

What solitary confinement does to the brain

Transcript

In 1990, the UN called for the abolition of solitary confinement and more recently in 2011 a UN expert said that the practice could amount to torture. So what is going on in the minds of those in solitary ?

Hi everyone, Julie here for Dnews. Solitary confinement is the practice in so-called Supermax prisons of holding inmates in a single cell for 22 or 23 hours a day for months or years on end. Well some think the practice makes prison safer and reduces violence ; it may make prisoners more at risk for mental health problems. Some estimates say the number of inmates held in what is called SHU – Special Housing Units – might be as high as 80,000 across the US. Well it used to be used as a short-term punishment to crack down on violence. Prisons now routinely use the practice. While stays used to be only a few days, some prisoners have been in solitary for years. The typical SHU cell isn't much bigger than your closet, like six by ten feet, with only a small bed, a sink and a toilet and social contact is kept to a bare minimum. They receive their food through a slot in the door and very rarely have video conferences with family. There's nothing to do but stare at the fluorescent lights on the ceiling that never turn off but what kind of life is that and what does it do to the mind ? Humans are very social creatures. One study published in the journal Perspectives on Psychological Science found out loneliness and social isolation can be just as much of a threat to health as obesity. Other studies like one published in the Proceedings of the National Academy of Scientists found out that it has serious psychological effects as well, like inducing anxiety, aggression and memory impairment. The researchers think it has to do with an enzyme in the brain ? 5 Alpha – reductase type 1 is important for the production of the hormone Allopregnanolone which regulates levels of stress. In socially-isolated mice the researchers found that the production of that enzyme was reduced by 50%, which could mean more stressful hormones in the brain. Another study in the journal Nature, Neuroscience found changes in the prefrontal cortex of socially-isolated mice. The cells in the brain that make white matter made less of it after eight weeks of isolation. This lessening of white matter production in the prefrontal cortex impacted emotional and cognitive behaviour . The animals couldn't socialize as well when they met new mice. The total social isolation and sensory deprivation like solitary confinement is really difficult to study. You might know about the famous Rhesus monkey experiments in the 50s where baby monkeys were taken away from their mother and given fake wire mom. Well the same researchers studied how isolation affects the monkeys. Where baby monkeys were separated from their mothers and placed in what's known as a pit of despair, basically it's a metal container they couldn't climb out of. After months of a solitary existence, they exhibited mental distress and showed signs of full-blown depression. It doesn't sound like something you'd want to do to a human being. Yet that's what it seems like is going on inside of America's prisons. One review of the literature found that prisoners experienced a wide range of ill-effects from the experience. One study found that a great majority of inmates in solitary suffered from serious psychological trauma. 91 percent of the prisoners sampled suffered from anxiety and nervousness. More than 80 percent suffered headaches, lethargy and trouble sleeping, and 70 percent feared impending breakdown. There can even be physical damage as a result of psychological stress. Some inmates turn to self-harm and lash out in other physically harmful ways. The lack of sunlight and exercise can lead to other kinds of physical distress. All of this puts a lot of strain on a person. According to psychiatrist Terry Coopers, prisoners in isolation account for just 5 percent of the total prison population but nearly half of its suicides. Some research shows that it doesn't make prison any less violent of a place. One recent study published in the journal Quantitative Criminology found that solitary confinement made prisoners no more or less likely to commit violent crimes when released back into the general population. So that kind of takes the meat of the argument that it makes prison safer. One study published in the journal Criminal Justice and Behaviour found that removing mentally-ill prisoners from solitary confinement and adequately treating their illness actually reduced prison violence.

To learn more about what it's like for those who survived the ordeal, our sister show Seeker tells the story of one man who spent over two-thirds of his life in solitary confinement.

Woodfox was held in solitary confinement for decades. While Wallace and King were eventually released, Woodfox remained incarcerated. In total, he spent over 40 years in prison, almost all of which in solitary confinement.