Psychotherapy and Psychosomatics

Received: March 29, 2010
Accepted: August 11, 2010
Published online: March 9, 2011

Psychother Psychosom 2011;80:189–190
DOI: 10.1159/000320328

Pretreatment of Worry Enhances the Effects of Stress Management Therapy: A Randomized Clinical Trial

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Evidence is accumulating that worry is an important mediator between the experience of stressors and poor mental and somatic health [1]. Worrying prolongs stress-related physiology [1], mediates the effects of stressors on common somatoform symptoms [2] and predicts cardiovascular morbidity [1].

Here we tested the effectiveness of a guided self-help intervention aimed at reducing worrying. This 'worry postponement and disengagement' intervention requires people to reschedule worries to a specific moment of the day during which thinking about worry topics, in a prestructured manner, is promoted. This has previously been found to reduce worry and associated tension [3] and somatoform symptoms [4, 5] in nonclinical samples. We tested whether this intervention reduced severe health complaints as experienced by outpatients suffering from work stress. Additionally, we investigated if this 2-week intervention enhanced a standard stress management group therapy (SMT), by delivering the intervention to patients awaiting SMT. A crucial assumption was that decreasing perseverative thoughts is a prerequisite for SMT to be fully effective.

Sixty-two patients participated, suffering from DSM-IV axis I diagnoses of adjustment disorder, unspecified somatoform disorder (burnout) or severe work problems (axis IV). Exclusion criteria were substance abuse, serious medical conditions, organic psychiatric disorders, severe suicidality or a history of schizophrenia.

Participants provided informed consent and completed the Subjective Health Complaints questionnaire (SHC) [6], the State Trait Anxiety Inventory – trait version (STAI-T) [7] and the Beck Depression Inventory – second version (BDI-II) [8]. They were then randomly allocated to 1 of 3 conditions: worry postponement and disengagement (WPD; n = 22), registering worry frequency and duration (worry registration; WR; n = 15) or a waitlist control condition: treatment as usual (TAU; n = 25). Participants were asked to practice the intervention (WPD or WR) for 2 weeks, after which SMT started. Outcome measures were sent to participants at the end of SMT and at a 3-month follow-up.

Hypotheses were tested with multilevel analyses which were further examined with univariate analyses. The variable time reflected the 4 assessments: 0 (baseline), 2 (start of SMT), 14 (end of SMT) and 26 (follow-up). χ^2 tests showed no differences between the conditions in the number of participants that left the study [$\chi^2(2) > 0.27$, $p > 0.52$]. There were no significant baseline differences between the treatment groups in scores on the SHC, STAI, BDI-II, DSM-IV diagnoses, antidepressant medication usage and number of attended SMT sessions.

Multilevel models showed significant decreases in somatoform, anxiety and depressive symptoms from baseline to follow-up 3 months after the SMT. Differences in the decreases in somatoform (B = 0.099, p = 0.017, 95% CI = 0.008–0.190), anxiety (B = 0.203, p = 0.048, 95% CI = –0.037 to 0.444) and – to a smaller extent – depressive symptoms (B = 0.195, p = 0.054, 95% CI = –0.044 to 0.434) were found between WPD and TAU, but not between WPD and WR ($p > 0.11$) see also figure 1).

Examination of the differences between WPD and TAU showed no significant differences in symptom levels after worry pretreatment. However, in WPD, but not in TAU, significant declines in somatoform [$t(17) = 3.12$, $p = 0.003$] and marginal declines in anxiety [$t(17) = 1.63$, $p = 0.06$] and depressive symptoms [$t(17) = 1.460$, $p = 0.081$] were observed during the 2-week pretreatment period. Concerning the *additive effects* of the pretreatment, directly after SMT participants in the WPD condition reported fewer anxiety symptoms than those receiving TAU [$F(1, 28) = 3.894$, $p = 0.029$]. At 3 months of follow-up, WPD was associated with fewer somatoform [$F(1, 26) = 2.950$, $p = 0.049$] and depressive symptoms than TAU [$F(1, 23) = 2.964$, $p = 0.049$].

In conclusion, the most innovative finding is that – overall – participants who had received the WPD intervention showed the largest decreases in somatoform, anxiety and – to a lesser extent – depressive symptoms. However, these effects were only apparent when WPD was compared to a waitlist control group and not when comparing the WPD intervention to the mere registering of worries. This could imply that the simple intervention of registering worries is already sufficient to improve SMT. Clearly, more research is needed, for example into the temporal differences in the reduction of symptoms and into different pretreatment interventions. However, this preliminary study is the first to suggest that a 'pretreatment' intervention directed at a crucial pathogenic process, i.e. worry, might enhance a cognitive-behavioral group therapy.

