Romantic Rejection May Hurt Just Like Physical Pain

Study finds your brain reacts similarly to both kinds of trauma

By Randy Dotinga
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MONDAY, March 28 (HealthDay News) -- Memories of devastating heartbreaks appear to trigger activity in the brain that's similar to when people suffer physical pain, new research suggests.

"This tells us how serious rejection can be sometimes," said study author Edward E. Smith, director of cognitive neuroscience at Columbia University. "When people are saying 'I really feel in pain about this breakup,' you don't want to trivialize it and dismiss it by saying 'It's all in your mind.'"

The finding could lead to more than a better understanding of the link between emotional and physical pain, Smith said. "Our ultimate goal is to see what kind of therapeutic approach might be useful in relieving the pain of rejection."

Previous research has shown a link between what Smith calls "socially induced pain" -- the kind you get from dealing with other people -- and physical pain. For the new study, Smith and colleagues looked at rejection specifically.

"From everyday experience, rejection seems to be one of the most painful things we experience," Smith said. "It seems the feelings of rejection can be sustained even longer than being angry."

But where do you find rejected people? In New York City, of course, where hundreds or even thousands of relationships must fall apart every day. The researchers advertised online and in newspapers in search of people whose romantic partners had broken up with them. In all cases, they hadn't wanted the breakups to happen.

Forty people, all of whom felt "intensely rejected," ultimately took part in the study. As the researchers scanned their brains, the participants were told to look at photos, including photos of their friends (they were directed to think positive thoughts about them), and photos of their exes (they were directed to think about their breakup).

The participants also underwent brain scans as they felt pain on their forearms similar to the feeling of holding a hot cup of coffee.

The findings appear in this week's online issue of the Proceedings of the National Academy of Sciences.
Several of the same areas of the brain became active when the participants felt either physical pain or emotional pain. In fact, the two types of pain seem to share more regions of the brain than previously thought, Smith noted.

What about other kinds of emotional pain? Do they have the same effect on the brain? Maybe not. Smith said rejection appears to be in a class by itself in terms of its similarity to physical pain.

Future research could examine how emotional pain due to rejection affects how people feel physical pain, said Robert C. Coghill, an associate professor in the department of neurobiology and anatomy at Wake Forest University School of Medicine. Would rejected people feel more pain than other people? And what about after they get reminded about their rejections by looking at pictures?

For now, one thing is clear: brain scan or no brain scan, rejection hurts.

**More information**

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