Clinical Psychology Review 63 (2018) 80–92

Contents lists available at ScienceDirect

Clinical Psychology Review

journal homepage: www.elsevier.com/locate/clinpsychrev

Review

Do guided internet-based interventions result in clinically relevant changes for patients with depression? An individual participant data meta-analysis

Eirini Karyotaki[a,*,1], David Daniel Ebert[b,1], Liesje Donkin[c], Heleen Riper[a], Jos Twisk[ac], Simone Burger[a], Alexander Rozental[d,ab], Alfred Lange[e], Alishia D. Williams[f], Anna Carlotta Zarski[b], Anna Geraedts[g], Annemieke van Straten[a], Annet Kleiboer[a], Björn Meyer[h,af], Burçin B. Ünlü Ince[i], Claudia Buntrock[b], Dirk Lehr[j], Frank J. Snoek[k], Gavin Andrews[l], Gerhard Andersson[m], Isabella Choi[n], Jeroen Ruwaard[a], Jan Philipp Klein[o], Jill M. Newby[p,ag,ah], Johanna Schröder[q,ak], Johannes A.C. Laferton[b], Kim Van Bastelaar[r], Kotaro Imamura[s], Kristofer Vernmark[t], Leif Boß[j], Lisa B. Sheeber[u], Marie Kivi[v], Matthias Berking[b], Nickolai Titov[w], Per Carlbring[ai,aj], Robert Johansson[x], Robin Kenter[y], Sarah Perini[ae], Steffen Moritz[a], Stephanie Nobis[z], Thomas Berger[aa], Viktor Kaldo[ab,al], Yvonne Forsell[ab], Nils Lindefors[ab], Martin Kraepelien[ab], Cecilia Björkelund[ad], Norito Kawakami[s], Pim Cuijpers[a]

[a] Department of Clinical Psychology, Amsterdam Public Health research institute, VU, Amsterdam, the Netherlands
[b] Department of Clinical Psychology and Psychotherapy, Friedrich-Alexander-University Erlangen-Nürnberg, Erlangen, Germany
[c] The Brain and Mind Research Institute, University of Sydney, NSW 2050, Australia
[d] Institute of Child Health, University College London, United Kingdom
[e] Department of Clinical Psychology, University of Amsterdam, Amsterdam, the Netherlands
[f] Department of Clinical Psychology, Utrecht University, Utrecht, the Netherlands
[g] HumanTotalCare, Utrecht, the Netherlands
[h] Research Department, Gaia AG, Hamburg, Germany
[i] Informatics Institute, Middle East Technical University, Ankara, Turkey
[j] Institute of Psychology, Leuphana University Lüneburg, Germany
[k] Department of Medical Psychology, VU Medical Center, Academic Medical Center, Public Health Research institute, Amsterdam, the Netherlands
[l] Clinical Research Unit for Anxiety and Depression, School of Psychiatry, University of New South Wales at St Vincent's Hospital, Darlinghurst, NSW, Australia
[m] Department of Behavioral Sciences and Learning, Linköping University, Department of Clinical Neuroscience, Psychiatry Section, Karolinska Institute for Disability Research, Stockholm, Sweden
[n] Brain and Mind Centre, University of Sydney, Sydney, Australia
[o] Department of Psychiatry and Psychotherapy, Luebeck University, Luebeck, Germany
[p] Clinical Research Unit for Anxiety and Depression, School of Psychiatry, University of New South Wales at St Vincent's Hospital, Darlinghurst, NSW, Australia
[q] Department of Psychiatry and Psychotherapy, University Medical Center Hamburg-Eppendorf, Hamburg, Germany
[r] Department of Medical Psychology, VU Medical Center, Amsterdam, the Netherlands
[s] Department of Mental Health, School of Public Health, Graduate School of Medicine, The University of Tokyo, Bunkyō-ku, Tokyo, Japan
[t] Department of Behavioural Sciences and Learning, Linkoping University, Linkoping, Sweden
[u] Oregon Research Institute, Eugene, OR, USA
[v] Department of Psychology, University of Gothenburg, Göteborg, Sweden
[w] MindSpot Clinic and eCentreClinic, Department of Psychology, Macquarie University, Australia
[x] Department of Behavioral Sciences and Learning, Linköping University, and Department of Clinical Neuroscience, Division of Psychiatry, Karolinska Institutet, Stockholm, Sweden
[y] Department of Clinical Psychology, University of Bergen, Bergen, Norway
[z] Division of Online Health Training, Innovation Incubator, Leuphana University Lüneburg, Germany
[aa] Department of Clinical Psychology and Psychotherapy, University of Bern, Bern, Switzerland
[ab] Centre for Psychiatry Research, Department of Clinical Neuroscience, Karolinska Institutet, Sweden
[ac] Department of Epidemiology and Biostatistics, EMGO Institute for Health and Care Research, VU University Amsterdam, Amsterdam, the Netherlands.
[ad] Department of Primary Health Care, Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden
[ae] Clinical Research Unit for Anxiety and Depression, St Vincent's Hospital, Sydney, New South Wales, Australia
[af] Department of Psychology, City, University of London, London, United Kingdom

