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Therapeutic alliance in guided internet therapy programs for depression and anxiety disorders – A systematic review

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ABSTRACT

Objective: The role of internet therapy programs for mental disorders is growing. Those programs employing human support yield better outcomes than do those with no such support. Therapeutic alliance may be a critical element in this support. Currently, the significance of therapeutic alliance in guided, internet-delivered cognitive behavioral therapy programs (iCBT) remains unknown. This review aims to determine whether the therapeutic alliance influences outcome of iCBTs and if it does, what plausible factors underlie this association.

Method: Towards that goal searches were made in PubMed, PsycINFO, SCOPUS, The Cochrane Library and CINAHL in May 2016 and January 2017.

Results: From the 1658 relevant studies, only six studied the relationship of therapeutic alliance and outcome. All six studies showed a high level of client-therapist alliance; in the three most recent studies, the alliance was directly associated with outcome. No studies reported alliance-adherence associations.

Conclusions: Alliance research in iCBT for mental disorders is scarce. Therapeutic alliance seems to associate with outcomes. More studies are necessary to define the optimal support to strengthen alliance. iCBT is a feasible environment for alliance research both practically and theoretically. The impact of alliance on adherence to iCBT requires study.

1. Introduction

Mental Health Disorders account for 28% of Days Lived with Disability (DALY)–measured global burden of disease among non-communicable diseases – more than cardiovascular diseases or cancer (WHO, 2011). Depressive disorders are the leading cause of disability throughout the world and contribute tremendously to the overall global burden of disease (WHO, 2017). Anxiety disorders are the sixth leading cause of disability worldwide (Baxter et al., 2014) and are, as well, a major component of the global burden of disease. Depression and anxiety disorders, the most prevalent mental health problems (Whiteford et al., 2015) show great comorbidity (Kaufman and Charney, 2000), phenomenological and genetic overlap (Hattema, 2008), similarities in pharmacological treatment (Levine et al., 2001) and appear to share the same background mechanisms (Rosellini and Brown, 2011).

For depressive and anxiety disorders, psychological interventions are among first-line treatments (McHugh et al., 2013) and cognitive behavior therapy (CBT) is recommended in many national treatment guidelines, e.g. those of National Institute for Health and Clinical Excellence (2013). Psychotherapies are also highly acceptable among clients (Leykin et al., 2007; van Schaik et al., 2004). Despite their acceptability and feasibility, psychotherapies, however, are not available for all those who could benefit from them (Kohn et al., 2004; Young et al., 2001). Obstacles to use include perceived stigma, shortage of professionals, costs, and long distances to services (Mechanic, 2007).

Research to date indicates that therapeutic internet-based interventions in treating depression and anxiety disorders are valuable (Andrews et al., 2010; Richards and Richardson, 2012; Saddichha et al., 2014). In addition, they offer solutions to problems of inequality, since they are affordable, lack location and time constraints, and offer a steady quality of treatment (Andersson et al., 2013; Andrews et al., 2010; Cuijpers et al., 2009). A distinction between various types of treatment delivery via the internet is necessary, since the nature of treatment is different in client-therapist videoconference from that in an asynchronous, computer-based therapy program with additional therapist guidance (Berger, 2015). Barak et al. (2009) defined the latter as “human supported, web-based therapeutic interventions” and Berger (2015) as “internet-based guided self-help treatments”.

Research in the field of such computer-assisted, internet-delivered asynchronous interventions focuses mostly on human-supported,

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internet-based cognitive behavioral therapy (from now on, iCBT) (Aboujaoude et al., 2015; Berger, 2015). These treatments outperform unsupported self-help computer-based programs (Baumeister et al., 2014) and appear to be as efficacious as (Berger, 2015), but substantially less resource-consuming (Andersson et al., 2013; Andersson and Cuijpers, 2009; Andersson et al., 2014, Andrews et al., 2010; Cuijpers et al., 2009; Barak et al., 2008; Richards and Richardson, 2012) than are traditional face-to-face therapies.

What exactly makes human support so important in iCBT programs is largely unknown.

Professionals have been concerned about a possible lack of therapeutic alliance with the supporting internet therapist in the iCBT (MacLeod et al., 2009; Sucala et al., 2012). Therapeutic alliance is defined as a positive emotional bond between therapist and client, and their mutual agreement on the goals and tasks of the treatment (Bordin, 1994). Alliance is important in predicting the outcome of traditional face-to-face psychotherapy (Norcross, 2011). Interestingly, alliance ratings in iCBTs have been as high (Sucala et al., 2012) or even higher than are those of the traditional face-to-face psychotherapies (Berger, 2015).

Descriptions of effective psychotherapies should always include consideration of therapeutic alliance (Ackerman et al., 2001). For theoretical reasons, it would be important to know whether alliance is a predictive or mediating factor also in the iCBT (Cavanagh and Millings, 2013). Moreover, exploration of the therapeutic relationship in the technological environment of iCBTs may foster better understanding of the nature of therapeutic relationship itself. In iCBT, the therapeutic alliance has been suggested to be less important than in traditional psychotherapy, since typically very little contact occurs between the client and therapist. Understanding the alliance is important for practical reasons as well. Specifically, that may be an issue of optimal resource allocation if the alliance influences treatment outcomes. If it does, suitable support should be available, for instance, to strengthen the alliance (Berger, 2015; Cavanagh and Millings, 2013). Studies on this matter have revealed mixed results (Andersson et al., 2012b; Knaevelsrud and Maercker, 2006). Associations between alliance ratings and treatment outcomes most often show positive trend but without always achieving statistical significance (Berger, 2015).

