellor access to multiple conversations that are managed by the system. The DAS system can therefore be classified as a multiple counselling platform, as the client or family can access the advice and help independent of location.

The uniqueness of the DAS system is that it was developed by a local community-based organisation, IDM, in collaboration with community members and RLabs. Using the Living Labs methodology to develop and implement the system, it allowed for a more community-driven methodology that offered systems support during the DAS pilot project. The pilot project, managed and funded by IDM, took place between July 2008 and June 2009.

Figure 1 (a) and (b) demonstrate common ways in which citizens in South Africa can access counselling services. While face-to-face and helpline counselling can only handle a single case at one point in time, DAS (see Figure 1 (c)) offers support to multiple people in need, thereby avoiding the queuing of services.

Subscribers to the DAS service remain anonymous. They have to willingly add the DAS service contact on their mobile phones, agreeing to the disclaimer being managed by IDM.

Evaluation of the DAS pilot project

The pilot project indicated the following advantages of the DAS system compared to other access points:

- In practical terms, the advisors have the capacity to help more people ($n = 27$) in a two-hour session than advisors at helplines ($n = 4$).²⁰ The DAS system aggregates the conversations for the advisors, allowing them to respond to the requests more easily and faster.
- The DAS system enables multiple advisors to assist during a given session.
- When an advisor does not have the necessary experience or skills to deal with a case, it can easily be transferred to someone with the necessary skills.
- The advisor receiving the reassigned conversation can view previous conversations with the client, so questions need not be duplicated.
- The advisor can refer a person in need to any other organisation, and maintain a help directory of available services.
- The service proved to be particularly useful for families of drug users, and they were offered family sessions and help if required (see Figure 2).

DAS also proved to be a cheaper service, as there was no need for purpose-built or rented premises, there was a

Figure 2: Relatives seeking help²¹

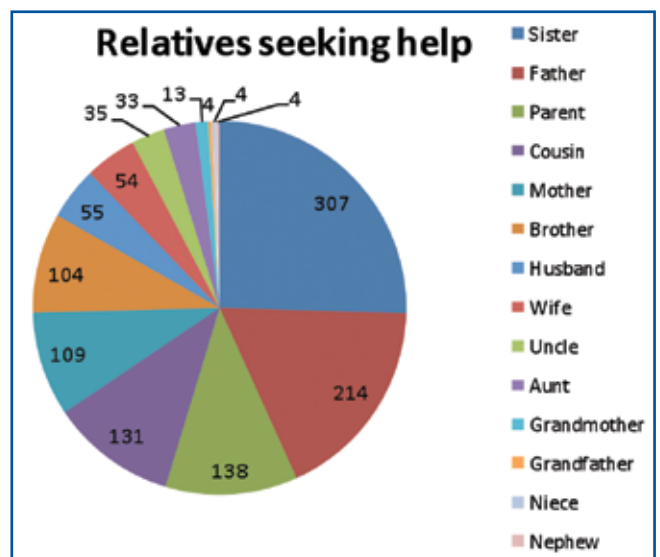


Figure 1: (a) Face-to-face counselling, (b) helpline counselling and (c) Drug Advice Support



decrease in communication costs to the individual and the organisation, and there was a reduction in staff costs as clients passed through the system at a faster rate.

The evaluation of the pilot project showed that DAS had 9 193 subscribers. Of these, 1 211 are relatives of drug users. The sisters of drug users were the most frequent active subscribers, followed by other members of the nuclear family. As the service is primarily aimed at drug users, the involvement of the family has added another dimension to the service (see Figure 2).

The number of subscribers seeking offline support or counselling after using the service during the pilot project was 403, that is 4% of the total number of DAS subscribers. This information was gathered by IDM, which offers offline support to subscribers and management of the service. All conversations in the system are confidential and secured by the DAS system through passwords.

All information was gathered through analysis of the DAS database. More detailed information about people accessing the service is protected and managed by the community organisation. The ability to track subscribers is not available for ethical reasons. However, future work might include sampling some of the subscribers who repeatedly use the service as well as interviewing the community to measure people's degree of empowerment through the DAS project.

As knowledge of the service spreads through the community, this area of the work will increase and could contribute to the transformation of a community.

Conclusions

Technologies such as MIM and mobile phones were used in the DAS project. Using these for counselling services proved to be of benefit to drug abusers and their families. Two points of critique against services provided for drug users are that there is a need for ease of accessibility and a different community of contacts being formed to provide the required support network. These are addressed by the co-operative counselling offered by the DAS group. The use of mobile phone technology gives the persons in need a feeling of being comfortable in their own environment and thus provides support through the system.

The advantages to the families using DAS are quick access to help, cheap conversations, follow-up of past communications and immediate access to other forms of support that IDM and their partners offer. Co-operative counselling using this technology proved to be a cheaper option to the community organisation, which is a major bonus for other organisations hoping to use DAS technology.

This research supports the view that the co-operative

counselling model described by Velleman and Templeton and used by IDM and RLabs offers one of the most successful ways of helping families with an immediate drug-related problem.

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