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Short Report

MYPLAN – A Mobile Phone Application for Supporting People at Risk of Suicide

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Abstract. Background: Safety plans have been suggested as an intervention for people at risk of suicide. Given the impulsive character of suicidal ideation, a safety plan in the format of a mobile phone application is likely to be more available and useful than traditional paper versions. Aims: The study describes MYPLAN, a mobile phone application designed to support people at risk of suicide by letting them create a safety plan. Method: MYPLAN was developed in collaboration with clinical psychiatric staff at Danish suicide preventive clinics. The mobile application lets the user create an individualized safety plan by filling in templates with strategies, actions, and direct links to contact persons. Results: MYPLAN was developed in 2013 and is freely available in Denmark and Norway. It is designed for iPhone and android platforms. As of December 2015, the application has been downloaded almost 8,000 times. Users at risk of suicide as well as clinical staff have provided positive feedback on the mobile application. Conclusion: Support via mobile phone applications might be particularly useful for younger age groups at risk of suicide as well as in areas or countries where support options are lacking. Yet, it is important to examine the effectiveness of this type of intervention. Keywords: mobile phone applications, suicide prevention, safety plan

Prevention of deliberate self-harm and death by suicide is challenging and evidence on effective interventions is limited (Hawton et al., 2003; Mann et al., 2005).

Although people with a history of deliberate self-harm are at elevated risk of repeating (Owens, Horrocks, & House, 2002), brief but efficient interventions for this group are lacking (Hawton et al., 2003; Kapur, Cooper, Bennewirth, Gunnell, & Hawton, 2010). Different strategies, such as postcard reminders (Beautrais, Gibb, Faulkner, Fergusson, & Mulder, 2010; Kapur et al., 2013), easy access through green cards (Evans, Evans, Morgan, Hayward, & Gunnell, 2005; Wilhelm et al., 2007), no-suicide contracts (Rudd, Mandrusiak, & Joiner, 2015; Stanford, Goetz, & Bloom, 2006), safety plans (Stanley & Brown, 2012), and web-based cognitive therapy (van Spijker, van Straten, & Kerkhof, 2010) have been examined. Yet, only few have been shown to have an impact (Stanley & Brown, 2012; van Spijker, van Straten, & Kerkhof, 2014).

Stanley and Brown (2012) developed a safety planning tool intended as a brief intervention for people presenting to the emergency department (ED) with suicidality. The safety plan consists of writing down personalized strategies for how to handle a suicidal crisis. Together with the patient, the clinician identifies warning signs of when a suicidal crisis is underway and which coping strategies have previously worked or might work. A list of family or friends with their phone numbers and addresses of professionals who may help are added to the plan. The patient receives the paper with the safety plan and would ideally resort to it in times of crisis (Stanley & Brown, 2012). While not a part of the original safety plan intervention, having a safety application (app) on one’s smartphone implies that it is likely accessible at most times.

Furthermore, a mobile phone app may enable therapeutic support to a large number of individuals who would otherwise not be able to draw on support (Labelle, Bibaud-De Serres, & Leblanc, 2013). The World Health Organization (WHO) have recommended mobile devices as an option for providing support and therapy to people at risk of suicide (WHO, 2014). The potential of reaching many individuals through already implemented electronic devices at relatively low costs is evident. An app intervention might also be of great use in developing countries where support to people at risk of suicide may be limited (Fleischmann et al., 2008).

Suicidal behavior, in terms of deliberate self-harm, is particularly prevalent among younger age groups (Morthorst, Søgaard, Nordentoft, & Erlangsen, in press). Moreover, young people are avid users of smartphones and...
MYPLAN

MYPLAN is a suicide safety plan in the form of an app (Larsen, 2015). As with the original paper edition (Stanley & Brown, 2012), MYPLAN was created with the intention of being a self-help tool for the management of suicidal crises. By being readily available, the app intends to enhance feelings of being safe both for the user as well as their family and friends. In addition, the app is designed to increase awareness of crisis symptoms by improving recognition of these and establishing the user’s own experience with self-help skills.

As shown in Figure 1, the app consists of a menu with seven items: (a) My Symptoms, where personal signs of crisis can be entered; (b) Strategies and Solutions, where one’s own coping strategies for crisis situations can be listed; (c) Network, where contact persons are included; (d) Nearest Emergency Department, which guides the user to the nearest psychiatric ED by display of map directions and telephone numbers; (e) Lifeline and (f) Children’s Hotline, which both provide direct links to organizations where the user can seek help; and (g) About MYPLAN, which provides specifics regarding the app.

Items a–c are empty upon installation. The user fills in details on their own symptoms of crisis, coping strategies, and contact persons aided by a simple template explaining how these sections should be filled in. Different symptoms, coping strategies, and contact details can be inter-linked and the user can set up links to music or pictures. There are no limits to the number of entries. Also, the entered information may at any time be removed or edited. Items d–f are fixed and provide information on where to seek help.

Editions and Availability

MYPLAN was developed in 2013 by Jette L. S. Larsen. It was first released in October 2013 for iPhone. Later, improved versions of MYPLAN were developed and the

Figure 1. Screenshots of MYPLAN
The current version can be used on several platforms, such as android phones and tablets. The main focus has been to make the application as simple and easy to use as possible. Improvements to the app have been discussed with the clinical staff at the Danish suicide preventive clinics and volunteer organizations supporting people affected by suicidal behavior.