There are some limitations to the current study. These include the small sample size, the relatively short follow-up period, no standardized screening of psychopathology using structured interviews, the reliance on self-reports and the relatively high attrition in the total sample. Notwithstanding these limitations, we think that the results might stimulate further testing of the effectiveness of simple pretreatment interventions that aim to target possible mediators of psychological treatments.

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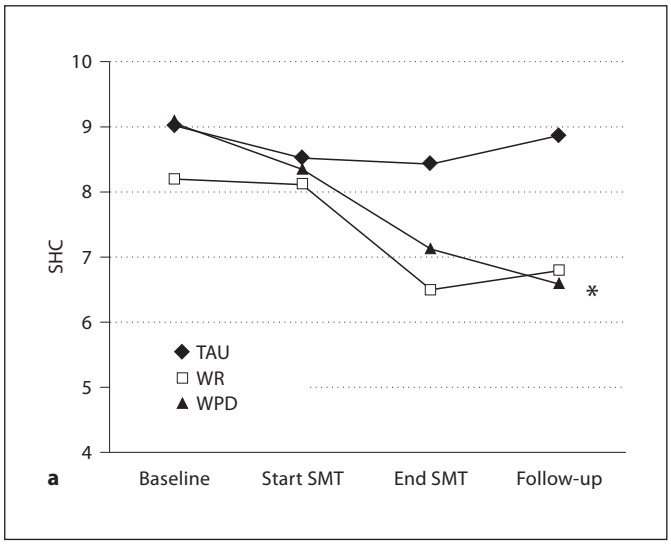

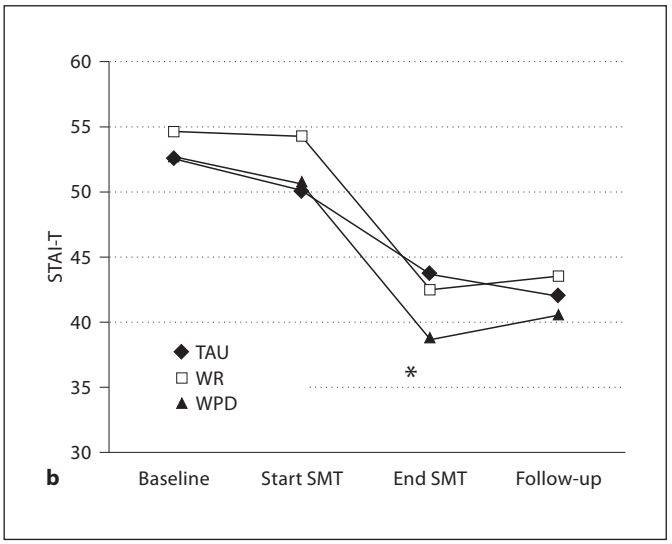

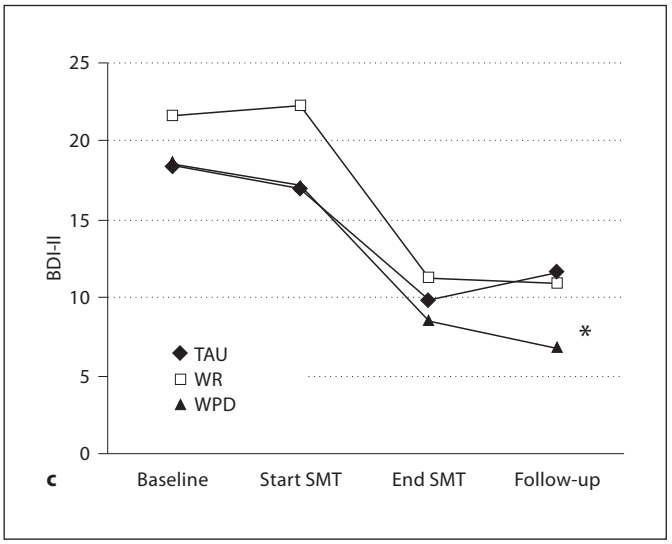

Fig. 1. Changes in somatoform (**a**), anxiety (**b**) and depressive symptoms (**c**) during the course of the study. Time points refer to the 2-week pretreatment [from baseline (n = 62) until the start of SMT (n = 52)], the 3-month SMT (n = 39) and the 3-month follow-up (n = 38). * $p < 0.05$: significant differences between WPD and TAU.

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