

**Debriefing Form**

**Study Title:** The relationship between Interoception, Intolerance of Uncertainty, and emotional disorders in a sub clinical sample.

**Ethics/ERGO number:**89229

**Researcher(s): Drs Jayne Morriss and Gaby Pfeifer**

**Students:** Lucy Snell, Katie Bannister, Rachel Runton, Yeetung Hong, Amber Davies

**University emails:** [j.morriss@soton.ac.uk](mailto:j.morriss@soton.ac.uk) ; [g.pfeifer@soton.ac.uk](mailto:g.pfeifer@soton.ac.uk)

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Thank you for taking part in our research project. Your contribution is very valuable and greatly appreciated.

**Purpose of the study**

The aim of this research was to examine how interoception is related to experiencing intolerance of uncertainty and emotional disorders.

Interoception refers to the ability to detect internal bodily signals, such as heartrate, breathing and gastrointestinal functions. Interoception is thought to underpin our subjective experience of emotions. For example, increased interoceptive sensitivity to bodily signals correlates with heightened processing of fear ([Pfeifer, Garfinkel, et al., 2017](https://pubmed.ncbi.nlm.nih.gov/28385627/)) and threat ([Garfinkel & Critchley, 2016](https://pubmed.ncbi.nlm.nih.gov/26628111/)). Moreover, a body of evidence supports the direct link between interoception and emotional disorders, such as anxiety and depression ([Paulus & Stein, 2010](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2886901/)).

On the other hand, Intolerance of Uncertainty (IU) refers to a tendency to find uncertainty distressing, often correlating with heightened threat perception ([Morriss, Bell, et al., 2022](https://pubmed.ncbi.nlm.nih.gov/34312816/)) and difficulty in new safety learning ([Morriss, Wake, et al., 2021](https://www.sciencedirect.com/science/article/pii/S266717432100046X)). IU is generally recognized as a transdiagnostic risk factor for conditions related to anxiety.

Despite the shared emotional behaviours associated with interoception and IU, the relationship between interoceptive sensitivity, IU and specific emotional disorders (e.g. generalised anxiety disorder, obsessive-compulsive disorder, post-traumatic stress disorder, and depression) remains unclear. Your data will help our understanding of how IU and interoception could be used as possible treatment targets in transdiagnostic or specific disorder treatments. The results might open new treatment avenues for emotional disorders.

# Deception

No deception was used in this study.

**Confidentiality**

Results of this study will not include your name or any other identifying characteristics.

## Study results

When we have the results of this research, a summary in article form will be uploaded to the lead researchers open science framework profile, which is freely accessible to anyone (<https://osf.io/9sgh7/>). Please do not hesitate to contact us if you have any further questions (research leads: Dr Jayne Morriss ([j.morriss@soton.ac.uk](mailto:j.morriss@soton.ac.uk)) and Dr Gaby Pfeifer ([g.pfeifer@soton.ac.uk](mailto:g.pfeifer@soton.ac.uk)).

**Further support**

If taking part in this study has caused you discomfort or distress, you can contact the following organisations for support:

* The organisation ‘Mind’ provides helpful information around self-care for anxiety, which can be accessed on <https://www.mind.org.uk/information-support/types-of-mental-health-problems/anxiety-and-panic-attacks/self-care/>
* You can call the Samaritans for free 24 hours a day, 7 days a week on 116 123
* Students at University of Southampton can access advice on campus by visiting the wellbeing services on <https://sotonac.sharepoint.com/teams/StudentWellbeingSupport>

**Further reading**

If you would like to learn more about this area of research, you can refer to the following resources:

Morriss, J., Wake, S., Elizabeth, C., & van Reekum, C. M. (2021). I Doubt It Is Safe: A Meta-analysis of Self-reported Intolerance of Uncertainty and Threat Extinction Training. *Biological psychiatry global open science*, *1*(3), 171–179. <https://doi.org/10.1016/j.bpsgos.2021.05.011>

Pfeifer, G., Garfinkel, S. N., Gould van Praag, C. D., Sahota, K., Betka, S., & Critchley, H. D. (2017). Feedback from the heart: Emotional learning and memory is controlled by cardiac cycle, interoceptive accuracy and personality. *Biological psychology*, *126*, 19–29. <https://doi.org/10.1016/j.biopsycho.2017.04.001>

# Further information

If you have any concerns or questions about this study, please contact the research leads, Dr Jayne Morris at [j.morriss@soton.ac.uk](mailto:j.morriss@soton.ac.uk) or Dr Gaby Pfeifer at [g.pfeifer@soton.ac.uk](mailto:g.pfeifer@soton.ac.uk) who will do their best to help.

If you remain unhappy or would like to make a formal complaint, please contact the Head of Research Integrity and Governance, University of Southampton, by emailing: [rgoinfo@soton.ac.uk](mailto:rgoinfo@soton.ac.uk), or calling: + 44 2380 595058. Please quote the Ethics/ERGO number which can be found at the top of this form. Please note that if you participated in an anonymous survey, by making a complaint, you might be no longer anonymous.

**Thank you again for your participation in this research.**