* Corresponding author at: Department of Clinical Psychology, EMGO Institute for Health and Care Research, VU Amsterdam, Van der Boechorststraat 1, 1081 BT Amsterdam, the Netherlands.
E-mail address: e.karyotaki@vu.nl (E. Karyotaki).
[1] Eirini Karyotaki and David Daniel Ebert share first authorship.

https://doi.org/10.1016/j.cpr.2018.06.007

Available online 19 June 2018
0272-7358/ © 2018 Published by Elsevier Ltd.

[ag] The MRC Cognition and Brain Sciences Unit, Cambridge, United Kingdom
[ah] School of Psychology, the University of New South Wales, Sydney, Australia
[ai] Department of Psychology, Stockholm University, Stockholm, Sweden
[aj] Department of Psychology, University of Southern Denmark, Denmark
[ak] Institute for Sex Research and Forensic Psychiatry, Hamburg, Germany
[al] Department of Psychology, Faculty of Health and Life Sciences, Linnaeus University, Växjö, Sweden

HIGHLIGHTS

- Little is known about clinically relevant changes in guided Internet-based interventions.
- Guided Internet-based interventions result in significantly higher remission and response compared to controls
- Severity of depression, age and ethnicity significantly moderate treatment outcome.

ARTICLE INFO

Keywords:
Internet-based guided self-help
Psychotherapy
Depression
Meta-analysis

ABSTRACT

Little is known about clinically relevant changes in guided Internet-based interventions for depression. Moreover, methodological and power limitations preclude the identification of patients' groups that may benefit more from these interventions. This study aimed to investigate response rates, remission rates, and their moderators in randomized controlled trials (RCTs) comparing the effect of guided Internet-based interventions for adult depression to control groups using an individual patient data meta-analysis approach. Literature searches in PubMed, Embase, PsycINFO and Cochrane Library resulted in 13,384 abstracts from database inception to January 1, 2016. Twenty-four RCTs (4889 participants) comparing a guided Internet-based intervention with a control group contributed data to the analysis. Missing data were multiply imputed. To examine treatment outcome on response and remission, mixed-effects models with participants nested within studies were used. Response and remission rates were calculated using the Reliable Change Index. The intervention group obtained significantly higher response rates (OR = 2.49, 95% CI 2.17–2.85) and remission rates compared to controls (OR = 2.41, 95% CI 2.07–2.79). The moderator analysis indicated that older participants (OR = 1.01) and native-born participants (1.66) were more likely to respond to treatment compared to younger participants and ethnic minorities respectively. Age (OR = 1.01) and ethnicity (1.73) also moderated the effects of treatment on remission.Moreover, adults with more severe depressive symptoms at baseline were more likely to remit after receiving internet-based treatment (OR = 1.19). Guided Internet-based interventions lead to substantial positive treatment effects on treatment response and remission at post-treatment. Thus, such interventions may complement existing services for depression and potentially reduce the gap between the need and provision of evidence-based treatments.

