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Review

Efficacy and acceptability of group cognitive behavioral therapy for depression: A systematic review and meta-analysis

Yasuyuki Okumura [a,*], Kanako Ichikura [b,c]

[a] Research Department, Institute for Health Economics and Policy, Association for Health Economics Research and Social Insurance and Welfare, Tokyo 105-0003, Japan
[b] Section of Liaison Psychiatry and Palliative Medicine, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University, Tokyo 113-8519, Japan
[c] Japan Society for the Promotion of Science, Tokyo 102-0083, Japan

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ABSTRACT

Background: Despite treatment guidelines for depression placing group cognitive behavioral therapy (group CBT) between low- and high-intensity evidence-based psychological interventions, the validity of the placement remains unknown. We aimed to systematically review evidence for the efficacy and acceptability of group CBT in patients with depression compared to four intensity levels of psychosocial interventions.

Methods: We searched the Cochrane Central Register of Controlled Trials, MEDLINE, PsycINFO, and Web of Science and hand-searched the references in identified publications. We selected randomized controlled trials comparing group CBT with four levels of interventions for adult patients with depression. Two authors independently assessed risk of bias.

Results: From 7953 records, we identified 35 studies that compared group CBT to non-active ($k=30$), low-intensity ($k=2$), middle-intensity ($k=8$), and high-intensity ($k=1$) interventions. Group CBT had a superior efficacy (standardized mean difference [SMD] $= -0.68$) and a similar acceptability compared to non-active controls. Pooled results showed a small but non-significant excess of group CBT relative to middle-intensity interventions (SMD $= -0.21$).

Limitations: Over 60% of studies did not report enough information to judge selection and selective reporting bias.

Conclusions: These results suggest the need for high-quality trials of group CBT compared to low- and high-intensity interventions.

Contents

1. Introduction . . . 156
2. Methods . . . 156
 2.1. Eligibility criteria . . . 156
  2.1.1. Types of studies . . . 156
  2.1.2. Types of participants . . . 156
  2.1.3. Types of interventions . . . 156
  2.1.4. Types of comparators . . . 157
  2.1.5. Types of outcome measures . . . 157
 2.2. Data source and searches . . . 157
 2.3. Study selection and data extraction . . . 157
 2.4. Statistical analyses . . . 157

* Correspondence to: Research Department, Institute for Health Economics and Policy, Association for Health Economics Research and Social Insurance and Welfare, 1-5-11 Nishi-Shinbashi, Minato-ku 105-0003, Tokyo, Japan. Tel.: +81 3 3506 8529; fax: +81 3 3506 8528.
E-mail address: yokumura@blue.zero.jp (Y. Okumura).

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3. Results . . . 157
3.1. Study selection . . . 157
3.2. Study characteristics . . . 158
3.3. Risk of bias in included studies . . . 158
3.4. Group CBT vs. non-active controls . . . 158
3.5. Group CBT vs. low-intensity psychosocial interventions . . . 161
3.6. Group CBT vs. middle-intensity psychosocial interventions . . . 161
4. Discussion . . . 161
5. Limitations . . . 163
6. Conclusion . . . 163
Role of funding source . . . 163
Conflict of interest . . . 163
Acknowledgments . . . 163
Appendix A. Supplementary material . . . 163
References . . . 163

1. Introduction

Depression has a significant impact on individuals and society due to its high prevalence, early-age onset, and high persistence (Kessler, 2012; Murray et al., 2012; Okumura and Higuchi, 2011). Depression is nearly twice as prevalent in individuals with chronic physical health problems as in those without (Kessler, 2012; Okumura and Ito, 2013). Regardless of comorbid physical illness, the treatment guidelines advocate a stepped care model to guide the management of depression (National Institute for Health and Clinical Excellence, 2009a, b). In the stepped care model, patients with mild to moderate depression start with low-intensity psychosocial interventions, such as computerized cognitive behavioral therapy (CBT), guided self-help, and physical activity programs. If a patient does not benefit from low-intensity interventions, they are stepped-up to high-intensity interventions, such as medications and/or face-to-face individual psychotherapies. The aim of the stepped care model is to maximize the effectiveness of an intervention considering limited medical resources.

