

the science behind it.

Posted by ChaiBahem - 11 Jul 2012 01:17

so, ive been lurking on the forums for a bit, and i havent really seen the science behind addiction discussed at all, other than that it takes 90 days free to break one. on the other hand, i HAVE seen people saying things like they are a bad person, etc. especially considering both the science behind addiction, and the mitzvah lihiyos besimcha tamid, i think thats the wrong approach to take. addiction is something that is wired into the brain, its a natural pitfall. if someone were to fall into an actual pit, they wouldnt feel bad that they had fallen into it, they would just dust themselves off and climb out. i personally feel the same approach should be taken here.

now then, on to the science! i recently happened across a video about the physiology of addiction, internet porn addiction in particular. i found it very interesting and informative, and definitely helped change my views for the better, so i wanted to share it here. unfortunately, though, its a non-jewish video of a presentation, and a couple of the slides he shows are not tznius by our standards, although theyre not porn. therefore, i have gone through and summarized/transcribed the video so that others here can benefit from it.

its a bit long, so if youre not up to reading the whole thing, the basic point is this: the brain is wired to pursue natural desires like eating and sex, and therefore its easier to form addictions on these when readily available, and the ease of novelty online compounds it.

unending novelty is what skyrockets arousal - internet porn makes that readily accessible. a study showed a sharp spike in arousal in men when shown new pornographic material after watching something they had previously seen.

another study found that rams needed more and more time between mating with the same ewe, but fairly consistent low recovery time for mating with different ewes. this is known as coolidge effect. the brain is wired to keep this going by releasing dopamine with each new encounter, or image in the case of internet porn. this isnt the regular biological state, however, so the brain rewires itself adapt to this, embracing arousal as something that happens when alone, constantly searching for new novelties of shock and surprise. this is in contrast to a real relationship, which is about touching and other senses, pheromones and emotional connection.

symptoms of arousal addiction mimic ADHD, social anxiety, depression, performance anxiety and OCD. previously, healthcare providers believed these to be the cause of the addiction, rather than the symptoms.

a dutch study found that of all online activities, porn has the most potential to become addictive. the reward circuit is a wiring of the brain to naturally drive us towards sex, bonding and food. extreme versions of these rewards have a unique ability to capture us. high calorie foods or arousal give us dopamine, but too much dopamine can override our natural satiation

mechanisms. for example, rats with unlimited access to unhealthy foods like frosting and cheesecake markedly increased in weight. this is also why most americans are overweight. in contrast, unnatural rewards like drugs such as cocaine only hook about 10% of users. this is due to the binge mechanism, whereby we are driven to 'get it while the getting is good' since something may not be available in the future. a positive example of this is wolves binging on a kill, since they may not get another kill for a while.

all this extra dopamine kicks in a molecular switch called Delta-FosB, which accumulates in the brains reward circuit. this alters the brain to create a cycle of bingeing and craving. if the cycle continues, the structure of the brain changes - a numbed pleasure response, hyper-reactivity to porn, in this case, and an erosion of willpower. all addictions share this process. this has been measured in drug, gambling and food addicts. this means that the constant novelty found online can easily form an addiction.

when examining former internet addicts, scientists found that these changes were reversing themselves. although there was previously no control group that didnt use internet porn for researchers to study, there has been a recent surge in people giving up internet porn, allowing researchers to study what changing that one single variable can do. the reason they are giving up internet porn is because an addiction to it can lead to erectile dysfunction. in such cases, even drugs like viagra wont work, because the problem isnt physical or psychological, its physiological, physical changes in the brain. the surge in ED in recent years shows that there is a fundamental difference between internet porn and something like pornographic magazines - the constant novelty. those who have quit internet

recovery times can vary based on age. counterintuitively, older men have shorter recovery times, around 2 months, compared to 4-5 months for younger men. this is because the they did not start on internet porn until they were much older, when their brains had become relatively set already. in contrast, young men's minds are at a peak of dopamine production and neuroplasticity. this allows them to create a deeper addiction faster. this also leads to another risk - teen brains gradually strengthen heavily used circuits, and prune back unused ones. this means that his sexual tastes (ie for porn rather than real women) will become heavily embedded into the brain. it can reverse, but will take longer. those who have quit for extended periods of time report reversing of the attention effects mentioned above, having more energy and being better able to pay attention, etc.

i can say that ive definitely noticed the negative aspects of this, such as always wanting something new and decreased interest in real sex. i cant say ive quit long enough to notice any benefits from that, though. has any of the more stalwart people noticed things like increased attention span and energy, etc?

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