Even if therapeutic alliance does not directly predict treatment outcome in the iCBT, alliance-building may support adherence to treatment and thereby prevent premature discontinuation of that treatment (Hilvert-Bruce et al., 2012; Richards and Richardson, 2012). Adherence is typically defined as proportion of program completers. In this article also amount of treatment modules completed is considered as a measure of adherence. Premature discontinuation of iCBT involving minimal therapist contact ranged from two to 83% with a weighted average of 31% (Melville et al., 2010). Attrition in randomized controlled trials for depressive and anxiety disorders ranged from approximately 1–50% (Christensen et al., 2009). Adherence in iCBT efficacy trials for depression has been high, 75–85% (Hilvert-Bruce et al., 2012). Indeed, adherence to internet-based cognitive therapy treatments in terms of increased program exposure (Christensen et al., 2004) and complying to the therapeutic tasks (Simpson et al., 2011) are associated with successful clinical outcomes (Christensen et al., 2002; Hilvert-Bruce et al., 2012). Differences in the grade of therapeutic alliance might be an important determinant explaining the wide range of retention in iCBT treatments, but studies on the alliance-retention association are still rare.

Available reviews concerning alliance in internet interventions either focus on videoconferencing psychotherapy (Simpson and Reid, 2014), fail to differentiate between various types of interventions (Sucala et al., 2012), provide only narrative results (Berger, 2015) or include a wide range of psychological problems (Barazzone et al., 2012; Berger, 2015; Sucala et al., 2012), making between-study comparisons difficult. This review aims to find whether the therapeutic alliance influences outcome of and adherence to iCBTs, and if it does, what plausible factors underlie this association. This review is limited to individual iCBTs in adults with the most common mental disorders, specifically depressive and anxiety disorders. In order to find common elements of support, studies concerning disorders beyond depression and anxiety (and thus, less likely sharing the same background alliance-related mechanisms) or special populations like adolescents, psychotic and trauma-based populations (that may need specialized support) were excluded. Based on the literature, what is to be expected is that the therapeutic alliance is connected with treatment outcome, but associations may not reach statistical significance (Berger, 2015).

2. Methods

2.1. Literature search

The systematic database search and additional hand search took place in June 2016, and complementary searches in January 2017 in five databases (PubMed, PsycINFO, SCOPUS, Cochrane Library and CINAHL).

The search strategy used was (guided OR guidance OR support OR alliance) AND (computer-based psychotherapy OR web-based psychotherapy OR internet-based psychotherapy OR internet-based cognitive behavioral therapy OR self-help cognitive behavioral therapy) AND (internet). Detailed search histories are available from the first author. The hand search included searching the references of the studies found through the database search.

2.2. Selection of studies

Studies comprised individual iCBTs for different depressive and anxiety disorders. Exclusion criteria were group or family iCBTs, iCBTs for conditions requiring special or different support (like adolescents, psychotic and trauma-based populations). Client variables, dosage of support, modes of contact, and education of internet therapists were explored as plausible alliance-related variables.

The records were screened in the three phases described in Fig. 1. Inclusion criteria were: 1) internet-based psychotherapy intervention, 2) individual treatment, 3) guided interventions. 4) records written in English, 5) peer reviewed. First, 1654 abstracts emerged from the database search, and 4 abstracts through manual search. Exclusion criteria were: 6) virtual reality or game interventions, 7) study protocols alone, 8) only cost-effectiveness analysis 9). A total of 1159 articles were excluded. The 499 abstracts left were screened by the following additional inclusion/exclusion criteria: 10) interventions targeted at mental disorders, 11) intervention was not targeted at substance abuse or pathological gambling, psychotic or trauma-related disorders, clients in residential care, immigrant, religious, older-adults populations, students, school pupils, or clients aged under 18 years and 12) measured therapeutic alliance. These criteria excluded 489 articles.

Of the remaining 10 articles, two concerned therapeutic alliance with the computer program rather than with the internet therapist (Berger et al., 2014; Clarke et al., 2016, 32,33), and four others (Hadjistavropoulos et al., 2016; Kiropoulos et al., 2008; Lindner et al., 2014; Reynolds et al., 2006) made no exploration of the association of therapeutic alliance with outcome. These six studies were, hence, excluded. Of the four remaining studies (Andersson et al., 2015; Andersson et al., 2012b; Bergman Nordgren et al., 2013; Herbst et al., 2016), one study (Andersson et al., 2012b) reported secondary alliance analysis of three samples previously studied, so altogether six trials reporting alliance ratings were included in the analysis. (Fig. 1).

2.3. Data extraction

The following data describing the trials were extracted from the studies independently by two assessors (SP, KJ): mental disorder studied, basic sample characteristics (sample size, mean age), outcome