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Patient adherence to cognitive-behavioral therapy predicts long-term outcome in obsessive-compulsive disorder

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Introduction

Our prior research demonstrated that patient adherence to homework during cognitive-behavioral therapy (CBT) strongly predicts acute outcome for patients with obsessive-compulsive disorder (OCD).[1] To examine whether homework adherence also predicts outcome at 6 month follow-up, we capitalized on data from a clinical trial that provided CBT consisting of exposure and ritual prevention (EX/RP) to 30 adults with OCD, measured homework adherence during acute treatment using a reliable and validated scale, and re-evaluated severity of OCD 6 months later.

Methods

The trial is described elsewhere.[2] In brief, 30 adults with OCD were randomly assigned to EX/RP (n=15) or EX/RP augmented by motivational interviewing strategies (n=15). Both treatments followed standard EX/RP procedures[3] and included three introductory sessions, 15 exposure sessions, and daily homework assignments over 9 weeks. Because there were no significant group differences in patient adherence or treatment outcome at the end of treatment, the groups were combined for these analyses.

Patient homework adherence was assessed by the therapist at each exposure session using the Patient EX/RP Adherence Scale (PEAS). Shown to be both reliable and valid,[1, 4] this 3-item scale assesses patient adherence to exposures and ritual prevention assigned by the therapist as homework. The mean PEAS score, an average of scores across all exposure

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sessions during acute treatment, ranges from 1 (0% adherence) to 7 (100% adherence). OCD severity was evaluated at several time points (e.g., Week 0, 9, 6 month follow-up) by independent evaluators using the Yale-Brown Obsessive-Compulsive Scale.[5, 6]

Mixed-effects regression was used to model Y-BOCS score as a function of time (=0 at 9 weeks and =1 at 6 months), PEAS score, baseline Y-BOCS score, and Time-by-PEAS interaction, where the PEAS score is the mean PEAS score during acute treatment. We tested the association between PEAS scores during acute treatment and OCD severity at Week 9 and 6 month follow-up using contrasts within this model.

Results

Of the 30 patients who entered, 25 completed acute EX/RP treatment, and 24 were successfully re-contacted 6 months later. Mean age in years (SD) was 40 (13), 14 (47%) were female, and 12 (40%) were on medication (n==11 on a selective serotonin reuptake inhibitor [plus buproprion (n=2) or a benzodiazepine (n=2)] and one on a benzodiazepine alone.

Patient homework adherence during EX/RP treatment as measured by the PEAS is shown in Table 1 along with OCD severity at baseline (Week 0), after EX/RP treatment (Week 9), and at 6 month follow-up. Adherence varied between individuals, with overall mean PEAS scores for individuals ranging from 3.2 (< 50% adherence) to 6.4 (> 90% adherence).

Patient adherence was associated with OCD severity at Week 9 ($z = -5.0247$ $p = 0.0000$) and 6 month follow-up ($z = -3.7905$, $p=0.0002$). At Week 9, a one-unit PEAS increase (i.e., better adherence) corresponded to a 6.5-point Y-BOCS decrease, a clinically meaningful reduction in OCD severity (e.g., [7, 8]). At 6 month follow-up, a one-unit PEAS increase corresponded to a 6.4 point Y-BOCS decrease. Post-hoc analyses revealed that early adherence (using PEAS scores from only the first five exposure sessions) also predicted 6 month outcome ($z=-2.5743$, $p = 0.0100$); a one-unit increase in early PEAS corresponded to a 4.8 point Y-BOCS decrease at 6 month follow-up.

Conclusion

Patient homework adherence predicted OCD outcome not only after acute EX/RP treatment but also at 6-month follow-up. Even early adherence predicted 6-month outcome. Future research will need to investigate the mechanism of this long-term effect: perhaps those who adhere during acute EX/RP treatment are more likely to use the skills on their own after treatment has ended. Future research will also need to examine whether those with poor adherence will benefit more from an intervention to improve adherence specifically or from a different type of treatment altogether. In the meantime, clinicians should pay close attention to early patient adherence and seek to improve it any way they can.

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Table 1

Observed Patient Adherence and Outcome

Measure	Pretreatment (Week 0) n=30	Posttreatment (Week 9) n=25	6 month follow-up n=24
PEAS, mean (SD)	-----	5.2 (0.9)	-----
Y-BOCS, mean (SD)	28 (4)	14 (8)	18 (9)

Abbreviations: PEAS, Patient EX/RP Adherence Scale; Y-BOCS, Yale-Brown Obsessive Compulsive Scale; SD, standard deviation.