

# Heart rhythm holds the key to treating psychological trauma, suggests study

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Researchers from Murdoch University have discovered that a simple measure of heart rate variability, taken at rest or during sleep, can identify a person's optimal treatment for post-traumatic stress disorder.

Dr. Danielle Mathersul from Murdoch's School of Psychology says the measure of heart rate variability (HRV) determines which treatment is going to make a difference for patients.

"Lower heart rate variability is reflective of poorer autonomic function. These people had a better treatment response with yoga," Dr. Mathersul said.

"In contrast, people with higher heart rate variability, which is reflective of better autonomic function, had a better treatment response with trauma-focused therapy."

Autonomic functions include control of breathing, cardiac regulation, vasomotor activity, and certain reflex actions such as coughing, sneezing, and swallowing.

"These findings show us that the measure of heart rate variability could be used in [clinical practice](#) to personalize PTSD treatment, helping clinicians recommend the most effective treatment for individuals, right from the start. And it takes less than 10 minutes to measure"

Dr. Mathersul's [study](#), "Emotion regulation and [heart rate variability](#) may identify the optimal posttraumatic stress disorder treatment: analyses from a [randomized controlled trial](#)," was published in *Frontiers in Psychiatry*.

"Our findings would be particularly useful to apply to first responder groups, alongside the veteran community which we studied, but are also relevant to members of the general population experiencing [post-traumatic stress disorder](#) and trying to find what works best for them," Dr. Mathersul said.

"Trial and error is fine, but people have the best chance of recovery if

they receive a full dose, in a timely manner, of the most effective treatment for them.

"By using personalized or precision medicine factors like these, we can help them to feel some relief sooner, and that's the ideal outcome."

**More information:** Danielle C. Mathersul et al, Emotion regulation and heart rate variability may identify the optimal posttraumatic stress disorder treatment: analyses from a randomized controlled trial, *Frontiers in Psychiatry* (2024). [DOI: 10.3389/fpsyt.2024.1331569](https://doi.org/10.3389/fpsyt.2024.1331569)

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