

Results of a clinical trial of problem-solving treatment for Gulf War Illness

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Hypothesis: Gulf War Illness is a complex illness which causes significant disability. Gulf War Veterans with Gulf War Illness often show impairment in problem-solving which is prospectively related to worse disability. Problem-Solving Treatment is a targeted approach which seeks to help patients compensate for problem-solving impairment. We hypothesized that among Gulf War Veterans with Gulf War Illness, telephone delivered Problem-Solving Treatment would produce greater reductions in disability as compared to telephone delivered Health Education.

Methods: We conducted the second largest clinical trial for Gulf War Illness and randomized 268 Gulf War Veterans to receive Problem-Solving Treatment or Health Education. Both treatments were 12 weeks and delivered over the phone. Gulf War Veterans were assessed at baseline, 4 weeks, 12 weeks and 6 months. Our primary outcome was disability and our secondary outcome was problem-solving impairment.

Essential Results: Gulf War Veterans with Gulf War Illness were largely adherent and satisfied with both treatments. At 12 weeks, Gulf War Veterans in both arms had reductions in disability with no differences between arms. At 6 months, Gulf War Veterans randomized to Problem-Solving Treatment maintained reductions in disability as compared to Health Education ($F_{3,569}=2.62$, $p=.05$). At 12 weeks Veterans in both arms had reductions in problem-solving impairment, with greater reductions in the Problem-Solving Treatment arm. At 6 months, Veterans randomized to Problem-Solving Treatment maintained reductions in problem-solving impairment as compared to Health Education ($F_{3,580}=4.12$, $p=.007$).

Conclusion: Problem-Solving Treatment and Health Education were both acceptable treatments for Gulf War Veterans with Gulf War Illness. In the short-term, both treatments reduced disability and problem-solving impairment. Only Problem-Solving Treatment maintained reductions in disability and problem-solving impairment at 6-month follow-up. This study suggests that Problem-Solving Treatment is likely an evidence-based approach to reducing the disability from Gulf War Illness. Future research should examine how to best implement evidence-based treatments for Gulf War Illness. These results have not previously been presented outside of the VA.