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Online self-help for suicidal thoughts: 3-month follow-up results and participant evaluation

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ABSTRACT

Background: As a substantial proportion of people with suicidal thoughts does not receive treatment, the internet can be a utilized to reach more people who need support.
Aims: To examine maintenance of effects of online self-help for suicidal thoughts at 3-month follow-up within the intervention group of a randomized controlled trial (of which between-group 6-week post-test results have previously been reported, showing a small effect of 0.28 for suicidal thoughts in favour of the intervention group), and to investigate acceptability of the intervention through participant evaluation.
Methods: 236 adults with mild to moderate suicidal thoughts were randomized to the intervention (n = 116) or a waitlist control group (n = 120). Assessments took place at baseline, post-test (6 weeks later), and follow-up (3 months after post-test). This paper reports on the intervention group and follow-up assessment only.
Results: Effects established at 6-week post-test were generally maintained at 3-month follow-up in the intervention group. Participant evaluation revealed that a majority thought their suicidal thoughts had decreased during the study, that adherence to the intervention was below average, and that levels of satisfaction were acceptable.
Limitations: The control group could not serve as a comparator as they had received access to the intervention at post-test.
Conclusions: Effects of online self-help for suicidal thoughts can be maintained for up to three months. Participant evaluation indicated that online self-help for suicidal thoughts is acceptable, but there is also room for improvement.

1. Introduction

The internet is increasingly used to deliver interventions in mental healthcare and web-based programmes for a range of mental health problems such as depression, anxiety and problem drinking have been found to be effective (e.g. Andersson and Cuijpers, 2009; Andrews et al., 2010; Cuijpers et al., 2009; Riper et al., 2007). In the field of suicide prevention, there is growing interest in online suicide-related communications and content (e.g. Kemp and Collings, 2011), and prevention efforts (e.g. Barak, 2007; Mokkenstorm et al., 2010; Mishara and Kerkhof, 2013). As a substantial portion of people with suicidal thoughts does not receive treatment (Bruffaerts et al., 2011), it is a promising means to reach more people. Still, very few effectiveness studies have been conducted in online suicide prevention (Pietrzak and McLaughlin, 2009; Luxton et al., 2011; Christensen et al., 2013; Watts et al., 2012).

A review into traditional face-to-face treatment for people with suicidal thoughts shows that cognitive behaviour interventions such as cognitive behaviour therapy (CBT) and dialectical behaviour therapy (DBT) can be effective and that treatment effect persists up to two years (Tarrier et al., 2008). Other cognitive based therapies that have some evidence for reducing suicidal thoughts include mindfulness based cognitive therapy (MBCT) (Forkmann et al., 2014) and problem solving therapy (PST) (Brown and Jager-Hyman, 2014).

A randomized controlled trial (RCT) recently conducted in the Netherlands found significant effects at 6-week post-test in favour of online self-help for people with suicidal thoughts compared with a waitlisted information control group (between-group effect size 0.28 for suicidal thoughts) (van Spijker et al., 2014). In addition, the programme was found to be cost-effective (van Spijker et al., 2012). The current paper presents the 3-month follow-up results for this trial. It is important to note that the control group was provided with access to the self-help programme at 6-week post-test, making between group comparisons at this final 3-month follow-up impossible. Follow-up data reported here therefore only pertain to the intervention group participants and maintenance of their results 3 months after post-test. It is expected that their results will persist at final follow-up, as

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benefits of web-based treatments for depression and anxiety generally seem to be maintained at follow-up (Andrews et al., 2010). In addition, this paper describes the results of the participant evaluation that was part of the 3-month follow-up questionnaires. This may provide insight into utilization, reasons for non-adherence, perceived helpfulness, and satisfaction of online self-help for suicidal thoughts. Moreover, it may indicate potential areas for improvement.

2. Methods

This paper is a continuation of a previous publication describing the 6-week post-test results of this study (van Spijker et al., 2014). Full details of the methodology of this study have been described elsewhere (van Spijker et al., 2010). Below, elements relevant to the 3-month follow-up results and evaluation of the intervention are summarised.

2.1. Procedure

Recruitment from the general population took place between October 2009 and November 2010 through newspaper advertisements, relevant websites (e.g. www.113online.nl), and Google Adwords.

Eligibility was assessed using a stepwise online screening procedure. Ineligibility at any stage resulted in automatic redirection to a page with referral information. Exclusion criteria were: 1) being under the age of 18, 2) not experiencing suicidal thoughts, 3) being severely suicidal, 4) being severely depressed, 5) not being fluent in Dutch, and 6) not providing a valid email address. To determine presence and severity of suicidal thoughts (criteria 2 and 3), the Beck Scale for Suicide Ideation (BSS) was used (Beck and Steer, 1991). Respondents scoring below 1 (no suicidal thoughts) or above 26 (severe suicidal thoughts) were excluded. The criterion for severe depression was a score above 39 on the Beck Depression Inventory (BDI-II) (van der Does, 2002). These cut-off scores were determined in consultation with clinical experts.

