Trust Some Body: Loneliness is Associated with Altered Interoceptive Sensibility

Andy J. Arnold & Karen Dobkins; Department of Psychology, University of California, San Diego

Introduction

Loneliness—perceived social isolation—is a common but complex state and sometimes, degradative trait. Due to the inherent nutritive value of social connection, chronic loneliness carries significant mortality risk (7). It is associated with higher levels of depression (6), and lower self esteem, gratitude (3), and subjective state and sometimes, degradative trait. Due to the inherent loneliness is associated with altered interoception. This association may also involve alexithymia—relative difficulty in identifying one’s own emotions. In 4 population-based surveys we examine the relationship between self-reported loneliness and interoceptive sensibility, amongst other known related constructs.

Method

We conducted large online surveys on undergraduate students. Loneliness: UCLA Loneliness scale (Version 3; Russell, 1996) 20 items: “How often do you feel isolated?” (Never/Rarely/Sometimes/Always) Interoceptive Sensibility (IS): MAIA scales (Mehling et al., 2012) 32 items: “I trust my body sensations.”

Multiple Regression in Samples 3 & 4

Next, we conducted multiple regression analysis using loneliness as the DV and the predictors listed below. Besides Alexithymia, all of these associations have been previously reported. Predictors were added stepwise to create the full models below. Anxiety, stress, and gender were not significant predictor variables, and thus left out of final models. Standardized regression coefficients are reported, with associated p values, and adjusted r^2 for the full model.

Body Trusting remains a significant predictor of loneliness, even when accounting for other subscales of IS that are correlated with loneliness: attention regulation & self regulation.

Results

As shown here, significant correlations were found between loneliness and scales of IS. Body Trusting was the most strongly associated with loneliness. Below are the specific items of this subscale.

Discussion

Here we report the first known associations between loneliness and interoceptive sensibility (IS). After accounting for other correlates of loneliness as well as associated subscales from our measure of IS, Body Trusting predicted significance variance in loneliness. Alexithymia may be a result of interoceptive dysfunction, and was also identified as a significant predictor of loneliness in Sample 4. Associations with depression, subjective well being, and self esteem were replicated. The association between loneliness and interoception deserves more empirical attention, due to the capacity of the latter to facilitate emotional identification and regulation. In particular, other measures of interoception (5) — such as objective interoceptive accuracy (e.g., heartbeat detection) and metacognitive interoceptive awareness should be assessed with regard to loneliness.

Interestingly, particularly successful attempts at loneliness reduction have used mindfulness-based stress reduction (4), which includes aspects of meditation that may train interoception, as a candidate mediating mechanism of loneliness reductions. Low body trust, specifically, has recently been shown to predict suicidal ideation and attempts (8) as well as eating disorder severity (1). Thus, this relational mechanism to core constituents of emotional information (bodily signals) may contribute to social disengagement and social mistrust in lonely individuals, maintaining the condition through misevaluation of social connection.

Citations