MYPLAN was adapted and translated into Norwegian. It was launched in Norway as part of the Norwegian Patient Safety Program In Safe Hands in September 2014 (Office of the Norwegian Patient Safety Programme, 2014; Sørland Hospital, 2014). In addition to the existing features, the Norwegian version includes a nationwide listing of contact details on general practitioners, which are linked to a map function.

MYPLAN is available free of charge and advertising both in Denmark and Norway. As of December 2015, it has been downloaded 4,450 times in Denmark and 4,070 times in Norway.

Clinical Experience

As part of the treatment in the Danish suicide preventive clinics, patients are encouraged to develop their own individual safety plan. This is listed in clinical guidelines and mandatory for all patients. Previously, safety plans were written on paper, implying that it was either carried around or stored at home. Clinicians at the suicide preventive clinics are now increasingly using the app instead of the paper version. Given that the staff is already familiar with the concept of a safety plan, no actual manual has been developed for MYPLAN. Instead, explanations are incorporated in the app intended for the novice user. Clinicians have reported positively on their experiences with the app. In general, they stated that it is easy to use and readily accepted by the patients. In some clinics, MYPLAN is now the preferred safety plan tool.

One challenge is that approximately one in ten patients in the suicide preventive clinics is an older adult who does not use smartphone apps. Paper versions are still used for these patients.

Patients have responded positively to MYPLAN, which they take home and continue to develop. Clinicians have observed that filling in information on contact persons also allows the user to get an overview of their network for critical situations, that is, who they can talk to about their illness and thoughts. This might also further strengthen their social relationships.

The app is intended for users at risk of suicide; the patients attending the suicide preventive clinics, thus, constitute a target group. The quotes in Figure 2 are from persons recruited to MYPLAN from one of the clinics. It has

Figure 2. Quotes from users of MYPLAN (translated by the authors)

Note. SI = suicidal ideation. DSH = deliberate self-harm.

- “Nice to be able to regularly add new solutions into the app.”  Male, 32 years, SI
- “It has made me very aware that I am responsible for finding strategies to get me through tough times”  Female, 23 years, DSH
- “I am constantly reminded that I need to distract and realign myself with the dark thoughts come”  Male, 40 years, SI
- “My own statements work as self-help”  Female, 26 years, SI
- “I always have my phone with me and I am reminded that ‘there is always something I can do’”  Female, 52 years, DSH
- “I read my safety plan every morning on the train to work”  Male 30 years, DSH
- “I think it maybe saved my life when I was heading to the harbor; I got hold of my phone and called my mother that night”  Male, 27 years, SI

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been noted that MYPLAN helps patients take ownership of their crisis strategies and that the patients report actually having used the app in critical situations. One patient mentioned: “I am constantly reminded that I need to distract and realign myself when the dark thoughts come.” A young man said: “I read my safety plan every morning on the train to work.”

MYPLAN is developed with the aim of being an add-on to professional treatment, for instance, a new feature allows users to e-mail updates of their safety plan as a PDF file to their therapists. However, MYPLAN can also be employed as a self-help tool.

Internationally, numerous apps are dedicated to the prevention of suicide (Aguirre, McCoy, & Roan, 2015). Most apps provide direct links to suicide hotlines. Many are noninteractive with the main purpose of providing specific information on warning signs and advice on how to ask about suicidal thoughts, for example, Suicide Lifeguard, Help, Ask, and Suicide? –Help! (Angus Council and Dundee City Council, 2015; Help, 2015; Mental Health America of Texas, 2015; National Suicide Prevention Lifeline, 2015). Others, such as Relief Link, MY3, and OnTrckAgn (Kaslow, 2015; Link2HealthSolutions Inc., 2015; Vanhove, 2015), include interactive elements, such as mood tracker, safety plan, or inclusion of contacts that can be added as resources. These features resemble, and exceed, MYPLAN by allowing individualization albeit no geo-mapping of EDs. Seemingly, none of the apps use a cloud solution, that is, allowing for data storage via the Internet, to further enhance the app’s functions.

Strengths and Limitations

The main advantage of an electronic safety plan is that users will have it with them at most times. The majority of the target group are younger persons who are used to apps and have little trouble individualizing the safety plan. The clinical experience, based on case reports, indicates that users take ownership and find MYPLAN easy to use. The app is also an alternative for persons at risk of suicide who either prefer relying on self-help or do not have access to therapeutic support. Furthermore, the app can be translated and adjusted to other languages and settings relatively easily.

Not all persons at risk of suicide have access to or are familiar with smartphones, which is a limitation to the app’s usability. It is possible that the introduction to MYPLAN by a therapist helping with setting up the app increases the likelihood of it being used. This could imply that people outside therapeutic settings are less likely to benefit from the app’s features. The main limitation of the app is that we do not know if it actually prevents suicidal behavior. As with other apps focusing on mental health care (Labelle et al., 2013), the effectiveness of these interventions remains to be examined.

Future Plans

A new version of MYPLAN is planned as a cloud solution, allowing for extended tracking and sharing options. This will also allow for the collection of user data for research purposes and extend treatment options as well as support to relatives. The next version’s improvements will be selected after feedback from a user panel. It is planned to test the effectiveness of the app in a randomized clinical trial.

Conclusion

Mobile applications are easily accessible to people, particularly young persons. They also present advantages as a platform for therapeutic support in places where such services are distant or absent. The crisis tool MYPLAN has been well received by clinicians and users at risk of suicide. The predominantly young users report that it is easy to operate and that they use it regularly. Still, an evidence-based evaluation of MYPLAN’s ability to reduce suicidal ideation and facilitate contact when persons are in crisis has yet to be conducted.

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