New study looks at preventing suicide

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Understanding why some people live their life without hope, and how their brains are different, is key to research that an Ottawa-based scientist hopes will help prevent suicide.

Dr. Georg Northoff, director of the Mind, Brain Imaging and Neuroethics Unit of the Royal Ottawa Mental Health Centre, is leading a large study of teenage and college-age students who have suicidal thoughts or have attempted suicide in the past. One common link between them is they have trouble picturing or imagining their future, he said.

"Basically the future is cut off, so you are completely hopeless and when you’re hopeless, of course, you don't have any incentive to live anymore," he said. "And then you come up with suicidal ideas and thoughts."

Another thing they have in common is usual activity in regions right in the middle of the two sides of their brains.

"We call them cortical mid-line structures, and they may be very much involved in extending, encoding and processing subjective time experience," he said. "Interestingly, patients with suicidal thoughts have indeed abnormal activity in exactly these regions."

That knowledge will allow for more effective therapy that will help suicidal patients better envision a bright future for themselves, said Northoff.

"And hopefully we can get to the biochemical underpinnings and that will lead to more specific treatment options and drugs."

The teenage brain undergoes huge changes, said Northoff. "How this affects your ability to project yourself into the future is unclear, but it’s something we hope to find out."

"The adolescent and teenaged age, it’s all or nothing. Either the future is completely open for you, or you have the feeling it is completely blocked," he said. "You’re oscillating between these extremes."

Parents of teenagers, especially teens who suffer from depression, should help them remember that problems are only temporary and life often does get better, said Northoff.

"I think it is always important to keep the door open to the future."