

HR programmes may sharpen thinking through the body

A model linking well-being, HRV and cognition

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Summary of: "A Strategic Human Resource Management Approach: Leveraging Heart Rate Variability to Enhance Cognitive Performance"

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01 The question

Organisations depend on how well their people think: how they pay attention, weigh options and make decisions under pressure. HR invests heavily in well-being and stress programmes, but these are usually justified by engagement or absence figures, not by their effect on thinking. My question was whether there is a physical pathway that connects the two. Can strategic HR programmes improve heart rate variability (HRV): the small, healthy changes in the time between heartbeats, a marker of how well the body adapts to pressure? And could that, in turn, support better cognitive performance at work?

02 What I did

- This is a conceptual paper. I built a model from the research in three fields: strategic HR management, physiology and cognitive science. I did not collect new data.
- I drew on established HR theories, such as the resource-based view (people as a source of lasting advantage) and the demand-control idea (high demands with little control harm health).
- I reviewed the literature on HRV and thinking, including neurovisceral integration theory, which holds that the brain networks regulating the heart also support attention and self-control.
- I reviewed studies of HRV biofeedback: a training method in which a person sees their heart rhythm in real time and learns, mainly through paced breathing, to steady it.
- From this I set out a three-step model: HR initiatives influence HRV; HRV is associated with cognitive performance; so HR initiatives can affect cognitive performance indirectly, through HRV.

03 What I found

- The literature suggests that three kinds of HR initiative can raise HRV: well-being programmes that encourage regular physical activity, stress-reduction measures (breathing methods, mindfulness, flexible schedules and better job design), and HRV biofeedback training.
- Across the studies reviewed, higher HRV was associated with better attention, stronger executive function (the mental processes behind planning, focus and self-control) and better decision-making, including under stress.
- Chronic stress is linked to lower HRV in the research, which points to stress at work as a cost to thinking, not only to health.

- Earlier studies reported that people trained in HRV biofeedback showed gains in attention and memory compared with a control group, and that athletes using it showed better attention under pressure.
- Taken together, the evidence suggests an underexplored physiological channel through which HR strategy can reach cognitive performance. No previous work I found had joined these three strands into one model.

Well-being programmes may matter not only for how people feel, but for how clearly they think under pressure.

04 What it means for leaders

- Treat stress reduction and well-being as part of performance strategy, not a perk. Job design, workload control and flexible schedules are levers on how well people think, not just on how satisfied they are.
- Consider offering HRV biofeedback or paced-breathing training as a short, practical skill within leadership and resilience programmes, especially for roles with high-stakes decisions.
- Keep any measurement voluntary and individual. The person owns their data, and it is used for their own coaching, never for appraisal, selection or surveillance. The paper itself flags privacy and autonomy as real obstacles to address.
- Before scaling, pilot a programme with a clear, agreed measure of what you expect to change, so that you test the link in your own context rather than assume it.

05 Limits, honestly

This is a model built from existing research, not a test of it. It does not show that any HR programme improves HRV or thinking in a real organisation, and the strength of each link will vary with context, role and the person. Much of the evidence on HRV and cognition is correlational, so it shows association rather than cause. HRV is also only one route: training and development can improve thinking directly, and the model does not try to separate the two. HRV is used here as a self-regulation and coaching tool, not a medical measure. The next step is to test the model empirically, which I was doing at the time as part of my doctoral research.

— Source

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