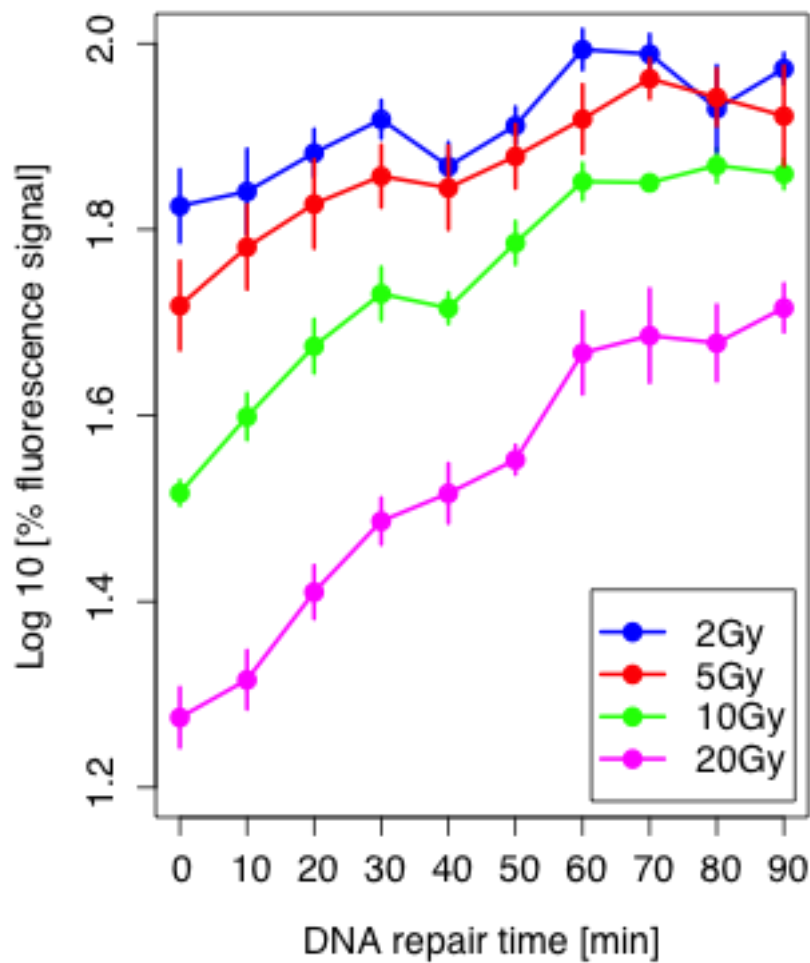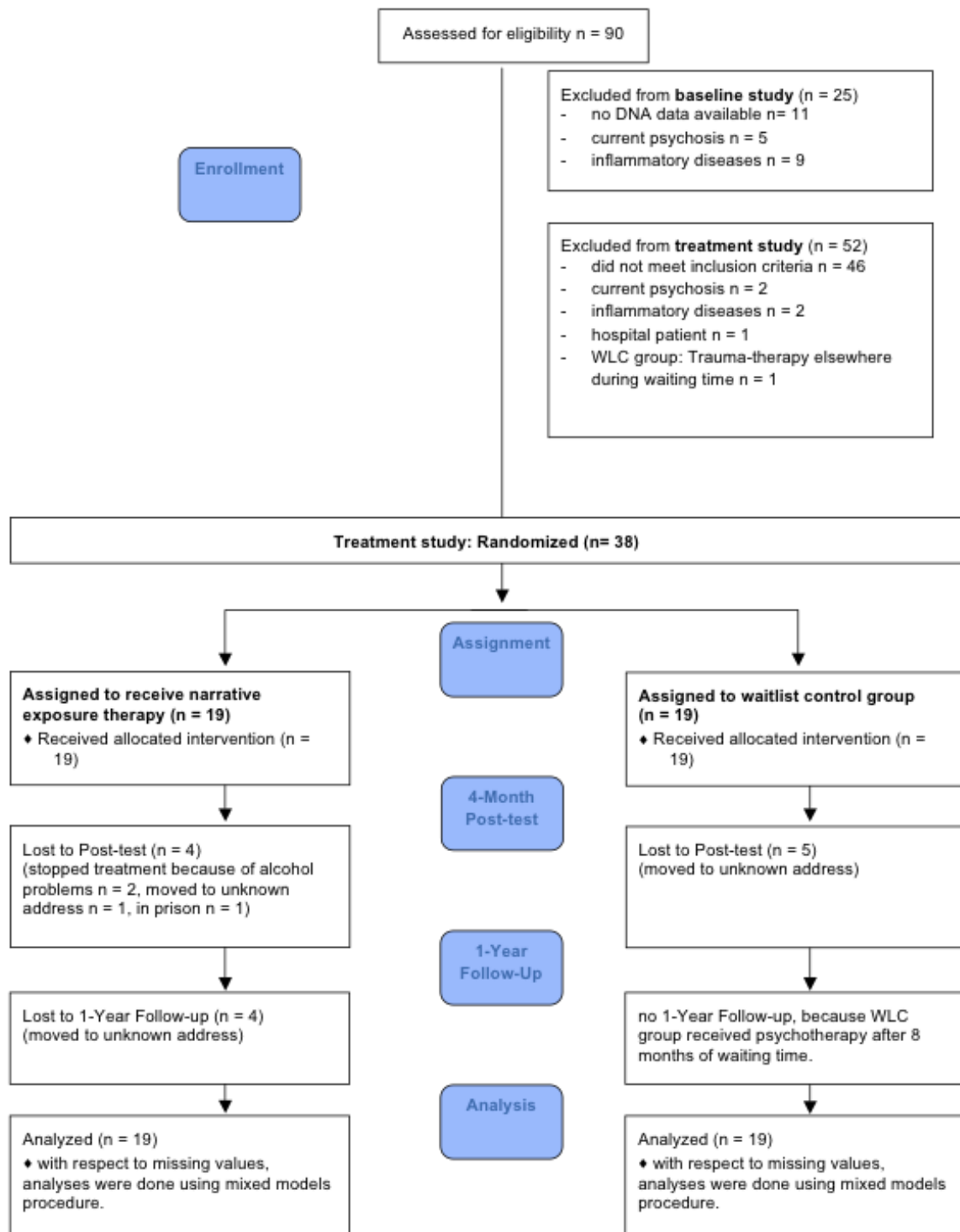**Supplementary Figure 1:**

