**Trypophobia: An investigation of psychological predictors**

Trypophobia refers to the intense disgust response evoked by viewing clusters of holes or bumps such as a honeycomb. Due to the recency of the phenomenon in scientific literature, it is not yet clear why trypophobia exists. Several frameworks have been suggested to explain why such a negative response is triggered by trypophobic images which are harmless.

The first was suggested by Cole and Wilkins (2013) who introduced trypophobia into the scientific literature. They hypothesised that trypophobia is an evolved adaptation for avoiding dangerous animals as they found that both trypophobic images and images of dangerous animals (such as box jellyfish and poison dart frog) had high contrast energy in midrange spatial frequencies. However, this hypothesis has been argued to be an unlikely sufficient explanation and the focus has since turned towards the behavioural immune system to explain trypophobia.

As the primary response in trypophobia is disgust which is a key component of the behavioural immune system that functions to aid us in avoiding diseases, trypophobia has been argued to be an overgeneralised response of the behavioural immune system. One particularly interesting framework is the Involuntary Protection Against Dermatosis (IPAD) hypothesis which proposes that trypophobia is an overgeneralised disease avoidance response towards stimuli which resemble pathogen-related skin diseases. Based on this theory, it was hypothesised in the current study that an increased fear of skin disease would predict increased trypophobia severity.

Research also shows that pathogen disgust positively predicts increased trypophobic severity, independent of the possible effects of sexual or moral disgust. I sought to replicate this finding in this study.

Thirdly, I hypothesised that extraversion would negatively predict trypophobia severity based on previous research reporting extraversion as negatively associated with other psychopathologies such as social phobia, blood and injection phobia and major depressive disorder which are all linked to trypophobia.

The present study aimed to identify predictors of trypophobia and examined the effects of fear of skin disease, pathogen, moral and sexual disgust, and extraversion on trypophobia severity. Participants (n = 148) completed four scales: the Trypophobia Questionnaire, which measures trypophobia severity; the Three Domain Disgust Scale, which measures pathogen, moral and sexual disgust; the extraversion subscale of the Big Five Inventory-2, which measures extraversion; and a self-report fear of skin disease slider scale, which measured fear of skin disease.

Trypophobia severity was found to be positively predicted by fear of skin disease, while the predictive effects of pathogen disgust and extraversion on trypophobia severity were found to be non-significant. Exploratory analysis showed that there are significant sex differences in trypophobia, with women reporting higher trypophobia severity than men. The finding that fear of skin disease predicts trypophobia severity supports the idea that trypophobia is due to an overgeneralised aversion to skin diseases which trypophobic individuals extend to harmless stimuli such as the lotus pod and honeycomb. Adding to the evidence supporting the IPAD hypothesis can inform the development of interventions which could alleviate distress experienced by trypophobic individuals.