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Cognitive Behavioural Therapy for Insomnia : A treatment feasibility Pilot study

Blairy S., Dethier, M, & Krings A.

Research Unit PsyNCog, Université de Liège

Introduction

Sleep difficulties are commonly reported by patients with depression and have a detrimental impact on mood. Repetitive Negative Thinking (RNT) is a longitudinal precursor of depression and anxiety, which are often co-present alongside insomnia. Cognitive Behavioural Therapy for Insomnia (CBT-I) is an effective treatment for insomnia which seems to have an impact on depressive mood and general measures of RNT. The aim of the present pilot study is to investigate the acceptability and feasibility of a CBT-I with a group format and to test the effects on sleep quality, anxiety-depressive mood and negative repetitive thoughts.

Method

The CBT-I consisted of 2-hour group psychotherapy session every two weeks. The six persons group underwent five treatment sessions with traditional cognitive behavioral therapy techniques, including stimulus control, sleep restriction, and sleep hygiene. We added a RNT intervention. Sleep quality, depressive and anxious mood and abstract rumination and worry were assessed using self-reported measures, before and after the treatment period.

Participants have been invited to complete the following self-reported questionnaires:
Validated French versions of the following self-reported measures were used pre and post intervention:

- Insomnia – Index de sévérité de l'insomnie (ISI) (Morin, 1993)
- Anxiety and depressive mood – Hospital Anxiety and Depression Scale (HADS) (Bocéréan et al., 2014)
- Abstract rumination – Mini Cambridge Exeter Ruminative Thought Scale (Mini-Certs abstract) (Douilliez et al., 2014)
- Worry - Penn State Worry Questionnaire (PSWQ) (Gosselin et al., 2001)

We computed a change score assessing the proportion of individuals showing reliable change (RC) at post-treatment, relative to pre-treatment to rule out the possibility that a difference between two scores was due to a measurement error rather than to the intervention (Jacobson et Truax, 1991)

Results

The six participants were adults aged between 45 and 67 (four women and two men). Prior to the intervention, the participants' assessment revealed the presence of insomnia, some mild (n=2, ISI score between 8 and 14), others moderate (n=3, ISI score between 15 and 21) and finally severe (n=1, ISI score between 21 and 28). Three participants also reported an anxious mood, and one participant a depressive mood (a score > 10 on both subscales). Ruminations and worry scores were within the normal range for all participants (based on Z scores).

Participants characteristics

	Gender	Professional status	Age	ISI	HADS-Anxiety	HADS-Depression	Mini-Certs abstract	PSWQ
P1	F	Employed	45	23	15	9	15	49
P2	F	Employed	54	14	5	1	14	43
P3	F	Retired	67	14	12	8	21	55
P4	F	Retired	60	20	12	10	19	42
P5	H	Employed	54	16	7	7	21	59
P6	H	Unemployed	54	18	11	7	20	41

Participant scores on self-reported measures pre and post intervention

		ISI	HADS-Anxiety	HADS-Depression	Mini-Certs Abstract	PSQW
Reliable Change Index		1,84	4,23	4	4,44	11,97
P1	Pre	23	15	9	15	49
	Post	27	11	12	12	51
Pre-post change score		-4*	4	-3	3	-2
P2	Pre	14	5	1	14	43
	Post	7	3	2	12	33
Pre-post change score		7*	2	-1	2	10
P3	Pre	14	12	8	21	55
	Post	8	12	8	21	MD
Pre-post change score		6*	0	0	0	MD

Three of the six participants completed the entire intervention- P1, P2 and P3.
Pre-post RC analyses suggested significant improvement in insomnia in two participants (P2 and P3) and deterioration in one (P1). No significant change scores were found for measures of anxious-depressive mood and repetitive negative thoughts.
P1 presents severe insomnia at baseline and significant medication intake, with significant anxious mood and depressive mood at the limit of the significance threshold score. The results show a reliable deterioration in insomnia. This participant stopped her medication during the intervention. RC suggests no reliable change in other variables. P2 presents mild insomnia at baseline with no anxiety-depressive mood. The results show a reliable improvement in insomnia with score below post-intervention. RC suggests no reliable change in other variables. P3 presents mild insomnia at baseline with anxious mood. The result show a reliable improvement in insomnia with the intervention and a score below significance threshold post-intervention. RC suggests no reliable change in other variables. The participant's feedback support the acceptability and feasibility of a group protocol of CBT-I with a group format for patients with depressive mood

Discussion

The results suggest that the CBT-I group format is feasible for clinicians, acceptable to participants and effective in improving insomnia in two out of three participants. The significant deterioration reported by one participant may be explained by the complete cessation of the participant's medication during the intervention. Nevertheless, this pilot study did not demonstrate the effect of this intervention on anxious-depressive mood and repetitive negative thoughts.

It would be appropriate to reiterate this study with a larger number of clinical subjects suffering of depression according the DSMV criteria, to multiply the number of assessments over time and to monitor medication intake.