DNA repair from PBMCs of four healthy donors, x-irradiated with 2, 5, 10 or 20 Gy, respectively. DNA strand break repair after x-irradiation. PBMCs from four healthy volunteers were isolated (see manuscript). Following x-irradiation (2, 5, 10 or 20 Gy) on ice, PBMCs were incubated at 37°C for the time periods indicated in order to allow DNA repair. Fluorescence intensity is expressed as the percentage of total SybrGreen fluorescence, i.e., the fluorescence intensity obtained in the absence of any DNA unwinding in parallel samples. Mixed model analysis showed a significant interaction between Group and Time (F(27,108) = 3,38; p < .0001). Error bars represent standard errors.
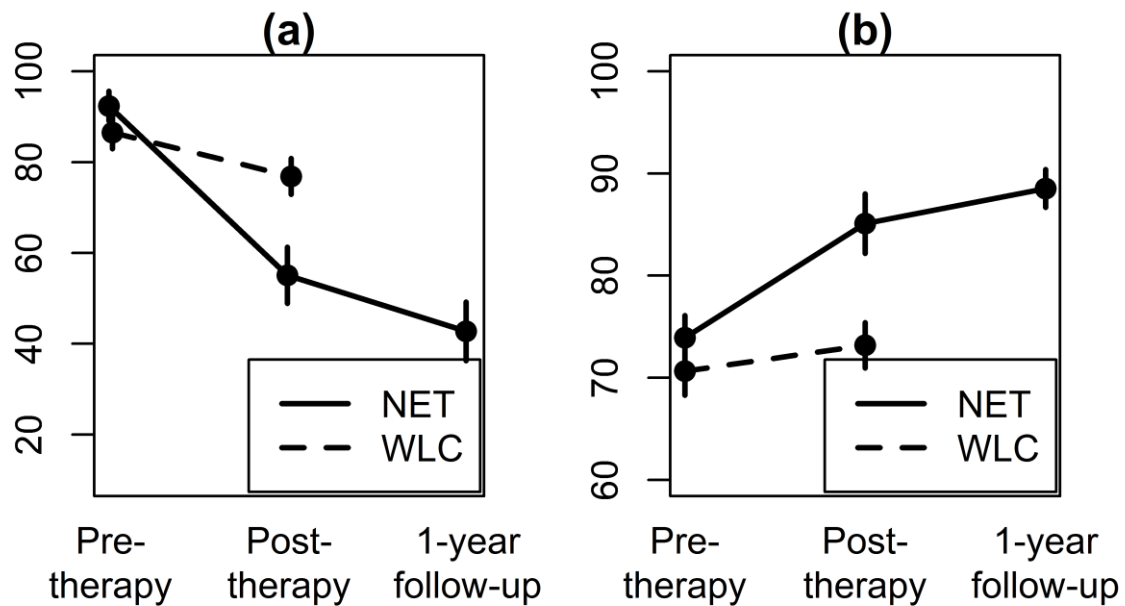
Supplementary Figure 2 :

Participant flow.

