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Anxiety about relationships may lower immunity, increase vulnerability to illness

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Concerns and anxieties about one's close relationships appear to function as a chronic stressor that can compromise immunity, according to new research.

In the study, researchers asked married couples to complete questionnaires about their relationships and collected saliva and blood samples to test participants' levels of a key stress-related hormone and numbers of certain immune cells.

The research focused on attachment anxiety. Those who are on the high end of the attachment anxiety spectrum are excessively concerned about being rejected, have a tendency to constantly seek reassurance that they are loved, and are more likely to interpret ambiguous events in a relationship as negative.

Married partners who were more anxiously attached produced higher levels of cortisol, a steroid hormone that is released in response to stress, and had fewer T cells – important components of the immune system's defense against infection – than did participants who were less anxiously attached.

"Everyone has these types of concerns now and again in their relationships, but a high level of attachment anxiety refers to people who have these worries fairly constantly in most of their relationships," Lisa Jaremka, lead author of the study and a postdoctoral fellow in Ohio State University's Institute of Behavioral Medicine Research (IBMR).

Though some scientists theorize that attachment anxiety can be traced to inconsistent care during one's infancy, Jaremka noted that there is also research-based evidence that people with attachment anxiety can change.

"It's not necessarily a permanent state of existence," she said.

The study appears online and is scheduled for future print publication in the journal Psychological Science.

Jaremka and colleagues tested the health effects of attachment anxiety on 85 couples who had been married for an average of more than 12 years. Most participants were white, and their average age was 39 years.

The participants completed a questionnaire called The Experiences in Close Relationships scale. They also reported general anxiety symptoms and their sleep quality. Researchers collected saliva samples over three days and blood samples over two days.

Participants with higher attachment anxiety produced, on average, 11 percent more cortisol than did those with lower attachment anxiety. The more anxiously attached participants also had between 11 percent and 22 percent fewer T cells than did less anxiously attached partners. Four T-cell markers were analyzed in the study.

The combined findings make sense and are likely related, Jaremka said, because cortisol can have immunosuppressive effects – meaning it can inhibit production of these very same T cells. Previous research has suggested that reduced T-cell levels can impair the immune response to vaccines and that low levels of the cells are a hallmark of an aging immune system.

Attachment anxiety is considered a phenomenon related to childhood development, Jaremka explained. At a very young age, children learn

whether or not their primary caregivers will respond when the children are in distress. If caregivers are responsive, children learn they can rely on other people. If care is inconsistent or neglectful, children can develop feelings of insecurity that might manifest as attachment anxiety later in life.

Though she knows of no research-based advice about how to shed these feelings of insecurity, Jaremka said it is clear that people can change.

"Most research that does exist in this area supports the idea that being in very caring, loving, close relationships might be a catalyst to change from being very anxious to not," she said.

Jaremka's research focuses on the physiological effects of dissatisfaction in relationships, or the feeling of being disconnected from other people. She also recently published a paper suggesting that loneliness can tax the immune system.

She works in the lab of Jan Kiecolt-Glaser, a professor of psychiatry and psychology at Ohio State, who was the principal investigator on a larger study in which the married couples participated. Kiecolt-Glaser, Jaremka and colleagues are continuing studies of links between health and close relationships, and are currently seeking participants for a study exploring connections between fast food and the immune system in married couples. More information is available online here: http://pni.osumc.edu/jkg/stressandhealth/couples.html.

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