1. Introduction

Major Depressive Disorder (MDD) is highly prevalent (Alonso et al., 2004; Kessler, Chiu, Demler, & Walters, 2005; Waraich, Goldner, Somers, & Hsu, 2004) and associated with substantial impairment (Saarni et al., 2007; Üstün, Ayuso-Mateos, Chatterji, Mathers, & Murray, 2004) and economic costs (Berto, D'Ilario, Ruffo, Virgilio, & Rizzo, 2000; Greenberg & Birnbaum, 2005; Smit et al., 2006). Psychological treatments have been shown to be effective in the treatment of depression (Cuijpers et al., 2014; Cuijpers, van Straten, Andersson, & van Oppen, 2008a). However, the majority of depressed people remain untreated (Kohn, Saxena, Levav, & Saraceno, 2004; Wittchen et al., 2011). Epidemiological data from Europe have shown that only 14% and 38% of those who experience mood disorders receive psychotherapy and pharmacotherapy respectively (Alonso et al., 2004). These percentages are lower (7–21%) in low- and middle-income countries where mental health care facilities are scarce (Chisholm et al., 2016).

Using the Internet to provide guided interventions may help overcome some of the limitations of traditional treatment services (Andersson & Titov, 2014; Ebert et al., 2014a). A guided internet-based intervention is a psychotherapeutic intervention primarily based on self-help material delivered via the Internet with some form of minimal guidance related to the therapeutic content. This guidance is considered minimal if provided at low intervals through electronic means, such as emails, phones and e-chats (e.g., brieff weekly emails after each online session). Such guided Internet-based interventions (a) provide high accessibility, (b) may attract people who do not use traditional mental health services, and (c) are easily scalable. A relatively recent meta-analysis (MA) showed that guided Internet-based interventions for depression can have positive effects on depressive symptoms (Richards & Richardson, 2012). However, statistical comparisons based on group means provide limited information about clinical significance (Jacobson & Truax, 1991). Therefore, response and remission have been suggested as the outcome criteria of choice for depression treatment (Keller, 2003; Rush et al., 2006). Remission is generally considered a state in which symptoms of the illness are (nearly) absent (Rush et al., 2006). It is associated with better functioning (Hirschfeld et al., 2002; Riso et al., 1997), lower relapse rates, and improved long-term prognosis (Bech, Lönn, & Overø, 2010; Fava, Fabbri, & Sonino, 2002; Karp et al., 2004; Kennard et al., 2009; Ogrodniczuk, Piper, & Joyce, 2004; Taylor, Walters, Vittengl, Krebaum, & Jarrett, 2010). It is the accepted goal of treatment of acute depression (Anderson et al., 2008; Gelenberg et al., 2010; Lam et al., 2009; NICE, 2010; Thase & Ninan, 2001). However, while not all patients achieve remission (Cuijpers et al., 2014), some may still be classified as responders, i.e. achieve a clinically significant reduction in depressive symptoms (Frank et al., 1991).

Neither remission nor response has been addressed in any meta-analyses of guided Internet-based interventions for depression (Andersson & Cuijpers, 2009; Andersson, Cuijpers, Carlbring, Riper, & Hedman, 2014; Andrews, Cuijpers, Craske, McEvoy, & Titov, 2010; Johansson & Andersson, 2012; Richards & Richardson, 2012). Inconsistencies in methodology for defining response and remission as well as missing reports of these outcomes in studies hinder their evaluation using conventional meta-analytic approaches. Another issue not yet addressed is the possibility that not all subgroups of patients benefit from this specific treatment delivery. For example, it may be argued

Download English Version:

https://daneshyari.com/en/article/7263391

Download Persian Version:

https://daneshyari.com/article/7263391

Daneshyari.com