## Can CBT-I be conducted in a group format?

Yes, the research literature supports the use of CBT-I conducted in a group format. One metaanalysis conducted in 2015 found 8 randomized controlled trials comparing group CBT-I to a control group and found medium to large effect sizes for sleep onset latency, sleep efficiency, and wake after sleep onset from baseline to posttreatment and between CBT-I and control groups (Koffel, & Gehrman, 2015).

## What are the drawbacks of group CBT-I?

One drawback to group CBT-I is that it can take time to get enough patients (e.g., at least 4) to get a group started, and in the interim, patients are waiting for treatment. In addition, patients who miss a session cannot easily make up the session material because most groups are considered closed (e.g., they do not go back and cover old material) given the sequential nature of most CBT-I protocols. Managing sleep diaries in a group format can also be challenging.

## What are some suggestions for implementing a CBT-I group?

For group CBT-I, it is generally recommended to include 6-8 patients per group or 10-12 if it is possible to have a group co-leader. CBT-I groups generally consist of 6-8 sessions that last 60-90 minutes each. There is no need to adjust the content of CBT-I protocols for group, although additional benefits may be offered by utilizing the group process to provide group members with peer support and encouragement. For example, the group leader may ask group members to reflect on their experiences implementing a particular technique and encourage other group members to help troubleshoot any difficulties.

The primary challenge for implementing group CBT-I is managing multiple sleep diaries to ensure that sleep diary entries and calculations for sleep parameters (i.e., total sleep time [TST], time in bed [TIB], sleep efficiency [SE]) are done correctly in order to titrate sleep schedules accurately. There are several methods that can work well for completing sleep diary calculations:

- First, if your group is relatively high-functioning, you can teach them to conduct their own sleep diary calculations (e.g., using the provided Excel spreadsheet, the VA app CBT-I Coach, or by hand), and include these calculations as an expectation of completion of the sleep diary. You can ask group members to arrive to group 15-20 minutes early to ensure these calculations are completed. This method has the added benefit that patients are capable of completing their own calculations after the group has ended, which increases their autonomy and mastery over managing sleep over time.
- An alternative approach works best if you have a co-leader. One co-leader can collect sleep diaries at the beginning of session and complete calculations while the other co-leader begins the group.
- Finally, an "analog" sleep diary can be used to help approximate sleep efficiency if calculations are not possible. This type of sleep diary has boxes that represent each hour of the day that are shaded in by the patient to indicate hours slept. Then, the TST and SE can be calculated by adding up the shaded boxes for each night

(TST) and dividing that number by the total number of hours indicated for TIB (SE). This type of sleep diary is included in the resources.

Regardless of the method selected to complete sleep diary calculations, it is recommended that at the first 2-4 sessions of sleep restriction, when the sleep schedule is being adjusted, that the group leader(s) spend 5-10 minutes with each patient individually at each session to develop the new sleep plan for the upcoming week. Although most troubleshooting of stimulus control, relaxation, sleep hygiene, and cognitive elements can be completed as a group, sleep restriction should be reviewed individually in order to tailor recommendations specifically for each patient's sleep schedule and ensure that the sleep restriction is working properly.

If a patient misses a session, the patient should continue to complete a sleep diary. Then, the most recent sleep diary can be used for titrating the sleep schedule at the next session.

## References

Koffel, E. A., Koffel, J. B., & Gehrman, P. R. (2015). A meta-analysis of group cognitive behavioral therapy for insomnia. Sleep Medicine Reviews, 19, 6-16. doi:10.1016/j.smrv.2014.05.001