After being deemed eligible, participants received full information about the trial, completed the baseline questionnaire, and provided written informed consent along with personal contact details and those of their general practitioner. Participants were then randomized by an independent researcher using a block design (20 per block), and stratified by gender. Randomization outcome was communicated by e-mail. The intervention group received a link to and login codes for the intervention website, and the control group was provided with a link to a website constructed for this study containing general information on suicidality. Six weeks after randomization, participants in the control group also received access to the intervention website.

Because this study was conducted in a vulnerable population, safety procedures were employed (van Spijker et al., 2010, 2014). Each time a participant exceeded cut-off scores on suicidal ideation or depressive symptoms, a risk assessment was carried out over the phone. If deemed necessary, or if a participant could not be reached, their general practitioner (GP) was contacted.

The study was approved by the Medical Ethics Committee of the VU University Medical Centre (registration number 2008/204).

2.2. Participants

Of the 1268 respondents who were assessed for eligibility, about half (N = 706, 55.7%) was considered eligible. However, a substantial portion of eligible respondents did not return their informed consent (N = 417, 59.1%) or failed to provide a valid e-mail address (N = 53, 7.5%). The remaining 236 were randomized to the control condition (N = 120) or the intervention condition (N = 116). See also Fig. 1.

As follow-up results are only relevant for the intervention group, baseline characteristics are only provided for this group (Table 1). More detailed characteristics for the full sample are described elsewhere (van Spijker et al., 2014).

The safety procedures were applied to 50 participants, of whom 19 were in the intervention group. The GP was called for 3 participants in the intervention group because of high risk (versus 9 calls to the GP in the control group). Based on self-report, four participants in the intervention group attempted suicide during the study (versus seven in the control group). No completed suicides occurred during the study (van Spijker et al., 2014).

2.3. Intervention

The main goal of the intervention is helping participants decrease the frequency and intensity of their suicidal thoughts, thereby making these thoughts more controllable. In order to help participants achieve this, the intervention utilizes cognitive techniques. The core of this unguided self-help intervention is cognitive behaviour therapy (CBT) (Beck, 2005). In addition, components of dialectical behaviour therapy (DBT) (Linehan, 1993a,b), problem solving therapy (PST) (Townsend et al., 2001), and mindfulness based cognitive therapy (MBCT) (Segal et al., 2002; Williams and Swales, 2004) are used. These treatment programmes have demonstrated promising results in reducing suicidality (Tarrier et al., 2008; Brown et al., 2005; Linehan et al., 2006; Hawton et al., 1999; Williams et al., 2006).

The intervention consists of six modules. Each module contains a theory section, a weekly assignment, a few 'core exercises', and several 'optional exercises'. In the first module, the often repetitive character of suicidal thoughts is outlined (Kerkhof et al., 2011). Exercises such as 'worry time' (i.e. scheduling discrete times throughout the day to worry about problems/suicidality) are meant to help participants manage their suicidal thoughts better. The second module aims at providing tools to regulate intense emotion (e.g. participants are encouraged to create a crisis plan). Modules 3 to 5 contain basic cognitive exercises, in which participants consecutively work on identifying automatic thoughts, recognizing thinking patterns and reformulating negative automatic thoughts. In the final module, participants are encouraged to create a relapse prevention plan and think about how to deal with possible future setbacks.

Participants are advised to do one module per week and receive a weekly automated motivating e-mail. There are also three exemplifying vignettes to consult when needed. Although no structural guidance was offered, participants are able to ask questions via the website (and have them answered). Finally, participants are informed that the programme will remain available to them after the study so that they can visit the website whenever they need.

2.4. Measures

The primary outcome measure in this study was suicidal thoughts. Secondary outcomes were depressive symptoms, hopelessness, worry, anxiety, and health status. All outcomes were assessed at baseline, at post-test (six weeks after baseline), and at final follow-up (three months after post-test). All measures were self-report and administered via the internet.

Suicidal thoughts were measured by means of the BSS (Beck and Steer, 1991). The BSS consists of 21 items, each scored on a 0–2 scale. Total scores range from 0 to 38, and are obtained by adding items 1–19. The last two items deal with suicide attempts and intent to die during the most recent attempt. Internal reliability of the BSS is high, with Cronbach alpha ranging from 0.87 to 0.97 (Brown, 2001). Severity of depressive symptoms was assessed using the BDI-II (van der Does, 2002), which contains 21 items and has a total score range of 0 to 63. Internal consistency is good (Cronbach alpha 0.88–0.93) (van der Does, 2002). The Beck Hopelessness (BHS) scale was administered to assess hopelessness (Beck and Steer, 1988). This scale consists of 20 true/false statements, each scored 0 or 1, which add up to a total score between 0 and 20. Kuder–Richardson reliability lies between 0.87 and 0.93 (Brown, 2001). Worry was assessed using the Penn State Worry