Group CBT is an appealing psychological intervention given its potential cost- and time-effectiveness for treating many patients (Tucker and Oei, 2007). In the stepped care model, group CBT is placed between low-intensity and high-intensity interventions (National Institute for Health and Clinical Excellence, 2009a). Given the duration and staffing of such groups, group CBT for patients with mild depression is viewed as less cost-effective than low-intensity psychosocial interventions and as more cost-effective than individual CBT (National Institute for Health and Clinical Excellence, 2009a). This placement of group CBT, however, is not validated in the stepped care model because relevant data on comparative efficacy and acceptability are lacking.

Recent meta-analyses of randomized controlled trials (RCTs) have revealed the efficacy of group CBT for depression (Cuijpers et al., 2009; Feng et al., 2012; Huntley et al., 2012; Krishna et al., 2013, 2011). However, there was no distinction between the use of non-active controls, low-intensity, middle-intensity (a term we coined to refer to group-based psychosocial interventions), and high-intensity interventions as comparators in any of these studies. In addition, little attention has been given to acceptability of group CBT (Krishna et al., 2011). Furthermore, two of the meta-analyses focused exclusively on patients aged 50 years or older (Krishna et al., 2013, 2011) and one of the meta-analyses focused only on a specific protocol of group CBT (Cuijpers et al., 2009). Finally, one of the meta-analyses had questionable validity because they defined some trials of individual CBT as group CBT (Feng et al., 2012).

In the present study, we aimed to systematically review evidence for the efficacy and acceptability of group CBT in patients with depression compared to four intensity levels of psychosocial interventions: non-active, low-intensity, middle-intensity, and high-intensity interventions.

2. Methods

2.1. Eligibility criteria

2.1.1. Types of studies

Randomized controlled trials (RCTs), cluster RCTs, and quasi-RCTs were eligible for inclusion in the review. A trial was considered quasi-RCT when treatment allocation was decided through methods such as alternate days of the week. Single group studies and non-randomized studies were excluded.

2.1.2. Types of participants

We included participants aged 18 years or older with depression assessed by standardized clinical interviews, standardized self-report questionnaires, or physicians' diagnoses. Our operational definitions of depression were (1) elevated depressive symptoms as defined by case identification instruments such as the Beck Depression Inventory (BDI; Beck et al., 1961), the Patient Health Questionnaire (PHQ; Spitzer et al., 1994), the General Health Questionnaire (Goldberg et al., 1991), the Centre of Epidemiology Studies-Depression, CES-D; (Radloff, 1977), the Geriatric Depression Scale (GDS; Yesavage et al., 1982), the Hospital Anxiety and Depression Scale (HADS; Zigmond and Snaith, 1983), and the Zung Self Rated Depression Scale (Zung, 1965); (2) depressive disorders as defined by DSM-IV (code: 296.2/296.3/300.4) or ICD-10 (code: F32/F33/F34.1); and (3) minor depression as defined by DSM (code: 311).

We excluded trials with study participants who did not have depression at baseline assessments. In addition, we excluded trials that included populations of mixed psychiatric diagnosis (e.g., major depression and schizophrenia) unless separate data for depression could be identified in the published article. We also excluded trails that included patients with substance-related disorders or schizophrenia with comorbid depressive symptoms, and trials that focused on depression in children, adolescents, antenatal, and postnatal periods. We did not exclude trials involving study participants with comorbid physical illness and depression.

2.1.3. Types of interventions

We included group CBT trials that were delivered through face-to-face meetings and conducted on a group basis. We defined CBT as a protocol-based psychological treatment including a minimum of cognitive restructuring and behavioral activation procedures.