Electronic Supplementary Material for

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First, treatment effects (i.e., number of sessions) on positive symptoms and cognitive biases were tested in models with the following exemplary equation:

(1) $Symptoms_{ti} = \beta_0 + \beta_1 * session_{ti} + [u_{0i} + u_{1i} + e_{ti}]$

$Symptoms_{ti}$ reflects a given patient's *i* symptom score in session *t* centered at 1. Given this centering, β_0 represents the average symptom score before the treatment across all patients. This initial impairment is allowed to vary between patients (u_{0i}). β_1 reflects the average rate of symptom change per session around which individual change rates vary (u_{1i}). Finally, e_{ti} reflects the session-specific error term. The same models were run with cognitive biases as dependent variable.

Second, a series of models were calculated to assess the amount of within-session changes for each module, applying the following exemplary equation:

(2) $Symptoms\_post_{ti} = \beta_0 + \beta_1 * symptom\_pre_{ti} + \beta_2 * module_{ti} + [u_{0i} + (u_{2i}) + e_{ti}]$

$Symptoms\_post_{ti}$ reflects a patient's *i* symptom scores after a session *t*. The $module_{ti}$ variable is coded differently depending on which module is investigated. If we take the *Changing Beliefs* module, this variable is one in the session in which the patient *i* received this module and zero for all other sessions. Given this coding, β_0 is the average post symptom score after sessions in which the investigated module is not provided. Given this coding, β_2 represents the average difference in symptom impairment scores after the session in which the respective module was provided compared to all other sessions in which the module was not provided. Due to the inclusion of the$\beta 1 * symptom_pret i$ in the model, this effect is

controlled for the differences in symptom scores before the sessions. We tested whether model fit was increased when allowing this association to vary between patients (u_{2i}). Again, e_{ti} reflects the session-specific error term.

Third, between-session changes were assessed using the following exemplary equation:

(3) $Symptoms\_pre_{t+1i} = \beta_0 + \beta_1 * symptom\_post_{ti} + \beta_2 * module_{ti} + [u_{0i} + (u_{2i}) + e_{ti}]$

$Symptoms\_pre_{t+1i}$ reflects a patient's i symptom score before a session $t+1$. The $module_{ti}$ variable is coded like in the models in equation 2. Consequently, β_0 presents the average symptom score after sessions in which the investigated module is not provided given an average symptom score before the session. Different to the models of equation 2 the dependent variable is measured before the subsequent session ($t+1$) and not directly after the module session (t). β_2 again reflects the average difference in symptom impairment scores after the session in which the respective module was provided compared to all other sessions. The approach regarding the random effect was the same as described for equation 2.