Posttraumatic Stress Disorder (PTSD), Narrative Exposure Therapy (NET), waitlist control group (WLC)
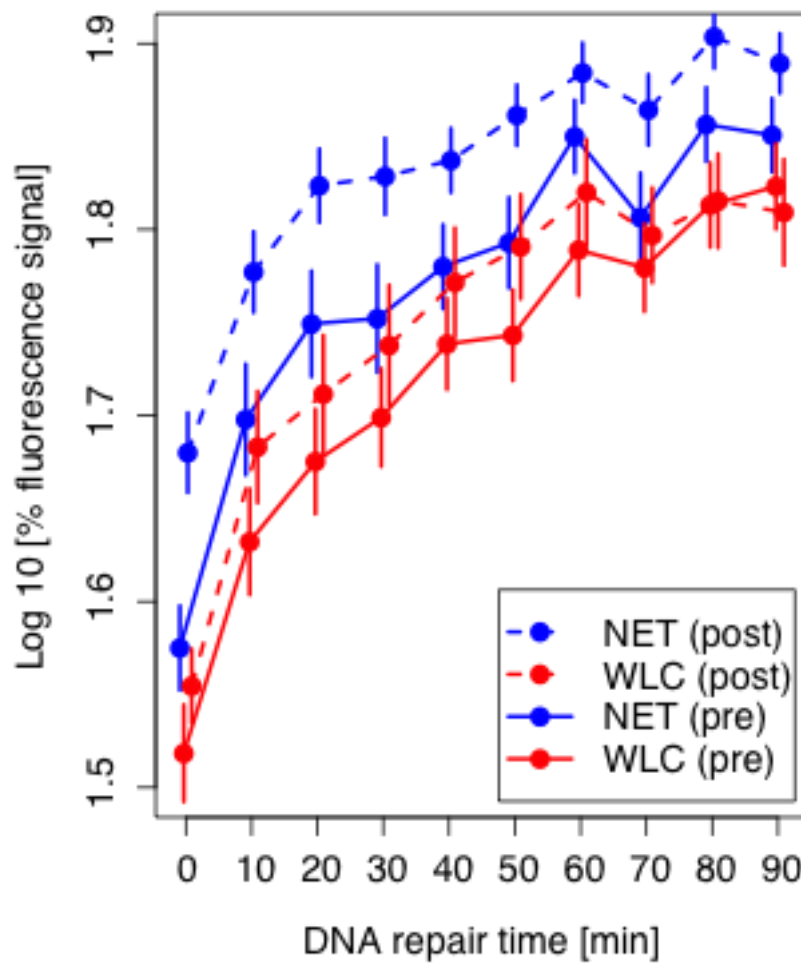
Supplementary Figure 3:

PTSD symptom severity and DNA integrity (means and SEM) in the Narrative Exposure Therapy (NET) group (*n* = 19) and the Waitlist Control (WLC) group (*n* = 19).

(a) PTSD symptom severity (CAPS score) was analyzed pre-therapy, 4 months post-therapy and at the 1-year follow-up. There was a significant Group × Time interaction, with significant reduction of PTSD symptom severity in the Narrative Exposure Therapy (NET) group. **(b) DNA breakage** was analyzed pre-therapy, 4 months post-therapy and at the 1-year follow-up. There was a significant Group × Time interaction with significant apparent decline of DNA breakage in the Narrative Exposure Therapy (NET), but not the Waitlist Control (WLC) group.

Supplementary Figure 4:

DNA repair pre-therapy and 4-months post-treatment in the NET (N = 19) and the WLC group (N = 19).

Time course of repair of DNA strand breaks after x-irradiation ex vivo of PBMCs in the treatment group (NET) and the waitlist control group (WLC) pre-therapy (pre) and at the 4 months post-test (post). Mixed model analysis showed a significant interaction between Group × Time ($F_{(1,525)}$ = 6.45; p = .01). Error bars depict standard errors.